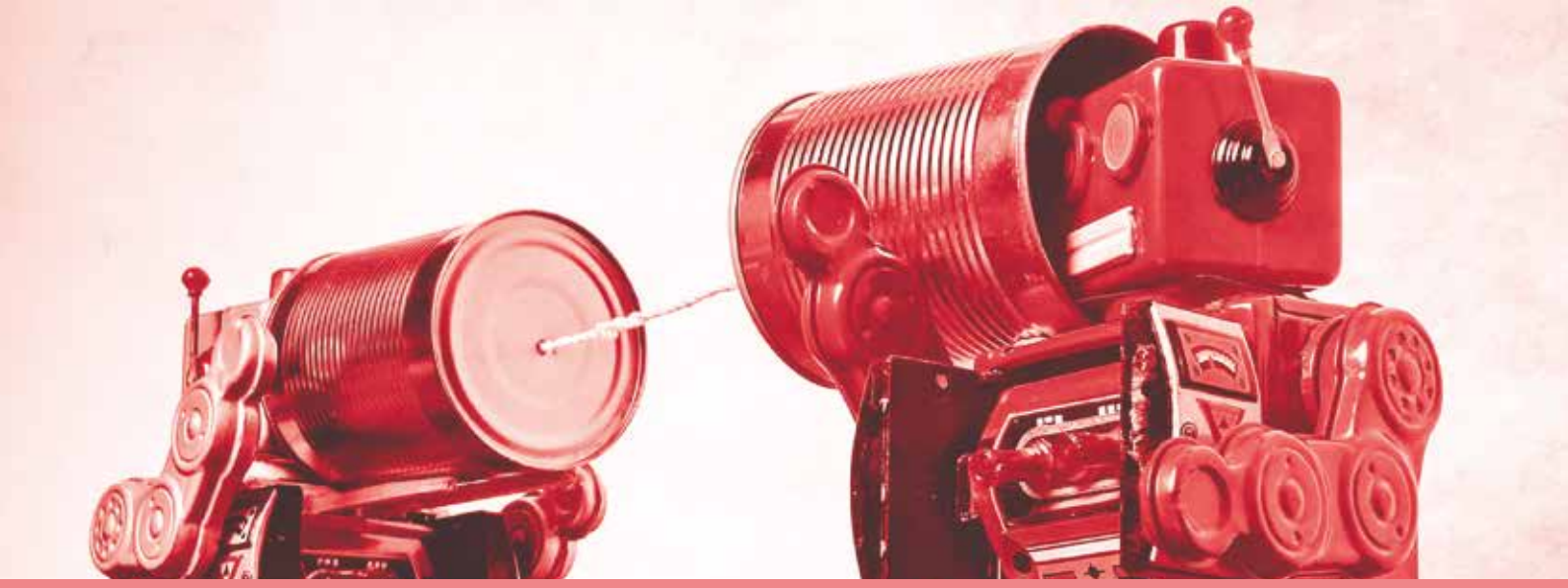

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Telecoms, Media & Internet Laws & Regulations 2019

12th Edition

A practical cross-border insight into telecoms, media and internet laws and regulations

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General Chapters:

Country Question and Answer Chapters:

EDITORIAL

Welcome to the twelfth edition of *The International Comparative Legal Guide to: Telecoms, Media & Internet Laws & Regulations*.

This guide provides the international practitioner and in-house counsel with a comprehensive worldwide legal analysis of telecoms, media and internet laws and regulations.

It is divided into two main sections:

Three general chapters. These chapters provide readers with an overview of key issues affecting telecoms, media and internet laws and regulations, particularly from the perspective of a multi-jurisdictional transaction.

Country question and answer chapters. These provide a broad overview of common issues in telecoms, media and internet laws and regulations in 31 jurisdictions.

All chapters are written by leading telecoms, media and internet lawyers and industry specialists and we are extremely grateful for their excellent contributions.

Special thanks are reserved for the contributing editor Rob Bratby of Arnold & Porter for his invaluable assistance.

Global Legal Group hopes that you find this guide practical and interesting.

The International Comparative Legal Guide series is also available online at www.iclg.com.

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European Digital Single Market: A Year in Review

Arnold & Porter

Rob Bratby

Introduction

This chapter reviews and summarises legislative developments in the European Digital Single Market (DSM) since the European Commission's May 2017 mid-term review. It will then review in more detail the upcoming changes to the EU's telecoms rules and the proposals to stimulate free movement of non-personal data, and then finally considers the implications of the lack of progress on the revised ePrivacy rules.

Launched in 2015, the DSM comprises policy activity in three areas:

(1) better access for consumers and businesses to online goods;

(2) the right environment for digital networks and services; and

(3) economy and society.

Whilst actual progress has so far been relatively slow, the DSM is a key area of focus for the European Commission; it is likely to have significant impact over the medium term as the various mutually supporting proposals progress and are implemented.

Overview of DSM activity in 2017–18

At the 2017 Tallin Summit, Commission President Juncker stated that the DSM comprised 43 initiatives put forward by the Commission, of which 24 were legislative proposals. However, he noted that only six of these had so far been adopted. During the year, the Commission issued 30 press releases related to the DSM, but progress was limited to a smaller number of topics:

In September 2017, the Commission:

- published their proposals for a regulation governing the free flow of non-personal data, which was politically agreed by the Parliament and Council in June 2018;
- announced their proposals for an EU Cybersecurity Agency and a related European Certification Scheme;
- started a process to determine the approach that should be taken towards taxing the digital economy in Europe – driven by a perception that some large, mainly US-based, online firms were not paying their 'fair share' of tax; and
- issued guidelines and principles for online platforms, with the aim of increasing the proactive prevention, detection and removal of illegal content inciting hatred, violence and terrorism online.

In November 2017, the Commission:

- started a public consultation on 'fake news' and online disinformation, convening a high-level expert group to review the issues and potential actions, which subsequently reported back to the Commission in March 2018 with recommendations; and
- announced that the Parliament, the Council and the Commission had reached a political agreement to end unjustified geo-blocking for consumers who wish to buy products or services online within the EU.

In December 2017, the Commission welcomed agreed changes to VAT rules to help online small businesses and increase compliance for goods sold through large online platforms.

In January 2018, the Commission:

- reached an agreement on a new regulation to make prices for cross-border parcel delivery services more transparent and affordable, and to increase regulatory oversight of the EU parcel market; and
- welcomed the coming into force of the second Payment Services Directive and its rules, that make it cheaper, easier and safer to make online payments in the EU.

In March 2018, the Commission:

- started the process of setting up an expert group to look at the impact of artificial intelligence; and
- announced proposals to extend the Eurozone cross-border payments rules to cross-border payments within the EU to include countries and currencies not in the Eurozone.

In April 2018, the Commission:

- presented a series of measures to put artificial intelligence at the service of Europeans and boost Europe's competitiveness in this field. The Commission proposed a three-pronged approach to increase public and private investment in artificial intelligence, prepare for socio-economic changes, and ensure an appropriate ethical and legal framework;
- put forward a set of measures to increase the availability of healthcare data in the EU, building on previous initiatives to boost the free flow of non-personal data in the Digital Single Market, by allowing citizens to easily access and manage their healthcare data, and allowing public authorities to use data more effectively in research, prevention and health system reforms;
- proposed new rules for online platforms to provide small businesses that are reliant on those platforms with a safety net in the digital economy; and
- proposed measures to tackle disinformation online, including an EU-wide Code of Practice on Disinformation, support for an independent network of fact-checkers, and a series of actions to stimulate quality journalism and promote media literacy.

In May 2018, the General Data Protection Regulation (GDPR) came into force. However, the revised ePrivacy Regulation (which was originally planned to be effective simultaneously with the GDPR) did not come into force, the implications of which are discussed below.

In June 2018, the Commission, the Parliament and the Council reached a political agreement to:

- update the EU's telecoms rules – the European Electronic Communications Code; and
- progress a Regulation of the free flow of non-personal data in the EU.

The next sections of this chapter describe these two areas in more detail, and end by discussing the implications of the delay in implementing the revised ePrivacy rules to sit alongside the GDPR.

Agreement on New Telecoms Rules – the European Electronic Communications Code

In its June 2018 press release, the Commission explained that it intends the new European Electronic Communications Code to:

"***Enhance the deployment of 5G networks*** *by ensuring the availability of 5G radio spectrum by end of 2020 in the EU and providing operators with predictability for at least 20 years in terms of spectrum licensing; including on the basis of better coordination of planned radio spectrum assignments.*

Facilitate the roll-out of new, very high capacity fixed networks *by making rules for co-investment more predictable and promoting risk sharing in the deployment of very high capacity networks; promoting sustainable competition for the benefit of consumers, with a regulatory emphasis on the real bottlenecks, such as wiring, ducts and cables inside buildings; and a specific regulatory regime for wholesale only operators. Moreover, the new rules will also ensure closer cooperation between the Commission and the Body of European Regulators for Electronic Communications (BEREC) in supervising measures related to the new key access provisions of co-investment and symmetric regulation.*

Benefit and protect consumers*, irrespective of whether end-users communicate through traditional (calls, sms) or web-based services (Skype, WhatsApp, etc.) by:*

- *ensuring that all citizens have access to affordable communications services, including universally available internet access, for services such as e-government, online banking or video calls;*
- *ensuring that international calls within the EU will not cost more than 19 cents per minute, while making sure that the new rules would not distort competition, innovation and investment;*
- *giving equivalent access to communications for end-users with disabilities;*
- *promoting better tariff transparency and comparison of contractual offers;*
- *guaranteeing better security against hacking, malware, etc.;*
- *better protecting consumers subscribing to bundled service packages;*
- *making it easier to change service provider and keep the same phone number, including rules for compensations if the process goes wrong or takes too long;*
- *increasing protection of citizens in emergency situations, including retrieving more accurate caller location in emergency situations, broadening emergency communications to text messaging and video calls, and establishing a system to transmit public warnings on mobile phones.*"

As with all EU legislative proposals, the final text represents compromise. The Commission wanted to further harmonise and centralise regulation, but the Member States pushed back strongly against this proposal; the final proposal largely retains the *status quo* of regulation and enforcement at the national level.

The rules on co-investment were highly contentious, and it remains to be seen whether they will achieve their policy objectives of stimulating additional investment, or if they will just form a regulatory opportunity to be exploited by some market participants.

Free Movement of Non-Personal Data

The Commission explains that the June 2018 agreement reached with the Parliament and the Council for a Regulation on the free movement of non-personal data will ensure:

- "***Free movement of non-personal data*** *across borders: every organisation should be able to store and process data anywhere in the European Union;*
- ***The availability of data for regulatory control****: public authorities will retain access to data, also when it is located in another Member State or when it is stored or processed in the cloud;*
- ***Easier switching of cloud service providers for professional users****. The Commission has started facilitating self-regulation in this area, encouraging providers to develop codes of conduct regarding the conditions under which users can port data between cloud service providers and back into their own IT environments; and*
- ***Full consistency and synergies with the cybersecurity package****, and clarification that any security requirements that already apply to businesses storing and processing data will continue to do so when they store or process data across borders in the EU or in the cloud.*"

In the Commission's January 2017 Communication on this topic, a broader range of more intrusive regulation was proposed; but to reach agreement, the final proposed regulation is now more anodyne and less intrusive. However, as we have seen in other areas (e.g., roaming), once regulation starts, it can gain momentum over a time period larger than the life-span of any Parliament or national government. This proposal, overshadowed by the GDPR, has received relatively little press coverage, but I regard it as one of the more important legislative developments (in its future iterations) over the medium term.

Delays in the Revised ePrivacy Rules

What are the current rules?

The current ePrivacy rules were introduced in 2002 and updated in 2009. The ePrivacy rules (contained in Directives) were designed to sit alongside the old Data Protection Directive (now superseded by the GDPR) and the old telecoms regulatory framework – soon to be superseded by the new European Electronic Communications Code. The old rules (still in place) dealt with two conceptually separate areas:

(1) the specific application of the data protection rules to providers of electronic communications providers (i.e., telecoms operators); and

(2) consumer telemarketing and cookies.

Status of new rules

The Commission's original plan was that the new ePrivacy rules would be updated and come into effect at the same time as the GDPR. The sense of that approach is obvious; specific rules relating to data protection should be consistent with the general rules on data protection. However, a number of the changes proposed have proved controversial; whilst the GDPR was agreed, at the time of writing the proposed new ePrivacy Regulation has still not been agreed and is subject to ongoing amendment and debate, with no clear date for agreement and implementation.

Impact

The delays in updating the ePrivacy rules are unfortunate. Following the entry into force of the GDPR, there are now inconsistencies and consequential areas of regulatory risk for any business which needs to comply with both the GDPR and the old ePrivacy rules.

Conclusion

Europe's Digital Single Market continues to progress. Whilst progress on individual initiatives can be slow, or sometimes even derailed, it remains an area of intense focus and activity for the Commission and will have a significant impact over the coming years.

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Rob has extensive experience in structuring foreign investment into emerging markets.

Rob has a B.A. (Hons) and M.A. (Cantab) from Cambridge University and is a solicitor of the Supreme Court of England and Wales. He has an MBA from Henley and has completed the INSEAD International Directors Programme. His work experience includes OFTEL, the UK telecoms regulator, and senior commercial roles at a European telecoms operator. Now again working in London, he spent over four years working across Asia from Singapore.

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Rob blogs as The Digital Watcher at www.thedigitalwatcher.com.

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Chapter 2

Re-Thinking Regulation

Tim Cowen

Daniel Preiskel

Preiskel & Co LLP

1 Introduction

The UK and Europe were pioneers in the liberalisation of telecoms markets, which saw the break-up and regulation of former state monopoly telecoms companies. The implementation of the European Framework has, in many parts of Europe, been hugely successful, leading to better outcomes for consumers and businesses, where competition and investment has followed liberalisation.

The late Lord Leon Brittan, the UK's EU Competition Commissioner in the late '80s and early '90s, played a key role, including setting up EU merger control. Some inside the EU Commission at the time were sceptical as to his vision that competition could be introduced, ending the monopolies of the likes of Deutsche Telekom, France Telecom, Telecom Italia and Telefonica. However, his vision was realised, and in his own words: "*I like to think that my work in bulldozing through reforms which levered open markets, intensified competition and put public sector monopolists on the back foot contributed to changing the terms of the debate.*" The authors certainly agree with his assessment, and it may now be the time for the UK to take the lead by adopting a bullish approach in re-assessing regulation for the big data society.

With increasing technological convergence, in any event, it is certainly time to consider whether the UK's regulatory regime is fit for purpose.

In telecoms, the UK is plagued by questionable mobile signal coverage in many rural areas and one of the lowest levels of FTTx penetration in the OECD, raising questions about the nation's 5G readiness.

In the internet sector, the past decade has seen considerable market concentration and consolidation of market power, often without much regulatory scrutiny.

It is possible that Brexit will give the UK an opportunity to re-visit and re-assess existing EU regulatory approaches.

This raises a number of questions:

- Are we blindly walking into another age of monopoly?
- How can we better implement our regulatory framework to ensure the best consumer outcomes in the long term?
- How will the ever-omnipresent shadow of Brexit impact on this?

2 Issues with Current Regulation

The basis for the UK's telecoms regulation is found in a series of EU Directives. Historically, the way in which this framework has been implemented in the UK, and across Europe, has been with a view to ensuring the best outcomes for consumers, in particular by reference to price. UK merger control has also tended to focus on the price implications of mergers, and, with some exceptions, only scrutinises mergers where the parties involved meet certain turnover thresholds.

The focus on financial outcomes is not inherently illogical or wrong, *per se*, and a focus on short-term consumer welfare – in the relatively easy-to-model form of pricing outcomes – is a central tenet of competition law and regulation worldwide. However, the risk is that the current framework is implemented with undue focus on the short term, failing to properly consider the long-term outcomes of regulatory decisions, or the future shifts that may be seen in the market.

The focus on short-term consumer welfare and measurable impacts on post-merger prices is a common issue among merger control authorities. One example of the issues of overly focusing on consumer welfare is that dominant companies may be able to stifle competition through acquisition. Internet giants such as Google and Facebook, who hold considerable market shares in Internet Search and Social Media, respectively, as well as various other projects each company invests in, are able to purchase innovative start-ups "under the radar", since the turnover of the purchased company is below merger assessment thresholds.

An example of telecoms regulation is found in Ofcom's 2016 *Business Connectivity Market Review* (BCMR), where the regulator implemented a price cap in the form of the Leased Line Charge Control (LLCC) on BT/Openreach's wholesale Ethernet lines. The essential rationale was to drive the dominant incumbent's infrastructure wholesale prices down towards cost. The reduced wholesale prices would be passed on to businesses and consumers, allowing for price reductions across the industry.

Lower pricing sounds like a fantastic outcome for all involved, so what's the problem? BT/Openreach is a huge organisation with a legacy network already built across the whole of the UK. Economies of scale and scope mean its costs are likely to be below that of any new-entrant competitor, although Ofcom did not do the modelling to determine this for sure. With fast and reliable fibre connections becoming a necessity for business and leisure, the upcoming "5G revolution" in mobile, and BT/Openreach's track record of under-investment and failure to meet FTTx targets, the UK now more than ever needs alternative infrastructure providers, with innovative, faster, and more reliable network architecture than BT/Openreach's tree-and-branch network. Lower prices in the short term may thus restrict the opportunity for competitive investment and undermine the UK's digital future in the medium to longer term.

3 Improving the Implementation of the Current Framework: Should there be a Shift away from the Emphasis on Short-Term Assessment?

The current framework for regulation and competition law is not necessarily broken beyond repair; regulatory and competition authorities have scope to work within the legal framework to address some of the issues of market concentration and decreasing levels of innovation.

There is scope within the existing framework for the focus to be on more than just pricing outcomes. Yes, it is easier to accurately model short-term pricing effects, with concepts such as innovation, particularly in the long term, being generally more difficult to determine and calibrate. This may be limited by the current modelling methods used by economists, with their focus on Upward Pricing Pressure (UPP) and post-merger outcomes based on historic information of pre-merger market dynamics and pricing. And yes, of course regulatory bodies and competition authorities feel more able to make decisions based on the more reliable short-term data than potential long-term outcomes. However, no investigation of the effects of transactions on innovation is routinely conducted.

Seen in the context of the increasingly concentrated market structure, it is vital for the UK's digital future that regulatory bodies and competition authorities investigate innovation and market structure. Take Google's acquisition of Beat That Quote, for example. Beat That Quote was an online insurance company, small by comparison to others in the insurance industry. Economic modelling in the OFT's investigation indicated that it was unlikely Google would use its market power in Internet Search and online advertising to promote this online insurance company in search rankings, because that would mean foregoing revenue from other companies which were sponsored links at the top of the Google search. If the aim of any reasonable business endeavour is to maximise profit, there would be little economic logic in the short term in such action.

However, somewhat predictably, after the deal was approved, that is exactly what Google did. The economic rationale for such an approach is anti-competitive and recognised in the case law on abuse of dominance; Google sought to promote its own product to the detriment of its rivals, in an effort to exclude others from the market and maximise its profits from being one of the very few players left providing online insurance quotations. Google has now been fined £2.4bn for self-promotion of its own online price comparison products at the expense of its rivals by the EU Commission. Actions like this aim to guarantee future revenue stream through maintaining a company's position to the detriment of competitors, while foregoing an element of short-term revenues. The authorities' focus on short-term profit maximisation means such possible outcomes are often not duly captured in modelling; yet the impact on competition in the market and the effect on other players, the choices available to users, and the prospects for market structure to deliver future innovation can be significant.

Indeed, the EU has, to an extent, been leading the way in this respect, raising innovation concerns in a number of merger situations in the last few years – although there is undoubtedly more that can be done. One example of this is in the Novartis/GlaxoSmithKline merger, where concerns were raised about the parties' oncology business, where the Commission required the parties to divest one of the pipeline projects in order to mitigate risks to innovation. Another example where innovation concerns were addressed by the Commission is the General Electric/Alstom merger, where concerns were raised about the impact on innovation in the energy sector. Again, the Commission approved the acquisition of Alstom's energy business by General Electric subject to divestment of central parts of Alstom's heavy-duty gas turbines business. The recent Dow/DuPont decision continues in this vein, as approval to the merger was given conditionally on divestment of DuPont's global pesticide business, over innovation concerns about reduced numbers of new "active ingredients" in the pesticides business to be developed per year by the merged entity.

It is clear that innovation is something the European Commission is increasingly concerned about; even so, the indications are that authorities are predisposed to favour relying on the available historic evidence of pricing implications than in investigating the evidence of detrimental impact upon innovation. To avoid unsatisfactory medium- and long-term outcomes for consumers, more focus *needs* to be placed on factors other than short-term consumer welfare in the form of pricing, and the scope is there in the law to do this.

Indeed, it does seem that the issues raised above do appear to be filtering through to legislature. The UK, for example, has implemented two key changes to its merger regime to take into account national security concerns in certain sectors. It may be that these lead the way to a wider re-consideration of the merger control regime and a higher focus on non-economic considerations, such as impact upon innovation.

4 An Opportunity to Reform UK Competition Law and Regulation After Brexit to Encourage Infrastructure Investment and Innovation

The previous section focused on what can be done within the current legal and regulatory framework. However, as readers will be aware, much of this framework is based on European legislation, and as the UK is currently in the process of negotiating an exit from the European Union as of March 2019, the obvious question is: what happens next?

While some competition lawyers, many of whom started their careers as "European law experts", may be concerned by the approach of the great unknown, might it be best to see the upcoming shift in paradigms as an opportunity for the UK to become a leader, at the forefront of competition and regulatory law and policy, to create a regime suitable for a fast-paced, technology-dominated market?

What possible reforms could be implemented?

In telecoms regulation, the focus could shift from ensuring that short-term prices match the dominant provider's costs. Emphasis could instead be on ensuring barriers to entry are lowered to encourage the market entry of disruptive new players, who invest in competing infrastructure. This would lead to more intense competition in the provision of telecoms infrastructure and services, which would, in time, increase capacity in the system, and bring better quality, innovative products to consumers at lower prices.

In the merger control regime, changes could also be made to the turnover thresholds. This might include lowering the threshold, to capture some of the "under-the-radar" mergers mentioned above. It might include making a merger assessment based on the value of the transaction in question, rather than the turnover of the target entity, which has been done in Germany. Another approach would be to monitor the acquisitions of all dominant companies for their effect on innovation. To be clear, only those companies that have already been found to be dominant would be subject to such scrutiny, since many smaller deals between non-dominant players would be of no concern.

Alternatively, or additionally, the merger control regime with its focus on consumer welfare could be reformed to bring in matters that are of public concern and general regulation under consumer protection law. Further (non-economic) public policy considerations could be included for scrutiny of mergers and acquisitions, such as the levels of personal data held by each relevant party. The EU data protection authorities have been calling for this approach for some time.

These changes could be tied into an overall overhaul of the regime, along with the implementation of further reforms to address the concerns over critical national infrastructure.

5 Conclusions

The success and achievement of the EU telecoms liberalisation, creating viable competitive alternatives to the traditional PTT monopolies, should not be underestimated. However, with the pace of data-hungry technology and services creating unprecedented demands for nationwide high-speed broadband, the above highlights just some of the current regulatory issues to be re-considered and potentially reformed. This will no doubt be an interesting sector to watch over the next few years, and these issues are likely to develop with or without Brexit, or whatever form Brexit eventually may take.

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PREISKEL & CO

Preiskel & Co LLP is a boutique TMT law firm, focusing on these three industry sectors of telecommunications, media and technology. The firm specialises in international transactions, litigation, commercial and regulatory matters (including telecoms-specific regulation and competition law) that arise in and which affect these sectors of the economy.

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Preiskel & Co, founded in 2004, has also developed a substantial international litigation practice and has recently acted successfully in various cases before the High Court, Competition Appeal Tribunal, Court of Appeal and Supreme Court.

Chapter 3

Liable *vs.* Accountable: How Criminal Use of Online Platforms and Social Media poses Challenges to Intermediary Protection in India

Vikram Jeet Singh

Prashant Mara

BTG Legal

Abstract

The term "Cybercrime" feels particularly outdated nowadays. It is used to signify (comparatively) humdrum acts like online obscenity, identity theft, or financial malfeasance. Now, there is an argument that the Internet enables (or even abets) extreme cases of criminality, such as rioting, hate speech, terrorist recruitment, targeted fake news, illegal lobbying, and unprecedented thefts of personal data. A number of these cases involve online platforms and intermediaries (being used as primary tools for commission of crime), the new gatekeepers of the Internet.

Countries around the world are struggling to apply old legal paradigms to these new problems. The concept that an intermediary is only a neutral "pipeline" for information is no longer sacrosanct. Germany's new social media law makes the social media platform liable for the content they carry. The Indian Supreme Court and the Ministry of Electronics and Information Technology have repeatedly called for the regulation of intermediaries providing Internet platforms. In fact, the Supreme Court has in the past made intermediaries responsible for actively monitoring platforms, to ensure that they are compliant with child and women protection laws.

It is becoming evident that the old standard of intermediary liability will not survive the reality of the new Internet. In a country like India, where more than half a billion people have access to the Internet, these issues will be at the forefront of regulation in the near future. It is also important not to overlook the transformative potential of Internet access in India. Laws that indiscriminately inhibit the openness and accessibility of the Internet will benefit no one. It would be better if these laws were written in partnership with intermediaries, rather than being handed on from high with a flawed understanding of how the Internet works.

This chapter examines two questions in the context of growing calls for regulation in India:

Are we moving from a "did-not-know" standard to a "ought-to-have-known" standard, and to what extent is this practical?

Do we need a new hypothesis of intermediary liability, which is limited but varies with degrees of potential harm?

Evolution of Intermediary Protection "Safe Harbour"

"*The law should allow internet platforms to stay out of editorial decisions so that people can share and speak freely.*"

– Wikimedia Foundation

The United States dominates in a study of governance landscape for online intermediaries, as US law provides robust protections for speech, rooted in the First Amendment to the United States Constitution. This is coupled with the fact that most leading Internet companies are based in the US.

Tellingly, US law relating to intermediary protection evolved as a result of defamation cases. In *Cubby vs. CompuServe Inc.* (1991), a New York district court applied defamation liability laws to an Internet service provider hosting an online news forum.[1] CompuServe argued that it was a distributor, not a publisher, and therefore could not be liable without knowledge. The court noted that the requirement for a distributor to have knowledge of the contents of a publication, before liability can be imposed for distributing that publication, is deeply rooted in the US First Amendment. Since no specific facts were shown indicating that CompuServe knew or had reason to know of defamatory content, it was held to be not liable for such content.

An intermediary's knowledge was again at question in *Stratton Oakmont vs. Prodigy* (1995). This time, the New York State's Supreme Court established that the intermediary, Prodigy Services, who published a "*Money Talk*" bulletin board, clearly made decisions regarding content, and had "*uniquely arrogated to itself the role of determining what is proper for its members to post and read on its bulletin boards*".[2]

In 1996, the *Stratton* decision led the US Congress to pass Section 230 of the Communications Decency Act in order to protect Internet intermediaries from liability for third-party content. Section 230 states that "*No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider*". That is to say, online intermediaries that host or publish content are protected against a range of laws that might otherwise be used to hold them legally responsible for what others say and do.

Section 230 of the Communications Decency Act, 1996, was a seminal step; it has been called "*The Law that Gave Us the Modern Internet*".[3] Following the US' lead, a number of other jurisdictions have taken a pro-intermediary stance when providing for or interpreting safe harbour provisions.

Indian Laws on Intermediaries

India enacted its intermediary protection laws four years after the US, as part of its Information Technology Act, 2000. Section 79 of the Information Technology Act, 2000 ("**IT Act**"), provides intermediaries with qualified immunity from liability under all other laws. "*Intermediary*" is defined widely to mean "*any person who on behalf*

of another person receives, stores or transmits that record or provides any service with respect to that record" and includes "*telecom service providers, network service providers, internet service providers, web-hosting service providers, search engines, online payment sites, online-auction sites, online-market places and cyber cafes*".

The "*intermediary defense*" under Section 79 is available as long as intermediaries follow prescribed due diligence requirements and do not conspire, abet or aid an unlawful act. The protection under Section 79 lapses if an intermediary with "*actual knowledge*" of any content used to commit an unlawful act, or on being notified of such content by the Government, fails to remove or disable access to the unlawful material. The due diligence requirements to be observed by intermediaries under Section 79 are prescribed in the Information Technology (Intermediary Guidelines) Rules, 2011 ("**Intermediary Rules**"). The intermediary is required to publish rules and regulations, a privacy policy and a user agreement for access or usage of its computer resources.

In 2015, in *Shreya Singhal vs. Union of India*, the Supreme Court of India read down the term "actual knowledge", used in Section 79, to mean that the intermediary would be required to remove or disable access to unlawful material only upon receiving knowledge that a court order has been passed asking the intermediary to do so, or upon receiving notification from an appropriate government. This broadly follows the concept in Section 230 of not attributing knowledge or liability to an intermediary without good cause. It is interesting to note that the decision in *Shreya Singhal* was couched, in part, in terms of the fundamental right of free speech.

The Breakdown of the "Safe Harbour"

The principal of safe harbour for intermediaries has held for more than two decades, but is now increasingly questioned. This is a function of both time passing, and of the wider form this protection has taken. The Communications Decency Act, 1996, was enacted due to concerns over pornography on the Internet. US courts have since interpreted it expansively, granting broad immunity even from civil rights violations.[4]

The biggest challenge to the Intermediary's safe harbour rule has been from laws aiming to prevent online sex trafficking. In 2017, the Stop Enabling Sex Traffickers Act ("**SESTA**") amended the protection in Section 230. This Act specifies that provisions protecting providers from liability shall not limit civil action or criminal prosecution relating to sex trafficking of children or sex trafficking by force, fraud, or coercion.

In the EU, efforts are being made to compel intermediaries to combat hate speech on their platforms. A new German *Netzwerkdurchsetzungsgesetz* (an Act to Improve Enforcement of the Law in Social Networks) aims to do just that. It applies to all Internet platforms that enable users to share content. It requires such platforms to delete manifestly unlawful content within 24 hours of a complaint. This makes the platform liable to make such determination itself, within a very short period of time. Content that is not 'manifestly' unlawful can be deleted in a longer timeframe, within seven days.

The law relating to intermediaries evolved at a very different time (when online bulletin boards were the norm) to address a very different need (applying the publishers' liability for defamation standard to the Internet). The "*library vs. newspaper*" debate that dominated the '90s has lost relevance in an age where the Internet has replaced not just the library and the newspaper, but the post office, the television, the landline phone and the cinema. As developments in the US and the EU show, the safe harbour for intermediaries cannot be applied in all cases.

In India, the derogation from an absolute theory of intermediary liability has come from two sources: copyright protection laws; and public order offences.

Following the Supreme Court's decision in *Shreya Singhal*, the Delhi High Court in *MySpace Inc. vs. Super Cassettes Industries Ltd.*[5] seems to hold that in cases of copyright infringement, a court order is not necessary, and an intermediary must remove content upon receiving knowledge of the infringing works from the content owner. As such, it seems that the intermediary protection provided in the *MySpace* case was considerably less than the "*actual knowledge*" requirement under Section 79 of the IT Act, as read by *Shreya Singhal*.

The other challenge to intermediary protection has been the use of platforms in criminal activities. Incidents of lynching and mob violence have been reported from videos and messages circulated on the WhatsApp platform in India.[6] The Indian Government's Ministry of Electronics and Information Technology has taken up these matters with WhatsApp on at least two occasions, asking it to find effective solutions to the misuse of its platform.[7] Most worryingly for intermediaries such as WhatsApp, the Government has indicated that if they do not find such solutions, they are "*liable to be treated as abettors*" and "*face consequent legal action*". In the worst case scenario, this may mean that intermediaries are prosecuted as abettors under the Indian Penal Code.

Preserving the Safe Harbour

We seem to be living in the sunset of the traditional theory of intermediary protection. A blank-cheque approach to intermediary protection has led to a global backlash. Given the growing number of Internet users in India, the serious impact that intermediaries' passive role has on society and politics is coming under increasing scrutiny from regulators. It is more than likely that a regulatory alternative will emerge which will water down the overarching protections available to intermediaries.

The question, then, is what would this regulatory alternative be, and could intermediaries drive the discussion to an alternative that balances their liability, the freedom of speech of their users, and law enforcement requirements?

Possible ways forward have been shown by a combination of the German *Netzwerkdurchsetzungsgesetz*, and jurisprudence around copyright content removal. Intermediaries may have to take a proactive role in policing and removing certain kinds of content. So long as there is broad consensus on what these "high-risk" types of content are, intermediaries should be allowed to evolve an internal self-regulatory mechanism to track and address such content. Obvious examples are child-harming content, and material that incites violence, religious intolerance or enmity, etc. As noted in the German *Netzwerkdurchsetzungsgesetz*, such content should be banned/removed expeditiously within 12–24 hours. For content that is not obviously a part of such illegal categories, a longer process of adjudication/discussion can be specified. An example of the latter would be copyright violation.

In terms of process, it may be useful for intermediaries to come together and design a cross-platform format that can be used by users to report such illegal content. A growing body of such reports can then be used to analyse the trends of removal of content, and can slowly become the basis for any guidelines for self-regulation.

Such "increased" or "pro-active" diligence on the part of the intermediaries should be recognised in any future law as being sufficient a criterion to preserve the safe harbour defence. One-off "misses" in removing high-risk content should not impose

liability on intermediaries if they can demonstrate that a process was available. Admittedly, this will be a subjective determination, but as we have seen in the case of GDPR, some level of subjectivity and application of judgment has become unavoidable in the growing body of new legislation governing online behaviour.

Conclusions

Inaction on the issue of intermediary liability will not be an option for much longer. In the absence of a solution from the industry, governments and regulators may go for an extreme "banning" approach, or try to affix "criminal liability" on intermediaries. The Indian government has already referenced the criminal act of "abetting" in connection with WhatsApp. At the same time, the Indian Supreme Court has, in the *Prajwala* case, shown willingness to work with intermediaries to come up with solutions to online content problems. The choice may come down to intermediaries, in whether to work alongside regulators and evolve the next standard of intermediary liability, or to take up a reactive, defensive view to the regulations that are laid upon them.

Endnotes

1. 776 F. Supp. 135 (S.D.N.Y. 1991).
2. 1995 WL 323710.
3. https://www.theatlantic.com/business/archive/2013/09/the-law-that-gave-us-the-modern-internet-and-the-campaign-to-kill-it/279588/.
4. *The Overexpansion of the Communications Decency Act Safe Harbor*, Joey Ou, Hastings Communications and Entertainment Law Journal, 455 Volume 35 Number 3.
5. 2017 (69) PTC 1.
6. *Viral WhatsApp Messages Are Triggering Mob Killings In India*, July 18, 2018, Lauren Frayer, https://www.npr.org/2018/07/18/629731693/fake-news-turns-deadly-in-india.
7. The Ministry issued two press releases in this regard, on July 3, 2018 and on July 19, 2018.

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Chapter 4

Argentina

Kahale Abogados

Roxana M. Kahale

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Telecoms and audio-visual media distribution are very dynamic markets in Argentina. According to data collected by industry analysts, the annual revenue for 2018 was 181 billion Pesos composed in the following manner: (a) landlines – 13 billion Pesos; (b) internet – 23 billion Pesos; (c) mobile phones – 103 billion Pesos; and (d) audio-visual media distribution – 42 billion Pesos. The most significant market participants are Cablevision, the main cable operator, and telephone companies Telecom, Telefonica and Claro, which recently merged, followed by DirectTV and other operators. With regards to mobile phone operators, the key players are Movistar, Personal and Claro (in that order).

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

Telecommunications are governed by Telecommunications Law 27.078 and audio-visual media distribution is subject to Media Law 26.522. Both statutes have been modified by Decree 267/15.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

As per Decree 267/15, there is a sole regulatory entity for telecoms, internet and denominated media: *Ente Nacional de Comunicaciones* (ENACOM), under the authority of the Ministry of Modernization.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

As per Decree 267/15, the market has been liberalised. Cable Television (TV) has been incorporated into telecoms and is no longer subject to media law as satellite TV is. Video on-Demand (VOD) is regulated by Telecommunications Law 27.078 if the platform supporting it is cable, or by Media Law 26.522 if the supporting platform is satellite TV. If none of these platforms are used, there is no regulation of VOD other than the payment of VAT for those VOD operators non-resident in Argentina. Telephone companies may render cable TV services, as from this year (2018), which was previously forbidden. Transfers of licences (ICT licences), as per Telecommunications Law 27.078, can be made *ad referendum* of ENACOM's approval and shall be communicated to ENACOM within 30 days of the transfer. If there is no express pronouncement of ENACOM in the 90 days following the communication, the transfer is essentially approved. With regards to licences related to media law, Decree 267/15 establishes that there is, at first, an automatic renewal for a five-year term and, afterwards, successive extensions for a 10-year term each granted by ENACOM, who in turn may call for bids for new licensees. Also, the number of licences to be held has been increased. Regarding foreign investment, audio-visual media distributors may not be owned by a foreign investor in a proportion exceeding 30% of its capital, unless the foreign investor is from a country that has a Bilateral Investment Treaty with Argentina that allows full ownership of media licences in such foreign country.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Argentina has made commitments under GATS regarding telecommunications that have been implemented in accordance with the liberalisation of the telecom market.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

There is a specific statute: Telecommunications Law 27.078, as amended by Decree 267/15.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

ENACOM is the regulatory entity that governs telecoms, ICT and the media. A new competition law was enacted in May 2018, which replaces the current Competition Commission that had the two-fold purpose of authorising mergers and penalising anticompetitive activities. The new law creates a new decentralised and autarchic entity within the National Executive Branch of the National Competition Authority. No other governmental entity would be allowed to apply the competition law, although in the telecom and media regulations there are provisions on significant market participants.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Any kind of sanction under Telecommunications Law 27.078, as amended by Decree 267/15, can be subject to an administrative review. Once the administrative review has been completed, judicial recourse is available before the Federal Administrative Court, except for consumer claims.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

ICT licences are granted individually to parties which require it. There is a general licence and then for each ICT service the licensee has to register separately for each service.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The general licence requires the presentation online of corporate and tax documentation of the applicant, an affidavit of not having any incompatibility for the licence, evidence of technical compliance of their equipment for the purpose of the service to be rendered, and any other information that the applicant may deem pertinent.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Rather than individual authorisation, there is a registry in which each licensee has to include the services that will be rendered, which can include landlines, mobile phones, voice over IP services, ICT services, data transmission and cable TV.

With regards to licences, there is no time limit. Transfers of licences and change of control of licensees are subject to ENACOM approval. The transfer of the licence or change of control can be made *ad referendum* of ENACOM's approval and shall be communicated to ENACOM within 30 days of the transfer. If there is no express pronouncement of ENACOM in the 90 days following the communication, the transfer is effectively approved.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

In Telecommunications Law 27.078, ENACOM has established the general criteria of infrastructure sharing between mobile and landline service providers, and in case of conflict the dispute shall be submitted to ENACOM for its approval. Additionally, there are provisions in the Civil and Commercial Code related to easements and similar rights.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Regarding interconnection, all parties need to be interconnected and it is agreed between the intervening private parties, through interconnection agreements, that there are requirements to have standards of transparency, no discrimination, and no abuse of a dominant position. The party offering to grant interconnection has to present to ENACOM an Offer of Reference (OR) to be approved. Once approved, if the party requesting interconnection accepts it, an agreement has to be executed within 10 days. If the agreement is not executed, there is a procedure established through which there is a hearing before ENACOM. The party requiring the hearing must present the claim and evidence related thereto; ENACOM will transfer such claim to the other party and will hold a hearing 10 days after such presentation in which both parties will present their positions, and 10 days thereafter ENACOM will render a preliminary decision ordering the interconnection and price thereof, and establishing that the party obtaining the interconnection will have to render a guarantee to return payments and interest in case the final decision is favourable to the other party. ENACOM will then have a 60-day period to issue a final decision. The parties may at any time desist of this procedure and execute an interconnection agreement.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

All operators have to submit their agreements to ENACOM for registration within 10 days from their execution and, within such term, both parties have to publish the agreements on their respective websites and require ENACOM to publish a similar publication on its website. The publication shall contain, as a minimum, the name of the parties to the agreement, the services rendered, and the price of the interconnection and changes to the agreement.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

As stated above, the parties are free to combine interconnection and access prices and respect the charges that ENACOM may

establish when essential facilities are involved (such as the origin and local termination, co-location, local transit, port, etc.). Historic licensees of basic telephone services and mobile communications have to present an OR to ENACOM and ENACOM shall establish provisionary charges based on average charges in Latin America.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Operators with substantial market predominance must keep accounting separation.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

As per Decree 1340/2016, infrastructure has to be made available. The only exception is for those parties which invested in last mile networks, and which are not allowed to open such network. In Congress, there is a bill that has been approved by the Senate and is pending approval of the House of Representatives that eliminates such restriction.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

There are no price controls, although with regards to fixed phone services there are indicative tariffs per pulse. In all other services, the prices are freely fixed but ENACOM has the authority to intervene if there is a serious deviation in the market.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Universal service is guaranteed. There is a fiduciary trust for investment commitments of licences equivalent to 1% of the total income accrued per the rendering of ICT services.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and network identifying codes have been established by the former Secretary of Communications by Resolution 46/97. Today, ENACOM has such authority.

2.17 Are there any special rules which govern the use of telephone numbers?

As per the Secretary of Communications' Resolution 46/97, there are guidelines establishing a reserve of certain numbers, and numbers are divided into geographical numbers, non-geographical numbers, codes for special services, codes of access to international operators and prefixes for services.

2.18 Are there any obligations requiring number portability?

Owners of mobile phone lines have number portability rights and may change providers whilst maintaining their numbers. The process is simply carried out through the mobile phone company and should be completed in one day with no more than three hours of interruption of the service. There is a 30-day mandatory stay before requesting a new transfer.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

ENACOM regulates spectrum use and is the sole authority to: grant authorisations and licences; and monitor the system.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

The radio spectrum is composed by a set of frequencies grouped in frequency bands and can be used by licensees of telecommunication services to render wireless communications, broadcasting of radio and TV, the internet and fixed and mobile phones, or for defence, security, emergencies, scientific use, and military use, among others. Usually, the use of spectrum is granted through an authorisation and recently through spectrum auctions.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

There are non-licensed bands that apply for very particular issues, such as the band for wireless home phones and certain internet spectrums.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The use of spectrum is subject to charges calculated by the former Secretary of Communications.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

A spectrum licence implies the existence of an ICT service licence. If there is a change of control it must be notified to ENACOM and can be made *ad referendum* of ENACOM's approval, and shall be communicated to ENACOM within 30 days of the transfer. If there is no express pronouncement of ENACOM in the 90 days following the communication, the transfer is effectively approved.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Assignment is permitted as per Telecommunications Law 27.078, under similar conditions as set forth in question 3.5. No trading or sublicensing is authorised.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

In 2008, Argentina enacted Telecommunications Law 26.388, which modifies the Criminal Code through the following provisions:

- equal protection of emails and handwritten letters;
- establishing that hacking and IT fraud are crimes; and
- the inclusion of the concept of IT damage.

The Criminal Code also penalises: the online distribution of child pornography; illegal email access; the online publication of secrets; illegal access to a database; denial-of-service attacks and hacking; and stealing, hiding and destroying of digital evidence.

In November 2017, Congress ratified the Budapest Convention on Cybercrime through Telecommunications Law 27.411. This imposes the obligation of adapting local laws to the rules of such convention. The Convention covers three main areas: (i) substantive criminal law in the area of cybercrime (illegal access, illegal interception, system interference, misuse of device, computer-related forgery, computer-related fraud, offences related to child pornography, and offences related to infringements of copyright and related rights); (ii) procedural law (such as the expedited preservation of stored computer data; expedited preservation and partial disclosure of traffic data; real-time collection of traffic data; and the interception of content data); and (iii) the rules of international judicial co-operation.

However, there are still pending further regulations to penalise these crimes, particulary in the procedural codes.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

In principle, Telecommunications Law 27.078 sets forth in Section 5 that all communications through ICT are private and cannot be subject to interception, registration or analysis except through a judicial order from a competent court.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

As explained above, no call interception on any form of communication can be made without a judicial order from a competent court. Only under such circumstances can interception proceed.

4.4 How does the state intercept communications for a particular individual?

Only through a judicial order issued by a competent court.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

There are no specific rules regarding encryption. However, Argentina will adopt a new Personal Data Law to comply with the standards and regulations of the GDPR, so this will be a matter of regulation.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

The issue of data is subject to the Data Protection Law. The Data Protection Law, which is in the process of being amended to comply with the GDPR, sets forth the obligation of registering databases (of customers, suppliers and employees) and maintaining the data by updating it. Section 17.7 of the Data Protection Law sets forth that personal data should be kept as long as applicable laws establish (i.e., tax laws impose a five-year term) or for the term contractually agreed between the party responsible for the database and the data owner.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Distribution of audio-visual media is regulated by Media Law 26.522 in relation to open TV and satellite TV. Cable TV is deemed to be an ICT regulated by Telecommunications Law 27.087. Both laws have been amended by Decree 267/15.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

There is strict regulation with regards to content and advertising in Media Law 26.522. Some of these restrictions are an extended minor protection time lapsing from 6am to 10pm in which only the content appropriate for minors can be broadcasted. There are time limitations on advertising; open TV has 12 minutes per hour, satellite operators have eight minutes per hour and cable channels have six minutes per hour. Additionally, there are warnings to be placed in news broadcasts stating that there may be violent and/or inappropriate content for children and adolescents. There are restrictions on alcohol and tobacco advertising, as well as on gambling advertising. Infringements are subject to penalties applied by ENACOM.

OTT and similar platforms are not regulated; they are not registered with ENACOM, so none of these restrictions apply.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

There are two licences and one authorisation applicable to the distribution of audio-visual media. Open TV and satellite TV are subject to licences. Such licences may be granted to individuals or legal entities. With respect to legal entities, both as the owner of licences or the shareholders of a corporate licensee, they shall: (i) be legally constituted in Argentina; (ii) not have a legal corporate connection or direct or indirect submission to a foreign audio-visual company; and (iii) not be affiliates or subsidiaries of foreign companies, nor carry out acts, contracts or agreements that allow a dominant position of corporate capital in the licensee entity. Points (ii) and (iii) are not applicable when the foreign entity belongs to a state that has executed Bilateral Investment Treaties with Argentina that allow investments of Argentine companies in these activities in such foreign state.

Corporate licensees may not be a shareholder that owns 10% or more of the votes of a legal entity that holds a concession for a public service. Additionally, they may not issue bonds, debentures, negotiable obligations or any kind of securities without authorisation from ENACOM when these transactions involve a percentage exceeding 30% of the votes of the company.

The licensee may not be a debtor of tax, social security, union obligations, fees from a collection society or debtor of the taxes and/or fines imposed by Media Law 26.522, and shall be able to demonstrate the origin of the funds committed in the investment to be made. Licences of open TV can broadcast 12 minutes of advertising per hour, and have responsibility for content, screen quotas and maintenance of the conditions under which the licence has been granted. Licensees of cable distribution services are subject to Telecommunications Law 26.522 and have obligations related to the carrying out of programming signals, grids, the eight minutes per hour of advertising time, screen quotas, tax obligations and maintenance of the conditions under which the licences have been granted.

Programmers are subject to a registration similar to an authorisation, in which they have to establish a domicile in the city of Buenos Aires and a legal representative before ENACOM. They are responsible for the content (advertising time is limited to six minutes per hour) and have tax obligations, and some obligations differ as to whether they are national or foreign programmers. National programmers are those with which 60% of their content is deemed local.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Licences are assignable. Section 41 of Media Law 26.522, as amended by Decree 267/15, sets forth that licences and shareholding in licensees shall be transferable to parties that comply with the admissibility conditions for the granting of licences. Such transfers will be made *ad referendum* of the approval of ENACOM and must be communicated within 30 days from the transfer. If ENACOM does not expressly reject the transfer within 90 days from receiving the communication thereof, the approval is deemed essentially granted and registration shall be made in the name of the new licensee or shareholders. In case there are observations, the 90-day period for approval shall be counted as from the date of submission of the responses to the observations. Transfers not approved shall result in the termination of the licence.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Our courts have adopted diverse criteria on the matter since there is no specific statute that regulates it. In the case of "*D.C.V. v. Yahoo de Argentina SRL et al. on damages*", Chamber D of the Civil Court of Appeals reversed a decision of the first instance court that condemned Google and Yahoo for moral damages, ordering the elimination of relations between the search engines of Yahoo and Google and sites with sexual, pornographic or erotic content that may contain the name, images and photos of the plaintiff. The Court of Appeals reversed such decision, stating that since there is no special statute that rules the responsibility of the internet service provider, the general rules of civil liability must be applied. It stated that search engines have the intention of facilitating user access to web pages, but the content of such web pages is the responsibility of the parties that manage such web pages and not the search engine, which is a mere conduit to the content in question. If liability were to be attributed to the search engine, the negligence of the search engine must be proven.

In general, first instance courts have admitted the liability of search engines, but in the appellate level such decisions are reversed, in some cases equating internet service provider services to freedom of press.

The Supreme Court has determined, in a divided decision, that freedom of expression contains the right to transmit ideas, facts and opinion through the internet, and that there is the personal right that any individual can, through the internet, publish, transmit, and exteriorise his ideas, opinions and beliefs. Due to the absence of a specific regulation, it is convenient to set a rule that distinguishes between the cases in which damages are manifest (child pornography, apologies for genocide and racism, data intended for committing crimes and inciting extreme violence), as opposed to cases in which damages are subject to opinion, doubt or require clarification, which should be determined in administrative or judicial instances.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

There are no immediate take-down obligations. The content owners must enforce their proprietary rights in court and obtain a decision that orders the taking down of the infringing content, despite the fact that Section 57 b of Telecommunications Law 27.078 states that if requested by a user, such take-down should take place. To avoid liability issues, and pursuant to the court interpretations set forth in question 6.1, telecommunication operators and the internet service provider can only take down materials if requested by a court order.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Section 56 of Telecommunications Law 27.078 warrants the right of each user to access, use, send, receive or offer any content, application, service or protocol through the internet, without any kind of distinction, block, interference or degradation. Section 57 of Telecommunications Law 27.078 prohibits ICT from blocking, interfering, discriminating upon, degrading or restricting the use, delivery, reception, offer or access to any content, application, service or protocol, unless there is a court order or an express request from the user. ICT may not fix the access price to the internet in relation to the content, services, protocols or applications to be used or offered, or arbitrarily limit the right of a user to use any hardware or software to access the internet as long as such devices do not damage the web.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

As stated above, telecommunication operators and/or internet service providers have no statutory obligations to block access to certain

sites and content, although in cases of flagrant infringements, such as child pornography, blockages have occurred. With regards to VPN services, they provide an avenue for piracy of content protected by IP laws and there have been some initiatives on platforms like YouTube, in which protected products (such as video clips or sports rights) immediately take down such content when advised by their legal owner. VPN services can be blocked through a judicial order. The reformed internet service provider laws in Argentina, which have been approved by the Senate and are pending approval from the House of Representatives, do not include automatic take-down for IP violations requiring court intervention, which may not be a quick remedy for infringements that can cause enormous damages to holders of valuable IP rights.

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KAHALE ABOGADOS

Kahale Abogados is a full-service law firm in Argentina with a highly specialised TMT department. We are leaders in providing advice on complex regulatory matters involving TMT. We participated in establishing the first company to monitor changes in number portability and in the obtainment of several value-added services licences. We have actively participated in the regulation of media law in Argentina and advised several international programmers on regulatory matters. Our group deals with collection societies' claims, counsels studios in foreign film distributions, has conducted due diligences in the acquisition of open TV channels and licensing of soccer rights to private companies. The TMT department of Kahale Abogados is very active in US and Argentine trade organisations related to cable TV programmers.

Chapter 5

Australia

Anthony Borgese

MinterEllison

Athena Chambers

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The telecommunications and audio-visual media distribution sectors continue to be affected by shifts in consumer behaviour and attitudes driven primarily by technology.

Telecommunications (including internet) sector

As mobile and internet connectivity in Australia approaches saturation, industry growth for the highly-regulated telecommunications industry has remained relatively flat. Consumers continue to switch to mobile telecommunications (which accounted for 52% of telecommunications products and services in 2017–2018) coupled with cable or naked DSL broadband services through internet service providers (**ISPs**), reducing demand for fixed-line telecommunications and telephones.

Revenue for the telecommunications industry in 2017–2018 was AUD$42.8 billion, representing a 1.3% decrease year-on-year (**YOY**) and in line with predictions for marginal industry revenue growth at an annualised rate of 1.7% through to 2022–2023. Revenue continues to be concentrated at the top with incumbents Telstra Corporation Limited (**Telstra**) (38.1%) and SingTel Optus Pty Limited (**Optus**) (16.4%) accounting for a combined estimate of 54.5% of the telecommunications market. Telstra and Optus focus on both wired and wireless telecommunications services, whereas Vodafone Hutchison Australia Pty Limited (**Vodafone**) (8.2%) has historically focused solely on wireless telecommunications. Households represent 63.4% of the market for telecommunications services, continuing a five-year trend fuelled by higher mobile usages by individuals. However, a slowdown in the growth of mobile telecommunications sales in Australia results from smartphone penetration peaking, with smartphone ownership in Australia reaching 88% in 2017.

The Australian Federal Government (**Government**) continues with the rollout of the largely public-funded nbn™ fixed-line multi-technology network, introduced by the former Labour Government in 2009 to supply all Australians with wholesale-only high-speed broadband access services (**nbn™**). Designed, built and operated by NBN Co (established under the National Broadband Network Companies Act 2011), the nbn™ network includes a combination of fibre-to-the-premises, fibre-to-the-node/basement/curb and hybrid fibre coaxial (**HFC**) technologies. The target for network completion remains 2020, but the budget rose from $49 billion to $51 billion in 2018, with additional costs being sourced from private markets. Telstra, Optus, TPG Group (**TPG**) and Vocus Group (**Vocus**) account for approximately 94% of the nbn™ market, but new entrants such as Amaysim and Vodafone continue to implement competitive pricing strategies. The anticipated launch of 5G networks by Telstra and Optus in 2019 is expected to disrupt fixed broadband services due to comparable speeds and portability, increasing infrastructure-based competition for nbn™. In March 2018, the Government announced that 125 MHz of spectrum in the 3.6 GHz band, which is key to the deployment of 5G services, would be sold at competitive auction in October 2018 (**5G spectrum auction**).

Competition continued to intensify in the telecommunications industry in 2017–2018, continuing the five-year trend. In August 2018, TPG Telecom Limited (**TPG**) and Vodafone announced a proposed merger of equals to establish a fully-integrated telecommunications operator in Australia. The merger will create a more effective competitor for Telstra and Optus, with an integrated mobile and fixed-line offering valued at approximately $15 billion. TPG and Vodafone have also formed a joint venture to bid in the Government's 5G spectrum auction, evidencing strong commitment to new technologies. The Australian Competition and Consumer Commission (**ACCC**) has commenced a public review of the proposed merger, and an investigation into competition concerns raised by the joint venture between the two companies.

On the regulatory front, the ACCC published its final report for the communications sector market study in April 2018, examining existing and emerging competition and consumer issues in the sector. The report found that despite high levels of concentration, the markets for broadband and voice services were operating competitively and forecast that this trend would continue, spurred on by the deployment of 5G services. The Australian Parliament is also considering new legislation to encourage competition in the telecommunications industry, with the *Telecommunications Legislation Amendment (Competition and Consumer) Bill 2018* providing for the reduction of regulation for smaller and superfast networks.

The $9.5 billion (revenue in 2017–2018) Australian telecommunications reseller industry is expected to expand over the next five years, driven by the stronger uptake of resold wireless telecommunications services and the continued nbn™ rollout. This industry is highly competitive and has low market concentration with Vocus Group Limited (**Vocus**), being the largest telecommunications reseller with an estimated market share under 5.0%. Resellers are heavily dependent on the price that they acquire telecommunications services from carriers, as the industry's offerings are differentiated on price.

The Government is also demonstrating increasing concern in relation to the security of telecommunication networks. In September 2018, the Government's 'Telecommunications Sector Security Reforms' entered into force, introducing a new requirement for carriers to notify the Government of any proposed changes to their networks that are anticipated to have implications for national security. The Government is also considering the contentious *Telecommunications and Other Legislation Amendment (Assistance and Access) Bill 2018* (**Assistance and Access Bill**) which, if passed, will compel companies in the communications supply chain to assist law enforcement agencies to access encrypted communications (see question 4.5).

The ISP industry, composed of operators that own or lease telecommunications infrastructure to provide internet services, continues to grow as a result of rising data usage, greater web accessibility and an increasing reliance on the internet for business and personal affairs. The ISP industry revenue was $5.4 billion in 2017–2018, with growth expected to increase at an annualised rate of 4.6% until 2022–2023, partly as a result of the nbn™ rollout. This industry is highly concentrated, with the top four players Telstra (45.8%), TPG (25.7%), Vocus (11.5%) and Optus (8.6%) accounting for over 90% of industry revenue in 2017–2018.

Audio-visual media distribution

Free-to-air television broadcasting (**FTA**) viewership continues to decrease as a result of competition from alternative media platforms. Accordingly, revenue for the FTA industry declined by 2.4% YOY in 2017–2018 to $4.6 billion, with advertisers moving towards online platforms. The FTA industry remains highly competitive and concentrated, with over 70% of the market share being held by Seven West Media Limited (26.4%), Nine Entertainment Co Holdings Limited (24.3%), Ten Network Holdings Pty Limited (13.7%) and the Australian Broadcasting Corporation (11.7%).

The pay television (**Pay TV**) industry has similarly contracted over the past five years, with viewership being diverted by subscription video on demand (**SVoD**) platforms like Netflix and Stan, as well as the rise of telco-tainment. Foxtel Group (**Foxtel**) remains dominant in the industry, holding 79.6% of the market share, with the second largest player, Telstra, trailing at 20.2%. The Pay TV industry revenue fell to $3.8 billion in 2017–2018, and is expected to continue to decline at an annualised rate of 1.9% through to 2022–2023. It is anticipated that Foxtel will focus increasingly on its Internet Protocol Television (**IPTV**) service offerings to remain competitive, as the nbn™ rollout continues to increase the value of IPTV over Pay TV.

The Government remains committed to combatting online piracy. In February 2018, the Government announced it would be conducting a review into the mechanism introduced by the *Copyright Amendment (Online Infringement) Act 2015* (Cth) (**Online Infringement Amendment**) to reduce online copyright infringement. The Online Infringement Amendment provides copyright owners with the ability to apply to the Federal Court of Australia (**FCA**) for an injunction requiring an ISP to take reasonable steps to block access to certain copyright-infringing sites. Since December 2016, the FCA has granted several such injunctions and more than 65 sites and 340 domains have been blocked as a result, but online piracy is expected to be an ongoing issue (see question 6.2).

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The object of regulation in the telecommunications market is to promote access by customers to innovative and affordable services by increasing competition in the telecommunications industry and protecting the interests of consumers.

The principal legislation governing these sectors are:

- the *Telecommunications Act 1997* (Cth) (**Telecommunications Act**) – deals with licensing and the rights and obligations of carriers and service providers;
- the *Broadcasting Services Act 1992* (Cth) (**BSA**) – regulates broadcasting (including digital television services), subscription services, online content (for ISPs), narrow casting and datacasting;
- the *Radiocommunications Act 1992* (Cth) (**RCA**) – regulates radio-frequency spectrum management and licensing; and
- the *Competition and Consumer Act 2010* (Cth) (**CCA**) – provides both general competition regulation and a telecommunications-specific competition regulation regime.

The telecommunications (including internet) sector is also subject to:

- the *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Cth) – establishes the universal service obligation and consumer protection regulation;
- the *Telecommunications (Interception and Access) Act 1979* (Cth) (**TIA Act**) – regulates interception and law enforcement, prohibits telecommunication service providers from disclosing information about their customers' use of telecommunications services, and was recently amended to include data retention obligations; and
- the *National Broadband Network Companies Act 2011* (Cth) – governs the ownership, control and reporting obligations of NBN Co.

The Vertigan Panel's Independent Cost-Benefit Analysis and Review of Regulation (**Vertigan Review**) made recommendations to the Government in relation to the introduction of a new telecommunications sector regulatory framework.

In June 2017, the Government published the '2017 Telecommunications Reform Package' (which was consulted on in December 2016 to February 2017), aimed at reforming the telecommunications market to promote competition, and to improve access to broadband services to all Australians in response to the Vertigan Review. These reforms will come into effect with the passing of legislation, and include the repeal of Part 7 and amendment of Part 8 of the Telecommunications Act.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

Telecommunications, internet and audio-visual media distribution is regulated by the Government. The key bodies are:

- the Minister for Communications and the Arts (**Communications Minister**) and the Minister for Regional Communications – administers the Department of Communications and the Arts, the Government's department that provides advice, analyses, develops and delivers programmes on the communications industry (including television, radio, internet, phone, post and the changes in digital technologies);
- the Attorney-General's Department – administers the TIA Act but does not investigate crimes;
- the Australian Competition and Consumer Commission – promotes competition within the telecommunications industry and ensures that the consumers' interests are protected;
- the Australian Communications and Media Authority (**ACMA**) – oversees the regulation of the technical and non-competition aspects of the telecommunications industry, including the development of and the monitoring of compliance with industry codes of practice; and

- the Telecommunications Industry Ombudsman – provides an independent dispute resolution service for telephone and internet complaints.

The key non-government industry bodies are:

- the Communications Alliance – unifies the Australian communications industry and its members in facilitating open, effective and ethical competition between service providers and in providing a forum for the telecommunications industry;
- Broadcast Australia – owns and operates multimedia transmission infrastructure in Australia, and provides analogue and digital television and analogue radio for the Australian Broadcasting Corporation and Special Broadcasting Service;
- the Australian Communications Consumer Action Network – a Government-funded communications consumer organisation that represents individuals, small businesses and not-for-profit groups as consumers of communications products and services; and
- the Australian Information Industry Association – representative body and advocacy group for the ICT industry and the wider technology sector.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Liberalisation

As discussed in question 1.1, these sectors continue to be liberalised, in particular:

- competition in the telecommunications sector is being liberalised inorganically by the increase in competition, driven by the building of nbn™ and increasing regulatory focus, and organically by digitisation and the shift towards mobile telecommunications services; and
- in the audio-visual media distribution sector, competition in the FTA and Pay TV industries has continued to be intensified, driven by the rise of SVoD platforms and online media consumption sources.

The telecommunications sector had historically been largely centralised and monopolised before the establishment of an additional publicly-owned carrier in 1981 by the Government, AUSSAT, which was later acquired by Optus in 1992.

Foreign investment

The Treasurer of Australia is ultimately responsible for all decisions related to foreign investment and for the administration of the Australian foreign investment policy. The Foreign Investment Review Board (**FIRB**) administers the *Foreign Acquisitions and Takeovers Act 1975* (Cth) in accordance with the Australian foreign investment policy, in addition to advising and assisting the Treasurer.

The telecommunications and audio-visual media distribution sectors are open to foreign investment, subject to restrictions.

Telecommunications (including internet) sector

The telecommunications sector is considered to be sensitive with regard to foreign investment and, therefore, there are lower thresholds provided for foreign investment. Foreign investment to acquire developed commercial land on which stored communication is held or that has a telecommunications network unit is also subject to a lower threshold. Approvals may also be subject to stricter requirements. The *Telstra Corporation Act 1991* (Cth) restricts:

- aggregate foreign ownership in Telstra to 35% of shares in the issued capital of Telstra (**Telstra Shares**) not owned by the Commonwealth of Australia; and
- aggregate ownership in Telstra by an individual foreign person (and their associates) cannot exceed 5% of Telstra Shares not owned by the Commonwealth of Australia, subject to certain exemptions provided for in *Telstra Corporation (Ownership – Interests In Shares) Regulations 1997*.

The Communications Minister may impose additional carrier licence conditions on individual carriers in relation to foreign investment.

The Government's increasing focus on the security of telecommunication networks also has implications for foreign investment. NBN Co cannot be invested in by foreign persons until such time it is privatised, and may be subject to certain foreign investment restrictions, including if the Communications Minister prohibits certain ownership or control over NBN Co. The Government has also effectively blocked Chinese companies Huawei Technologies Co Ltd and ZTE from participating in the 5G spectrum auction through the introduction of the TSSR, citing national security concerns.

In September 2017, the FIRB announced an increased focus on enhancing its compliance arrangements for foreign investment. This includes placing additional resources into foreign investment compliance, developing a revised framework, undertaking rolling annual compliance audits and establishing clearer enforcement policies.

Media

Government approval is required for foreign investment of 5% or more in the media sector, regardless of value. In October 2017, the American commercial broadcasting network, CBS, secured the necessary approvals from the FIRB to finalise its takeover of embattled network Ten Network Holdings Limited. CBS beat a joint bid from Australian media moguls Lachlan Murdoch and Bruce Gordon, which prompted the Government to reform existing media ownership laws by way of the *Broadcasting Legislation Amendment (Broadcasting Reform) Act 2017* (Cth) (**Broadcast Reform Amendments**), which repealed key cross-media ownership limitations (discussed in question 5.3 below).

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Australia has been a member of the World Trade Organisation (**WTO**) since 1 January 1995. Australia has made commitments under the GATS in a Schedule of Specifics and under the Fourth Protocol on Basic Telecommunications, and adopted the WTO Basic Telecommunications Reference Paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The provision of telecommunications networks and services are regulated under legislation listed in question 1.2 above, and by bodies listed in question 1.3 above.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The key regulators are the ACCC, which regulates competition and consumer issues, and the ACMA, which regulates technical issues.

The ACCC and ACMA function independently from the Government except where the Communications Minister has residual regulatory powers, including, in relation to, the imposition of conditions to carrier licences, and directing the ACCC and ACMA in some respects of their performance of their regulatory powers.

Other key bodies are set out in question 1.3 above.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions made by the ACCC may be appealed to the Australian Competition Tribunal (**ACT**) on its merits, and the Federal Court of Australia can hear appeals from the ACT in limited circumstances.

Decisions made by the ACMA may be appealed to the Administrative Appeals Tribunal on its merits, and to the Federal Court of Australia for judicial review on administrative law grounds.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The Telecommunications Act distinguishes between:

- carriers – entities that own telecommunications infrastructure on which carriage and content services are provided to the public and hold a carrier licence;
- carriage service providers (**CSPs**) – entities that have direct contact with consumers and use carriage services to supply phone and/or internet services to the public; and
- content service providers.

Most carriers are carriage service providers.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Each entity has to apply for an individual carrier licence. The application requirements are:

- the applicant has to be a corporation, eligible partnership or a public body;
- the application has to be made in writing in the form approved by the ACMA; and
- any applicable fee must be paid (including any annual carrier licence charges).

The ACMA may refuse to grant a carrier licence to an applicant under certain circumstances, including if the applicant is disqualified (e.g., failure to pay any applicable charges), and must not grant a carrier licence if it is deemed to be prejudicial to security and directed by the Attorney-General.

CSPs and content providers are not required to be licensed, but are still subject to the Telecommunications Act.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Carrier licences (as described above in question 2.6) do not have a stated term, but can be surrendered by the carrier or cancelled by the ACMA. While there are no express prohibitions for the transfer of carrier licences, it is the ACMA's view that carrier licences cannot be transferred.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Carriers may install, inspect and maintain telecommunications infrastructure in accordance with the Telecommunications Code of Practice (**TCOP**) on public and private land, subject to statutory notification as applicable, objections by owners or occupiers of that land made under the TCOP to the carrier, and any direction handed to the carrier by the TIO. A 2015 court case interpreted 'maintain' to include conduct that ensures the proper functioning of a telecommunications facility, including drawing electricity from a premises, subject to the carrier providing appropriate compensation.

Such telecommunications infrastructure must be 'low-impact facilities' with a low visual impact (e.g., antennae, underground cabling and cable pits and public payphones), with additional categories applicable specifically to nbn™. nbn™, in particular, has taken advantage of these low-impact facilities rules to deploy important network infrastructure and equipment potentially outside the scope of local planning laws.

In June 2017, the Government commenced consultation on proposed reforms to the *Telecommunications (Low-impact Facilities) Determination 1997* (**1997 Determination**) to widen the powers and immunities of carriers to deploy, expand and maintain telecommunications infrastructure. In March 2018, the Communications Minister announced that the Government would be proceeding with the implementation of 10 of the 24 proposed reforms to the 1997 Determination, while conducting further consultation on the remaining proposals. The agreed changes include defining omnidirectional radio communications antennas as low-impact facilities in commercial and residential areas, and increasing the maximum size of solar panels in rural areas.

Under section 42 of Schedule 3 of the Telecommunications Act, carriers may be required to pay an amount for any financial loss or damage to the land owner caused by that carrier when entering and inspecting the land, or installing or maintaining a low-impact facility.

Additionally, carriers that install low-impact facilities for mobile phone networks need to comply with the Communication Alliance's Industry Code for Mobile Phone Base Station Deployment.

The powers and immunities above may not apply in some circumstances, in which case, rights of land access and tenure must be negotiated with each individual land owner, subject to state and territory laws.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

It is a standard term in carrier licences that the carrier provides any-to-any connectivity between the carriers' telecommunications network and any interconnected network.

Networks built, upgraded, altered or extended to residential and small business users after 1 January 2011 with a usual download speed of more than 25 megabits per second (i.e., superfast carriage services) are required to operate on an open access, wholesale-only and non-discriminatory basis, and offer a basic connectivity service (layer 2 bitstream) on a wholesale basis. Under the *Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014* (**CLCs**), the Communications Minister declared that all superfast carriage services provided by licensed carriers are subject to these conditions. The requirement was designed to ensure that private operators do not favour profitable metropolitan areas and place the nbn™ model at risk, as NBN Co was established with a wholesale-only, open access mandate. The CLCs were initially scheduled to expire on 30 June 2018. However, after a public consultation process the expiration date was extended to 30 June 2020. The Communications Minister considers that such extension will give the industry greater certainty while long-term regulatory arrangements are finalised. The *Telecommunications Amendment Bill 2018* (Cth), which is currently before the Australian Parliament, includes clauses that extend the CLCs indefinitely.

The ACCC can 'declare' a carriage service or a service that facilitates that carriage service, to promote competition, achieve any-to-any connectivity and encourage economically efficient use of, and investment in, infrastructure. Carriers and CSPs are required to make declared services available on request by access seekers, and to:

- allow interconnection of facilities;
- take all reasonable steps to ensure that service quality and fault handling is equivalent to what the service provider provides to itself; and
- provide billing information to the access seeker.

Types of telecommunications services that have been 'declared' include superfast broadband access services, local bitstream access services, wholesale ADSL and line-sharing services.

There is no general right of access by access seekers or consumers to telecommunications services. The telecommunications service must first be 'declared' by the ACCC, as described above, or have their special access undertaking accepted by the ACCC. Carriers are required to provide access to their passive infrastructure to other carriers on request. Part 20A of the Telecommunications Act also sets out a regime for certain developers to install certain fixed-line facilities and provide access to carriers, to support telecommunications rollout in new developments.

Interconnection or access disputes are resolved as follows:

- the ACCC can set default 'up front' price and non-price terms, and issue interim and final access determinations for each declared service; and
- the Communications Minister can make principles to be applied in determining price-related terms and conditions in 'Ministerial pricing determinations'.

A person can also give the ACCC a special access undertaking (**SAU**) or access agreement (for NBN Co), setting out the terms and conditions of providing access to an access seeker. SAUs are subject to acceptance by the ACCC.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

NBN Co, NBN Tasmania Limited, NBN Co Spectrum Pty Ltd, and any companies over which NBN Co is in a position to exercise control, must publish a standard access agreement or provide an access undertaking to the ACCC for certain services.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

The ACCC can set default 'up front' price terms and issue access determinations. Terms in SAUs prevail over access determinations, and access agreements prevail over access determinations and SAUs to the extent of any inconsistency.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Telstra is subject to a Structural Separation Undertaking (**SSU**) which commenced on 6 March 2012 in relation to its involvement in the deployment of nbn™, under which Telstra undertakes to:

- progressively migrate its fixed-line voice and broadband customers onto the wholesale nbn™; and
- promote equivalence and transparency, and ensure that wholesale customers gain access to key input services during the transition from Telstra's copper and HFC networks to nbn™.

Operators of superfast carriage networks built, upgraded, altered or extended to residential and small business users after 1 January 2011 must offer services on a wholesale-only basis (see question 2.9 above), which imposes structural separation on providers who also offer retail services.

The ACCC can make record keeping rules for accounting separation; however, none are in existence after the revocation of the Telstra Accounting Separation Record Keeping Rules in 2014.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

In addition to existing telecommunications regulation, Parts 7 and 8 of the Telecommunications Act apply specifically to certain superfast carriage networks built, upgraded, altered or extended to residential and small business users after 1 January 2011, requiring such networks to operate on an open access, wholesale-only and non-discriminatory basis (see question 2.9 above). These requirements are extended to all superfast carriage networks in the *Carrier Licence Conditions (Networks Supplying Superfast Carriage Services to Residential Customers) Declaration 2014* made by the Communications Minister, which sets out additional reporting requirements on certain wholesale-only and non-wholesale-only carriers.

NBN Co was established with a wholesale-only, open access mandate (subject to certain exceptions) with the nbn™ Multi-Technology Mix (see question 1.1 above). NBN Co entered into a renegotiated agreement with Telstra to acquire its HFC assets in

2014; however, it recently switched from its plans to use Optus's HFC network in favour of deploying fibre-to-the-distribution point technology.

With regard to passive infrastructure sharing, carriers are required to provide access to their passive infrastructure to other carriers on request under the Facilities Access Code. Part 20A of the Telecommunications Act also sets out a regime for certain developers to install certain fixed-line facilities and provide access to carriers, to support telecommunications rollout in new developments.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

CSPs that offer or provide local calls are obliged to give residential and charity customers the options of untimed local data and voice call services. CSPs must also offer untimed local voice call services to their other customers.

The Communications Minister can make price control determinations for specific carriers. The price control determination for Telstra was repealed in 2015 and is unlikely to be reintroduced.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Registered industry codes maintained by the ACMA set out certain minimum standards and requirements in relation to the advertising of services, billing practice and information, credit management practice, transfer of telecommunications services between providers, the complaint handling process and privacy.

The ACMA also sets out procedures for transferring (porting) telephone numbers between providers and enabling consumers to choose a preferred provider for pre-selectable services.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The ACMA makes the Numbering Plan under the Telecommunications Act, setting out the framework for the numbering of, and use of numbers in connection with the supply of, carriage services in Australia.

2.17 Are there any special rules which govern the use of telephone numbers?

The Numbering Plan sets out rules including:

- the numbers for public and non-public use;
- the specification of and restrictions on use of certain types of numbers;
- the requirement for carriers or carriage service providers to implement number portability; and
- rates chargeable on particular types of numbers.

Industry codes by the Communications Alliance set out additional requirements and procedures that govern the use of telephone numbers.

2.18 Are there any obligations requiring number portability?

Carriage service providers or carriers must ensure that they have the technical capability required to give effect to number portability, and the available technology to do so in a way that provides 'equivalent service' to any ported number and enables end-to-end connectivity. The Numbering Plan and the Communications Alliance codes set out procedures and requirements for number portability.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The ACMA, principally under the RCA and the BSA. The Communications Minister retains some additional powers in relation to the regulation of spectrum planning and spectrum licence allocation.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Authorisation is in accordance with the tripartite licensing regime set out in the RCA, and in a manner consistent with the spectrum plan and any applicable frequency band plans.

The ACMA may issue the following:

a) spectrum licences authorising the use of parts of the spectrum in a particular geographic area by specified licensees;

b) apparatus licences authorising the operation of specified radio-communications devices by specified licensees; and

c) class licences authorising any person to operate specified radio-communications devices, or radio-communications devices for specified purposes.

The ACMA is required to determine in writing the procedures to be applied in allocating licences, but has relative flexibility in the selection of the mechanism. Multi-bid auction processes have typically been favoured as the preferred approach for the issue of spectrum licences and apparatus licences that are used for broadcasting purposes, while other forms of apparatus licence are typically issued over-the-counter in accordance with a pre-determined fee schedule.

This licensing regime is currently the subject of a two-stage review and consultation process. A draft bill to amend spectrum licencing released for consultation in mid-2017 contemplates the consolidation of spectrum and apparatus licences into a single licence class, but still under the regulatory purview of the ACMA. The first round of consultation on the proposed legislation is now complete and the feedback received is being used to inform the second consultation package. The bill will undergo a second round of consultation and review before it is finalised for introduction into the Australian Parliament.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Licence exemptions exist in respect of carrying out specific defence, international relations, emergency services and law enforcement functions and in certain emergency situations.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

No licence fees are payable for class licences.

With respect to spectrum licence fees, the calculation will depend on the method of allocation. For example, the ACMA has set minimum starting prices for the lots of each product on offer in the forthcoming 5G spectrum auction, and licence fees will ultimately reflect the winning bid prices.

In the 2016–17 financial year, commercial radio broadcasters received a licence fee exemption as a one-off relief measure.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

A spectrum licence will be unaffected by a licensee change of control provided that the conditions imposed by the licence continue to be met, and the change of control does not result in a concentration of media control that is unacceptable under the BSA.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Generally, spectrum and apparatus licences are able to be assigned, traded and sub-licensed. However, the ACMA has the power to issue a determination that a particular licence is not transferable, or that a particular licence is not transferable in certain circumstances. For example, the ACMA may restrict the assignment of licences issued for defence purposes, or where a licence was issued for public or community services.

Transfer only takes effect upon registration by the ACMA.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Cybersecurity is regulated by the *Criminal Code Act 1995* (Cth) and the *Crimes Act 1914* (Cth) in conjunction with various state and territory crimes legislation (together, the **Crimes Legislation**). The Crimes Legislation establish certain internet-based offences relating to unlawful access and computer trespass, damaging data and impeding access to computers, theft of data, computer fraud, cyber-stalking and harassment and possession of child pornography. They provide a range of investigatory, search and seizure powers to law enforcement authorities in relation to data and data storage devices.

In addition, the Australian Privacy Principles (Schedule 1 of the *Privacy Act 1988* (Cth)) regulate the collection, holding, use and disclosure of personal information that is included in records for government organisations and private organisations with annual revenue greater than $3 million, and provides penalties for the unauthorised release of personal information (**APP Entities**).

The *Privacy Amendment (Notifiable Data Breaches) Act 2017* (Cth), which came into effect on 22 February 2018, has taken these provisions further with an additional mandatory notification scheme for eligible data breaches. A data breach occurs when personal information held by an organisation is lost or subjected to unauthorised access or disclosure. There is an obligation on APP Entities to make a reasonable and expeditious assessment (up to a maximum of 30 days from the time of being aware that a potential breach has occurred) about whether there has been an eligible data breach. As soon as it is practicable afterwards, the entity must prepare a statement about the breach and provide it to the Office of the Australian Information Commissioner. As soon as is practicable after the statement is prepared, the entity must notify the individuals affected by or at risk as a result of the data breach (or, if both are not practicable, publish a statement on its website and publicise it). Failure to comply with this regime may result in compensation, enforceable undertakings or civil penalties of up to $2.1 million being awarded against the entity.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The key legislation relevant to the ability of the state to access and intercept private communications are the:

- TIA Act, which regulates the interception of and access to telecommunications data held by carriers or carriage service providers (**CSPs**) by the state;
- Telecommunications Act, which requires that carriers and CSPs provide assistance to relevant agencies for the purposes of law enforcement and national security;
- *Surveillance Devices Act 2004* (Cth), which provides for eligible agencies to obtain warrants to install and use surveillance devices, including data surveillance devices;
- *Australian Security Intelligence Organisation Act 1979* (Cth), which provides the Australian Security Intelligence Organisation (**ASIO**) with various powers, including the ability to obtain computer access warrants and surveillance device warrants; and
- Crimes Legislation, which include various search and information-gathering powers for law enforcement officers, including the ability to access data held in a computer or other data storage device.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

The Telecommunications Act requires carriers and CSPs (which include ISPs and VoIP service providers) to ensure that their networks are capable of interception and to prepare annual interception capability plans.

There is an ongoing obligation to disclose to the ACMA any technological changes that would have an adverse material impact on their abilities to fulfil these obligations.

These interception capabilities are mandated with respect to 'communications' – broadly defined to include traditional telephone calls, VoIP calls, and emails as well as various other forms of communications.

4.4 How does the state intercept communications for a particular individual?

In accordance with the TIA Act, if a state authority wishes to intercept communications for a particular individual, it must first obtain a warrant from a court or tribunal. Such warrant must specify the restrictions imposed, such as the time the warrant is in force.

In limited circumstances, such as in emergencies, a warrant is not required. Additionally, there is no obligation for various authorised

agencies to obtain a warrant to compel carriers and ISPs to share certain metadata associated with the communications of a particular individual.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Under the Crimes Legislation, various law enforcement agencies may obtain an order for certain persons to 'provide any information or assistance reasonable and necessary' to enable an officer to access computer data or a digital storage device that is subject to a warrant, and to convert that data into a form that is intelligible.

Such orders can only be made with respect to a person under investigation, an owner of the device, an employee of the owner, a relevant contractor, a person who has used the device, or a systems administrator, and who has relevant knowledge of the device or measures applied to protect the data held by the device.

On 20 September 2018, the Assistance and Access Bill was introduced to the Australian Parliament, shortly after the consultation process on the draft legislation concluded. The legislation seeks to impose an obligation on 'designated service providers' to provide security and enforcement agencies with access to end-to-end encrypted communications. 'Designated service providers' is broadly defined to capture not only carriers, but foreign and domestic device manufacturers, software developers and others involved in the communications supply chain. The legislation proposes three sets of amendments:

- new requirements on service providers to assist security and enforcement agencies;
- new powers for enforcement agencies to search devices and access content secretly; and
- greater powers for enforcement agencies, ASIO and the Australian Border Force to collect data under warrants.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

2015 amendments to the TIA Act require that carriers and ISPs record and store the following information about a communication:

- the subscriber of, and accounts, services, telecommunications devices and other relevant services relating to, the relevant service;
- the source and destination of a communication;
- the date, time and duration of a communication; and
- the type of communication and relevant service used,

for a minimum of two years. Authorised agencies do not require a warrant to access this information.

The TIA Act also establishes a system of preserving certain stored communications held by a carrier. These must be retained for as long as an authority-issued preservation order specifies.

Under the Telecommunications Act, carriers, CSPs and number-database operators are required to retain certain records for a period of three years in connection with certain disclosure obligations.

In August 2018, the ACCC announced a proposal to introduce a new Internet Activity Record Keeping Rule (**Internet RKR**) under section 151BU of the CCA, to facilitate the collection and analysis of internet activity data following the discontinuation of the Australian Bureau of Statistic's Internet Activity Survey (**ABS IAS**). While nbn™ has expressed support for the Internet RKR and argued for its expansion to services supplied over non-nbn™ networks, carriers including Optus and Telstra have expressed concern that it unnecessarily expands the scope of the ABS IAS, overlaps with existing information sources and will lead to increased compliance costs. Submissions to the consultation for this proposal closed on 21 September 2018.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Distribution of audio-visual media is primarily regulated by the broadcasting licensing regime established under the BSA. Among other things, the ACMA is responsible for:

- broadcasting spectrum planning;
- allocating and administering broadcasting licences;
- administering cross-media ownership and control restrictions; and
- overseeing Australian content programming requirements applying to certain broadcasting licensees.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Content regulation varies across the distribution platform, and is typically characterised by industry self-regulation with discretionary oversight powers by a Commonwealth authority.

Broadcast media

Traditional distribution via television is regulated by industry codes of practice under the BSA, the *Australian Broadcasting Corporation Act 1983* (Cth) and the *Special Broadcasting Service Act 1991* (Cth), which provide a range of content, advertising and timing rules and restrictions. Separate industry codes of practice exist in respect of:

- commercial TV networks;
- subscription TV networks; and
- the national broadcasters (the ABC and the SBS).

Compliance with an industry code is voluntary unless the ACMA directs a particular participant in the content industry to comply. Failure to do so then becomes punishable by criminal, civil and administrative penalties.

Online

Online audio-visual distribution is also subject to industry self-regulation. Codes such as the internet and mobile content code, and the content services code, impose obligations on content hosts, ISPs, mobile carriers and content service providers to, among other things, provide certain information to users, establish complaints procedures and restrict access to certain content.

Film, publications and computer games

The *Classification (Publications, Films and Computer Games) Act 1995* (Cth) provides for the review, classification and labelling of films, publications and computer games prior to sale in Australia, but leaves implementation to non-unified state-based legislation.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The BSA makes provision for the following types of licences:

- commercial free-to-air television broadcasting services;

- local and community (not for profit) broadcasting services;
- international broadcasting services delivered from Australia;
- subscription television broadcasting services;
- datacasting services; and
- open and subscription narrow-casting services.

Key obligations vary but will typically involve advertising restrictions, the restriction of certain classifications at particular times and minimum local content quotas.

An important fetter in the Australian media landscape imposed by the BSA has been restrictions on cross-ownership of television, radio and newspaper assets. However, in October 2017, the Government passed the Broadcasting Reform Amendments, amending the BSA to repeal key cross-ownership limitations, including that:

- a person could not control commercial television broadcasting licences reaching more than 75% of the Australian population (**75% reach rule**); and
- a person could not control a commercial television licence, a commercial radio licence and an associated newspaper licence in one commercial radio licence area (**2 out of 3 cross media control rule**).

The following cross-ownership limitations continue to apply:

- a person cannot have control of more than one commercial television broadcasting licence in a licence area;
- a person cannot have control of more than two commercial radio broadcasting licences in a single radio licence area; and
- media acquisitions (commercial television, commercial radio and associated newspapers) that would result in less than five independent media operations in a metropolitan commercial licence area, or four in a regional licence area, are prevented.

The Broadcasting Reform Amendments are likely to enable the consolidation of existing media operators, leading to a greater concentration of media ownership in Australia.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

At the opposite ends of the spectrum, commercial broadcasting and subscription television broadcasting licences are assignable, while international broadcasting licences are not assignable.

Datacasting licences and community broadcasting licences are assignable to certain qualified entities; the latter is only subject to certain conditions and with the approval of the ACMA.

Additionally, the BSA provisions relating to media diversity and ownership may prevent licences from being assigned in some circumstances.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

CSPs that provide carriage services to the public are covered by the safe harbour provisions in the Copyright Act, which define four categories of eligible activities:

- acting as a conduit for internet activities by providing facilities for transmitting, routing or providing connections for copyright material;
- caching through an automatic process;
- storing copyright material on their systems or networks; and
- referring users to an online location.

The High Court of Australia upheld a decision of the Full Federal Court in 2011 that an ISP was not liable for the alleged copyright infringement of its customers, finding that there was not sufficient detail provided on how the infringement was proven to have occurred and, thus, suspension or termination of customer accounts by the ISP was unreasonable.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

The Online Infringement Amendment came into effect in June 2015, with section 115A providing the Federal Court of Australia powers to grant injunctions, by application, requiring carriage service providers to disable access to online locations outside Australia that:

- infringe or facilitate the infringement of copyright; and
- have a primary purpose of infringing or facilitating the infringement of copyright (whether or not in Australia).

The Federal Court granted section 115A injunctions for the first time in late 2016, requiring certain ISPs to block access to a streaming site and four file-sharing sites. A second injunction was granted by the Federal Court to block a peer-to-peer file-sharing site in April 2017.

Section 115A is currently the subject of a review and consultation process in order to examine the effectiveness and efficiency of the mechanism of the Online Infringement Amendment, and how well the application process and injunctions (once granted) work for the parties involved.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

There are no specific laws on net neutrality in Australia. The nature of Australia's user-pay model of broadband has allowed ISPs to throttle certain traffic in order to allocate network resources, based on a consumer's usage of their data cap. As such, there has been no need for ISPs to set up different traffic lanes and differentially charge traffic. However, ISPs are able to effectively charge different types of traffic through zero-rating data usage plans, where certain ISPs have offered consumers access to certain services on a zero-ratings basis.

The ACCC has extensive powers in relation to competition and the protection of consumer interests, and can intervene to ensure there is transparency in the traffic management practices of carriers and carriage service providers.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Carriers and carriage service providers are under no obligation to block access to certain sites or content. However, they will have to comply with a section 115A injunction if it is granted by the Federal Court of Australia (see question 6.2 above).

There is no regulation of consumer usage of VPNs in Australia. It is currently unclear if consumer actions to circumvent geoblocking technology breach the provisions in the Copyright Act on technological protection and access control measures. In the Inquiry report released in December 2016, the Productivity Commission recommended that the Government:

- makes it clear that circumvention of geoblocking technology by consumers is not an infringement of Australia's copyright system; and
- should avoid international obligations that would preclude the circumvention of geoblocking technology.

Major ISPs will be required to block the INTERPOL 'Worst-of' list under current Federal Government Policy in line with the ISPs' statutory obligations in the Telecommunications Act, as it assists law enforcement agencies to enforce criminal law. This power has not been used extensively; however, it has been identified by the Standing Committee on Infrastructure and Communications as a broad and flexible tool.

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Chapter 6

Belgium

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Telecoms, including Internet and audio-visual media distribution, are closely intertwined throughout the Belgian market. Most of its key players are proposing bundled packages and joint offers, creating a convergence between the two sectors.

According to BIPT (the Belgian Institute for Postal Services and Telecommunications), the 2017 turnover for the convergence market amounted to €8.43 billion (+0.4% in comparison to the 2016 turnover). However, BIPT noted that, if taken separately, the electronic telecommunications sector sustained a slight slowdown in terms of turnover in 2017 in comparison to 2016 (-0.3%), whereas audio-visual media distribution showed great performances during the same period (+4.7%).

Furthermore, based on BIPT's last annual report, four companies are dominating the market in those sectors:

- Proximus, the incumbent fixed and mobile operator (formerly Belgacom), currently remains the most prominent actor in the Belgian market, with its market share keeping around 48% of the global turnover generated by the electronic telecommunications and television sectors.
- It is followed by Telenet Group, which comes in second position in the Belgian market, now approximately holding around 30% of the market share. Telenet Group was originally primarily active in Flanders and Brussels, but it is gradually expanding southwards, namely through the acquisition of Base in February 2016, one of the three largest mobile telecoms operators in Belgium; and more recently of SFR Belgium in December 2016, in order to strengthen its position in the Belgian market and to catch up on its principal rival.
- In 2016, Orange Belgium (formerly Mobistar) made a noticeable entrance on the convergence market, thus bringing back some competition into the Belgian telecoms market, which is characterised by abnormally high prices in comparison to other countries. Orange Belgium owns around 15% of the market share of the 2017 global turnover generated by the electronic telecommunications and television sectors.
- Finally, the cable operator trading under the brand "VOO", an economic interest group born from the collaboration between the public cable operators Brutélé and Nethys (formerly Tecteo), is the main provider of cable broadband services in Wallonia and Brussels. It currently accounts for an approximate 5% share of the 2017 turnover generated by the electronic telecommunications and television sectors.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

a) Telecoms sector, including Internet

In Belgium, the competence to regulate the telecoms sector is currently retained by the Federal State.

The primary piece of legislation governing telecommunications in Belgium is the Law of 13 June 2005 on electronic communications (or "E-Communications Act"), which brought forth major changes to the former legal regime on telecommunications encompassed in the Federal Law of 21 March 1991; it reformed some public economic entities and implemented the EU-Telecom package, i.e., the various European Directives dealing with telecommunications. The Law of 12 July 2012 has since then slightly amended the Law of 13 June 2005, introducing several changes in favour of the consumer. The most notable change was that as of 1 October 2012, an operator no longer has the right to demand any compensation for the termination of open-ended contracts or for the early termination of a fixed-term contract, if the contract entered into force at least six months before its termination.

The Law of 21 March 1991 created BIPT. Then, through the enactment of the Law of 17 January 2003, BIPT became a fully independent parastatal with a public interest status, mandated to regulate the electronic communications market and the postal sector. This Act was accompanied that same day by another piece of legislation, dealing with appeals and disputes settlements arising from the former.

This sector is supplemented by Book XII "Law on the electronic economy" of the Economic Law Code of 28 February 2013.

The EU General Data Protection Regulation ("GDPR") came into force on 28 May 2018. It replaces the Data Protection Directive 95/46/EC and is designed to harmonise data privacy laws across Europe, in order to protect and empower all EU citizens' data privacy, to reshape the way organisations across the region approach data privacy. As of 28 May 2018, non-compliant organisations could face heavy fines.

Although the GDPR has been immediately applicable in every Member State since its entry into force, it leaves the said States with room for manoeuvre to clarify the application of certain rules or conditions of application. Belgium therefore recently passed two pieces of legislation addressing the specifications and derogations

to the GDPR. First of all, Belgium passed a new framework law on 30 July 2018 ("Data Privacy Act"), which came into force on 5 September 2018, notably addressing the issues pertaining to the digital age of consent, to genetic, biometric and health data privacy, to the remedies to data privacy breaches and to the criminalisation of the breaches of the data protection rules. This framework law is supplemented by a law from 5 September 2018, which came into force on 10 September 2018 and creates a new public law body, the "Information Security Committee", in accordance with the GDPR, amending various other laws.

The EU also adopted Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016, concerning measures for a high common level of security for network and information systems across the Union ("NIS Directive"). This minimum harmonisation Directive establishes common security and co-operation rules for all EU Member States. Despite a formal warning from the EU Commission on 19 July 2018, Belgium still fails to implement the Directive by transposing it into its domestic law.

Finally, since the beginning of June 2017, Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 – laying down measures concerning open Internet access, and amending both Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union – enforces in Europe, and therefore in Belgium, the abolition of retail roaming surcharges, also referred to as "roam-like-at-home".

b) Audio-visual media distribution sector

Due to the federalisation of the Belgian State in 1971, the federated entities have been awarded the competence to regulate the audio-visual media distribution sector. The Dutch-speaking Community passed the Decree on radio and television broadcasting on 27 March 2009 ("Dutch-speaking Media Decree"). A co-ordinated Decree on audio-visual media services was enacted by the French-speaking Community on 26 March 2009 ("French-speaking Media Decree"). Finally, the Decree of 27 June 2005 on radio and television broadcasting applies in the German-speaking Community ("German-speaking Media Decree").

The only exception concerns the Bilingual Region of Brussels-Capital, where the Federal State retains the decision-making power. Recently, the Law of 5 May 2017 pertaining to audio-visual media services replaced the Law of 30 March 1995.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

a) Telecoms sector

Mr. Alexander de Croo is the Federal Deputy Prime Minister in charge of the telecoms and the digital agenda, while Mr. Philippe De Backer is the Federal Secretary of State in charge of privacy.

BIPT is the telecoms regulator.

On 25 May 2018, the Commission for the Protection of Privacy ("**CPP**") gave way to the new Data Protection Authority. This new supervisory body has been granted extensive powers, including an inspection and sanction mechanism. The Data Protection Authority monitors the processing of personal data and ensures compliance with the GDPR and the new Belgian Data Privacy Act. In particular, it may impose fines on non-compliant companies.

b) Audio-visual media distribution sector

In the Dutch-speaking Community, Mr. Sven Gatz is the Minister in charge of media.

In the French-speaking Community, Mr. Jean-Claude Marcourt is the Vice-Minister-President in charge of the media.

In the German-speaking Community, Mrs. Isabelle Weykmans is the Vice-Minister-President in charge of culture, including the media.

The competent regulators are the Flemish Regulator for the Media ("*Vlaamse Regulator voor de Media*" or "**VRM**") in the Dutch-speaking Community, the Audio-visual Council ("*Conseil Supérieur de l'Audio-visuel*" or "**CSA**") in the French-speaking Community, and the Council for the Media ("*Medienrat*") in the German-speaking Community.

c) In both sectors

Since the Federal State and BIPT are together in charge of telecommunication policies, and the decentralised entities are in charge of the regulation of the media and their content, and since there is an unavoidable convergence between both of them, the Federal State and the three Communities entered into a co-operation agreement on 17 November 2006 ("Co-operation Agreement"); this sets grounds for co-operation between the Federal State and the communities when drafting legislation in the field of electronic telecommunications networks and exchanging information, as well as for broader co-operation between the telecoms and media regulators while exercising their respective powers. From this co-operation between all the regulators was born the Conference of the Regulators of the Electronic Communications Sector ("**CRC**"), which regroups the relevant federal and community regulators (CSA, BIPT, Medienrat, VRM) to make decisions and establish rules pertaining to electronic communication issues (federal competence), with close ties to the media and their content (communities' competence).

The Belgian Competition Authority ("**BCA**") is an independent administrative authority with a legal personality that contributes to the definition and implementation of competition policy in Belgium, by pursuing anticompetitive practices and reviewing the main merger operations (for instance, Telenet Group taking over BASE). On its own initiative or at the request of the complainant, the BCA investigates any case of distorted competition within a market, regardless of the business in question or the public/private status of the operators.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

a) Telecommunications

In Belgium, the liberalisation of the telecoms sector was put into motion with the Law of 21 March 1991, known as the "Belgacom Act", which authorised the foundation of a new kind of State company enjoying a much larger management autonomy. It thus triggered a full reorganisation of the Belgian telecommunications sector. The liberalisation of the telecoms and audio-visual media distribution sectors became fully officialised in 1998.

Nowadays, the incumbent operator Proximus still dominates Belgium's telecoms sector, but competition is growing fiercer by the year among the key players.

Furthermore, most competitors are listed on Euronext and are thus open to foreign investment:

- Proximus is state-owned at 53.5%. It currently owns 4.55% of its share. The rest is composed of fluctuant shareholders, 20% of whom are private individuals, whereas the rest is

mostly shared among institutional shareholders from the USA, followed by the UK, the BENELUX Union and France.

- 56.36% of the Telenet Group is owned by Liberty Global, the telecoms and audio-visual media distribution giant, including 94,827 Liquidation Dispreference shares. 31.52% of the Group is public-owned, including 16 Liquidation Dispreference shares held by Interkabel Vlaanderen CVBA, and 30 golden shares held by the financing intermunicipalities Flemish region and its intermunicipalities. The remainder of Telenet Group's shareholding base is composed of Blackrock Inc. (4.84%), Lucerne Capital Management, L.P. (3.01%), employees (0.64%) and share buy-back (3.63%).
- Orange Belgium mostly belongs to the French Orange Group, which owns 52.91% of its shares through its subsidiary Atlas Services Belgium. The rest is otherwise owned by foreign investors (British, Central Europeans, North Americans).
- VOO is a public-owned cable operator born from a co-operation between Nethys (PubliFin) and Brutélé. As such, it has not been made open to foreign investment.

b) Audio-visual media distribution

In the 1980s, audio-visual media distribution went through a gradual liberalisation of its sector by opening itself to new distributors, and thus putting an end to State monopolies owned by RTBF and VRT, the incumbent audio-visual media distributors in southern and northern Belgium.

However, liberalisation of the sector is still in progress. For instance, the right for foreign distributors to broadcast commercials is still subject to strict authorisations delivered by the competent federated Communities (e.g., the French group TF1 obtained this authorisation in 2017 after approx. 20 years of negotiations).

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Belgium has been a WTO member since 1 January 1995 and a member of GATT since 1 January 1948. It is a Member State of the European Union. All EU Member States are WTO members, as is the EU in its own right.

On 15 April 1997, the European Communities (the former name of the European Union) signed the Fourth Protocol to the General Agreement on Trade in Services ("GATS") dedicated to telecommunications, thus committing to open basic telecommunications markets (telephone, data transmission, telex, telegraph, fax, satellite systems and services) up to international competition. The Protocol came into force in the Member States (Belgium included) on 5 February 1998.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The E-Communications Act of 2005 sets forth the principle of free provision of electronic networks and services in Belgium, as required by the European Authorisation Directive 2002/20/EC. This principle is subject to certain conditions and exceptions (Articles 3 and 4).

One of the most important changes triggered by the EU Telecom Package is that an individual licence or authorisation from BIPT is no longer required to legally provide electronic communications services or networks, except in respect of the allocation of numbers or radio frequencies (see question 2.5 hereinafter). However, operators are still required to officially notify the regulator prior to launching their activities.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

a) Independent regulators

On the one hand, there is BIPT, which is Belgium's parastatal authority with a regulatory power in the electronic communications market, the postal market, the electromagnetic spectrum of radio frequencies and radio and television broadcasting in the Brussels Capital-Region. Within each of these sectors, BIPT has the task to promote competition, to contribute to the development of the internal market and to ensure that consumer interests are protected. BIPT achieved complete independence from the State in March 2015, after the EU Commission pressured Belgium to take the necessary measures against the threats to its regulator's complete autonomy. The Law of 16 March 2015 removes the federal government's right to suspend the regulator's decisions, as well as its power to approve or reject BIPT's multi-annual strategy.

On the other hand, there is the Belgian Competition Authority, which is a fully independent administrative authority that contributes to the definition and implementation of competition policy in Belgium, by pursuing anticompetitive practices and reviewing the main merger operations. The BCA collaborates with the competition authorities of the other Member States of the European Union, and with the European Commission within the framework of the European Competition Network.

The two authorities thus mostly have separate spheres of influence, but their range of actions sometimes overlap. For instance, on the one hand, BIPT plays a role in promoting competition in the telecoms, audio-visual media distribution or postal sectors, but the regulatory power to assess and deal with competition issues (e.g., state aids, merger regulation, and cartels) is retained by the BCA. On the other hand, some disputes between telecoms operators (pertaining to interconnection agreements and leased lines) fall to the BCA, with the support of BIPT, which sends a representative to assist in the investigations.

b) State regulator

The CRC also plays an important regulatory role in the convergent field between telecommunications and the media (*see question 1.3*).

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

a) BIPT

In accordance with the Law of 17 January 2003 on the appeal and settling of lawsuits arising from said Law on the status of the regulator of the Belgian postal and telecommunications sectors, an appeal may be lodged against one of BIPT's decisions before the Brussels Court of Appeal.

BIPT's decisions may only be challenged by an individual or a legal person with a direct interest in the matter, which means that they must have been concerned by BIPT's decision in the first place.

The higher appeal shall be lodged, on penalty of nullity pronounced automatically, by filing a signed request with the court registry of the Brussels Court of Appeal within a period of 60 days starting from the notification of the decision; or in the absence of such notification, from the publication of the decision – or in the absence of such publication, from the inspection of the decision.

b) The CRC

Decisions from the CRC may be challenged in front of the Brussels Court of Appeal following the same process and rules as for the appeal against BIPT's decisions (Co-operation agreement of 17 November 2006, Article 5).

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The provision of electronic communication networks and services no longer requires any authorisation from BIPT. The only remaining requirement concerns the obligation for an operator to send a notification via registered letter to BIPT, prior to the beginning of its activities.

The sole exception to what precedes covers the allocation and exploitation of radio frequencies and numbers, which are subject to the assignment of licences from BIPT.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

An operator must notify BIPT prior to offering any public communication networks or services.

The content of the notification is fully detailed under Article 9, §1 of the E-Communication Act of 2005: identification details; contact person at BIPT; a short but precise description of its services or network; and the date which its activities are likely to begin on.

Notification is made by completing a form displayed on BIPT's website (www.bipt.be). Notification enters into force on the day the notification is sent to BIPT. Filing such a notification is subject to the payment of a fee, the evidence of which must be provided with the relevant form.

The operator must also inform BIPT of any change to the aforementioned information.

However, prior notification to BIPT is not required in the event that:

- The provision of electronic communications services does not occur in the public domain.
- The service provider or reseller provides or resells the service exclusively to a legal person (its client), in which the provider has a majority share.
- The service is provided or resold within the framework of a convention under which the service is made available secondarily, and only by way of assistance.

Apart from the obligation to notify BIPT, the provision of electronic communications services does not in itself require any authorisation or licence from BIPT.

For fixed services, a notice must be filed with BIPT and the above fees must be paid.

The use of numbers and frequencies, on the other hand, is subject to authorisations from BIPT.

For instance, within the scope of mobile telecommunications services, 2G, 3G, 4G (and soon 5G) licences are solely granted after auction, and are subject to a licence fee for the right to use the frequencies.

Authorisation from BIPT and the payment of a licence fee are also required when offering mobile satellite services.

In addition to requiring authorisations from BIPT, the use of numbers and frequencies is subject to annual fees.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

The use of scarce resources (frequencies and numbering) is subject to a right of use (licence) under the E-Communications Act and applicable Royal Decrees. These conditions vary depending on the type of resources and the technology. Please refer to section 3 in relation to frequency allocation, and to questions 2.18 to 2.20 for numbering.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

In Belgium, operators of telecommunications networks are entitled to execute, at their own expense, all works connected to the establishment and maintenance of their network (e.g., cables and additional infrastructures) on or under the squares, roads, streets, paths, waterways and canals that are part of the public domain; on the condition that the operator respects the laws and decrees governing the public domain and the destination of the public domain.

The legal provisions regarding the installation of infrastructure and equipment on public and private land can be found in the Law of 21 March 1991. It is completed by provisions from the Law of 25 June 2005 (E-Communications Act), namely concerning the right to gain and share access to infrastructure and equipment of other operators.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

a) Interconnection

According to Article 52, first paragraph of the E-Communications Act of 13 June 2005, all the operators providing a public electronic communications network must negotiate in good faith interconnection agreements, for the purpose of providing publicly available electronic communications services with every operator applying for it.

If parties do not reach an agreement during the negotiations, BIPT is empowered to intervene, either on its own initiative, or at the request of one of the parties involved, in order to secure the policy objectives, which are the promotion of competition in the provision of electronic communications networks, electronic communications services and associated facilities, the contribution to the development of an internal market in electronic communications networks and services, and promoting the interests of users.

b) Access to the infrastructure

The E-Communications Act specifically deals with the issue of granting access to sites, to infrastructure and to other elements of the network.

Measures have been taken to prevent the construction of more antennas than necessary as a way to protect the environment. Article 26 of the E-Communications Act provides a mandatory consultation of other operators via a Letter of Intention. Before applying for an urban planning permit, each operator has to enquire about the other operator's interests in a common usage of a site. If there is a possibility of the shared use of a site, the operators will negotiate a reasonable, proportional and non-discriminatory agreement. The operator which owns the site may not deny shared access to the site for reasons which would be deemed unreasonable and discriminatory by BIPT. In the event of a disagreement, BIPT can review the whole negotiation and issue an opinion based on the reasonableness, the proportionality and the non-discriminatory character of the aforementioned agreement.

When these aspects of the negotiation are not complied with, BIPT has the authority to force the owner to grant shared access to the site, so long as the principle of proportionality is respected.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

If, pursuant to the E-Communications Act, the relevant market does not show sufficient signs of efficient competition among its actors, BIPT identifies all operators enjoying a dominant position in that market and submits them to specific obligations deemed appropriate to restore the balance (remedies).

Thus, BIPT forces those significant powers on the market to publish clear and understandable reference offers, with a description of the commercial and operational terms, including their access and interconnection tariffs. This information must be freely displayed on the Internet, whereas the contracts based on these offers remain confidential.

For instance, it has been assessed that Proximus still assumes a dominant position in many a sector related to electronic communications. As such, it is obligated to publish a reference offer and performance indicators and to clarify its cost-accounting system.

In 2018, BIPT was consulted by the federal government in 2018 in order to assess the impact of a potential fourth mobile network operator's entry on the market, the goal of the government being ultimately to foster competition and the welfare of consumers in the mobile phone market.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

The telecommunications and audio-visual media distribution sectors are still seen as lacking efficient competition, and as such must remain subject in Belgium to *ex ante* regulation. Notably, key price controls and transparency, non-discriminatory access and accounting obligations still exist in a number of markets.

For instance, in the framework of the decision of 26 May 2017, BIPT examined the market for call termination on individual mobile networks. Eight operators (Join Experience, Lycamobile, Orange Belgium, Proximus, Telenet, Telenet Group, Vectone Mobile and Voxbone) were presented as companies with significant market power. The main obligation imposed was to reduce the mobile termination rate.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

The E-Communications Act provides for an accounting separation obligation. It consists of having accounts in which operations are grouped per relevant market in which a company has significant market power. It is a powerful tool to verify whether the company meets its obligations regarding non-discrimination, and to detect possible illegal cross-subsidies. Each year these accounts are verified and approved by BIPT. The legal separation is not addressed, however, in the Act, and the functional separation requires an intervention of the European Commission.

In practice, in most cases where BIPT has identified Proximus as an SMP, it has been required to operate an accounting separation as a way to implement its obligation of transparency and non-discrimination between internal charges.

In July 2017, after having analysed the market analysis issued by the Belgian regulators in July 2017, the Consumer Protection Association "*Test-Achat*" stated that, since telecoms tariffs are rising faster than the cost of living, regulation is highly needed, and, as such, it suggests installing a functional separation of the market with the network management activities on the one hand, and the supply of services on the other hand.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

In an attempt to manage competition in the wholesale broadband and TV market, the CRC (Conference of Regulators of the electronic communications sector, gathering the VRM, the CSA, the Medienrat and BIPT) has called for the opening up of networks further to also include fixed telephony, and make the incumbent Proximus provide wholesale access to its FTTH network.

The dominant operators in the market such as Proximus, Telenet, and VOO must now offer access to their networks to alternative operators. BIPT has proposed terms such as: non-discrimination; transparency; and a new pricing model for wholesale access that will still mean operators will face a cost-orientation obligation, but cable and fibre networks could only charge fair prices a margin higher than costs, all in order to stimulate investment.

With this change, the CRC is also imposing a geographical application of the regulation. In areas where there are three or more operators offering speeds of more than 30 Mbps, there will be a lighter touch of this regulation applied. The areas will be defined by the regulator taking into account co-investment by various operators. Also, areas with reduced access to high-speed services will experience reduced regulation in order to stimulate growth in rural areas.

The CRC is also suggesting the requirement of wholesale access to EuroPacketCable, which follows the implementation of wholesale access to cable networks in the decision on broadband made in 2011.

The CRC then determined the tariffs cable operators could bill to alternative operators:

- Start-up contributions (intended to cover implementation costs incurred by cable operators).
- Line tariffs (owed every time a client leaves a cable operator for an alternative operator).
- A "minus" (of 20 to 30% according to the situation) applicable on retail tariffs of every cable operator. Such a

"minus" determines what the alternative operator has to pay on a monthly basis to a cable operator in order to resell its television and broadband offers. The principle of the "retail minus" methodology consists of establishing the price of a wholesale service by reducing the retail service price by a percentage corresponding to certain irrelevant elements.

Recently, the European Commission commented on the CRC's new proposals on how to regulate the Belgian broadband and broadcasting markets. The European regulator assessed the competitive conditions on the retail broadband and broadcasting markets. It found that the market shares are distributed among a limited number of operators and that prices are above competitive levels. It therefore concludes that it is necessary to impose wholesale regulation on the main operators active in the market – Proximus, and the regional cable operators Telenet, Nethys and Brutélé (the two latter operate at retail level under the VOO brand) – to tackle these competition problems. In its decision of 29 June 2018, following the EU Commission's comments, the CRC has issued a variety of measures aimed at ensuring more competition in the broadband and broadcasting markets. As Proximus, Telenet, Brutélé and Nethys continue to have significant market power in the wholesale market, the CRC notably ordered all their networks (the new fibre networks from Proximus included) to remain open to all third parties requesting access. The CRC decision should reduce wholesale prices, in some cases by as much as 20%, starting from August 2018.

There are no "regulatory holidays" as such proposed to build fibre access networks in Belgium. However, the E-Communications Act provides that BIPT must allow a reasonable return on investment in order to encourage operators to invest in new-generation networks.

More generally, as mentioned under question 2.9 b), the sharing of passive infrastructure (such as ducts or poles) is addressed in the E-Communications Act, with some basic requirements ensuring efficiency.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

In a number of circumstances (when a retail market is not competitive and the regulation of the corresponding wholesale services is not sufficient), BIPT can impose measures such as the prohibition to charge excessive prices, and other practices such as wrongfully favouring certain users or unreasonably grouping services.

BIPT does not currently impose retail prices on operators. Roaming surcharges used to exist on the retail prices applied by operators on end-users using their phone/internet package abroad. However, the EU decided to gradually reduce these surcharges on roaming by setting retail price caps applicable on calls, SMS messages and, lastly, data roaming. Finally, since 15 June 2017, the EU has implemented the "roam-like-at-home" mechanism, therefore ending roaming surcharges for all people travelling within the EU.

Nevertheless, in its draft decision regarding the analysis of the broadband and television broadcasting markets from 10 July 2017, BIPT states that said markets show high barriers to entry, that there are high concentrations within them, and, as such, that the evolution of the retail price in these markets appears quite unfavourable to the consumer. Therefore, BIPT concluded that retail price controls should be set in order to restore a competitive balance and to increase the consumer's satisfaction in these sectors.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

a) Universal service

According to the E-Communication Act, the provision of electronic communication is subject to universal service. The services provided under universal service are:

- the fixed geographic element of universal service, which consists of the provision to any individual asking for it, independently from its geographical location, of a basic public phone service and of a connection to a public communication network to give and receive phone calls, to transfer data, and to have access to the Internet;
- the social element of universal service, which consists of the provision of access to electronic communications to consumers at particular pricing conditions;
- the provision of public phones;
- universal service of directory enquiries; and
- access to the universal phone directory over the whole national territory.

b) Protection of consumers

The provision of electronic communications is also subject to specific rules aimed at protecting consumers as final users.

Generally, prior to entering a contract with any operator, consumers must receive complete information on the operator's identity and address, its financial terms (pricing, invoicing and termination costs), the main characteristics of its services, its way to handle data privacy, as well as the terms and conditions to waive the contract, the duration of the contract, the dispute settlement conditions and how to deal with security breaches.

Furthermore, consumers are generally entitled to free information on operators' tariffs plans in order to compare them and to choose the most profitable one.

Furthermore, after the new Telecommunication Act of 10 July 2012, consumers now have the right to terminate and switch from contracts (Internet, television or a bundled offer including at least one of these services). Via the "Easy Switch" procedure, consumers may terminate fixed-term contracts (maximum 24-month contracts) free of charge after six months, and permanent contracts at any time.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Development and management of the national numbering plan is in the hands of national organisations (in Belgium, this is BIPT). BIPT must ensure that equal access to an adequate number series is created for each operator, both quantitatively and qualitatively.

Numbers are allocated by BIPT in a transparent and non-discriminatory way. (*See Royal Decree of 27 April 2007 on management of the numbering space.*)

2.17 Are there any special rules, which govern the use of telephone numbers?

In its fight against terror, Belgium decided, in December 2016, to modify Article 127 of the E-Communications Act in order to put

a ban on anonymous prepaid mobile phone SIM cards by 7 June 2017. By that time, about 400,000 unregistered SIM cards and their adjoined numbers were deactivated.

Furthermore, the Royal Decree of 27 April 2007 on management of the numbering space contains rules regarding the numbering plan for national short (three-digit) numbers. These numbers are reserved for emergency services, the Belgian Red Cross and so on.

2.18 Are there any obligations requiring number portability?

The Royal Decree of 2 July 2013 on number portability for electronic communications service subscribers sets number portability as a free, fundamental feature of the telecommunications policy.

Hence, end-users may keep their numbers while changing to a different operator. Geographic numbers, on the other hand, may only be transferred from one operator to another under the condition that the change occurs within the same geographical zone.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

By virtue of Article 13 of the Act of 13 June 2005 on electronic communications, BIPT is in charge of managing radio frequency spectrum, examining requests for use of radio frequency spectrum, with the exception of requests destined for radio and television broadcasting, co-ordinating the radio frequencies, both on national and international levels, and monitoring the use of spectrum.

The three Communities (Flemish, French and German-speaking) are responsible for the examination of the requests for radio frequency spectrum use destined for radio and television broadcasting.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

BIPT ensures that spectrum is allocated to candidates based on objective, transparent, non-discriminatory and proportionate criteria.

The BIPT licensing department grants the licences that are required in accordance with Article 39 of the Act of 13 June 2005 for the use of private radio networks and individual radio stations.

The conditions for obtaining and carrying out the access rights to radio frequencies partially or fully used to relay electronic communications services to the public are set in the Royal Decree of 18 December 2009 on private radio communications and user rights for fixed networks and trunked networks.

The department reviews the applications for authorisations to have and to use a private radio communications station, or to set up and run a private radio electrical network. It allocates the frequencies based on necessity, availability and on a "first-come, first-served basis".

The allocation of spectrum varies based on the frequency. The auction process is commonly used for the allocation of frequencies to mobile telephony.

The Communities handle the allocation of individual authorisations to use radio frequencies, whereas the Federal State retains the power to allocate frequencies attributed to other services.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Pursuant to Article 39 of the E-Communications Act, no individual or company may hold, install or run a transmitting or receiving radio transmitting device without prior written authorisation from BIPT. This authorisation is personal and may be revoked by BIPT.

There are, however, some exceptions to this rule. Licence-exempted situations are listed under Appendix 2 of the Royal Decree of 18 December 2009 on private radio communications and user rights for fixed networks and trunked networks.

Finally, authorisations are not required for radio communications stations installed and run by military and public safety services directly from the Justice Department, NATO or the Allied forces.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

According to Article 43 of the E-Communication Act, the use of a radio frequency program is subject to a fee owed to BIPT in order to cover the costs of controlling the terms and conditions imposed on the operators, as well as making frequencies available to them and giving them the right to use these frequencies.

Licensed radio stations and networks are divided into six categories, in accordance with their destination and the manner in which they operate. The amount charged, therefore, varies based on the category in which the particular use of the radio spectrum has been logged. Appendix 1 of the Royal Decree of 18 December 2009, on private radio communications and user rights for fixed networks and trunked networks, defines the amount owed for each category.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

According to Belgian law, spectrum licences are personal and as such non-transferable. BIPT must be notified at least a month in advance should a major change occur in the shareholding base and therefore in the control of the licensee. Accordingly, BIPT must inform the Minister who decides whether the conditions under which the licence has been issued are seriously compromised by the change of control. If so, the Minister may propose to revoke the licence. In addition to this, Royal Decrees may, if need be, set specific rules regulating this matter.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

In principle, spectrum licences are personally assigned and therefore non-transferable. However, when an operator wishes to transfer or rent out its licence, it must, as a priority, inform BIPT about it. BIPT may then authorise the transfer or renting out, as long as it respects the requirements set forth for guaranteeing an efficient and successful management of the radio frequency spectrum.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

As a member of the Council of Europe, Belgium entered into the Council's Convention on Cybercrime of 23 November 2001.

Belgium implemented the Convention's requirements through the amendment of the Act of 28 November 2000 on Cybercrime, which introduced cybercrime into the Belgian Criminal Code, and more specifically the provisions punishing the illegal interception (Article 259*bis*) and unauthorised release (Article 314*bis*) of confidential data and communication, computer fraud (Article 504*quater*) or the hacking of computer systems (Article 550*bis* and the following).

With the Act of 15 May 2006, Belgium also implemented the requirements of the Additional Protocol to the Convention on Cybercrime of 28 January 2003, concerning the criminalisation of acts of a racist and xenophobic nature committed through computer systems.

The government also adopted a grand Cyber Security Strategy in 2012. However, the scope and implementation of its framework remain somewhat limited.

Nevertheless, Belgium does have an established computer emergency response team, CERT.be, and a well-developed cybersecurity incident-reporting structure. Belgium has also decided to create a new Cybersecurity Centre (Royal Decrees 10 October 2014).

The Belgian Cyber Security Coalition, a partnership between players from the academic world, the public authorities and the private sector (i.e., from financial institutions, universities, consultancy companies, professional organisations and government bodies), was established in October 2014, and has since then become a player to be reckoned with in the field of cybersecurity.

As stated in the response to question 1.2, Belgium is still due to transpose the Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016, concerning measures for a high common level of security for network and information systems across the Union (NIS Directive) into national law.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The main legislative framework for intelligence gathering in Belgium is the Law of 30 November 1998, organising the Intelligence and Security Services. Article 18/17 of this Law provides that intelligence services may "listen to, gain knowledge of, and record communications" in order to fulfil their missions.

The Belgian Code of Criminal Investigations (Article 90*ter*) allows investigative judges to "listen to, gain knowledge of, and record" private communications when warranted by certain legally defined circumstances.

Electronic telecommunications providers must make accessible to judicial authorities, upon their simple request and without delay, data for the instruction of and investigation for judiciary, security and intelligence purposes (Article 126, section 2, Electronic Communications Act). The new Article 126 of the Electronic Communications Act adds the emergency services and Ombudsman for Telecommunications to the list of competent authorities that are entitled to request access to newly defined categories of communications data. The data that can be requested from operators includes:

- Traffic data.
- Location data.
- End-user identification data.
- Service and terminal equipment data.

4.3 Summarise the rules, which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

The E-Communications Act requires that network operators, as well as end-users, are capable of allowing the authorities to "listen to, gain knowledge of, and record" communications.

The Royal Decree of 12 October 2010 requires electronic communications service providers alongside network operators to have, at all times, the technical ability to provide clear and readable (decoded, decompressed, and decrypted) copies of communications requested by Belgian intelligence services.

The Royal Decree of 9 January 2003 governing the co-operation of electronic communications providers with judicial authorities, amended in 2011, requires electronic communications service providers and network operators to have the technical ability to provide clear and readable copies of communications requested by Belgian judicial authorities.

The aforementioned pieces of legislation apply to all providers and operators of communication services and networks related to any kind of phone communications, Internet access, emails, and public communications networks.

4.4 How does the state intercept communications for a particular individual?

a) Intelligence services

An intelligence service must obtain prior authorisation from a special independent commission before secretly accessing, listening to, or recording private communications. When an intelligence service has obtained the required authorisation to conduct this kind of surveillance on an electronic communications network, it can serve a written demand to the network operator or the service provider, upon which the network operator or service provider is required to give technical assistance to the intelligence service.

b) Judicial investigations

An investigative judge must authorise the communication interception operation by a reasoned ordinance, which must be sent to the Royal Prosecutor. An investigative judge may order anyone who has a particular knowledge of the communication service or, if the communication is protected or encrypted, of the protection and encryption service, to help access the communication in a readable format.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

The E-Communications Act grants a freedom of encryption. However, service providers and network operators may not use or make available any form of encryption that would make the content completely unreadable by the authorities.

Under the Belgian Code of Criminal Investigations Article 88, §4, an investigative judge or police officer is allowed to order a person to decrypt encrypted data where he knows how to do so. Failure to comply is punishable by imprisonment of between six months to one year and/or a fine.

4.6 What data are telecoms or Internet infrastructure operators obliged to retain and for how long?

The matter of the retention of data by operators is covered by Articles 126 and 145 of the Act of 13 June 2005 on electronic communications and by the Royal Decree of 19 September 2013 implementing Article 126. These texts ensure the complete transposition into Belgian law of the European Directive 2006/24/EC called the "Data Retention Directive".

Operators providing public networks of electronic communications, as well as operators providing electronic communications services, must retain the following certain data for a duration of 12 months, on pain of legal penalty:

- data which allows the user or the subscriber to be identified, as well as the means of communication;
- data pertaining to the access and connection of the terminal equipment to the network and to the service as well as to the localisation of that equipment, including the termination point of the network; and
- communication data, content excluded, but origin and destination included.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

See question 1.2 b).

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Content regulation for content broadcast via traditional distribution platforms is far stronger than content regulation over the Internet.

The different Belgian regulators have the authority and power to regulate the content broadcast via traditional distribution platforms, and in particular to impose a ban on audio-visual media services, which pose a serious threat to public order (i.e., content infringing regulation on the protection of minors, of human dignity or against racism, xenophobia and discrimination), to public health protection, to public safety and to consumers' protection.

The content broadcast on the Internet, however, is far harder to control, since the content is not necessarily broadcast from the Belgian territory. Therefore, the only option is to get a court order sentencing Internet operators or web-hosting providers to block access to illegal content.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

In Flanders, terrestrial radio broadcasters need to obtain a licence in order to broadcast (Article 134 of the Dutch-speaking Media Decree). If radio broadcasters only transmit via cable or Internet, they simply need to make a declaration to the regulator VRM (Article 147). Television broadcasters need to obtain a licence only if they broadcast regional television (Article 166); for all other types of television broadcasting, broadcasters are only required to make a declaration to the VRM (Article 161).

In the French-speaking Community of Belgium, editors of terrestrial radio services need to obtain a licence, which entitles them to broadcast using a designated frequency. It is the government that designs the allocation scheme and opens calls for applications. Operators that provide radio services transmitted by other means (cable or Internet) are only required to make a declaration to the regulator CSA. This is also the case for editors of television services that intend to broadcast in the French Community.

In the Bilingual Region of Brussels-Capital, the audio-visual service distributors must send a formal notification, similar to the one required in telecoms matters, to BIPT.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

a) Dutch-speaking Community

A broadcasting licence is personal and can only be transferred to a third party with written approval from the VRM.

b) French-speaking Community

Radio broadcasting licences are non-transferable. However, the CSA may allow the exchange of radio frequencies under certain circumstances. Any change in the control of the licensee must be communicated to the CSA within a month of the change.

c) Bilingual Region of Brussels-Capital

No broadcasting licence is required to specifically broadcast in Brussels.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

National courts have tried to impose an obligation of direct supervision on the hosting providers. However, the European Court of Justice gave a clear answer in favour of the Internet providers in two cases (*Sabam c/. Tiscali*, C-70/10, 24 November 2011; *Netlog/Sabam*, C-360/10, 16 February 2012) initially brought in front of the Brussels courts. It confirmed that national courts could not impose a general obligation of direct supervision on hosting providers, namely by forcing them to set up at their own cost and without any time limit, a general filtering service preventively targeting all users without infringing the E-Commerce Directive and the freedom to trade.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

There are currently no regulations compelling telecommunications operators and/or Internet service providers to assist content owners whose rights may be infringed by means of file sharing or other activities. The only way to force them to act on these infringements is to compel them with a court sentence.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Since 30 April 2016, a European Regulation (Regulation (EU) 2015/2120) has been protecting net neutrality in Europe. No connection may be discriminatorily blocked. The Regulation precisely specifies consumer rights in terms of Internet speed and service quality, imposing obligations on service providers. The only authorised exceptions concern the fight against illegal websites broadcasting xenophobic or heinous content.

The Regulation also provides the consumer with more transparency concerning traffic management, and accuracy concerning the actual speed of the Internet provided.

In the event that Internet providers do not respect net neutrality, BIPT plays the role of a police agent of the Internet and has the right to inflict fines on wrongdoers.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

There are no specific rules dealing with blocking websites in Belgian law. However, this question is under some debate.

In 2011, the Court of Appeal of Antwerp ordered a certain number of Internet providers to block a certain number of domain names belonging to "Pirate Bay", in retaliation to the infringement of intellectual property rights.

Within the frame of the judicial inquiry that followed, all Belgian Internet providers were then ordered by a judge to block access to the main domain name "thepiratebay.org", as well as to all related domain names. That judge order was eventually confirmed by the Belgian Court of Cassation on 22 October 2013.

Finally, there are currently no regulations or blockage on consumer VPN services in Belgium.

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Cairn Legal is one of Belgian's leading independent business law firms. Established in Brussels, we advise Belgian and international companies on the legal aspects of transactions, projects and disputes. Our lawyers are multilingual, combine local and international experience and focus on thinking creatively with clients to offer tailor-made solutions.

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Our Technology, Media & Telecommunications practice covers all aspects of information and communication technologies, including data protection. The team provides guidance on complex transactions and projects in relation to IT (including software licensing, development, implementation, integration and maintenance), outsourcing (including cloud computing), and e-business projects as well as data protection work (including GDPR implementation projects, compliance due diligence, dealings with regulators and big data projects). We also advise numerous start-ups in various areas (blockchain, sharing economy, FinTech, cybersecurity, etc.).

Chapter 7

Brazil

Focaccia, Amaral, Pellon & Lamônica Advogados

Rafael Pellon

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The telecom industry in Brazil has been one of the most important economic sectors of the country since its privatisation in 1997, becoming a strategic driver of development. Its annual revenue tops R$330 billion per year (US$84.43 billion), with estimates for 2018 of R$340 billion (US$90 billion), considering mobile, fixed and long-distance telecom services, broadband internet services and audio-visual media distribution services.

In the 20 years since privatisation, four main groups have thrived in the country: Telefonica Group; America Móvil; Telecom Italia; and Oi Telecom. Only Oi Telecom is originally from Brazil, with Telefonica Group being a Spanish conglomerate, America Móvil being Mexican and Telecom Italia being Spanish and Italian. These groups generate around 87% of the total revenue of telecom and audio-visual media distribution services in Brazil.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

Brazil approved its new regulatory framework in 1997, two years after the start of the commercial offering of internet access in the country. Since then, the country set up landmark regulations for telecom, internet and audio-visual media distribution services, as they were beginning to mature into the industry of today.

The following regulations apply to telecommunication industries in Brazil:

1. Norm 04/1995 – Commercial Internet Act, which allowed the private access of individuals and companies to the internet within the country;
2. Law 9279/1996 – Intellectual Property Law, which established legal rights for immaterial property, patents, trademarks and inventions in Brazil, adapting its norms to international standards;
3. Law 9472/1997 – General Telecommunications Law, which established the grounds for the privatisation of the industry in Brazil and created ANATEL, the Brazilian Telecom Regulation Body;
4. Law 9609/1998 – Software Licensing Law, which established the grounds for software licensing and the rights of its authors;
5. Law 9610/1998 – Copyrights Law, which reformed author's rights in Brazil and set up new regulations and legal measures to protect intellectual creations;
6. ANATEL Resolution 477/2007 – SMP (Mobile Personal Service), which established the rules for mobile telecom services in the country, opening the path for mobile internet services and mobile broadband access;
7. Law 12.485/2011 – SeAC, which reformed the legal framework for audio-visual media distribution services in Brazil, established quotas for national content, and balanced the commercial relationship between content providers, TV networks and cable TV operators;
8. ANATEL Resolution 614/2013 – SCM (Multimedia Communi-cations Service), which reformed and established broadband internet access as a telecommunications service, updating the regulation and duties of internet broadband providers within the country;
9. Law 12.965/2014 – Internet Civil Rights Law, which established the basic civil rights of internet users in Brazil, net neutrality rules, the limitation of liability of internet application companies and internet platforms, besides users' basic privacy rights in their relationship with online companies; and
10. Law 13.709/2018 – General Data Privacy Law, which updates the Internet Civil Rights Law and establishes the framework for the collection, management and treatment of personal data in Brazil. This Law is currently on *vacation legis* and will be fully effective in February 2020.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The telecommunication industry in Brazil is heavily regulated, with three (3) main regulatory bodies overseeing the sector:

1. the Ministry of Communications, responsible for the set-up of public policies and the development of telecommunication services in the country;
2. ANATEL – Brazilian Telecom Regulatory Body, responsible for the implementation of Government policies, fixed and mobile telecommunication services, including long-distance telecommunication services, cable TV and broadcast TV services (in technical matters, frequencies and coverage areas), radio and public radio services, and broadband internet services, among other duties; and
3. ANCINE – Brazilian Cinema Regulatory Body, originally responsible solely for the advancement of cinema and audio-visual media policies set up by the Ministry of

Communications, but with many more duties since 2011, when the SeAC Law expanded its role so that it became a Government regulatory body for content distribution on cable and broadcast TV, responsible for the management of audio-visual content in Brazil as well as the management of stimulation programs to boost the national production of audio-visual content.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Telecommunication services in general do not have any restrictions nowadays for foreign investment, and are free to receive investment from all over the world.

Broadcasting services, on the contrary, are the sole restricted services for foreign investment or ownership, with a thirty percent (30%) limitation on foreign ownership of radio, TV, cable TV or printed media, as per Law 10.610/2002. Such Law does not restrict the foreign ownership of internet companies that perform similar services in Brazil in video on-demand, electronic or online media. Brazilian lawmakers are currently in initial discussions to either update such Law for all kinds of media companies that could be considered as delivering broadcasting services, even if through online methods, or to upend the Law and its limitations entirely.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Brazil has been member of the World Trade Organisation since 1995, and a member of GATT since 1948. Since 1997, Brazil has adopted specific commitments for Telecommunication Services as per Supplement #2 of GATS/SC/13 (available at https://bit.ly/2ycwzmb).

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The provision of telecommunication services is provided under the specifications of Law 9472/1997 and the regulatory policies enacted by ANATEL, the Brazilian Telecom Regulatory Body, which establishes the framework for the use of telecommunication networks in the country.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The telecom regulatory body is ANATEL, the competition authority is CADE – Administrative Council of Economic Defence, and the audio-visual media regulatory body is ANCINE – National Agency of Cinema. All of them are independent from the Government, with their counsellors elected for different terms than those of Government officials, being duly approved by the Senate.

In any operation that requires the regulatory approval of ANATEL, ANCINE or CADE, the roles of those regulatory bodies are differentiated.

ANATEL's main responsibility is the maintenance of fully operational networks without any harm to civil society.

ANCINE's tasks, on the other hand, are ensuring compliance with regulatory policies related to audio-visual content distribution, the preservation of content quotas, the observation of the 30% foreign ownership cap for broadcasting and newspaper companies and the prohibition on cross-ownership amongst network operators and content providers.

CADE, by its side, evaluates any potential economic damages to competition in the telecommunication environment in the country, analysing any potential changes of operational control in telecommunication companies and avoiding any unlawful concentration of market share or telecommunication networks in a small number of companies.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

All decisions taken on an administrative level are subject to an appeal to the counsellors of the regulatory agencies. Any final administrative decision can also be subject to judicial review and can be challenged in a court of law. It is not uncommon that during an administrative procedure, the parties in an investigation recur to the Judiciary to demand the fulfilment of their rights under the law.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The provision of telecommunication services is subject to ANATEL's authorisation. Such authorisation may be subject to a prior public bid, in the cases of mobile telecom services or satellite services, or just subject to the payment of the correspondent public fees, in the case of cable TV, fixed telecom services or internet broadband services.

All services depend on the prior authorisation of ANATEL in order to begin operating. For such authorisation to be issued, ANATEL requires information about the legal structure and ownership of companies, technical information on the services and networks to be developed and the proposed coverage of any networks.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

All authorisations depend on the presentation to ANATEL of the following:

a) information on the legal structure of companies willing to develop telecom services within the country. All telecommunication companies must be incorporated in Brazil to develop telecom services within the country;

b) technical information on the networks to be developed;

c) technical team responsible for the development and management of the networks;

d) proof of payment of the correspondent fees for each type of telecommunication service to be developed;

e) proof of technical compliance with the prior certification at the Engineers Council (CREA);

f) presentation of tax certificates before the Brazilian State and Federal Governments; and

g) payment of the monthly taxes related to telecommunication services in Brazil, that go to FUST (universalisation fund), Funtell (R&D fund), Fistel (regulatory compliancy fund) and ICMS (State taxes over telecom services).

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Satellite, mobile and fixed telecommunication licences have a 15-year term that can be extended for another 15 years, totalling 30 years of licensing.

The licences for broadband internet, cable TV, broadcast TV or radio do not have a specific term, being valid while their requirements are fulfilled within the Government.

Other licences for telecommunication services that require the exclusive use of radio frequencies are subject to specific terms, usually of 15 years, under the provisions of ANATEL.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Telecom providers may request the right of passage through public or private land in order to install their infrastructure, but private proprietors may request the payment of fees for such use. ANATEL works to ensure the passage of cables and the installation of antennas by engaging with public and private land owners and mediating the usage of land.

In the case of usage of poles from energy companies, public- or private-owned, ANATEL works with ANEEL (the energy regulatory body) to set up fixed fees for the right of use for telecom providers.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

ANATEL issued Resolution 588/2012 for the regulation of interconnection amongst telecom providers in Brazil. Its main premises are:

a) all telecom providers of telephony services, fixed, satellite or mobile, are obligated to interconnect their services with other telecom companies that require access and connection to their networks;

b) the maximum fees set up amongst telecom providers are set up by ANATEL and reviewed annually;

c) ANATEL defines which telecom providers might have a significant market share and mandate that such providers connect with smaller networks;

d) since 2014, no interconnection fees are needed amongst telecom providers for local transit of telephony calls; and

e) it is forbidden to concede discounts by volume from one telecom provider to the other, unless such discounts are isonomic and available to all telecom providers.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

All telecom providers listed as having a significant market share must share their interconnection prices annually or in their service plans for telecommunication users. ANATEL might also publish any other information on interconnection pricing as it considers necessary.

Currently, as the telecom industry matures, telecommunication service plans are not billing specific fees for interconnection amongst telecom networks; as a result, many telecommunication providers have zeroed their fees on such services.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Yes, ANATEL issued Resolution 588/2012 with the premise for setting maximum fees on telecommunication interconnection services, and has the right to set up maximum fees annually on them.

The maximum pricing on the wholesale of leased lines is regulated by Resolution 639/2014, based on economic principles and historic costs for the installation and maintenance of such infrastructure.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Satellite, mobile and fixed telecom services must have their own legal structure with separate accounting for each of them, but no functional separation is required for those services, which are currently managed under shared employment structures.

Cable TV and broadband internet do not require a separated legal structure to be provided, so the providers of such services share their accounting, legal and functional layouts.

The providers of broadcast services on radio and TV end up setting a specific legal and accounting structure for them, given the limitation on foreign ownership for such services.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Currently, there are no specific provisions mandating specific rules for internet broadband networks, aside the regulation of wholesale leased lines as per Resolution 639/2014 from ANATEL. Brazil's approach is that companies should compete to provide coverage and reach for its networks, and are free to negotiate sharing agreements of infrastructure among themselves and public entities.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Satellite, mobile and fixed telecommunication services are subject to maximum pricing by ANATEL, reviewed annually. All other telecommunication services are not.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Electronic communication services such as broadband internet access are considered as value-added services (VAS) in Brazil, and are not subject to ANATEL's regulation under article 61 of the General Telecommunications Law. ANATEL has had the right to regulate the infrastructure of broadband internet since 2013 under the licence for Multimedia Communication Services (in Portuguese, SCM), establishing policies to ensure minimum speeds for broadband access and monitoring the quality of services.

Since the current regulation does not require any electronic communication providers that have under fifty thousand (50,000) users to report or require a SCM licence to ANATEL, its knowledge of the ecosystem of users and internet providers is bleak.

Such services are also not deemed as public services, but as private ones. Under such framework, there are no provisions for the universalisation of these services.

Given ANATEL's inability to regulate electronic communication services, since 1995, lawmakers have issued laws establishing rights for internet and online services. The most important ones are:

a) the Consumer Defence Code of 1990 (Law 8078/90), which establishes provisions for the marketing of services, the mandatory value of publicity offers and rules for the subscription of services online, establishing the "right of regret" up to seven (7) days after a purchase is made;

b) the Internet Civil Rights Law (Law 12.965/2014), which establishes the basic civil rights of internet users in Brazil, net neutrality rules, the limitation of liability of internet application companies and internet platforms, as well as users' basic privacy rights on their relationship with online companies; and

c) the General Data Privacy Law (Law 13.709/2018) which updates the Internet Civil Rights Law and establishes the framework for the collection, management and treatment of personal data in Brazil. This Law is currently on *vacation legis* and will be fully effective in February 2020.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

ANATEL allocates numbers amongst telecom providers in Brazil, as per Resolution 679/2017 for mobile numbering and Resolution 84/1998 for fixed numbering. ANATEL is currently studying a numbering provision for SCM licensees (electronic communication providers).

2.17 Are there any special rules which govern the use of telephone numbers?

Yes, there are specific rules as per Resolution 679/2017 for the management of mobile numbering, and Resolution 84/1998 for fixed numbering.

2.18 Are there any obligations requiring number portability?

ANATEL has issued Resolution 460/2007, which determines the obligations of portability among telecom providers. Any telecommunication providers that have numbering assets are subject to this Resolution.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

ANATEL regulates the use of radio spectrum in Brazil, as per its specific regulations.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

ANATEL is obligated to establish public bids for the allocation of radio spectrum, given its scarcity.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

If there are no interested parties in any given region or radio frequency, ANATEL may issue a licence for a sole company for a fixed term, usually of up to fifteen (15) years, with the right of preference for a renewal of fifteen (15) more years.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

Historically, ANATEL would calculate authorisation fees based upon economic costs and business plans for the duration of the term of the radio licence. In 2018, ANATEL updated its methods and issued Resolution 695/2018, which establishes the rules for the calculation of public pricing for the use of radio spectrum.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

ANATEL must approve any change of ownership control of a licensee, and issue a new permit after evaluating the new legal structure presented to it. For public radio broadcasting spectrum, is not possible to have foreign ownership of more than thirty percent (30%).

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Spectrum licences are only able to be transferred with the prior authorisation of ANATEL as a trade or sale to a third party, which need to be authorised within ANATEL's regulations for each type of telecommunication service. Radio spectrum, however, cannot be sub-licensed.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

There are no cybersecurity-specific laws in Brazil, as all legislation is spread into public security laws. Brazil is currently discussing a National Cybersecurity Plan in Congress and with the Executive branch of the Government.

The most up-to-date regulation comprising cybersecurity provisions is Decree 8771/2016, which regulates parts of the Internet Civil Rights Law (Law 12.965/2014). The Decree establishes minimum security and secrecy standards for the collection and storage of personal data and electronic communications over the internet.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Brazil has implemented Law 9296/96 to specifically regulate the interception of telephone calls, electronic communications or mail communications, setting the requisites for the breach of communication data and its interception.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

According to Law 9296/96, a prior judicial mandate is necessary for any telecommunication provider to intercept any communications service, be it telephone calls, VoIP calls, emails or any other forms of communication, even printed mail. All interception is performed with the support and coordination of police authorities to telecommunication providers.

4.4 How does the state intercept communications for a particular individual?

Police forces need to make a judicial request for the interception of communications to specific numbers or individuals. Once such request is made, the Judiciary has up to twenty-four (24) hours to set out the interception, issuing a motivated judicial order explaining the reasons for it.

All judicial mandates must also observe the following:

a) only criminal investigations allow for the interception of communication services;

b) non-criminal investigations can solely require data related to the communication services being breached, but not their real-time interception;

c) criminal infractions penalised with minimum detention should not motivate the interception of communications;

d) any judicial mandate authorising an interception of communications shall engage Public Attorneys to follow up police investigations;

e) any interception of communications shall be completed within fifteen (15) days, although this can be extended for another fifteen (15)-day period;

f) all interceptions of communications shall be processed in separate from the investigation that motivated it, with the parts that are of no interest for the investigation being summarily dismissed; and

g) any interception of communication done without a prior judicial order is unlawful and constitutes a crime.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Brazil does not have any specific regulation demanding telecommunication providers or internet providers to supply any encryption keys to the State. Any provision of encryption keys is decided on a case-by-case basis on judicial demands, which take into consideration public security issues *versus* encryption practices and privacy policies for the users of any given communication service.

The Internet Civil Rights Law (Law 12.965/2014) previews the hypothesis in which data related to the usage of internet applications or electronic communication services can be demanded by Government authorities, police forces or fiscal authorities in articles 10 and 11, while article 12 lists the penalties in case of non-compliance, which can range from monetary penalties up to the suspension of a company to operate in Brazil, for a provisory period or definitively.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

It is important to note that all data collected can only be supplied via a prior judicial mandate, given that the right of privacy for telecommunication users is mandatory.

Telecommunication providers are obligated to retain data related to phone calls (call detail receipts or CDRs) for at least five years, as per the regulations of ANATEL. Recordings of phone calls are not collected or stored unless in the case of a communication interception.

Electronic communication providers are obligated to retain data depending on its type, considering that:

a) infrastructure providers need to collect and retain IP addresses and all logs related to internet connection for at least one (1) year. Infrastructure providers or internet access providers are blocked from collecting data related to internet navigation or application usage of its users;

b) application providers or companies providing online services in a professional and organised manner, or with economic objectives, shall collect and store IP addresses, personal data and logs of usage for at least six (6) months; and

c) application providers should not collect or store data related to the usage of other applications or websites from third parties, nor data that can be considered excessive in light of the objectives for which such data was originally collected.

All data should be encrypted and stored in secrecy in controlled environments.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Brazil approved the creation of the National Cinema Agency – ANCINE in 2001, originally as a public body to pursue the development of the national film industry. In 2011, Law 12.485/2011 – SeAC was approved, updating the legal framework for audio-visual media distribution services in Brazil, establishing quotas for national content, balancing the commercial relationship amongst content providers, TV networks and cable TV operators and forbidding cross-ownership by key stakeholders, among other provisions.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Yes, it is. Since Brazil has not approved any new laws regulating the distribution of electronic content over the internet, liberty is the rule in this environment, with policies solely in terms of taxation. It is also not clear how the Brazilian Government or Congress would regulate the distribution of content through internet networks, since regulation of telecommunication services is done by ANATEL, audio-visual media distribution regulation is done by ANCINE, and the telecommunication policies are laid out by the Ministry of Communications.

As of today, the distribution of content on internet networks does not need to observe quotas for national content, quality requisites, foreign ownership limitations or other rules applicable for cable TV companies or broadcasting companies.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

ANCINE only requires cable TV, audio-visual media producers, advertising producers, movie producers and telecom companies to register in order to collect CONDECINE taxes, determined over the distribution of its works. Such licences are not mandatory for the incorporation or development of such activities, but mostly for the payment of such tax.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Licences are assignable through a 30-day prior notice to ANCINE, without any restrictions in case of a change of ownership control.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Since the commercial deployment of internet access in Brazil in 1995, courts have struggled with the limitation of liability of internet providers or telecommunication providers offering the infrastructure for internet access. Since the approval of the Internet Civil Rights Law in 2014 (Law 12.965/2014), the matter has been pacified with articles 18 and 19 of such Law, establishing that internet service providers are exempt from liability of the content transmitted over its networks, and internet application providers are exempt from liability of the content generated by its users.

The Internet Civil Rights Law also defined net neutrality rules for internet service providers and telecommunication providers, mandating them to treat internet traffic agnostically and without discrimination over the type of content being transmitted, a measure that also limits their liability over them.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Electronic communications providers, on telecommunication or internet provision services, are obligated to take measures solely to comply with a judicial mandate. Any provision of information deemed private or listed as personal data can only be supplied through a judicial order requesting it. Information considered as public is the name, affiliation or address that does not require a prior judicial order to be given by a provider.

Electronic providers, can, though, take down specific types of content. In the case of distribution of sexual content or a violation of intimacy, whenever notified by the persons appearing in such content directly, the electronic providers have the obligation to take action without the need for a prior judicial command.

The only scenario where electronic communication providers could be deemed responsible is whenever a judicial mandate is issued and not complied with. In such cases, the Judiciary may force compliance to its commands and penalise an electronic communication provider with financial penalties or detention of its legal administrators.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

The Internet Civil Rights Law (Law 12.965/2014) established net neutrality rules in Brazil under article 9th, forbidding the differentiation of content or traffic type, its blockage or other measures that may harm the open status of internet networks. Article 9th also listed the exemptions in which an electronic services provider can differentiate or degrade traffic.

All possibilities for doing so can only be based upon: (i) the technical need to maintain fully functional internet networks; and/or (ii) to prioritise emergency services. If any degradation needs to be done, the following measures need to be taken:

a) no harm to final internet users must be done;

b) electronic communication providers need to act with proportionality, transparency and with isonomy towards users;

c) all users must be previously advised of the measures that can be taken in terms of degradation of traffic, even those related to network security; and

d) electronic communication providers must abstain from adopting any anticompetitive practices that could benefit one internet application over another.

Moreover, the Law establishes that in the activity of internet provision, in a gratuitous or onerous manner, providers cannot block, monitor, filter or analyse the content of data packages transiting on its networks.

The same article 9th of the Internet Civil Rights Law also predicted further regulation for technical clarification on degradation methods. Such regulation came in the form of Decree 8771/2016 that, besides issuing further details, reaffirms that any degradation of traffic must be considered as an exceptional provision.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Under the current laws there is no specific content that needs to be automatically blocked by internet service providers, nor are VPN services either regulated or blocked by law. The blocking of content, applications or websites should be supported by a judicial decision or command, based upon a prior lawsuit that demands so.

Furthermore, the Internet Civil Rights Law (Law 12.965/2014) determines that any judicial decision ordering the blockage or filtering of any content, application or website must appoint the exact URL that must be blocked or filtered, under the risk of being considered void of merit, as per the first paragraph of article 19 of the Law.

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Chapter 8

Canada

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Canada's communications industry includes both broadcasting and telecommunications market sectors. The telecommunications sector generates annual revenues of approximately $49 billion CAD (73% of all industry revenues), while the broadcasting sector generates annual revenues of approximately $18 billion CAD (27%).

The five most significant market participants offer both telecommunications and broadcasting services in all or significant regions of Canada.

With respect to both telecommunications and broadcasting, the most significant market participants in terms of market share are: BCE Inc.; Rogers Communications Canada Inc.; TELUS Communications Inc.; Shaw Communications Inc.; and Québecor Media Inc. (through its subsidiary Vidéotron).

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The most important legislation applicable to telecommunications, internet and audio-visual media distribution activity is the *Telecommunications Act*, *Radiocommunication Act*, *Broadcasting Act* and the *Copyright Act*.

All of these statutes are federal, reflecting the fact that the federal government has constitutional authority over telecommunications and broadcasting in Canada.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

Canada's primary regulator of the telecommunications and broadcasting industry is the Canadian Radio-television and Telecommunications Commission ("CRTC"). The CRTC is an independent administrative tribunal created by the *Canadian Radio-television and Telecommunications Commission Act* and it derives authority for regulating telecommunications including internet and audio-visual media distribution from the *Telecommunications Act* and *Broadcasting Act*, respectively.

The Minister of Innovation, Science and Economic Development ("ISED") and the federal department of ISED are responsible for licensing and administering radio spectrum in Canada under the Radiocommunication Act.

The Federal Cabinet (referred to as the "Governor in Council" in legislation) reserves broad powers to direct the CRTC on policy issues or review its decisions under the Telecommunications Act and Broadcasting Act. The Governor in Council may also make regulations pursuant to the governing legislation.

The Copyright Board of Canada is established pursuant to the *Copyright Act* and is the administrative tribunal with rate-setting authority over various uses of copyright, such as the tariffs for performance rights in music sold by digital music services.

The Commissioner of Competition is appointed by the Governor in Council to enforce the *Competition Act*. The Commissioner may review a host of conduct, including mergers, for anti-competitive effects.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

The Canadian telecommunications and broadcasting industries are comprised primarily of private entities, subject to a few notable exceptions, which include:

- the Canadian Broadcasting Corporation ("CBC"), which is Canada's national public radio and television broadcaster and receives funding from the federal government as well as through television advertising; and
- "SaskTel", which is a crown corporation that operates as a significant provider of telecommunications services in the province of Saskatchewan.

The telecommunications and broadcasting industries are, however, subject to restrictions on foreign ownership and control.

Under the *Telecommunications Act*, telecommunications carriers, including Internet Service Providers ("ISPs"), that own and operate transmission facilities are subject to ownership restrictions if they hold a 10% or greater share of total annual Canadian telecommunications market revenues. In those cases, they are subject to the following restrictions:

- Canadians must hold a minimum of 80% of the voting shares;
- Canadians must comprise 80% of the directors; and
- the corporation must not otherwise be controlled by persons who are not Canadians.

If the carrier is a subsidiary corporation, the parent corporation must be incorporated in Canada and Canadians must hold a minimum of 66.6% of the parent's voting shares. As they do not own their own transmission facilities, resellers are not subject to restrictions on foreign ownership and control.

Spectrum authorisations under the *Radiocommunication Act* are subject to the same rules but the licence may only be held by Canadian persons, including companies incorporated in Canada that satisfy the restrictions on foreign investment.

The broadcasting industry is subject to greater restrictions on foreign ownership and control. Broadcasting undertakings must be Canadian-owned and controlled, with similar requirements as set out above regarding voting shares, directors, and overall control. Under the *Broadcasting Act*, however, the CEO must also be Canadian, the shareholding limit applies to votes as well as voting shares, and non-Canadians cannot exercise control or influence over any of the undertaking's programming decisions. In addition, there is no exception for companies with less than a 10% market share. One notable exception to this regime is that, presently, digital media broadcasting undertakings like Netflix and other direct to consumer streaming services are exempt from licensing under the Digital Media Exemption Order ("DMEO") and are therefore not subject to foreign ownership restrictions.

Foreign investments in the telecommunications and broadcasting sectors may also be subject to the federal *Investment Canada Act*, a law of general application that allows for federal review of proposed new businesses in Canada or transactions that lead to change of control of a Canadian business if the value of the investment is above certain dollar thresholds. Notably, a lower, more stringent threshold applies if the business is a "cultural business".

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Canada is a member of the WTO and has undertaken a range of telecommunications-specific market access commitments in GATS. Canada has made considerable national treatment and market access commitments in GATS, with notable limitations on the permissible levels of foreign investment.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

Telecommunications networks and services are regulated by a mix of legislation, subordinate regulations, and decisions of the CRTC.

As noted above, the *Telecommunications Act* is Canada's primary statute and it establishes requirements for operating as a telecommunications carrier in Canada. Facilities-based carriers and resellers may provide telecommunications services in Canada if they comply with the requirements of the *Telecommunications Act* and its regulations, applicable decisions, policies, and orders of the CRTC, and register on as a Telecommunications Service Provider ("TSP") on one or more of the CRTC registration lists.

The exception to this system of regulation is that a licence must be obtained by a TSP that registers with the CRTC to provide 'basic' international telecommunications services ("BITS"). BITS licences are granted as of right and without charge when the TSP submits the required information.

The CRTC has the ability to forbear from regulating specific services or classes of services provided by carriers when it finds as a question of fact that competitive market forces are sufficient to protect the interests of users and that forbearance would be consistent with Canada's telecommunications policy objectives set out in section 7 of the Act. For example, the CRTC currently forebears from regulating retail rates of non-dominant carriers and providers of retail mobile wireless voice and data services.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The CRTC's role as Canada's telecommunications and broadcasting regulator has already been discussed above. While the CRTC pursues its regulatory mandate independently and enforces its own rules, policies, and decisions, it ultimately reports to the Parliament of Canada through the Minister of Canadian Heritage, the Minister responsible for the CRTC's constating statute.

The Governor in Council also has the ability to require the CRTC to reconsider a decision, policy or order and may require it to report to Parliament on any matter within its jurisdiction. Under the *Telecommunications Act*, the Governor in Council may also vary a CRTC decision.

The Commissioner of Competition is responsible for administering and enforcing the *Competition Act* and manages the Competition Bureau. While CRTC approval of mergers is not required under the *Telecommunications Act*, mergers are subject to review by the Competition Bureau, with transactions exceeding proscribed dollar thresholds requiring pre-notification to the Bureau. Under the *Broadcasting Act*, however, the Commission must approve changes of control or ownership of licensed undertakings. While the Competition Bureau will review change of control or ownership transactions in the broadcasting sector, the CRTC examines the broader Canadian broadcasting policy objectives under the *Act*.

Pursuant to the *Radiocommunication Act*, ISED can review transfers or changes in control of mobile communications spectrum.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions of Canada's regulatory authorities may be challenged or appealed through a variety of means.

CRTC decisions and Orders made under the *Telecommunications Act* may be challenged:

- by requesting that the CRTC review and vary its decision due to substantial doubt as to the correctness of the original decision;
- by appeal, with leave, to the Federal Court of Appeal, based on an error of law or jurisdictional grounds; or
- by petition to the Governor in Council.

As a federally created statutory Commission, the CRTC is also bound by a duty of procedural fairness. Failure to uphold this duty is grounds for judicial review to the Federal Court of Appeal.

Decisions of the Minister of ISED under the *Radiocommunication Act* may be challenged by seeking judicial review in the Federal Court on the grounds that the Minister acted without appropriate

jurisdiction, erred in law, failed to observe the duty of procedural fairness, or otherwise acted in any other way that was contrary to law.

Copyright Board of Canada decisions may be challenged by anyone directly affected by the matter via judicial review to the Federal Court of Appeal.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The CRTC generally does not issue licences or other authorisations under the *Telecommunications Act*. Telecommunications carriers and resellers may provide services to the public for compensation if they comply with the requirements of the *Telecommunications Act* and register as a TSP on the appropriate CRTC registration list(s). As noted above in question 2.2, the exception to this is the requirement that TSPs obtain a BITS licence from the CRTC before offering basic international telecommunications services. ISED issues spectrum licences for the use of spectrum unless a specific application is deemed licence-exempt.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Telecommunications carriers and resellers may provide services to the public for compensation if they comply with the requirements of the *Telecommunications Act* and register as a TSP on the appropriate CRTC registration list(s).

Compliance with the *Telecommunications Act* includes satisfying the Canadian ownership and control requirements set out in question 1.5 and any policies applicable for the telecommunications services under consideration.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

The only individual authorisation that the CRTC requires for TSPs is the requirement to obtain a BITS licence prior to the provision of basic international telecommunications services. As conditions of licences, BITS licence holders must:

- not engage in anti-competitive conduct in relation to international telecommunications services;
- comply with annual contribution reporting requirements;
- furnish the CRTC with current information and file any changes within 30 days; and
- provide any additional information report requirements as prescribed by the CRTC.

The CRTC does not regulate changes in the ownership or control of facilities-based TSPs or resellers provided the entity continues to comply with the Canadian ownership and control requirements of the *Telecommunications Act*.

As noted above in question 2.3, change in ownership or control of TSPs by way of merger may require pre-notification to, or be reviewed by, the Commissioner of Competition under the *Competition Act* or by the Minister of ISED under the *Investment Canada Act*.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

The Telecommunications Act gives carriers the right to enter and break up public places in order to construct, maintain or operate transmission lines, subject to certain requirements, including consent of the municipality or other local authority. Carriers that provide services to the public may apply to the CRTC to gain access if they cannot otherwise do so on acceptable terms.

The CRTC has developed a standard form of access agreement to guide the parties in negotiating such access.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Under the *Telecommunications Act*, the CRTC may order a Canadian carrier to connect any of its telecommunications facilities to any other telecommunications facilities under conditions it deems just and expedient. The CRTC regulates wholesale interconnection and access, including rates, terms and conditions for a variety of services, including:

- domestic roaming rates for services of the three largest incumbent wireless carriers to smaller or regional wireless carriers;
- wholesale high-speed broadband access services provided by cable and telephone companies to competitors in order to promote competition in retail services. The CRTC currently has regulated interim rates in place for these services; and
- the mandatory local network interconnection regime under which local exchange carriers, including VoIP service providers, are required to connect with other local exchange providers, wireless carriers and interexchange carriers.

Standard requirements for interconnection and access have been developed by the CRTC for most forms of interconnection and access to essential facilities.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Standard agreements for the mandatory local network interconnection regime set out in question 2.9 have been pre-approved by the CRTC.

Carriers are also required to publish their building access arrangements.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

The incumbent carrier's rates for local exchange interconnection are regulated by the CRTC. Other competitive local exchange carriers may charge up to the amount charged by the incumbent in the exchange in question. There is a bill and keep arrangement for direct interconnection of local networks, subject to a charge for

imbalanced traffic. Most rates for other fixed services have been deregulated where there is sufficient competition on the route in question. In the mobile market, the wholesale rates charged by the three largest mobile carriers for roaming are regulated by the CRTC – but not the retail rates.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

The CRTC no longer requires accounting, functional or legal separation of TSPs. The CRTC does require the larger TSPs to establish separate customer service groups to take orders from competitors and to protect commercially and competitively sensitive information they receive from competitors.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

High-speed broadband networks must register with the CRTC – but are generally not rate-regulated.

Incumbent Local Exchange Carriers ("ILECs") support structure services are tariffed wholesale services that make poles, strands, and conduits available to third-party carriers for use as an input to provide competitive retail telecommunications services. The CRTC approves the rates that ILECs may charge for access to these support structures.

Local exchange carriers and broadcasting distribution companies must also make in-building wiring available to competitors. These rules have not yet been extended to ISPs.

Due to the growth in internet traffic over recent years, the CRTC has established a framework to evaluate existing and future internet traffic management practices ("ITMPs") being employed by ISPs.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

The CRTC has largely forborne from the regulation of retail prices for telecommunications services offered by carriers and has not regulated the retail rates of telecommunications resellers.

Two exceptions are the incumbent carrier's local exchange rates in areas without sufficient competition, and wholesale roaming rates charged by the three largest mobile wireless carriers.

While the CRTC has not directly regulated rates, it has opened a public consultation in which it asked Canada's three largest wireless service providers (Bell, Rogers, TELUS) to provide examples of lower-cost, data-only plans that they will offer. The CRTC initiated this public consultation immediately after declining to mandate wholesale reseller access to the incumbents' wireless networks. The CRTC is currently considering the incumbents' proposals.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

All TSPs, including ISPs and other providers of communications services must contribute to a universal service fund. Historically, this fund helped to defray the cost of local exchange service in high-cost service areas. This use of the fund is being phased out. In its place, a new fund is being created to help offset the cost of extending broadband infrastructure to rural and remote areas of Canada that do not have access to download speeds of 50 Mbps and upload speeds of 10 Mbps. The current contribution rate is 0.0054 of total telecom service revenues, less payments to other underlying carriers and other specified adjustments.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers in Canada are allocated by the Canadian Numbering Administrator, established by the CRTC, on a request basis.

2.17 Are there any special rules which govern the use of telephone numbers?

There are no special rules which govern the use of telephone numbers.

2.18 Are there any obligations requiring number portability?

The CRTC has mandated number portability for wireless and wireline carriers that offer services that are connected with the public switched telephone network ("PSTN"). This includes VoIP service providers if they offer their service by using the North American Numbering Plan ("NANP") to route calls to users on their network and provide access or egress to the PSTN.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

Innovation Science and Economic Development Canada (a federal government department) regulates the use of spectrum in Canada pursuant to the *Radiocommunication Act*.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Rights to use spectrum must be obtained either directly from ISED by way of a licence, purchased from another spectrum holder, or through a subordinate licence.

Where demand is not expected to exceed supply, ISED generally issues licences on a first-come, first-served basis. Where demand is expected to exceed supply and government policy objectives can be met through a competitive process, ISED will typically hold some form of auction (e.g. sealed bid, combinatorial clock). Auctions have generally replaced comparative "beauty contests". The Minister of ISED may also set aside certain portions of available spectrum for smaller providers or otherwise tailor the terms of the auction to achieve a government policy objective.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Certain uses of spectrum are licence-exempt under the *Radiocommunication Act*. The *Act* reserves for the Governor in Council the ability to make regulations and exempt any radio apparatus, or class thereof, from the requirement to be installed or operated in accordance with a radio authorisation. ISED maintains the *Licence-exempt Radio Apparatus Standards List* of devices that may use spectrum without a licence. For example, certain low-power applications are licence-exempt, as are certain frequencies used for Wi-Fi.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

In addition to the revenues ISED receives through spectrum auctions, it also collects licence fees payable for the issuance, continuance in force or renewal of a licence for non-auctioned spectrum or for the renewal of an auctioned licence that is expiring.

Under ISED's *Framework for Spectrum Auctions in Canada*, licences issued through a renewal process will be subject to a public consultation with the goal to establishing fees that reflect some measure of market value. This varies by location (Tier) with large urban areas attracting the highest licence fees. Licence fees are published by ISED.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Under the *Radiocommunication Regulations*, licences may not be transferred, assigned, or sub-licensed without the prior approval of the Minister of ISED. This is commonly enforced by making it a condition of licence that transfers receive prior approval.

Prior approval is generally required for changes of ownership or control of a licensee or affiliate of terrestrial "commercial mobile spectrum". Prior approval is also required for "deemed transfers" of a licensee or affiliate. Deemed transfers include the granting of any right or interest in a spectrum licence through an agreement, strategic alliance, joint venture or similar agreement.

ISED's current policy is to restrict transfer of commercial mobile spectrum licences where it would lead to undue concentration of spectrum in the hands of the transferee. These transfers may harm competition by preventing the transferor and potential future competitors from providing services in the licence areas.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

See question 3.5 above. In addition, licences can be sub-licensed to eligible licensees on the same terms as the original licence.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Canada's primary privacy statute is the *Personal Information Protection and Electronic Documents Act*, a federal statute that protects personal information collected by federally regulated organisations and commercial organisations in all provinces that do not have "substantially similar" legislation. Three provinces – Québec, Alberta, and British Columbia – currently have substantially similar legislation. These statutes require organisations that collect personal information to ensure that adequate safeguards are in place to prevent the loss, theft or unauthorised access, disclosure or other uses of the information.

In addition, there are sections of the *Criminal Code of Canada* that apply to cybersecurity. As a result of amendments to the *Criminal Code* in 2014, offences with an element of communication now explicitly include communications by means of telecommunication, unless the means of communication are specified.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The *Criminal Code* contains basic provisions for obtaining access to private communications, including through wire taps, search warrants and production orders.

Part VI of the *Criminal Code* empowers judges to issue wiretap orders. Peace officers may also lawfully intercept communications without an order from a judge, but only in order to prevent the commission of an offence involving bodily harm. This applies to text and data communications as well as voice communications.

The *Criminal Code* also contains procedures for obtaining a production order. A production order is made by a judge and is similar to a search warrant, except under a production order, the person in possession of the information must produce it on request. Production orders may be general or specific. Unlike a search warrant, where a law enforcement agency goes to the site to obtain information by searching for and seizing it, a production order requires the person in possession of the information to produce it on request. Production orders offer law enforcement agencies a more effective way to collect information in another country, for example.

Recent amendments to the *Criminal Code* create a new class of specific production orders for peace officers to obtain "tracking data" and "transmission data" from telecommunications service providers. Tracking data means data that relates to the location, individual or thing. Transmission data means data that:

- relates to dialling, routing, addressing or signalling;
- is generated during the creation, transmission or reception of a communication and identifies or purports to identify the type, direction, date, time, duration, size, origin, destination or termination of a communication; and
- does not reveal the substance, meaning or purpose of the communication.

As discussed below in question 4.6, recent amendments to the *Criminal Code* have also added additional voluntary and obligatory retention rules for ISPs.

The Supreme Court of Canada has ruled that telecommunications service providers must not voluntarily produce data or documents covered under PIPEDA for police officers acting without a search warrant or production order.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Wireless communications differ from wireline insofar as there are

mandatory requirements, through conditions of licence placed on spectrum licensees to adapt their networks to accommodate lawful interception of wireless communications. There is no specific obligation placed on other carriers or resellers – but they are required to comply with wire-tap orders.

4.4 How does the state intercept communications for a particular individual?

As set out above in question 4.2, the state may only intercept active voice, text and data communications with prior authorisation of a judge. Peace officers may also lawfully intercept communications without an order from a judge, but only in order to prevent the commission of an offence involving bodily harm.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

There is no obligation under Canadian federal privacy law that specifically requires companies to use encryption technology. Canadian law does not create any decryption requirements for ISPs.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

The CRTC does not require carriers to retain data. Under PIPEDA, the only preservation requirement relates to data that is the subject of a complaint made known to the service provider.

Amendments to the *Criminal Code* in 2014 added additional voluntary and obligatory retention rules. These amendments introduced "preservation demands" by peace officers and "preservation orders" by judges. In both cases, ISPs are required to retain "computer data" in their possession or control when they receive the demand or order. The retention requirement is specific to an individual telecommunication or person, in the context of an investigation; there is no requirement to actively collect new data.

As a result, data that is subject to a preservation demand, preservation order, production order, or search warrant under the *Criminal Code* must be preserved.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Under the *Broadcasting Act*, all broadcasting undertakings are required to be either licensed or exempt from licensing by the CRTC. The CRTC is required to hold a public hearing to consider applications for new licences. Licences may be issued for up to seven years subject to conditions related to the circumstances of the licensee. Licensed broadcasting undertakings also operate pursuant to various regulations that establish addition requirements relating to the broadcast and distribution of programming.

The CRTC also has the power to issue exemption orders for specific classes of broadcasting undertakings to operate in Canada on appropriate terms and conditions, where it determines that licensing will not contribute in a material manner to the implementation of Canada's broadcasting policy. This currently includes broadcasting distribution undertakings with less than 20,000 subscribers, discretionary programming services with fewer than 200,000 subscribers, and digital media broadcasting services delivered and accessed over the internet ("DMEO"). Exempt undertakings are sometimes required to nevertheless register with the CRTC, depending on the exemption order.

Under the *Radiocommunication Act*, radio and television stations are required to obtain a separate licence or certificate from ISED if they require the use of radio spectrum to broadcast their services. Please see questions 3.1–3.6 for more information on the licensing of spectrum.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Yes, there are significant distinctions between the regulation of content distributed by traditional broadcasting undertakings and content distributed via the internet.

The CRTC regulates the content of radio and television programming distributed to Canadians by traditional broadcasters and broadcasting distribution undertakings in a variety of ways, including:

- Canadian content requirements;
- programming packages offered to consumers by broadcasting distribution undertakings;
- journalistic and other programming standards;
- advertising restrictions;
- prohibited programming content; and
- accessibility of content.

As noted above in question 5.1, content delivered and accessed over the internet is exempt from content regulation under the DMEO. As a result, the categories of content regulation do not apply equally to traditional broadcasting undertakings and digital media. Given the new and evolving nature of video-on-demand ("VOD") services, the CRTC has also exempted a class of "hybrid" VOD services that are offered over closed broadcasting distribution undertakings networks, as long as they are also distributed over the internet.

The precise terms of the Digital Media Exemption Order and other broadcasting exemption orders can be found by reviewing the index of orders on the CRTC website.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The CRTC's system of broadcast licensing is complex and the obligations that attach vary, depending on the type of services offered by the licensee.

All broadcasting in Canada is regulated by the CRTC under the *Broadcasting Act*. The CRTC issues licences for broadcasting distribution undertakings (cable, IPTV, direct-to-home satellite services), as well as television (e.g. television, discretionary on-demand) and radio stations.

Key obligations for licensees are enforced through conditions of licence. These conditions set out various requirements, depending on the nature of the service offered by the licensee. The most important requirement relates to the creation and distribution of Canadian content.

Licence holders are required to devote a portion of their revenues to the production of Canadian content. For example, cable, IPTV and satellite licensees are required to contribute a minimum of 5% of annual broadcast-related revenues to the creation and production

of Canadian programming. Generally, television and radio service providers are required to devote a portion of their revenues to direct financial contributions to Canadian content development.

The CRTC also requires licence holders to carry, play, offer, or otherwise feature Canadian content. For example, the CRTC requires licensed broadcasting distribution undertakings to give priority of carriage to the CBC, local and regional television stations and a number of Canadian discretionary services that have been accorded "mandatory carriage" or "must offer" status. Licensed radio broadcasters also have a requirement to devote a percentage of their daily airtime to Canadian content.

As noted in question 5.1 above, all content delivered and accessed over the internet is currently exempt from licensing by the CRTC under the DMEO. As a result, these digital services are not subject to the same Canadian content requirements as licensed broadcasting services.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Broadcasting licences are not assignable and may not be directly or indirectly transferred without the prior approval of the CRTC. The CRTC must approve any transaction that would result in the change of control of a licensee. Approval is also required where a person acquires, directly or indirectly, more than 30% or more of the voting interests of a licensee or a person who controls the licensee, and where a person acquires 50% or more of the common shares of the licensee or of a person that controls the licensee.

Apart from the CRTC, change of control transactions of licensed and exempted broadcasting undertakings may be reviewed by the Commissioner of Competition under the *Competition Act*, or, in the case of foreign investment, by the Minister of Canadian Heritage and the Minister of ISED under the *Investment Canada Act*.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

The Supreme Court of Canada has held that ISPs that merely provide "passive connections" for content do not have any liability for content they carry, including copyright infringing content. This principle was effectively codified in amendments to Canada's *Copyright Act*, which states that ISP's do not infringe copyright solely by providing any means of telecommunication or the reproduction of a work through the internet.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Canada has established a "notice and notice" regime for pursuing copyright infringement. A rights holder provides notice to an ISP of potential infringement by a subscriber and the ISP is required, without delay, to forward that notice to the subscriber and maintain records of the user's activity for a minimum of six months. Although ISPs are required to forward notice to the infringing subscriber without charge, the Supreme Court of Canada recently ruled that ISPs may recover from the rights holder some of the costs associated with subsequent identification of the subscriber.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

The *Telecommunications Act* prohibits a Canadian carrier from controlling content or influencing the meaning or purpose of telecommunications to the public, except where approved by the Commission. ISPs that own networks are treated as carriers and are subject to the non-discrimination provisions in the *Telecommunications Act* that are applicable to common carriers.

Several CRTC decisions have imposed further net neutrality requirements on ISPs. The CRTC has established rules related to ITMPs by ISPs. The regime requires ISPs to publicly disclose their ITMPs and prohibits unjust discrimination or undue preference in relation to a particular type of traffic. Further, the CRTC established a framework and evaluation criteria for determining whether differential pricing practices (the practice of charging different rates for retail internet data traffic) respect the principle of net neutrality by treating data agnostically. Generally, preferential or discriminatory pricing is not permitted.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

As stated in question 6.3 above, the *Telecommunications Act* prohibits Canadian carriers from controlling or influencing the meaning or purpose of telecommunications to the public. This includes blocking access to certain sites or content. As a result, the only way an ISP is permitted to block access to a site is by order of the CRTC or the Courts. ISPs are not subject to any other requirement to block access to particular sites.

Nonetheless, ISPs generally block traffic to known child pornography sites on a voluntary basis through Cleanfeed Canada, an undertaking of the Canadian Coalition Against Internet Child Exploitation.

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China

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Since its accession to the WTO, China has made tremendous progress in the telecoms, audio-visual media distribution, and internet infrastructure sectors in terms of market liberalisation, revenues, mobile phone and internet penetration rates, and innovation capability. In particular, the government established the China (Shanghai) Pilot Free Trade Zone ("SHFTZ") and relaxed several restrictions on foreign investment in the value-added telecommunications services ("VATS") sector in late 2013. Since the SHFTZ is a pilot zone set up to test reform initiatives that may significantly impact China's relevant markets, the new SHFTZ policies serve as an important signal that shows the government is moving towards liberalising the telecoms industry. In late 2014, three more pilot free trade zones (i.e. Tianjing, Fujian and Guangdong) were established. While Special Administrative Measures (Negative List) on Foreign Investment Access to Pilot Free Trade Zones was published by the State Council in May 2015, which is intended to be applicable to all of the four pilot-free trade zones (i.e. SHFTZ, Tianjing, Fujian and Guangdong), the effect of implementing the policies on foreign investment in the telecom sector needs to be further assessed.

China initiated its triple-network (telecoms, internet, and broadcasting networks) convergence process in 2009 and issued the Promotional Program of Triple-network Convergence in August 2015. In May 2016, the Ministry of Industry and Information Technology ("MIIT") issued a Basic Telecommunications Services ("BTS") Licence to China Broadcasting Television and Internet Company (to operate Internet Domestic Data Transmission Services and Domestic Communication Facility Services), which is expected to further promote the triple-network convergence process and the involvement of cable television networks in general telecoms services.

In late 2013, the MIIT awarded 4G licences to three of China's telecoms giants (i.e., China Telecom, China Mobile and China Unicom) to establish 4G mobile networks that would operate under the TD-LTE standard championed by China. In February 2015, the MIIT awarded 4G licences, which would operate under the FDD-LTE, to China Telecom and China Unicom. With respect to basic telecoms infrastructure, on July 15, 2014, the three telecoms giants established the China Iron Tower Company to facilitate the co-construction and sharing of iron towers, base stations, and other basic telecoms facilities.

Telecoms sector and internet infrastructure

In 2017, revenue from the telecoms industry was estimated to be RMB 1,262 billion, an increase of 6.4% from 2016. Mobile phone subscribers in China have reached 1.42 billion. China Telecom, China Mobile and China Unicom, which are state-owned enterprises, are the three major players in the telecoms sector.

These areas are not fully liberalised and open to the private sector and are still subject to restrictive conditions for foreign investment. However, as part of the efforts by the Chinese government to introduce private investment into state-dominated sectors, China Telecom has announced that it will initiate a trial of a mixed ownership structure for telecoms business (public capital, private capital and foreign capital). In addition, in 2013, the MIIT issued the Notice Concerning the Implementation of Mobile Communication Re-sales Business, which opens up the mobile communication re-sales business to private capital. So far, the MIIT has awarded MVNO trial approvals to 50 private companies (including JD.com, Suning, Guomei, Xiaomi, and a subsidiary of Alibaba). In early 2016, the MIIT issued two instruments to set forth operational requirements for MVNO operators (e.g. regulating pricing and implementing a real-name system).

Audio-visual media distribution

In 2017, the coverage percentage of radio and television reached 98.71% and 99.07%, respectively. The revenue for the distribution of audio-visual content via the internet reached RMB 14.298 billion. However, broadcasting is still tightly regulated in China. Currently, only the General Administration of Press and Publication, Radio, Film and Television ("GAPPRFT") and certain education administrative departments are allowed to establish radio and television stations. China Central Television ("CCTV") is the largest national television station, but there are over 100 satellite television channels and thousands of local television channels spread throughout the different provinces of China. Youku, iQIYI, Sohu and LETV are the major internet audio-visual service providers.

Foreign shareholding is prohibited in this sector.

(Note: Revenue data sources of the telecoms sector and internet infrastructure are available at: http://www.miit.gov.cn/n1146312/n1146904/n1648372/c6048643/content.html; and audio-visual media distribution data is available at: http://www.gapp.gov.cn/sapprft/contents/6588/379318.shtml.)

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Chinese government has issued a great number of regulatory instruments in the form of administrative regulations of the State Council, which take precedence in the hierarchy of administrative provisions, and various ministerial rules with respect to these three sectors, including the following principal provisions:

Telecoms and internet

- PRC Telecommunications Regulations (last revised in 2016) ("Telecommunications Regulations"), which sets forth the general principles governing the telecoms market, construction, services and safety, including the internet sector.
- The Classification Catalogue of Telecommunication Services (2015) ("Telecommunications Classification Catalogue"), which contains the classifications of telecom services.
- Measures for Administration of Telecommunications Business Operating Licences (2009) ("Telecommunications Business Licence Measures"), which regulates the granting and administration of telecoms business licences.
- Measures for Administration of Internet Information Services (last revised in 2011) ("ICP Measures"), which regulates the licensing and administration of services providing information via the internet.
- Opinions on Further Opening up Value-added Telecommunication Services to Foreign Investment in the China (Shanghai) Pilot Free Trade Zone (2014) ("SHFTZ Opinions") and Circular on Removing the Restrictions on the Foreign Equity Ratios in Online Data Processing and Transaction Processing Services (Operating E-commerce) in the China (Shanghai) Pilot Free Trade Zone ("SHFTZ Circular"), which set forth the fields to be liberalised to foreign investment and the safeguarding measures required to promote the further liberalisation of VATS within the SHFTZ.
- Cyber Security Law (2016), which regulates the standards, measures for internet environment and infrastructure security.
- Measures on Internet Product and Service Security Censorship (2017), which regulates the internet security censorship activities under internet security censorship committee.

Audio-visual media distribution

- Regulations for Administration of Radio and Television (last revised in 2013) ("Radio and Television Regulations"), which not only regulates the establishment of radio and television stations and the broadcasting and transmission of radio and television programmes, but also works as the fundamental instrument governing the audio-visual media distribution sector.
- Regulations for Administration of Audio-Visual Program Services through Oriented Transmission and Designated Networks (2016), which regulates the transmission of audio-visual programmes through VAN, IP/VPN, or certain oriented transmission channels on the internet in the form of IPTV, designated network mobile phone TV, internet TV, etc.
- Provisions on Administration of Internet Audio-visual Program Services (last revised in 2015), which regulate the transmission of audio-visual content via the internet.
- Interim Provisions on the Administration of Internet Culture Activity (last revised in 2011), which regulates the production and dissemination of "cultural products" (including online games and audio-visual content) via the internet.
- Regulations for Administration of Network Publishing Services (2016) ("Network Publication Regulations"), which regulates publication activities via the information networks.
- Regulations on Internet-based Live Broadcast (2016), which regulates the users and providers of live broadcast service on the internet.
- Interim Provisions on Internet Advertising (2016), which regulates the internet advertisement service provider, advertisement owner and the issuer.
- Regulations on Internet News and Information Service Management (2017), which regulates the production and dissemination of news and information on the Internet.

Foreign investment in the three sectors is also subject to:

- Catalogue for the Guidance of Foreign Investment Industries (2017) ("FIE Industry Catalogue"), which classifies the industries into either: "prohibited", "restricted", "permitted" or "encouraged" for foreign investment.
- Special Administrative Measures for Access of Foreign Investment ("Negative List") (2018 Edition).
- Provisions on Administration of Foreign-Invested Telecommunications Enterprises (last revised in 2016) ("FITE Provisions"), which regulates the establishment of FITEs.
- Opinions on the Introduction of Foreign Capital into Cultural Industry (2005), which provides guidance for foreign investment in China's cultural industry.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The following government authorities are the major industry regulatory bodies:

- The MIIT, which is responsible for the regulation of China's telecoms sector nationwide (e.g., granting of licences in the sector).
- The National Development and Reform Commission ("NDRC"), which has jurisdiction over project approval and pricing for telecoms services.
- The Ministry of Commerce ("MOFCOM"), which has the authority to approve foreign investment projects.
- The State Administration for Industry and Commerce ("SAIC"), which is responsible for industrial and commercial registration for enterprises and for the issuance of business registration licences.
- GAPPRFT, which has jurisdiction over the approval and administration of publication activities (including those via the internet), and over the administration of radio and television broadcasting, transmission of audio and video content, and also content censorship.
- The Ministry of Culture ("MOC"), which has jurisdiction over the cultural industry, including the responsibility for pre-approving online transmissions of "cultural products".
- The State Oceanic Administration ("SOA"), which regulates the laying of underwater cables and pipelines.
- The Ministry of Housing and Urban-Rural Development ("MOHURD"), which has jurisdiction over the approval process for construction and engineering design activities that relate to the telecoms sector.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Foreign investment in these three sectors is subject to varying degrees of restriction.

Telecoms and the internet

At a national level, the ratio of foreign investment in Foreign Invested Telecommunications Enterprises ("FITEs") must not exceed 49% for the operation of BTS (excluding wireless paging services, very small domestic aperture terminal earth station communications services, fixed network domestic data transmission services, customer premise network services and network hosting services) and 50% for the operation of VATS (including wireless paging services, very small domestic aperture terminal earth station communications services, fixed network domestic data transmission services, customer premise network services, network hosting services, cellular mobile communications services provided by way of resale; and excluding e-commerce activities operated for profit (a subcategory of online data processing and transaction processing services), in which the ratio of foreign investment can reach 100%).

For a FITE that operates BTS services, the "major foreign investor" in the FITE (i.e., the investor who holds the largest investment amount among all foreign investors, accounting for 30% or more of the total contribution of all foreign investors) must hold a licence for operating basic telecoms services in the country or region where it is incorporated. For a FITE that operates a VATS service, the major foreign investor must have a good business record and have experience in this area.

To promote reform and opening up to foreign investment, the MIIT issued the SHFTZ Opinions and the SHFTZ Circular, which only apply in the territory of the SHFTZ. They introduce a number of new initiatives that increase participation by foreign investors in the telecoms industry. More specifically, a FITE incorporated in the SHFTZ is authorised to provide:

- six kinds of telecoms services without any restrictions on foreign investment, i.e. the foreign investor can make up to 100% investment in the FITE, including in: (i) application store services; (ii) store-and-forward business services; (iii) call centre services; (iv) internet access services (provision of internet connection services to online users); (v) domestic multi-party communication services; and (vi) online data and trade processing services (operating e-commerce businesses); and
- one kind of telecoms service, subject to restrictions on foreign investment, i.e. domestic internet virtual private network ("VPN") services, subject to a 50% investment restriction. All of the above-mentioned services can be provided on a nationwide basis, except internet access services, which are only allowed to be provided to customers within the SHFTZ. With certain exceptions (i.e. facilities used for providing call centre services, and edge routers for domestic internet protocol VPN services, may now also be installed within the Shanghai municipality area, and website acceleration server nodes are now permitted to be set up nationwide where the relevant website constitutes an essential part of the service provider's operation of the licensed VATS), a FITE incorporated in the SHFTZ must locate all its service facilities in the SHFTZ in order enjoy the benefits provided in the SHFTZ.

Audio-visual media distribution

In the context of electronic communications, the distribution of audio-visual content is not open to foreign investment.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

China has been a member of the WTO since December 10, 2001, and has made commitments under the GATS regarding telecommunications as set forth in Annex 9 (Schedule of Specific Commitments on Services) of the Protocol of Accession of the PRC, which includes the Telecommunications Reference Paper. China's WTO commitments are subject to certain restrictions on foreign investment. China has been making significant progress towards a pro-competitive, independent and transparent regulatory mechanism for the telecoms sector.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The provision of electronic communication networks and services is regulated under two broad categories, namely BTS and VATS, in accordance with the Telecommunications Regulations and other related instruments (see question 1.2 above).

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The key governmental regulators at the central level (or their delegates at the provincial level), as applicable, include the MIIT, NDRC, MOFCOM, SAIC, MOC, GAPPRFT, SOA and MOHURD. These authorities undertake responsibilities in their respective jurisdictions (see question 1.3 above).

Among them, three central government agencies are responsible for the enforcement of the Anti-Monopoly Law (2008): (i) the Anti-Monopoly Bureau of MOFCOM; (ii) the Bureau of Price Supervision and Anti-Monopoly of NDRC; and (iii) the Anti-Monopoly and Anti-Unfair Competition Enforcement Bureau of SAIC. MOFCOM is responsible for examining the concentration of business operators. NDRC and SAIC are both responsible for regulating monopolistic agreements, abuse of market dominance, and abuse of administrative power in limiting competition. Between the two, NDRC is responsible for price-related violations and SAIC is responsible for non-price-related violations.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

In accordance with the PRC Administrative Review Law (last revised in 2009) and the MIIT's Implementation Rules on Administrative Review (2002), specific administrative decisions of the MIIT (such as the MIIT decisions on network interconnection disputes) can be appealed through either administrative review or judicial review. Specifically, one can appeal against the decision of the MIIT's municipal counterparts at the MIIT or at the People's Court in accordance with the Law of the Procedure for Administrative

Litigations (last revised in 2014). One can further appeal against the decisions of an administrative review of the MIIT through the judicial process if one is dissatisfied with such decisions, or apply for a final decision from the State Council in accordance with the PRC Administrative Review Law.

In principle, an administrative review will give attention to the "lawfulness" and "appropriateness" of the decision whilst a judicial review will be more focused on the "legality" and "fairness" of the case. However, neither procedure is conducted on a "merits review" basis.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

Telecoms services in China are subject to two broad licensing categories, "BTS" and "VATS". These two categories are not mutually exclusive. The BTS Licence applies to basic public network facilities, public data transmission and basic voice communication services. The VATS Licence covers telecommunications and information services which utilise basic public network facilities.

The BTS Licence and VATS Licence are further divided into several different sub-categories by business type (such as "fixed communication services" under BTS, and "domestic internet virtual private network services" under VATS) under the Telecoms Classification Catalogue and by regional coverage. The service provider can only operate within the respective sub-categorised scope and within the geographical territory of the licence as it was approved and granted by the MIIT or its provincial counterparts.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

In addition to requirements on technical capabilities, the Telecommunications Business Licence Measures also set forth certain conditions on capital and equity ownership, including that: (i) the applicant must be a lawfully established company, and for a BTS Licence, the company should be at least 51% state-owned; and (ii) the minimum registered capital of the applicant must be RMB 100 million (RMB 1 billion for a cross-provincial business) for a BTS Licence, and RMB 1 million (RMB 10 million for a cross-provincial business) for a VATS Licence. Foreign ownership is subject to additional restrictions under the FIE Industry Catalogue and the FITE Provisions, including the ratio of foreign investment in FITEs (see question 1.4 above). In addition, the registered capital of an FITE incorporated in the SHFTZ must be RMB 1 million or more, which is only 10% of the registered capital required by an FITE (for providing VATS nationwide) under the FITE Provisions.

In practice, the regulatory authorities generally appear to have concerns about, and have imposed a moratorium on approving, foreign investment in the telecoms industry. This is especially true for certain types of businesses, such as for the provisioning of information services through the internet ("ICP") for profit.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

A BTS Licence and VATS Licence will specify the type(s) of permitted operations for the particular telecoms enterprise in line with the categories and classifications under the Telecommunications Classification Catalogue. The duration of a BTS Licence is five or 10 years (depending on the type of business) and five years for a VATS Licence (the duration of a Licence for Pilot Operation of Value-Added Telecommunications Business by Foreign Investors in China (Shanghai) Pilot Free Trade Zone is three years). No transfers or trading of licences is allowed.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Urban construction and construction in villages must include the establishment of corresponding telecoms facilities. BTS operators are generally empowered by the Telecommunications Regulations to lawfully engage in telecoms infrastructure construction without obstruction, with some exceptions for prohibited or restricted areas, as provided by state regulations. After filing the appropriate notice, and making payment for the appropriate usage fees, BTS operators may attach public telecoms facilities to civil buildings (so long as they do not affect the safety of the building).

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

In principle, the Telecommunications Regulations and the Regulations for the Administration of Public Telecommunications Networks Interconnection (last revised in 2014) require that interconnection must be established among telecoms networks on a technically feasible, economically efficient, fair and justified, and mutually collaborative basis.

In particular, "principal telecom service operators" are not allowed to refuse a request for interconnection by other telecoms service operators, and must formulate their interconnection protocols and operate within the scope approved by the MIIT. "Principal telecom service operators" are defined under the law as operators who control vital basic telecoms facilities, who own a relatively large share of the telecoms service market (for the public telecoms networks, this ratio means exceeding 50% of the market for the same type of service within the scope of the local grid), and who are able to exert substantial influence over other telecoms service operators entering the telecoms service market.

According to the Measures for Resolution of Telecommunications Networks Interconnection Dispute (2002), any disputes arising out of network interconnection must be resolved through consultation first. If no agreement is reached, the dispute must be submitted to the MIIT or its provincial counterparts for mediation. If the mediation is unsuccessful, an administrative decision would be made. The administrative decision can be challenged either through administrative review or judicial review.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Telecoms service operators are not statutorily required to publish their standard interconnection agreements or prices, though it is

required by relevant regulation that the standard interconnection contracts should include certain key provisions, such as name and address of the operator, the service programme, basic fee charge standard, rights and obligations of the parties, representations of the operator on service quality, etc. Except where interconnection prices are subject to a government-set or government-guided price and, therefore, the price information is publicly available, operators are not obliged to publish actual interconnection prices.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

In general, interconnection prices for public telecoms networks must be in strict compliance with government-set prices as stated in the MIIT's Interconnection Settlement and Relay Costs Allocation Measures between Public Telecommunications Networks (2003) ("Settlement Measures"). However, in exceptional cases, such as for interconnection settlements between "satellite mobile communication networks and other telecommunication networks", the telecoms operator may negotiate interconnection prices by referring to the Settlement Table for telecommunications Interconnection, which is attached to the Settlement Measures. In 2009 and 2013, the MIIT respectively issued the Circular on the Adjustment of Interconnection Settlement among the Public Telecom Networks and the Circular of MIIT on Adjusting Interconnection Settlement Standards among the Public Telecom Networks, which added new settlement standards or replaced certain settlement standards that were provided in the Settlement Measures. In addition, with respect to the settlement standards related to the internet backbone networks which are interconnected through the internet exchange centre designated by the MIIT, the Interconnection Settlement Measures for Internet Exchange Centre (2007) will apply.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Currently, there is no regulation specifically dealing with operators' accounting separation, functional operation, or legal operation. However, the Anti-Monopoly Law may, in theory, potentially provide a legal basis for requiring an operator's functional or legal separation, if the relevant government authority determines that the operator's business may prevent necessary competition in the telecoms market. Historically, the separation of business lines, and the consolidation between key telecoms service operators in China, occurs from time-to-time. For example, this occurred in relation to China Telecom in 1999 when the Chinese government split it into smaller entities.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Presently, existing interconnection and regulatory conditions generally apply to next-generation (IP-based) networks. On January 21, 2010, the State Council promulgated the Overall Plan for Propelling the Integration of Three Networks to promote the construction of "fibre to the home" ("FTTH") and a national broadband network. The MIIT, together with other relevant government authorities, further issued a Notice Regarding Propulsion of Fibre Broadband Network Construction on March 17, 2010, which sets forth certain incentives, including preferential tax treatment, for enterprises engaging in the development and construction of fibre-based broadband networks. In addition, in 2012, the MIIT issued two national standards for the administration of the design, construction, and acceptance of communication engineering for the FTTH programme, including GB50846-2012 and GB50847-2012 ("FTTH Standards"). In May 2015, the Notice of Implementation of Broadband China Program for 2015 was issued. The Notice unveiled several goals for this year, including: (i) extending FTTH coverage by 80 million households and rolling out broadband services to 14,000 administrative villages; and (ii) with regard to 4G, the MIIT has set a target of 200 million new 4G subscribers by the end of the year, and will construct at least 600,000 4G base stations. According to the 2008 Urgent Notice and the 2014 Opinions, telecoms towers, poles, and ducts must be shared (for existing facilities) or co-constructed (for new facilities) by the relevant BTS operators. Other types of telecoms facilities (e.g., optical fibre cables) must be shared to the extent conditions permit. In addition, it has been reported that after the establishment of the China Iron Tower Company, some existing facilities (including base stations, ducts and poles) of the three Chinese telecoms operators may be operated under the China Iron Tower Company.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Before May 10, 2014, telecoms service fees were divided into market-oriented prices, government-guided prices, and government set prices. However, with the implementation of the Circular of the MIIT and NDRC on Adopting Market-oriented Prices for Telecom Service Tariffs on May 10, 2014, telecoms operators are now permitted to autonomously set their telecoms service fees without obtaining regulators' approval.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

In addition to the general obligations imposed on service providers under the PRC Law on Protection of the Rights and Interests of Consumers (last revised in 2013), telecoms service operators must also comply with several telecoms service standards and rules, including the Norms for Telecommunications Services (2005). These rules and standards are mainly intended to regulate the provision of information, non-discrimination of service, communication quality, handling complaints, privacy protection, billing processes, and execution of a written service agreement with consumers. With respect to privacy protection, the Standing Committee of the NPC promulgated the Decision of the Standing Committee of the NPC on Strengthening Network Information Protection in 2012, which contains several specific provisions concerning the acquisition, collection, use, and disclosure of personal information.

In 2012, the MIIT promulgated the Information Security Technology – Guideline for Personal Information Protection within the Information System for Public and Commercial Services ("Personal Information Protection Guideline"). Even though the Personal Information Protection Guideline is not legally binding on network service providers, it represented the current best practices of the industry and may potentially indicate likely legislative trends in the future. In 2013, the MIIT promulgated the Personal Information

Protection Measures for Telecom and Internet Users, which set forth the methods for telecoms operators and internet information service providers to collect and use personal information, as well as the Measures for Registering the True Identity of Phone Users.

In 2014, the SAIC issued the Administrative Measures for Online Transactions (2014), which provides particular requirements that online sellers, third-party online transaction platforms operators, and other parties relevant to online transactions must follow in the online transaction environment.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

According to the Telecommunications Regulations and Measures for Administration of Telecommunication Network Number Resources (last revised in 2014) ("Network Number Resources Measures"), telephone numbers and network identifying codes belong to the State. The use of such number resources is subject to a compensatory use system and requires the approval of the MIIT or its provincial counterparts. Allocation is made by the regulatory authority by way of assignment, random selection, and auction (as applicable).

2.17 Are there any special rules which govern the use of telephone numbers?

According to the Network Number Resources Measures, a number holder must use the number within the prescribed time-frame and comply with the authorised scope and purpose. Allocated number resources may not be transferred or leased. Currently, the three Chinese telecoms operators (China Mobile, China Telecom and China Unicom) are permitted to allocate mobile phone numbers (starting with the digits "170") to the MIIT-approved MVNOs for resale to end-users.

2.18 Are there any obligations requiring number portability?

On May 17, 2014, the MIIT issued the Administrative Measures for Trial of Porting for Mobile Subscribers, which sets out the basic rules (e.g., relevant application and examination, fee and settlement, and supervision and management matters) for porting telephone numbers.

While number portability is not a mandatory requirement for the operators, trial projects for porting telephone numbers have been launched in several areas in China. The MIIT initiated trial projects for porting telephone numbers in the city of Tianjin and the Hainan Province in 2010 by issuing the Circular of the MIIT on Launching the Trial of Porting in Tianjin and Hainan for Mobile Subscribers. Later, on September 20, 2014, trial projects for porting telephone numbers in another three provinces (i.e., Jiangxi Province, Hubei Province and Yunnan Province) were launched.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

In accordance with the Measures for Administration of Radio Spectrum (1993), the Radio Regulatory Bureau under the MIIT ("RRB"), under the leadership of the State Council and the Central Military Commission, is responsible for the management of radio operations (including spectrum use) nationwide. In particular, the provincial counterparts of RRB and the relevant ministries of the State Council are responsible for the administration of civil use of the radio spectrum within their respective jurisdictions. The radio management organisation of the Chinese People's Liberation Army is responsible for the administration of the military's use of the radio spectrum.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

A licence from RRB or its provincial counterparts (as applicable) is required for the use of radio spectrum (spectrum licence) and the user must submit an application to the regulatory authority for approval. Radio spectrum is allotted by RRB on a centralised basis. The relevant government authorities (such as GAPPRFT) may assign the allotted spectrum within its jurisdiction and file these assignments with RRB. RRB and its provincial counterparts are also responsible for granting two types of related licences, a licence to set up and use a radio (station), and a radio transmission equipment licence for the development and importation of radio transmission equipment.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

The use of spectrum cannot be licence-exempt.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

China implements a compensatory use system for the use of a radio frequency spectrum. With exceptions for certain types of radio stations prescribed by law, frequency occupancy fees are payable on a yearly basis and must be calculated in accordance with the pricing standards listed in the Fees Collection Regulations for Administration of Radio (1998).

3.5 What happens to spectrum licences if there is a change of control of the licensee?

The Measures for Administration of Radio Spectrum and other related instruments concerning the regulation of spectrum licence do not specifically address rules for circumstances in which a change of control of a licensee occurs. In practice, the spectrum licence will stay valid and no special formalities will need to be followed just because the control of the licensee has changed.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Without approval from RRB or its provincial counterparts, spectrum licences may not be transferred. Spectrum rights are forbidden to be leased either directly or indirectly.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The PRC Constitution Law (last revised in 2004) provides the basis for ensuring the security of private information and communications.

The PRC Cyber Security Law (2016) provides in general that cyber security should be guaranteed by the state and relevant authorities in respect to the internet establishment, operation, service delivery, infrastructure and information, and defines the monitoring and altering mechanism.

The Management Provisions on the Computer Information Network and the Internet Security Protection (last revised in 2011) provides that the service providers and individuals have the duty to protect information and data on the Internet.

The Provisions on the Computer Information System Security (last revised in 2011) provides the protection mechanism for the computer information system and the public security unit is responsible for the monitoring duty.

The PRC Consumer Protection Law deals with cyber security and personal information issues arising out of consumer-operator relations.

Certain provisions in the PRC Criminal Law provides the punishment for violating the cyber security laws and regulations.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

According to the PRC Constitution Law (last revised in 2004), the freedom and privacy of correspondences between citizens of the PRC are protected by law. No organisation or individual may, on any grounds, infringe upon the freedom and privacy of citizens' correspondences, except for the needs of national security or for investigations into criminal offences. In response to these needs, public security authorities, or the people's procuratorates, are permitted to censor correspondences in accordance with procedures prescribed by law. In addition, the Counterespionage Law of the People's Republic of China (2014) further provides that where counterespionage work requires, the national security authorities may inspect the electronic communication instruments, appliances, other similar equipment, and installations belonging to any organisation or individual. Moreover, the Telecommunications Regulations also provide that the public security authorities, national security authorities, or the people's procuratorates may conduct an examination of the content of telecommunications in accordance with the law.

In the new State Security Law of the PRC (2015), it is provided that the State must ensure the security and controllability of network and information core technologies, critical infrastructure and information systems and data in key areas. In order to do so, the State has published the Draft Cyber Security Law for public comment, and provided regulations for comprehensive cyber security therein.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

There are no specific rules concerning telecoms service operators' interception capabilities currently available in China. However, according to the Telecommunications Regulations, generally, telecoms service operators must meet national security requirements. Particularly, operators are obliged to assist public security authorities, national security authorities, and the people's procuratorates in examining the content of telecommunications in accordance with the procedures prescribed by law for national security or criminal investigation purposes. Given that traditional telephone calls, VoIP calls, and emails can all be included within the meaning of "telecommunication" under the Telecommunications Regulations, the aforesaid operators' obligation of assistance will cover traditional telephone calls, VoIP calls, and emails.

4.4 How does the state intercept communications for a particular individual?

The ways and technical solutions that the State may apply to intercept communications for a particular individual are not publicly known.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

To strengthen the administration of commercial encryption, and to ensure the safe flow of information over the internet and through other media, the State Council and the State Encryption Administration Bureau ("SEAB") promulgated a series of instruments concerning the regulation of scientific research relating to the production, sale, use, import/export, transfer, repair and even the destruction of commercial encryption products. The regulations include the Regulations on Administration of Commercial Encryption (1999) ("Encryption Regulations"), the Regulations on Administration of Use of Commercial Encryption Products (2007), and the Measures on Administration for the Use of Encryption Products by Foreign Entities and Individuals in China (2007), which specifically relates to the use of encryption products by foreign entities and individuals in China.

When a foreign entity or individual applies to use commercial encryption products in China, the type of algorithm (such as "AES") and length of the key, together with other information of such commercial encryption products, must be provided to the relevant provincial SEAB for approval.

The PRC Anti-Terrorism Law (2016) provides that telecom business operators and internet service providers who provide encryption services or solutions to their users should provide the relevant decryption technology and other technical assistance to the public security organs and the state security organs for the prevention and investigation of terrorist activities.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

According to the Norms for Telecommunication Services, telecoms service operators are required to retain original information on the

fees charged for fixed, mobile, IP phone calls, peer-to-peer text messaging services and internet information services for at least five months. On July 12, 2013, the MIIT issued the Norms for Internet Access Services, which state that the original information on the fees charged for Internet access services must be kept for at least five months. In addition, the Measures for Registering the True Identity of Phone Users requires that the identification information and materials provided by subscribers when they subscribe to telecoms services must be kept for at least two years after the subscriptions are terminated. On May 19, 2015, the MIIT published the Administrative Provisions on Text Message Services, in which it is provided that text message service operators must record the following information in their service systems for at least five months: sending and receiving time; telephone numbers or codes of the sending and receiving ends; user subscription and un-subscription information; and the content of messages (for port-type messages). Under the ICP Measures, ICP operators must keep records of the content and publishing times. Internet access providers must keep records of the log-in/out time, user account, IP address of users and initiating numbers for at least 60 days.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Generally, in the context of electronic communications, the distribution of audio-visual media is under strict control by the Department of Propaganda of the Communist Party and GAPPRFT.

Depending on the nature of the carrier or platform used for transmission, the distribution of audio-visual media is subject to different licensing systems (see question 5.3 below), which are primarily administered by GAPPRFT in accordance with the relevant instruments concerning the distribution of audio-visual media (see question 1.2).

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

In general, the same content regulation principles will apply to the distribution of audio-visual media. For example, illegal or immoral content, such as that which "threatens national security, honour, or interest", or that is otherwise restricted by law or administrative regulations, shall not be distributed either via traditional distribution platforms (e.g., TV, radio and film) or via the internet. No matter whether transmitted via traditional platforms or the internet, the contents of advertisements distributed must all satisfy the rules provided in the Advertising Law of the People's Republic of China (last revised in 2015).

In the meantime, in order to distribute content via different platforms, a distributor may need to apply with different administrative authorities for different licences or permits (as discussed in question 5.3).

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

To distribute audio-visual content through radio and television, a broadcaster (radio or television station) must obtain a Radio and Television Broadcasting Institution Licence and a Radio and Television Channel Licence granted by GAPPRFT. Only films, television dramas or animations, domestically produced or imported, which have obtained GAPPRFT approval for distribution in China (e.g., Television Drama Distribution Licence) are allowed. When delivering the content, the broadcaster must also ensure copyright issues have been resolved.

To engage in the distribution of audio-visual content via the internet, an operator must at least obtain three types of licences, including the MIIT's ICP Licence (applicable to for-profit audio-visual content), GAPPRFT's Operating Permit for Transmission of Audio-Visual Programs via Information Networks (in which the permitted business type, receiving terminal and transmission networks are specially prescribed), and MOC's Internet Cultural Operating Licence. If it involves certain specific business activities, additional licence(s) may be required. By way of example, for network publication activities, GAPPRFT's Certificate for Network Publication must also be acquired. And for delivering content involving any political news or commentaries, a licence from the State Council Information Office is necessary. Internet audio-visual media operators must comply with self-censorship obligations that are similar to those applying to broadcasters, in order to ensure the legality and morality of the content they deliver. If an operator notices that the content transmitted is "restricted information", it must terminate the transmission of the information, keep records, and report it to the relevant regulatory authorities immediately.

To engage in the distribution of audio-visual content, through VAN, IP/VPN, or certain oriented transmission channels on internet in the form of IPTV, designated network mobile phone TV, internet TV, etc., an operator must also obtain GAPPRFT's Operating Permit for Transmission of Audio-Visual Programs via Information Networks (in which the permitted business type, receiving terminal and transmission networks are specially prescribed).

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

All the licences mentioned in question 5.3 are administrative licences, and Article 9 of the PRC Law on Administration of Licensing (2004) specifically provides that administrative licences obtained in accordance with laws must not be transferred, except where laws or regulations permit such a transfer according to the conditions and procedures prescribed by law. Therefore, the licences mentioned in question 5.3 are not assignable, either because it is expressly prohibited by certain regulations (e.g., the Telecommunications Business Licence Measures), or the relevant regulations do not provide that such a transfer of licences could be made.

Generally, when the equity structure of certain licence holders is changed, approval from the government authorities issuing such licences should be obtained prior to any equity changes (e.g., for an ICP Licence), or the alteration formalities with relevant competent government authorities shall be fulfilled (e.g., for MOC's Internet Cultural Operating Licence). More importantly, if change of control of the licensee happens, the various restrictions imposed on foreign investment in the telecoms, internet, and audio-visual media sectors must be strictly complied with (see questions 1.1 and 1.4 above).

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

According to the Telecommunications Regulations, telecommunications users are responsible for the content they transmit via the use of a telecommunications network. The Provisions of the Supreme People's Court on Several Issues Concerning the Application of Law on Trial of Civil Dispute Cases of Infringement of Information Network Transmission Right (2013) also provides that an ISP will not be jointly liable with the infringer if it only provided automatic access and automatic transmission services for the infringing content. Many Chinese courts appear to have adopted this rule and have applied the defence of "mere conduit" when determining the responsibility of internet access service providers for content carried over their networks. The benefits of safe harbour rules are available to ISPs, provided that they comply with certain statutory requirements. However, generally, ISPs do not have an obligation to actively monitor infringing content on their networks, with certain exceptions.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

According to the PRC Tort Law (2010) and the Regulations on the Protection of the Right to Network Dissemination of Information (last revised in 2013), ISPs are obliged to take necessary actions, including deleting or blocking infringing content or disconnecting the links, when they are fully aware of the infringement, or after being duly informed by the aggrieved content owner. In the case of receiving notification from the content owner, ISPs must duly inform the person providing the content in question either by forwarding the infringement notice or by publishing the notice on the information network (where the network address of the intended recipient cannot be identified). The ISP is also obligated to disclose the identity of the infringer to the aggrieved party.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Generally, telecoms service operators are required to ensure "fairness" and equality when delivering services under the Telecommunications Regulations. In addition, the PRC Price Law (1998) does not permit operators to implement price discrimination policies against other operators that provide similar services. Therefore, the operators are legally unable to differentially charge for different types of traffic over their networks. However, there is no requirement for the operator to respect "net neutrality" in China, and in practice occasionally operators charge differently certain types of traffic.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

If telecoms service operators discover that the content being transmitted is illegal or immoral (e.g., endangering national security or divulging state secrets), they must cease the transmission and block access to certain sites or content immediately.

The operation of VPN services requires either a Fixed Network Domestic Data Transmission Service Licence (a type of BTS Licence) or a Domestic Internet Protocol Virtual Private Network Service Licence (a type of VATS Licence). Customers can use certain VPN services which are permitted by the respective VPN service licences mentioned above.

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Congo – D.R.

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

(a) Telecoms and internet

Telecoms and internet are the fastest-growing industries in DRC. They have come a long way since their liberalisation, which started with the Framework Law No. 013/2002 of October 16, 2002 related to telecoms in DRC. This legislation defines and organises the operation of telecoms in DRC; i.e., it opens the telecoms sector to private and foreign investors.

(i) According to the 2017 figures from the *Direction Générale des Impôts* (National Revenue Services), the monthy revenue for Vodacom DRC averages around 1,300,000 USD. (This information is collected from the sources of *Direction Générale des Impôts*. In practice, the actual revenue information is kept secret from the general public.)

(ii) Significant market participants are: Vodacom; Orange; Airtel; and Africell, the four leading players in the market.

(b) Audio-visual media distribution

The sector had echoed changes in the telecoms industry. Several radio and television operators have been authorised to operate in the country. Historically, from 1965 to 1994, there was only one major national audio-visual media company controlled and run by the government (*Office Zaïrois de Radiodiffusion et de Télévision* (OZRT), created by Decree No. 81/050 of April 2, 1981). Thereafter, OZRT was transformed into a public service entity named *Radio Télévision Nationale Congolaise* (RTNC) by Decree No. 09/62 of December 3, 2009.

(i) As an example, the monthly revenue for Mirador TV is 72,000 USD per month (according to the information from the accounting department of Mirador TV).

(ii) There are 807 private and public radio stations and 98 television stations operating in DRC (according to records collected from the CSAC (*Conseil Supérieur de l'audiovisuel et de la communication*, the institution that oversees audio-visual media). Significant market participants are:

- In radio: RTNC; FM; and Radio Elykia.
- In television: RTNC (government-owned and operated radio-television station); Antenne A; Mirador TV; B-One; Molière TV; CNTV; CCTV; RTCE; CKTV; Digital TV; and TNT.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms and internet

1. Framework Law No. 013/2002 of October 16, 2002 organising telecoms in DRC.

   Since April 6, 2017, there is pending draft legislation at the National Assembly to overhaul the business of operating telecoms and internet in DRC.
2. Framework Law No. 014/2002 of October 16, 2002 creating the *Autorité de Régulation des Postes et Telecommunication au Congo* (ARPTC). This authority regulates, manages, and coordinates frequency availability, and controls post and telecommunications.
3. Interministerial Decrees No. 004/CAB/MIN/PTT/2005 and No. 105/CAB/MIN/FINANCES/2005 of July 28, 2005, that fix the tax rate of telecommunications, at the initiative of the national telecoms regulator in DRC.
4. Law No. 012/2002 of October 16, 2002 regulating the post office in DRC.

(b) Audio-visual media distribution

- The Constitution of DRC of February 18, 2006, as modified and completed in its article 212 which created a national agency for audio-visual media distribution named *Conseil Supérieur de l'audiovisuel et de la communication* (CSAC).
- Law No. 96/002 of June 22, 1996 fixing the conditions of exercising the freedom of the press in DRC. Articles 50 to 72 guarantee the principle of freedom and multiplicity of audio-visual communications.
- Framework Law No. 11/001 of January 2011 organising the CSAC. Article 9 lays down its objectives, with the mission to preserve balance among audio-visual operators in exercising freedom of the press, in accordance with laws and regulations.
- Law No. 03/027 of September 16, 2003 fixing the conditions of exercising the freedom of the press in DRC.
- Law No. 014/2002 of October 16, 2002 relating to the creation of ARPTC. This agency's role extended to audio-visual communication.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms and internet

- *Ministère des PT-NTIC* conceives national policies on telecoms and internet. It is the executive authority. In practice, several application measures in telecoms are issued at this level.
- ARPTC is the main authority regulating telecoms and internet. The April 2017 draft legislation on telecoms adds another agency called the National Agency of Technology of Information and Communication to oversee and control the handling of personal information of their subscribers. ARPTC oversees telecoms operations, approves or denies telecoms licences, manages national telecom frequency, arbiters conflicts of frequency, instructs telecoms operators on their obligations and rights, and advises the *Ministère des PT-NTIC* on the technical issues of telecoms and internet.

(b) Audio-visual and media distribution

- *Ministre de la Presse et des Médias*.
- CSAC, independent agency.
- ARPTC: its role is extended to audio-visual media distribution.
- *Union Nationale de la Presse du Congo* (UNPC) – a self-regulatory body which acts as a disciplinary commission to control the respect of ethics governing journalists in the audio-visual and written press. It also arbitrates conflicts in the audio-visual and written press.
- *Observatoire des Médias Congolais* (OMEC) – a self-regulatory body. In practice, it has no constraining authority to sanction audio-visual players.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

(a) Telecoms and internet

(i) Yes. From 1965 to 1997, access to telecoms and internet was strictly limited. Only one national telecoms company was operating, *Office National de Poste et Telecommunication*.

(ii) Yes. They are open to foreign investment with some restrictions. Article 19 of the Telecoms Framework Law No. 013/2002 stipulates that a telecoms and internet company must comply with the following:

- it must be incorporated as a joint stock company (S.A.) (*Société Anonyme*); and
- 30% of the company's share capital must be held by Congolese physical persons or legal entities, and 5% of such share is reserved for its employees.

(b) Audio-visual media and distribution

(i) Yes. The rule is: the space frequency for audio-visual media and media distribution belongs to the State. It grants frequency to private operators and foreign investors in compliance with the international treaty in telecommunications, signed by the DRC government (International Treaty of Communication – ITC).

(ii) The audio-visual media sector is also open for foreign investment; Law No. 96-002 of June 22, 1996 relating to the freedom of press in its articles 4 and 115 does not discriminate against foreign investment in audio-visual media businesses.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Yes, DRC has been a member of the World Trade Organisation and GATS since March 27, 1997. DRC did not participate in the negotiations leading to the Agreement on Basic Telecommunication nor is it a signatory to the WTO Reference Paper on Telecoms.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

ARPTC regulates, at the national level, telecoms networks and services by decisions, and the Minister also can take regulatory measures.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

- The *Ministère des PT-NTIC* and ARPTC are the main authorities that police and regulate competition in telecoms and internet.
- ARPTC is a technical body under the supervision of the *Ministère des PT-NTIC*.
- Their roles are differentiated. ARPTC is the technical authority with more control of day-to-day decision making.
- The two institutions are government entities; they are not independent from the government.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Yes, ARPTC's decision can be appealed on the basis of violation of freedom of expression (article 45 of the Framework Law No. 13/2002 of October 16, 2002). Firstly, the operator can appeal for review of the decision before the same authority (ARPTC) which made the decision (administrative appeal); then before the *Ministère des PT-NTIC*, and finally before the *Court de cassation* (highest level of appeal).

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

ARPTC grants a general authorisation (*Régime de concession*). Article 18 of Law No. 013/2002 of October 16, 2002 lists the activities associated with it:

1. supply of telephone services to the general public from a fixed point;
2. establish and exploit audio signals, specifically cellular signals to service the general public; and
3. establish networks of telecoms open to the public by using other means of transmission.

ARPTC can also grant an individual authorisation (*Régime d'autorisation*) with a limited capability of connection at a maximum of 2.1 MBps (article 23 of the above-mentioned Law).

ARPTC can grant another type of individual authorisation (*Régime de declaration*) which is granted to foreign institutions working in DRC, to individuals who are using a ground station, and for radio communications with a maximum capacity of 10 milliwatts (article 27 of the above-mentioned Law).

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

- Notaried articles of association of companies should have a legal form of Joint Stock Company (S.A.) (*Société Anonyme*); 30% of the company's share capital must be held by a Congolese physical person or legal entity, and 5% must be reserved for its employees.
- Written demand is sent to the *Ministère des PT-NTIC* and a copy to ARPTC.
- ARPTC examines the demand and a copy is sent to the National Security Agency (*Agence Nationale de Renseignement* – ANR) for verification if the company poses a national security threat.
- The ANR clears the demand and sends it back to ARPTC.
- ARPTC then approves the demand and the Minister grants the authorisation to operate.
- ARPTC draws a "*cahier de charge*" (detailing what the company should or should not do under the granted authorisation), which is signed by the *Ministère des PT-NTIC* and published in the local official Gazette.
- The company can now operate.
- Local environmental ordinances should be obeyed by (article 61).
- Respect of zoning ordinances on right of way, encumbrances, and real estate in general to install, exploit, and commercialise telecoms equipment.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Individual authorisation can be granted (*Régime d'autorisation*) with a limited capability of connection at a maximum of 2.1 MBps (article 23 of Law No. 013/2002 of October 16, 2002). It is for gross data without any kind of treatment. The regime is granted for the reception of collective radio of 300 metres and communication on ships registered in DRC. The authorisation is personal and cannot be transferred (article 42 of above-mentioned Law). It is granted for 10 years.

ARPTC can grant an individual authorisation (*Régime de declaration*) to individuals who are using a ground station and for radio communications with a maximum capacity of 10 milliwatts (article 27 of above-mentioned Law). Its duration is 10 years and it cannot be transferred.

The April 6, 2017 draft aforementioned legislation introduces four types of authorisations: authorisation of network and services telecoms (a duration of 20 years); authorisation of network infrastructure (a duration of 20 years); authorisation of services and application (a duration of 10 years); and authorisation of installing and operating an audio-visual media service (for a duration of 10 years).

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Yes, ARPTC Law No. 013/2002 of October 16, 2002, Title IV describes the right of way or easement for entering private land to install telecoms infrastructure. Article 61 states that installation of infrastructures and equipment should be done in respect of zoning ordinances not in violation of private land rights. The placement of poles, cables, antennae, and other telecoms equipment should be agreed between the telecom licensee and the private land owner (articles 63 to 67 of above-mentioned Law).

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

With regards to the interconnection (of networks), ARPTC's Decision No. 016/ARPTC/CLG/2006 of June 23, 2006 on the definition of interconnectivity principles provides some freedom regarding interconnection matters. The disputes are settled between telecoms operators or the arbitration of ARPTC.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

The operator or telecoms service provider wishing to establish an interconnection may make a request to another operator.

The interconnection contract and prices are communicated to ARPTC for review with signatures of the parties. ARPTC may require operators to make amendments to the agreement to comply with the regulation on telecoms.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Yes, Decision No. 006/ARPTC/CLG/2015 of February 27, 2015 of the Post and Telecommunications Regulatory Authority's Board relating to the definition of telecommunications services' tariff principles in the DRC. It only applies to voice services, and defines the tariffs applicable to telecoms operations of public networks.

Decision No. 068/ARPTC/CLG/2013 of September 25, 2013 of the Post and Telecommunications Regulatory Authority's Board sets out interconnection rates from 2013 to 2017.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

The regulator does not impose any accounting separation, functional separation or legal separation to fight discriminatory competition. The Competition Law No. 018/020 of July 9, 2018 introduces rules that regulate potential public restraints on competition, and sets four conditions under which public or state-owned entities are allowed to conduct business activities in competition with the private sector:

market failure; the service in question relating to the legal functions or powers of the public entity; to satisfy their own needs; and improvement of service supply for the greater good.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

There is no regulation on high-speed broadband networks and no terms on passive infrastructure availability.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Law No. 018/020 of July 9, 2018 regulating competition pricing applies to the production and provision of goods and services in DRC.

The objective of this reform is the modernisation of DRC's outdated legislation on pricing and competition.

Prices are not subject to prior approval, but after they have been fixed, they are communicated with the whole file to the *Ministère de l'Economie* for *a posteriori* control. The rates and fees are freely fixed by the operator or retailer. The price is communicated to the *Ministère des PT-NTIC* and indicates the period during which rates and charges will be applied.

ARPTC may require the operator/retailer to modify the rates it intends to apply to its services if it appears that these tariff changes violate fair competition.

Pursuant to Decision No. 006/ARPTC/CLG/2015 of February 27, 2015 relating to the definition of tariff principles for telecommunications services, rates are freely set by operators in compliance with cost-based principles.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The Framework Law No. 013/2002 of October 16, 2002 on telecoms did not provide special rules for electronic communication, such as email services to consumers and universal service.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and network identifying codes are allocated by ARPTC in a transparent and non-discriminatory manner, after payment of numbering tax and an annual fee. Article 8 f. of Law No. 013/2002 of October 16, 2002 stipulates that ARPTC creates and manages the national plan of numbering.

2.17 Are there any special rules which govern the use of telephone numbers?

The Framework Law No. 013/2002 of October 16, 2002 on telecoms does not require any obligations from the subscriber on the use of telephone numbers, except to show his identification to apply for one. Since 2016, telecoms operators have been required to identify the subscriber and to register his number. The drafted legislation of April 2017 focuses on mandatory registration of subscribers including his name, physical address, and his ID number.

2.18 Are there any obligations requiring number portability?

The law does not require any obligation for number portability. The only principle is that the number must be attached to a physical person or legal person for identification purposes.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

ARPTC is the authority that regulates radio spectrum use. The CSAC controls the content in radio spectrum use.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

The operator submits a program outline to the CSAC in conformity with the Law creating the business of press (article 13 of the CSAC). The outlines must be in compliance with the *cahier de charge* approved by the CSAC. Each semester, the CSAC evaluates the program outline. The *cahier de charge* obliges the radio operator to allocate the spectrum between candidates fairly.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Yes, the spectrum is licence-exempt. However, users are required to pay a fee. Users are granted a general authorisation to operate in the bands, provided certain guidelines for power, range, etc.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

Yes, the authorisation fee is payable to use radio frequency spectrum. DRC is a signatory to the ITU Convention, and has acceded to the Regional Agreements concerning VHF-FM sound broadcasting and VHF/UHF television broadcasting. DRC is obliged to adhere to the principles agreed to in the planning conferences organised by the ITU to plan the broadcasting frequency bands.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Licensees shall not transfer or assign in any manner the rights, interests, or obligations. In case of change of control, the new operator shall inform ARPTC and the CSAC.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

The spectrum licence is personal to the licensee and cannot be traded without ARPTC's prior express written consent to be operated by any third party, whomsoever including but not limited to the licensee's subsidiary or associated companies.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Articles 68 to 72 of the Framework Law No. 013/2002 of October 16, 2002 on telecoms mention the criminal regime of data retention and cybersecurity. Articles 70 to 72 punish data retention and interception of telecoms data fraud. The legislation does not particularly detail cybersecurity fraud or violation. The pending draft of April 2017 is more explicit on the punishment of personal data fraud in relation to cybersecurity.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Courts can order access to private communications in criminal proceedings. The ANR (*Agence Nationale de Renseignement*) can access private communications for national security purposes by ordering a "*réquisition d'information*" to a telecom operator. In practice, the agency has more power to coerce the operator to do so. The police can also, for criminal investigations, request private communications from the telecoms business operator.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

The rules of call interception apply to traditional phone lines under the *Office Nationale des Postes Communication*. With wireless technology, the National Intelligence collaborated with private telecoms operators to intercept phone calls and VoIP calls. Interception of emails is not possible because the technology is not available to the ANR. Also, WhatsApp accounts are not accessible to intercept. In 2012, after the publication of the presidential election result, the government shut down access to the internet with the help of telecoms operators. DRC national security intelligence does not have the technical capacity in place to intercept calls.

4.4 How does the state intercept communications for a particular individual?

The ANR can intercept communications with the help of telecoms business operators. In practice, every telecoms operator has an in-house agent working for the ANR.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

The use of encryption is not regulated in DRC. But in practice, for national security purposes, the State can ask application owners to provide it.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

The Framework Law No. 013/2002 of October 16, 2002 on telecommunications does not mention the times and the type of data the operators should retain, and for how long. In practice, the ANR obliges operators to keep personal data, such as names and physical addresses, for national security purposes and for as long as possible. Operators are also obliged to keep other data, such as financial data, for five years in case of a government audit.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The *Ministre de la Presse et des Médias* makes general measures on how media should be distributed. ARPTC allocates the distribution of audio-visual media by granting frequency to audio-visual media operators. The CSAC controls the usage of the frequency distributed to audio-visual media.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

The CSAC regulates the content of traditional distribution platforms such as radio, TV, newspapers, and editorial. Traditional distribution platforms are required to provide for the content of four main types of programme, as follows: 35% for information, news and magazines; 25% for education, health, youth and women; 20% for culture, sport, and entertainment; and 10% for economy and development. The current legislation does not cover internet regulation.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The CSAC registration form grants four types of licence: audio-visual media (under the spectrum frequency control and supervision of ARPTC); television distribution (also under ARPTC control); production agency (under the control of the CSAC); and commercial agency (under control of the CSAC).

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

The concession licence and the authorisations issued by the application from the Law on Telecommunications in DRC

are personal and not transferable (see article 42, paragraph 1 of the Framework Law No. 013/2002 of October 16, 2002 on telecommunications). The new operator wishing to obtain a licence shall apply for a new licence. In case of change of control of licensee, the only restriction is that the new licensee shall update its information with the CSAC and ARPTC.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

DRC lacks regulation concerning the management of the internet. Framework Law No. 013/2002 of October 16, 2002 regulates telecoms (telephone, telefax, etc.), but does not regulate the internet. The court is still struggling on the subject of litigation over telecommunications operators and/or internet service providers for lack of regulation and national jurisprudence of the matter. The draft pending legislation takes into account the internet.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Yes, the operator is under the obligations of the *cahier de charge* to avoid infringing the rights of others. ARPTC can discipline the telecoms operator. There are no details on what specifically the operator should do, because the law on telecoms does not specifically regulate the internet service. In practice, ARPTC plays the role of the police on telecoms (article 8); it can impose specific measures on the operator.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

There is no net neutrality in DRC. Operators should abide by rules which can request that operators block access to certain types of sites.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Yes, the government can ask operators to block certain sites. Yes, to avoid the use of VPN, the government has lately asked operators to totally block the internet. (See https://www.iafrikan.com/2018/01/22/internet-accesss-blocked-in-the-democratic-republic-of-congo-drc/, *Democratic Republic of Congo blocks the Internet ahead of anti-Kabila protests*, by Nakirfai Tobor.)

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Kalema Legal & Associates is an independent law firm in DRC, providing legal services to local, regional and international clients. It gives valuable advice on complex issues of international transactions to which DRC is party. Through correspondent law firms, we are present in the French-speaking African zone, particularly in the member countries of the Organization for the Harmonization of Business Law in Africa (OHADA).

The firm provides services in English and French. We are committed to providing quality work in compliance with the standards and ethical rules.

As a team, we assist our clients by analysing the risks in their transactions, and advise them on management strategies.

Areas of expertise: Telecommunication law; Business Law; Commercial Law; Infrastructure Law; Energy Law; Natural Resources Law; Judicial Law; and Dispute Resolution Law.

Chapter 11

Denmark

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

(a) Telecoms, including internet

The telecoms market is extremely competitive with 137 telecoms providers in the market, employing a total of 13,000 persons. The annual turnover is 5.1 billion EUR, equivalent to 1.9% of the GDP.

The annual investment in telecoms infrastructure is estimated at 800 million EUR.

Price remains a driving factor in the market, but in most aspects prices remain fairly stable compared to previous drastic price reductions. Recently, additional parameters such as download speeds, free roaming outside the EU, and bundled services (including access to online magazines and cinema tickets) have been used in order to attract customers. The annual churn rate of mobile subscribers is around 12%.

The Danish government has set a goal to enable 100 Mbit/s downstream and 30 Mbit/s upstream for the population by 2020. The current penetration of high-speed access is:

- 100 Mbit/s downstream – 84%.
- At least 10 Mbit/s – 95%.

The 2.4 million fixed net broadband subscribers were distributed as follows (the remaining 6% is not accounted for in the statistics, but may be through the electricity network):

- Broadband via fibre – 19%.
- Broadband via the cable-TV network – 29%.
- Copper-based broadband accounted for – 46%.

The total number of mobile subscribers was 8.5 million by the end of 2015. This number is most probably higher today.

The latest report on the Danish telecoms market was published by the Danish Energy Agency in June 2016, and as it is based on numbers from the second half of 2015, some of the figures above may have changed.

The major telecoms providers are TDC A/S (the former incumbent), Telenor A/S and Telia Denmark, *filial af Telia Nettjänster Norden AB, Sverige*.

(b) Audio-visual media distribution

The most important broadcasting companies are the state-owned DR (Danish BroadCasting Corporation) and TV2. The private broadcasters are dominated by Nordic Entertainment Group (part of Modern Times Group (MTG)) and Discovery Networks Northern Europe Ltd.

The TDC-owned YouSee is the major distributor of television. Among the other bigger players are Stofa and Waoo, whose parent companies merged in October 2018; the market expects a merger of their services in the coming years. The merger may be seen as an attempt to increase market share in a market currently under pressure due to changed media consumption, including "cable shaving", which is moving consumers from broadcasters to online on-demand services.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms, including internet:

- the Consolidated Act on Electronic Communications and Networks and Services, Act No. 128 dated 7 February 2014 (the "Telecoms Act") – an English version of the main act from 2011 may be found here: https://ens.dk/sites/ens.dk/files/Tele/act_on_electronic_communications_networks_and_services.pdf;
- the Executive Order on the Provision of Communications Networks and Services, Executive Order No. 715 dated 23 June 2011 (the "Provision Order");
- the Act on Radio Frequencies, Act No. 1100 dated 10 August 2016 (the "Frequency Act");
- the Act on Cable Laying Access and Expropriation, etc. for Telecommunications Purposes, Act No. 662 dated 10 July 2003 (the "Cable Laying Act");
- the Act on the Establishment and Joint Utilization of Masts for Radio Communications Purposes, Act No. 681 dated 23 June 2004 (the "Mast Act");
- the Executive Order No. 482 dated 20 May 2016, regarding Universal Service Obligations (the "USO Order");
- the Executive Order No. 988 dated 28 September 2006, regarding retention of data (the "Retention Order"), which has since been amended by the Executive Order of Amendment No. 660 dated 19 June 2014;
- the Act on the Center for Cyber Security, Act No. 713 dated 25 June 2014 (the "Cyber Security Act"); and
- the Network and Information Security Act, Act No. 1567 dated 15 December 2015 (the "Network and Information Security Act").

The internet sector is subject to telecoms regulation. However, telecoms regulation does not cover content. Content is regulated in:

- the Danish E-Commerce Act, Act No. 227 dated 22 April 2002 (the "E-Commerce Act"); and

- the Danish Consumer Agreements Act, Act No. 1457 dated 17 December 2013 (the "Consumer Agreements Act").

Matters relating to the administration of domain names are regulated by Act No. 164 dated 26 February 2014 (the "Internet Domain Act").

(b) Audio-visual media distribution

The most important Danish regulations governing media, including radio and TV broadcasting, are:

- the Consolidated Act on Radio and Television Broadcasting, Act No. 444 dated 8 May 2018 (the "Radio and TV Act"); and
- the Act on Copyright, Act No. 1144 dated 23 October 2014 (the "Copyright Act").

The rules on advertising in the Danish Radio and TV Act are supplemented by the general rules in the Danish Marketing Practices Act, Act No. 426 dated 3 May 2017 (the "Marketing Practices Act"), as well as special sector rules on, e.g., the advertising of healthcare and alcohol products on television.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms, including internet

The Danish Energy Agency ("DEA") (https://ens.dk/en/our-responsibilities/telecom/telecom-regulation) and the Danish Business Authority ("DBA") (https://danishbusinessauthority.dk/telecom) are the regulatory supervisory authorities for the telecoms and internet sector.

Other relevant authorities are:

- the Danish Competition and Consumer Agency – merger control and establishment of significant market position;
- the Data Protection Agency – data protection;
- the Centre of Cyber Security under the Ministry of Defence – supervision of network and information security in the telecoms sector; and
- the Danish Consumer Ombudsman – supervision of some requirements included in the Provision Order, including subscription terms.

The Danish Internet Forum ("DIFO") has overall responsibility and management of the top-level domain ".dk".

The Telecom Industry Association – Denmark (in Danish: *Teleindustrien* "TI") is the industry association for the majority of companies in the telecoms sector. TI promotes the sector, including the use of sector agreements instead of legislation. So far, TI has developed a number of sector agreements including: on joint digging of infrastructure, thereby reducing network construction costs; on procedures on net neutrality; and on requests for DNS blocking.

(b) Audio-visual media distribution

The Ministry of Culture and the Radio and Television Board (in Danish: *Radio- og tv-nævnet*) are the relevant regulators.

The Radio and Television Board consists of 10 members appointed by the Ministry of Culture.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

The sectors are fully liberalised and open to foreign investment.

The sectors are under merger control regulation, as in any other industry.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Denmark has been a member of the WTO since 1995. As part of the EU, Denmark committed to the fourth protocol of GATS regarding basic telecommunications services in 1998, including the telecoms reference paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The regulation is based on the EU legal framework.

The Telecoms Act is the core of the framework in respect of providers of communication networks and services.

The Provision Order specifies the obligations of the telecom providers in respect of their end-users.

The Frequency Act regulates the administration of frequency licences.

The Mast Act and the Cable Laying Act regulate the planning of network infrastructure.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The DEA and the DBA are the main regulatory authorities of the telecom sector.

The DEA is the primary authority responsible for the regulation of international roaming, spectrum, the Danish numbering plan, planning of infrastructure, service obligations of telecom providers, etc. The DEA is currently organised under the Ministry of Industry, Business and Financial Affairs.

The DBA is the telecommunications regulator. It regulates the competition on the telecommunications market (SMP – Significant Market Position). The DBA also has the responsibility for regulating certain issues concerning the internet. The DBA and the Danish Competition and Consumer Agency cooperate to establish the relevant telecoms markets, including the classification of telecom providers holding SMP status. The Danish Competition and Consumer Agency are currently organised under the Danish Ministry of Energy, Utilities and Climate.

All of the authorities are organised under the public administration, and in principle they are subordinate to the relevant ministers appointed by the government.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions may be appealed to the Telecommunications Board of Appeal (in Danish: *Teleklagenævnet*).

Decisions by the Board of Appeal may be appealed to the regular courts.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

Operators can start the provision of electronic communications services without a previous notification to the DEA, DBA or any other Danish authority.

The undertaking shall only be registered at the Danish National Police in order to provide a contact person in respect of requests for wire-tapping or provision of communication information from a specific subscriber, as part of a criminal investigation.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

As described in question 2.5, no authorisation is required.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

As described in question 2.5, no authorisation or licence is required. Consequently, there are no restrictions on the change of control of providers of communication networks or services.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

The DEA may initiate expropriation of land for the purpose of laying cables for public telecoms networks. Network operators shall provide access to their passive infrastructure, such as ducts and manholes, to other operators intending to roll out high-speed broadband networks. Such access shall be provided on fair and reasonable terms. This is further specified in the Cable Laying Act.

The Mast Act regulates access to existing or new masts, antenna positions and buildings. The DEA may initiate expropriation in order to ensure establishment of masts and antenna systems and access to such facilities.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Providers of public electronic communications networks or services have an obligation to negotiate agreements with each other on interconnection, for the purpose of providing publicly available electronic communications services, in order to ensure provision and interoperability of such services throughout the EU and EEA.

Telecoms providers with SMP status shall accommodate all reasonable requests for establishing or modifying interconnection agreements from other telecoms providers.

The DBA may decide that certain obligations, including in justified cases the obligation to interconnect individual networks, shall be imposed on telecoms providers controlling access to one or more end-users.

The DBA may decide on interconnection or access disputes. Such decisions may be appealed, as described in question 2.4.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Operators with SMP status on a relevant market may be required to publicise their standard interconnection contracts and be subject to price control.

Currently, the following requirements for standard offers and price controls exist on these four markets:

- Market 1: wholesale call termination on individual fixed telecoms networks. Thirty-eight operators, including TDC, have SMP status. TDC is required to publicise its standard interconnection agreement and is subject to price control. All of the remaining 37 operators are also subject to price control.
- Market 2: wholesale voice call termination on individual mobile telecoms networks. Hi3G (3), Lycamobile, Mundio Mobile, TDC, Telenor and Telia have SMP status and are subject to price control.
- Market 3a: wholesale local access provided at a fixed location. TDC is required to publicise its standard interconnection agreement and is subject to price control.
- Market 3b: wholesale local access provided at a fixed location for mass-market products. TDC is required to publicise its standard interconnection agreement and is subject to price control.

On 29 June 2018, the DBA decided that the specific obligations imposed on TDC in respect of Market 1 and 2 shall be terminated, with effect from 29 June 2019. TDC will remain subject to price control also after 29 June 2019, as will the other operators with SMP status.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

In general, charges for interconnection and/or network access are subject to negotiations between the parties.

Telecoms providers with SMP status may be subject to price control regulation, and consequently are under an obligation to provide services at cost-related prices, as described in question 2.10 in respect of the individual markets.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

No, not under the current market decisions, as further described in question 2.10.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

As described in question 2.8, network operators are required to provide other operators intending to roll out high-speed broadband

networks access to their physical infrastructure. Such access shall be provided on fair and reasonable terms. This is further specified in the Cable Laying Act.

There are no government-subsidised incentives or regulatory holidays.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

As described in question 2.10 above, operators with SMP status are subject to price control in certain markets.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The provision of electronic communications services to consumers is subject to specific rules, described in detail in the Provision Order.

All providers of services to end-users must comply with a number of specified conditions (Part 2, Provision Order). The main conditions include an obligation for the provider to:

- Ensure that all users connected to the service can make calls free of charge to the public emergency service (112) and make calls to a universal service provider's text telephone service and emergency call number.
- Provide access to a directory enquiry service.
- Ensure that a contract is made as a basis for any customer relationship, and that the contract contains at least the information listed in Annex 1 or 2 of the Provision Order, including:
  - fault repair services;
  - traffic prioritisation, if this operates, and its impact on the end-user's use of the service;
  - options regarding personal data in number databases and which data are included in them;
  - restrictions on the use of terminal equipment delivered;
  - conditions for renewal of the contract; and
  - the procedure for settling disputes.
- Handle complaints from end-users complying with the process and deadline of three months (extended to six months in some cases) for resolving such complaints.
- Provide end-users of voice telephony the following services and facilities free of charge:
  - stopping call forwarding from a third party;
  - barring; and
  - barring of access to information and content services.
- Provide end-users access to their current billing data.
- Provide end-user billing control, if usage-dependent charging is used in providing the service.
- Provide end-user tariffed-grouped billing or itemised billing if usage-dependent charging is used in providing the service.
- Provide facilities to eliminate presentation of calling line identification.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The DEA manages the Danish numbering plan comprising numbers, series of numbers and addresses to be used in the provision of telecoms networks or services.

In general, numbers, series of numbers and addresses will be assigned to the telecoms provider who requests assignment of the numbering resources.

2.17 Are there any special rules which govern the use of telephone numbers?

The Telecoms Act regulates the use of telephone numbers.

2.18 Are there any obligations requiring number portability?

Yes, the telecoms provider shall ensure effortless and swift number portability, free of charge for the end-user.

In addition to this, the telecoms providers have agreed on a fixed compensation to be paid to end-users in case of delayed portability.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The DEA regulates spectrum use.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

The use of radio spectrum requires a licence from the DEA.

Licences are issued successively as applications are received. In case of scarcity of spectrum, the DEA may hold a public tender or an auction over such frequencies.

Auctions have been the preferred model so far, but in some instances prices have been too high for the highest bidder to present a viable business case – this has resulted in delayed roll-out.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Under specific circumstances, certain uses of spectrum may be permitted licence-exempt.

The conditions for such use are regulated in a specific executive order on the use of radio frequencies without a licence.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

An annual licence fee shall be paid to the DEA. The fee consists of a fixed spectrum charge and a usage charge.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

The spectrum licence is not affected by a change of control of the licensee.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Spectrum licences may be assigned, traded and sub-licensed in whole or in part. The parties shall inform the DEA of any such transfer, etc. of the licence, and the identity of the new licensee immediately after the transfer has taken place.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Telecoms providers have an obligation to retain telecommunications data as further specified in the Telecoms Act, the Provision Order, the Retention Order and the Network and Information Security Act, as supplemented with a number of Executive Orders.

The Center for Cyber Security Act allows for the Center for Cyber Security to intercept data from companies or governmental authorities, which have been linked up to their security service, without obtaining a warrant, if such interception is crucial in respect of upholding information security.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Telecoms providers have an obligation to retain telecommunications data as further specified in the Telecoms Act, the Provision Order and the Retention Order.

This joint regulation describes the telecoms providers' obligation to make telecommunications data available to the police, as well as how to maintain required security levels.

In respect of criminal proceedings and investigations, the police may obtain a court order to intercept or obtain retained historic telecommunications data, as set out in the Administration of Justice Act.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

According to the Telecoms Act, a telecoms provider to end-users shall ensure that the telecoms network and services are set up in such a way that the Danish Police can obtain access to historic telecommunications traffic and intercept current data. The provisions of the Telecoms Act in this regard are technology neutral, and do not as such set out whether they cover any of the abovementioned types of communication.

The more specific regulation on data retention is set out in the Retention Order, which is further explained in Guidelines No. 74 of 28 September 2006 (the "Retention Order Guidelines").

The requirements under the Retention Order apply to telecoms providers and to end-users. Consequently, the Retention Order applies both to providers of internet services, as well as providers of mobile or landline services, and for network, as well as content providers, as long as the provision of electronic communication services is for end-users, as opposed to sale on a retail basis to other providers.

4.4 How does the state intercept communications for a particular individual?

Only the Danish Police may obtain access to historic telecommunications data or wiretapping. The Danish Police may only obtain access through a telecoms provider prior to a specific court order approved by the relevant Danish court.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

There are no specific rules requiring encryption. However, telecoms providers are required under the GDPR to ensure an adequate level of protection of personal data by "appropriate technical and organisational security measures to protect personal data". Consequently, if encryption is customary for the type of data processing, i.e. electronic communication, encryption would be required.

The data retention regulation does include rules on encryption. In relation to a court order for data, interception/wiretapping or retained historic telecommunications data, the telecoms provider shall ensure that only the relevant data are available to the police. It is, however, the police's own responsibility to remove encryption from the provided data. Nevertheless, if the telecoms provider has systems which use encrypted data as an integrated part of such systems, the telecoms provider shall ensure that data provided to the police is accessible to the police in a non-encrypted form.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

The telecommunications traffic data to be retained under the Retention Order consists of data on caller/user identity, and the time and beginning of a communication. Furthermore, location data, provided the data are generated or processed in the telecoms provider's network, must be retained. The requirements under the Retention Order do not entail a requirement to register the content of the exchanged information.

The retained data shall only be retained for one year, unless there are other legal reasons for retaining the data longer, including under personal data protection regulations.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The most important regulations governing media, including radio and TV broadcasting, are set out in the Radio and TV Act and the Copyright Act.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

The Radio and TV Act governs the transmission of audio-visual media over traditional platforms, and visual media over the internet or other electronic communications networks. The regulation for these types of media is, therefore, the same, irrespective of the distribution platform. The same regulation applies to on-demand audio-visual media, even though content regulation for on-demand visual media differs in one aspect compared to the traditional broadcasting platforms. On-demand media may, in some cases, broadcast content that may result in a serious degree of damage to the physical, mental or moral development of minors, if the broadcast content is sufficiently marked, while traditional audio-visual broadcasters may generally never distribute such content.

It should be emphasised that the transmission of pure audio media over non-traditional radio networks, whether as linear or on-demand content, is not governed by the Radio and TV Act. Therefore, the specific rules regarding content and advertisement are not applicable to pure audio media that is not broadcasted over traditional distribution platforms, and such services are only governed by the general rules contained in, amongst others, the Marketing Practices Act and the e-Commerce Act.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

(1) The Statutory Licence to Provide Programme Services:

The Radio and TV Act provides the public service undertakings DR and TV2 with a statutory licence to provide programme services. The statutory licence only applies to public service activities. Programme services which fall outside of public service activities require a separate licence or registration.

(2) Licence/Registration:

In general, the provision of programme services for enterprises other than DR and TV2 requires either a licence or registration with the Radio and Television Board (the "RTB"). A licence is only required if the programme services require access to scarce spectrum resources; otherwise registration is sufficient. Licences are issued by the RTB subject to a tender.

A licence is not required for programme services provided via satellite or cable network where no frequency scarcity exists. Accordingly, enterprises that provide programme services via these platforms only have to register with the RTB.

Provision of programme services on the digital platform (digital terrestrial network) require a licence from the RTB. However, the licence to administer the broadcasting possibilities on the digital platform has, subject to a previous tender, been awarded to a single enterprise, which acts as a distributor (the so-called "Gatekeeper"). The Gatekeeper is an intermediary between the providers of programme services and the end-users. The individual programme service providers hereafter enter into commercial agreements with the Gatekeeper to provide digital programme services.

In cases where a licence is required from the RTB, a licence must similarly be obtained from the DEA under the Frequency Act. However, with regard to frequencies specially reserved for broadcasting purposes, the DEA may issue a frequency licence on the mere fact that a broadcasting licence has been issued under the Radio and TV Act.

(3) Key Obligations:

Some licences contain requirements in relation to: minimum hours of news and magazine programmes per year, excluding advertisements; the provision of news from Denmark and abroad; that the news broadcasts shall be carried out by an independent news desk; and that a certain percentage of the productions must be Scandinavian, etc. Additionally, licence holders must pay an annual concession fee and an annual variable fee depending on their turnover. Such conditions vary depending on the type of broadcasting.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

As a main rule, no prior approval is required from the RTB in connection with a transfer of the licence or a change of control over the licensee, unless otherwise provided specifically in the licence.

Some licences contain terms with a prohibition on assignability or change of control, which could trigger a filing or approval obligation. The Radio and TV Act does not contain a description of the substantive test which will be applied by the RTB in relation to an assignment of the licence or a change of control of the licensee. The decision made by the RTB will thus be discretionary and based on an overall assessment of several elements. This being said, the decision shall be compliant to general administrative law principles and based on objective and fair arguments, such as changes in financial circumstances.

Any changes in matters stated by the licensee in the application for a licence or a registration shall be notified to the RTB. This also includes information of assignment and ownership changes, provided that the RTB has been informed about the ownership in connection with the application/registration.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

The "Pirate Bay" decision of the Supreme Court in 2010 concluded that telecom providers, including ISPs, may be required to DNS block websites containing or providing access to copyright-infringing content. If a telecom provider does not DNS block such content, the provider may be liable for the infringement on the website.

The Danish Gambling Authority may order telecom providers to DNS block gambling providers who offer gambling activities on the Danish gambling market without a licence from the Danish Gambling Authority.

The Telecom Industry Association – Denmark has decided that telecom providers will only respond to a court order for DNS blocking. Consequently, right holders will need to initiate legal proceedings with the Danish courts in case of any request for DNS blocking of allegedly infringing content. This has resulted in an increasing number of cases regarding DNS blocking between right holders and telecom providers, as the owners of the website usually do not show up in court or accept service of court documents.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

There are no such obligations, unless a court order concludes that a content provider is infringing the rights of a right holder.

The burden of proof lies with the right holder in respect of proving alleged information.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

The EU Regulation 2015/2120 on open internet access is directly applicable in Denmark.

The Telecoms Act includes a section on net neutrality, authorising the DEA to regulate matters related to net neutrality in case the telecoms sector cannot agree on industry standards.

The Telecom Industry Association has established a net neutrality forum, which has agreed on the following four principles – all deemed to be in compliance with the EU regulation:

1. The end-user has the right to internet access with a predefined capacity and quality.
2. The end-user has the right to access legal content and use applications and services of his choice, provided such services do not affect net integrity.
3. The end-user shall have access to transparency, meaning that the end-user shall be able to obtain information on relevant traffic control mechanisms used by an internet service provider.
4. Internet providers shall not discriminate against certain providers of services, content or applications.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

There are no such obligations unless a court order concludes that certain sites or content is infringing the rights of a right holder, or is in violation of Danish law in other ways.

Consumer VPN services are not regulated under Danish law. However, if a consumer VPN service is used to circumvent legal geo-blocking of licensed content, such circumvention may be a violation of the consumer's user agreement with the content provider; for example, Netflix.

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Hans is a technology lawyer specialised in telecommunications and IT. He is a partner and the head of the IP and Technology Team.

Hans has advised the telecommunications sector since the liberalisation of the Danish market in 1997, and has covered almost all aspects of telecommunications, including network construction, regulatory issues, fibre agreements, agreements related to provision of services, establishment of MVNOs and MVNEs, marketing and end-user agreements, and litigation regarding damages to land and subsea cables. He also advises on IoT issues from regulatory and contractual perspectives.

Hans is accredited as a certified IT attorney under the certification arrangement launched in 2010 by the Association of Danish IT Attorneys.

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Mazanti-Andersen Korsø Jensen is not only the oldest law firm in Denmark, but it is also one of the country's leading full-service firms with an IP and Technology team that has developed its scope and expertise substantially over the last few years.

The IP and Technology team covers a wide range of practice areas of relevance to the TMT industry, among all aspects of telecommunications, and it has extensive experience within the sector.

Several members of the team have backgrounds in transactions and M&A, and this combination of telecoms expertise and M&A is unique compared to other firms, where the expertise is rooted in separate departments. This combination is also highly valued by telecoms clients, as we are able to include telecoms advice as an embedded service in transactions.

Chapter 12

Finland

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The revenue from the telecommunications sector was approximately EUR 3.5 billion in 2017. The telecoms sector, including the internet, is dominated by three big companies, namely DNA Oyj, Elisa Oyj and Telia Oyj. Combined, these three companies hold more than 90 per cent of the market share. There was an auction for 5G spectrum in October 2018, where three licences for different spectrum ranges were granted to these three companies. It is probable that the 5G markets will have an increasing importance in the market in the near future.

The audio-visual media sector is smaller than the telecommunications sector in Finland. The revenue from the audio-visual media sector was EUR 354 million in 2017. The biggest broadcasting companies are currently Finnish Broadcasting Company Oy, Sanoma Oyj and Bonnier Broadcasting. TV channels in terrestrial TV networks are distributed in seven different multiplexes (MUX) with national or nearly national coverage. Digita Ltd and DNA Ltd have network licences to the multiplexes, or distribution networks. In addition to these national networks, there are also regional multiplexes. Regarding cable TV, DNA, Elisa and Telia are the most important firms but there are also numerous regional cable companies.

The Finnish market environment is currently very competitive and there is convergence between the telecoms and audio-visual media distribution sectors. There are many drivers behind this development, such as the need to seek new growth areas to complement the traditional telecom business, changing media consumption habits and increased competition from large-scale international players in the content sector. According to a study (published by DNA in 2018), some 58 per cent of respondents said they still have traditional TV sets, but that their usage of on-demand video services such as Netflix, HBO Nordic and domestic-based video streaming services like Yle Areena and Viaplay is increasing. Therefore, we estimate that we will continue to see deals such as one recently announced by Telia, in which they acquired a Finnish commercial television station, MTV3, as well as other parts of MTV Ltd and Mediahub Helsinki Oy from Bonnier Ab, to strengthen the company in the fast-growing area of video content consumption. The transaction is subject to regulatory approvals and is expected to be completed during the second half of 2019. In addition to the content and broadcasting businesses, we expect that cybersecurity and internet of things (IoT) companies are in particular potential M&A targets for these Finnish telecom companies.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The most important legislation for the telecoms and the audio-visual media distribution sector is the following:

- the Act on Electronic Communications Services (917/2014), formerly known as the Information Security Code;
- the Act on Audiovisual Programmes (710/2011) as well as the Act on the Exercise of Freedom of Expression in Mass Media (460/2003) containing rules concerning broadcasting programmes; and
- the General Data Protection Regulation (GDPR) of the EU (2016/679). The Finnish Government has proposed to repeal the existing Personal Data Act (currently applied to the extent not conflicting with the GDPR) and to replace it with a new Data Protection Act to supplement the GDPR. The Government's bill regarding the new Act has already been published and legislative measures regarding its enactment are estimated to take place during this fall 2018.

In addition, applicable regulations are also included in other Acts such as the Penal Code (39/1889), which contains applicable provisions on information security in telecommunications.

The EU is currently preparing directives concerning electronic communications and audio-visual services (2016/0288 (COD) and 2016/0151 (COD)) that will probably have an influence on the Act on Electronic Communications Services as well as other national laws. Among other things, the directives regulate the use of radio frequencies and the rights of users as well as product placement in audio-visual programmes.

A national Government decree is also currently being prepared in the field of telecommunications, among other things in relation to the 5G networks. The decree would allow 5G technology to be used in the 900, 1,800 and 2,100 MHz frequency bands.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The most important governmental ministries and authorities in both the telecoms and audio-visual sector are the Ministry of Transport

and Communications and the Finnish Communications Regulatory Authority (FICORA). In addition, the Finnish National Audiovisual Institute (KAVI) monitors the audio-visual sector.

The Finnish Competition and Consumer Authority (FCCA) monitors both markets for anti-competitive conduct and consumer protection.

The Council for Mass Media, the Council of Ethics in Advertising and the Ethical Committee for Premium Rate Services are relevant self-regulatory bodies related to the telecoms and audio-visual markets.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

The telecoms and audio-visual media distribution sectors are both liberalised and open to foreign investment.

However, foreign investments can be restricted under the Act on the Monitoring of Foreign Corporate Acquisitions in Finland (172/2012) on the basis of key national interests. The Ministry of Economic Affairs and Employment is the monitoring body for foreign acquisitions.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Finland has been a member of the WTO since its establishment in 1995. The EU, and Finland as its member, have made commitments under the GATS regarding telecommunications and are committed to the telecoms reference paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The telecoms markets are regulated by the Act on Electronic Communications Services (917/2014). The most important rules specific to the field are largely included in the Act.

Among other things, the requirement to obtain a network licence for the provision of telecommunications is set forth in the Act. The Act also contains rules regarding, for example, the rights of the subscribers and users of services and the confidentiality of communications.

The telecoms market is also subject to privacy legislation that regulates the obligations concerning the processing of the personal data of natural persons. The General Data Protection Regulation of the EU (2016/679) is applied to privacy and information security. In addition, the national Personal Data Act (523/1999) is applicable until repealed and replaced by new supplemental legislation to the GDPR as explained above.

The EU is also preparing the e-Privacy Regulation (ePR), which would set forth further rules relating to communications. If and when the ePR will be enacted, it will be directly applied in Finland and will most likely require some changes to the current Act on Electronic Communications Services.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The Ministry of Transport and Communications is responsible for preparing legislation in the field of telecoms. The Finnish Communications Regulatory Authority (FICORA) is an independent supervisory authority under the Ministry. FICORA supervises compliance with the laws applicable in the telecommunications industry, particularly the Act on Electronic Communications Services.

The Finnish Competition and Consumer Authority (FCCA) monitors the markets for anti-competitive conduct and consumer protection in all fields, including telecoms.

The Council for Mass Media, the Council of Ethics in Advertising and the Ethical Committee for Premium Rate Services interpret good professional practice as self-regulatory bodies and can, *inter alia*, give notices and general recommendations. They do not exercise legal jurisdiction and are completely independent from the Government.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

The decisions of FICORA are able to be appealed. Depending on the case, the decisions are appealed either to the Administrative Court, the Supreme Administrative Court, or the Market Court. In most cases, the appropriate court is the regional Administrative Court.

The decisions of the FCCA are appealable to the Market Court.

Both merits and procedural grounds can be used as a legal basis for appeals.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

A network licence and a notification to FICORA is required for the provisions of certain telecommunications services in situations laid out in the Act on Electronic Communications Services. Depending on the case, the network licence is granted by either FICORA or the Government.

Apart from a few exceptions, a telecommunications operator will have to apply for a network licence for the provision of network services that use radio frequencies in a digital terrestrial mass communications network or in a mobile network practising public telecommunication. A network licence is also required for a mobile network that functions in a public authority network and operates in more than one municipality.

Additionally, a telecommunications operator must usually submit an electronic notification to FICORA before commencing operations if it engages in: 1) general telecommunications; 2) other than television broadcasting subject to a licence, if the service provider is established in Finland; 3) video on-demand audiovisual services, if the service provider is established in Finland; and 4) linear pay-television services in terrestrial digital mass communications network using a protection decoding system.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The notification that must be submitted to FICORA is required to contain identification and contact information necessary for the purposes of supervision and a description of the operations of the operator. FICORA may issue further regulations on the information that must be submitted as well as the form and delivery of the notification.

FICORA is legally obligated to provide confirmation of receipt of the notification within a week of receipt. The confirmation notice will indicate the requirements related to the operator's operations in Finland under the Act on Electronic Communications Services.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

The network licence is granted for up to 20 years. The licence may only be transferred within the same group of companies. However, the right to use the frequencies set out in an auctioned licence may be leased out to a third party with the permission of the Government.

The Government may cancel the network licence in part or in full in certain circumstances such as when the licence holder has repeatedly and seriously violated the provisions of the Act on Electronic Communications Services. A licence holder may also relinquish the licence before the end of the licence period, in which case a licence fee will not be collected to the extent the licence is relinquished.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Provisions allowing the instalment of telecommunications infrastructure are set forth in the Land Use and Building Act (132/1999) and the Act on Electronic Communications Services. If no agreement can be reached with the owner of the property on the specific location, the authorities may make the decision to allow the installment in a location planned by the telecommunications operator.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

A network operator has an obligation to negotiate on interconnection with another network operator. FICORA may impose an obligation on an operator with significant market power to connect a communications network to the network of another telecommunications operator. Under special circumstances, FICORA may also impose such an obligation on other operators.

Disputes are resolved by FICORA primarily through mediation, but if the parties cannot reach an understanding, FICORA will normally make a decision within four months from the date the case became pending.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

FICORA may impose an obligation on a telecommunications operator with significant market power to publish relevant information with regard to relinquishing access rights or interconnection. Under circumstances set forth in the Act on Electronic Communications Services, FICORA may also impose such obligations on other operators.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

FICORA may impose an obligation on an operator with significant market power regarding:

1) cost-oriented pricing;
2) pricing based on a reduction of the retail price; or
3) fair and reasonable pricing.

FICORA may also set a maximum price in advance for up to a period of three years.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

FICORA may impose accounting and functional separation on an operator with significant market power. FICORA has obligated several operators to employ accounting separation, including DNA, Elisa and Telia (see question 1.1).

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Access to passive infrastructure can be mandated by FICORA. If FICORA determines that an operator has significant market power based on a market analysis made by FICORA, FICORA can impose obligations regarding access to the infrastructure.

Currently, obligations to grant access to copper and fibre local loops as well as bitstream services have been imposed on network operators with significant market power, including DNA, Elisa and Telia (see question 1.1). In addition, obligations relating to access to antenna sites and antenna capacity as well as their associated facilities, television transmission services and national radio transmission services have been imposed on the key operator, Digita Networks Oy.

Access to cable TV networks is not regulated.

The Act on Co-Building Network Infrastructure (276/2016) sets forth obligations for telecoms operators concerning the sharing and co-building of passive infrastructure. The telecoms operators are required to comply with the Act unless their operations are targeted at a small user pool and are geographically and economically insignificant.

There are no regulatory holidays.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

In case FICORA deems that an operator operating in the retail market has significant market power, FICORA may order that such operator is not allowed to charge unreasonable prices, prevent access to the market or restrict competition with unjustifiably low pricing.

No retail price controls are currently imposed. However, it is mandated that universal services must be provided at reasonable prices.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The electronic communications services are subject to several general principles such as confidentiality and privacy, mandatory requirements concerning subscriber agreements in B-to-C relations, net neutrality and the universal service. Among other things, these principles impose the following rules:

Processing electronic messages and traffic data are only allowed to the extent necessary for the purpose of such processing. Electronic messages and traffic data may only be disclosed to parties entitled to process them in the given situation. After processing, electronic messages and traffic data must be destroyed or rendered such that they cannot be associated with the subscriber or user involved, unless otherwise provided by law.

A telecommunications operator has an obligation to draw up and use standard agreement terms for consumer agreements on communications services. Among other things, the agreements must not include any terms unfair to the consumer. An internet access service provider may not restrict a subscriber's opportunity to use an internet access service apart from exceptional cases.

A telecommunications operator that FICORA has designated as a universal service provider in public telephone services or internet access services must provide, at a reasonable price and regardless of the geographical location, a subscriber connection to the public communications network at the subscriber's permanent place of residence or location.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

FICORA decides on the numbers and identifiers to be issued. FICORA is obligated to do this as fairly as possible considering the nature and extent of operations. FICORA is legally obligated to decide on the issuing of a number or identifier within three, or if a number or identifier is of exceptional economic value, within six weeks of the receipt of an application.

2.17 Are there any special rules which govern the use of telephone numbers?

In a numbering decision, the holder of the right to use a number or identifier may be required to start using the number within a reasonable time. FICORA may also order the number to be used to offer a specified service or impose other conditions.

FICORA has published a national plan for the type and purpose of numbers and identifiers used in telecommunications. Among other things, the plan sets forth the maximum and minimum lengths of the phone numbers. There are also rules for the portability of numbers (see question 2.18).

A telecommunications operator is also legally obligated, for its part, to ensure that calls can be made from EEA states to any non-geographic number in use in Finland wherever this is technically and economically possible. A telecommunications operator in a telephone network must also, for its part, ensure that users are able to make international calls using the general international prefix 00. FICORA may issue further regulations on technical measures necessary to meet these obligations.

2.18 Are there any obligations requiring number portability?

Telecommunications operators are required to offer number portability free of charge to the subscriber. The validity of a fixed-term communications service agreement concerning the telephone number will not release a telecommunications operator from the number portability obligation. The telecommunications operator may, however, collect a one-off payment from the other telecommunications operator if the technical process of porting the number generates one-off costs. The one-off payment may not be so high as to deter the use of the service.

The telephone number portability obligation does not apply when the porting takes place between a fixed telephone network and a mobile communications network.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The Ministry of Transport and Communications is responsible for the regulation of the radio spectrums. As a main rule, FICORA manages spectrum use. FICORA, or in some cases the Government, grants the required licences for the different kinds of radio spectrum use.

The general principles on the use of radio frequencies are confirmed by a Government Decree. FICORA issues regulations on the use of radio frequencies for different purposes, with consideration of the international regulations and recommendations on radio frequency and the Government Decree.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

The possession and use of a radio transmitter require a radio licence unless certain conditions under which a licence is not required are fulfilled. Furthermore, as the demand for frequencies allocated to radio broadcasting and mobile communications exceeds the supply in Finland, radio broadcasting requires a separate broadcasting licence. A network licence is required for the provision of network services as described in question 2.5.

An application may also be made to reserve the radio frequencies needed for the use of a radio transmitter before applying for the radio licence if this is justified, for example, for the planning or implementation of a radio system. The frequency reservation is granted for a maximum of one year at a time.

As a main rule, radio licences and broadcasting licences are granted in the order the applications are received. If only a proportion of applicants can be granted a radio licence due to the scarcity of radio frequencies, the licence will be granted to applicants who best promote the purposes of the Act on Electronic Communications Services.

Spectrum auctions can also be conducted by the authorities especially in connection with the commercial use of radio spectrum. The operating licences for commercial use of the 5G 3,410–3,800 MHz frequency band were auctioned in October 2018 by FICORA in accordance with the announcement of the Ministry of Transport and Communications.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

The use of a spectrum can be made licence-exempt. FICORA's Regulation 15 lists conditions for use of radio transmitters that does not require a licence. Among other things, the use of GSM and UMTS mobile phones and PMR446 radiotelephones do not require a licence.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

FICORA charges a fee for all radio licences and frequency reservations.

The amount of the frequency fee is based on the availability, usability and number of frequencies included in the licence. For short-term radio licences, however, the fee is charged based on the period of use.

In licence auctions, the licence fee is the winning bid.

Applications for broadcasting licences are subject to a fixed fee (currently EUR 1,500).

3.5 What happens to spectrum licences if there is a change of control of the licensee?

If the licence holder merges with another limited liability company, the radio licence will be transferred to the receiving party. If the business activity performed by the licence holder to which the radio licence pertains is given up completely, the radio licence will be transferred to the receiving party.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

A radio licence for other than network or programming operations subject to a licence may be transferred unless such transfer is prohibited on a case-by-case basis on grounds laid out in the Act on Electronic Communications Services. For example, the transfer can be prohibited if the licence transfer would have a significant effect on the general development of the communications market.

A transfer must be notified to FICORA.

The radio licence can be sub-licensed. Sub-licensing is not considered a transfer of a radio licence and the licence holder remains responsible for ensuring that the radio transmitter is used in accordance with the licence terms.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The Act on Electronic Communications Services (917/2014) contains provisions related to cybersecurity in electronic communications and information security services.

The Emergency Powers Act (1552/2011), in particular its Chapter 9, contains regulation aimed at ensuring the availability of electronic communications and information security services in emergency situations. Under the Act, the Ministry of Transport and Communications may, for example, impose obligations on telecommunications companies and cancel granted radio licences.

As a member of the EU, Finland has implemented the Directive on Security of Network and Information Systems (1148/2016, the "NIS Directive") to its national legislation. Applicable provisions are included in the relevant sector-specific regulations such as the Act on Electronic Communications Services.

As a member of the EU, the General Data Protection Regulation of the EU (2016/679) ("GDPR") is applied in relation to the processing of personal data. The GDPR contains provisions such as processing data security breaches.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The police have the right to access communications and perform surveillance such as monitoring and interception of telecommunications in accordance with the Police Act (872/2011) and the Coercive Measures Act (806/2011). The said legislation lists requirements, methods and reporting obligations for the authorities for the access. The measures the police can use and the extent to which the police are allowed to access private communications require, for example, that the investigation be targeted at a specific type of crime.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

The Act on Electronic Communications Services sets forth obligations for telecommunications operators in connection with interception capabilities. A telecommunications operator is obligated, without a charge, to supply a public authority with any information in its possession that is, for example, necessary to maintain public order and safety, investigate, uncover and prevent crime or maintain rescue operations.

Under the Act, an operator is also legally obligated to install measures that enable interception to be performed by the authorities. The requirements under which the authorities are allowed to perform interception are laid out in the Police Act and the Coercive Measures Act (see questions 4.2 and 4.4).

4.4 How does the state intercept communications for a particular individual?

The police must evaluate if the requirements set out in the Police Act and the Coercive Measures Act are fulfilled, as communications can only be intercepted in specific situations and under legally defined circumstances. The police cannot, however, make the final decision. Instead, the applicable court decides on the telecommunications interception on the request of an official with the power of arrest.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

There are no specific rules governing the use of encryption. Under the Coercive Measures Act, passwords that are needed to search data contained in a device may be required by the authorities in a criminal investigation.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Operators are obligated to retain data related to:

1) a telephone service or SMS service provided by the operator including calls for which a connection has been established but the call remains unanswered or is prevented from being connected due to network management measures;
2) internet telephone service provided by the operator, meaning service provided by a service operator enabling calls that are based on internet protocol through to the end customer; and
3) internet access service provided by the operator.

Depending on the case, the data must be retained for 12, nine or six months from the time of the communication.

The retention obligation does not apply to the contents of a message or traffic data generated through the browsing of websites.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The Act on Electronic Communications Services (917/2014) governs the distribution of audio-visual media. Among other things, it governs the licences required for the provision of audio-visual services. The Ministry of Transport and Communications and FICORA act as the main regulatory bodies in the field.

Additionally, rules regarding the audiovisual programme provision and its supervision are set out in the Act on Audiovisual Programmes (710/2011). The Act contains rules especially relating to age classifications and indications on the programmes containing material detrimental to children. Compliance with the Act on Audiovisual Programmes is supervised by the Finnish National Audiovisual Institute (KAVI), which is a governmental bureau under the Finnish Ministry of Education and Culture.

Additional obligations for broadcasters such as the obligation to record and retain broadcast programmes are also included in the Act on the Exercise of Freedom of Expression in Mass Media (460/2003).

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Content regulation is the same for the different platforms due to the principle of technological neutrality.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

Television broadcasting in a terrestrial mass communications network, that is, an antenna network, requires a licence granted by the Government. However, in case of a short-term activity, the network licences are granted by FICORA. In addition, a radio licence issued by FICORA is needed for each transmitter. Furthermore, a programme licence granted by FICORA is needed for television broadcasting.

FICORA may set forth obligations in connection with the granting of the licences, such as an order that the radio licence be stored in the vicinity of the radio transmitter.

A notification must be submitted to FICORA of all television broadcasting that does not require a licence, such as broadcasting via a cable television network.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Network and radio licences are assignable as stated in the previous sections of this article (see questions 2.7 and 3.6). A programming licence may only be transferred within a group of companies. Such a transfer must immediately be notified to FICORA.

If the control in the licence holder changes, such a change must be notified immediately to the licensing authority, which will decide within two months from the notification whether the licence will be cancelled. The programming licence holder may request from the licensing authority to be informed in advance of the effect the change in control will have on the licence. The licensing authority has a legal obligation to issue a decision within two months of the application's arrival.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

The mere conduit principle is adopted to the Finnish legislation on the basis of the Electronic Commerce Directive of the EU (2000/31/EU) and the courts interpret the principle in line with the Directive.

In 2010, the Finnish Supreme Court ruled in the case 2010:47 ("Finnreactor") that the administrators of a peer-to-peer file sharing network could not avoid liability because the administrators were collaborators in the infringement with the users of the peer-to-peer network, instead of just providers of technical access without knowledge of the transmitted material.

In 2017, there was also a case in the District Court of Helsinki concerning the online sharing platform "the Pirate Bay". In accordance with the Court's ruling, the Pirate Bay was obligated to stop communicating copyright-protected works to the public.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Under the Copyright Act (404/1961), the court may order operators to provide the copyright owners with the contact information of subscribers who make material protected by a copyright available to the public without authorisation under certain conditions. There have been several cases so far in Finland where the Market Court has made such orders which, in general, have resulted in the teleoperators surrendering the information of thousands of subscribers.

However, in 2017 the Market Court rejected a request to surrender the subscribers' contact information that was substantially based on the same grounds as the previous requests. Thus, it seems that the Market Court has now adopted a new interpretation of the requirements needed to fulfil the right under the Copyright Act. Consequently, the Market Court is now less likely to order operators to provide the contact information of the subscribers to the copyright owners. The ruling is largely based on the decision EU:C:2016:970 of the Court of Justice of the EU.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

The EU has imposed net neutrality requirements under Regulation 2015/2120 which are directly applicable in Finland.

Among other obligations under the Regulation, internet access service providers must treat all traffic equally without discrimination, restriction or interference. The terms and conditions such as price or data volumes and speed, may not limit the exercise of the rights of end-users. However, this is not intended to prevent internet access service providers from implementing reasonable traffic management measures as long as the measures are non-discriminatory, transparent and proportionate and are based on different technical quality of different traffic instead of commercial considerations.

Due to the increase of streaming and other similar content distribution models, we believe that the net neutrality principle will become a more and more debated topic in practice after the implementation of the 5G networks.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

In general, operators and service providers can only be obligated to block access in exceptional cases.

The court may, under the Copyright Act, and upon the request of the owner of the copyright, order an operator as an intermediary to discontinue, on the threat of a fine, making allegedly copyright-infringing material available to the public. If the cause for the issuance of the discontinuation order ceases to exist, the court shall, upon application by a party concerned, rule for the order to be cancelled.

Under the Act on the Exercise of Freedom of Expression in Mass Media (460/2003), a court may order the distribution of a published network message to be ceased if it is evident that providing the content of the message to the public is a criminal offence.

Under the Act on Preventive Measures Relating to the Distribution of Child Pornography (1068/2006), operators have the right but not the obligation to block access to child pornography sites.

There is no VPN-specific regulation and VPN services are not blocked.

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Jan is one of the leading Finnish experts in technology and IP-driven mergers & acquisitions, ICT outsourcings and agreements, and other technology law matters.

He works closely in business sectors such as telecoms, high-tech, clean-tech, wearables, energy and pharmaceutics, advising clients in different M&A deals and their financing, joint ventures, digitalisation and e-commerce matters, licensing, cooperation arrangements and outsourcing, as well as in other IP and technology law assignments. Among other things, Jan has negotiated numerous international technology arrangements and transactions with top industry players in various fields of technology and in various locations from the US to Japan.

Jan has been listed as one of Finland's leading advisers in his field in several rankings and publications, including International Law Offices Client Choice Award in Mergers & Acquisitions 2016 in Finland, *Best Lawyer*, *IAM 250 World's Best Patent and Technology Lawyers*, *Chambers Europe* and *Chambers Global*.

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Terhi has gained in-depth experience especially in IT contracts and privacy. Terhi has drafted and negotiated different kinds of contracts concerning, *inter alia*, outsourcing, licensing, SaaS services and software deliveries in addition to which she has advised clients on various privacy-related matters. Additionally, she has experience in other commercial contracts, IT disputes, intellectual property rights, mergers and acquisitions and public procurement/tendering. Terhi advised, for example, one of the biggest IT companies in Finland on a system delivery encompassing the project delivery, licences and maintenance and support services worth tens of millions of euros to a Finnish state-owned company.

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France

BEHRING

Anne-Solène Gay

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

According to the French Federation of Telecom Operators, in 2016, the telecommunications sector generated €40bn (*i.e.*, 1.8% of GDP) and the audio-visual media distribution sector generated €9bn (*i.e.*, 0.4% of GDP). The digital economy as a whole is estimated to have generated €75bn (*i.e.*, 3.4% of GDP).

Based on the ARCEP's (Electronic Communications and Postal Regulatory Authority, *Autorité de Régulation des Communications Electroniques et des Postes*) last annual report, the electronic communications services' retail market generated a €36.2bn turnover in 2017, and telecom operators employed about 112,700 people at the end of the year. Without including the price of spectrum acquisition, in 2017, investments made by telecom operators reached an historical record of €9.6bn as a result of a 7.5% increase from the previous year.

The main players in the telecom market are Orange (France Telecom), SFR (Altice), Bouygues Telecom and Free (Iliad).

The Internet infrastructure sector is controlled by the above-mentioned telecom operators, but OVH has developed successfully as a pure player in this segment.

The prevailing companies in the audio-visual media distribution sector are France Televisions, TF1, M6 and Canal+.

It should be noted that the audio-visual distribution sector is facing the emergence of new players, offering streaming and video on-demand services, such as Netflix or OCS (owned by Orange and Canal+). In the future, these new players may compete with the most significant market participants.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The operation of electronic communications networks and the provision of electronic communications services are governed by the Postal and Electronic Communications Code (*Code des Postes et des Communications Electroniques – CPCE*), which was mainly based on the provisions of Law n°96-659 of 26 July 1996 regulating telecommunications, and then amended and notably enriched by Law n°2004-669 of 9 July 2004 on electronic communications, which transposed the new EU regulatory framework of 2002 ("Telecoms Package") into French law.

More recently, the telecom sector was impacted by the adoption of the following texts:

- Ordinance n°2014-329 of 12 March 2014 on the Digital Economy which restored the ARCEP's power to sanction following the French Constitutional Council ruling, which considered the previous provisions to be unconstitutional (Constitutional Council, Decision n°2013-331 QPC of 5 July 2013).
- Law n°2015-912 of 24 July 2015, relating to intelligence services which organise the control of technologies used by said services.
- Law n°2015-990 of 6 August 2015, to promote the economic growth, activity and equity economic opportunity (*Loi Macron*), includes provisions regarding electronic communications operators and Internet players.
- European Regulation 2015/2120 of 25 November 2015, laying down measures concerning open Internet access and roaming on public mobile communication networks, entered into force on 30 April 2016.

In 2016, France passed Law n°2016-1361 of 7 October 2016 for a "Digital Republic", which significantly impacted the French digital economy. This Law aims to strengthen consumer confidence in the Internet. It is also meant to increase competition between service providers by lowering entry barriers, notably by organising data portability. It also gives the telecom regulator the authority to oversee net neutrality and open Internet access.

Law n°86-1067 of 30 September 1986 on Freedom to Communicate forms the basis of audio-visual media distribution regulation. It was subsequently amended, notably by Law n°2004-669 of 9 July 2004 relating to electronic communication and audio-visual communications services, which expanded the objectives and strengthened the powers of the broadcasting authority, reviewed the broadcasting licensing regime and softened the anti-concentration provisions, and by Law n°2013-1028 of 15 November 2013, relating to the independence of French public service broadcasting.

General privacy and data protection rules are set by Law n°78-17 of 6 January 1978 on Information Technology, Data Files and Civil Liberties, as subsequently amended by Law n°2004-801 of 6 August 2004 to implement the EU Directive of 24 October 1995, and more recently by Law n°2018-493 of 20 June 2018 relating to the protection of personal data. The said Law is the result of the implementation of the GDPR. Decree n°2018-687 adopted on 1 August 2018 is the last step for the complete transposition of the GDPR within the French legal system.

The Internet is more specifically governed by Law n°2009-669 of 12 June 2009 favouring the diffusion and protection of artistic creation on the Internet, which adapted for the Internet the standard legal protection of copyright for literary and artistic works set in the Intellectual Property Code, and by Law n°2004-575 of 21 June 2004 regarding Confidence in the Digital Economy ("*LCEN*").

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The ARCEP is the independent government agency that oversees the electronic communications and postal services sector.

The Broadcasting Authority (*Conseil Supérieur de l'Audiovisuel – CSA*) is the state agency responsible for the audio-visual media distribution sector.

The question of whether to merge these two authorities was regularly discussed. However, this merger project has been ruled out for now in favour of closer cooperation.

The National Frequencies Agency (*Agence Nationale des Fréquences – ANFR*) ensures the planning, management and control of the use, including for private use, of the public domain radio frequencies. As such, the agency is in charge of allocating frequency bands to the ARCEP and the CSA for their allocation, respectively, to the telecom and broadcasting operators.

The Data Protection Authority (*Commission National de l'Informatique et des Libertés – CNIL*) controls automatic personal data processing and ensures the protection of personal data.

The High Authority for the Distribution of Works and the Protection of Copyright on the Internet (*Haute Autorité pour la diffusion des oeuvres et la protection des droits – HADOPI*) is dedicated to the protection of intellectual property rights on the Internet. HADOPI has been much challenged since it was created in 2009. Its dissolution is regularly under discussion, but the decision keeps being postponed.

The Competition Authority (*Autorité de la Concurrence – AdlC*) also plays a major role in the TMT sectors in the enforcement of general competition rules, and is notably in charge of sanctioning anticompetitive practices and controlling merger operations.

The government also plays an active part in the telecom, media and Internet sectors through the Ministry of Economy and Finance, notably the General Directorate for Competition Policy, Consumer Affairs and Fraud Control (*Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes – DGCCRF*), as well as through the *Secrétaire d'Etat* for the Digital Sector under the authority of the Minister of Economy and Finance, and through the Ministry of Culture and Communication, and notably the Department of Media and of Cultural Industries (*Direction Générale des Médias et des Industries Culturelles – DGMIC*).

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

The telecoms and media distribution sectors are liberalised. By exception, the audio-visual media distribution market is subject to specific ownership restrictions designed to preserve media pluralism and competition. These restrictions prevent any single individual or legal entity from holding, directly or indirectly, more than 49% of the capital or the voting rights of a company that has an authorisation to provide a national terrestrial television service, where the average audience for television services (either digital or analogue) exceeds 8%. In addition, it is forbidden for any single individual or legal entity that already holds a national terrestrial television service, where the average audience for this service exceeds 8%, to, directly or indirectly, hold more than 33% of the capital or voting rights of a company that has an authorisation to provide a local terrestrial television service.

Law n°2004-1343 of 9 December 2004 and Decree n°2005-1739 of 30 December 2005, which introduced new articles L.151-1 *et seq.* and R.153-1 *et seq.* in the Monetary and Financial Code, establishes that there are no restrictions on foreign ownership and investment in France.

However, if all restrictions have in principle been lifted, foreign investment in business sectors considered to be "sensitive" still requires prior authorisation. In accordance with article L.151-1 *et seq.* and article R.153-1 *et seq.* of the Monetary and Financial Code, the investor must submit a formal application to the French Ministry of Economy for prior authorisation. This authorisation is provided within two months from when the application is received by the French Ministry of Economy (a tacit agreement is assumed if no reply is received).

These restrictions apply when a foreign (EU or non-EU) investment is made in a strategic sector. Decree n°2014-479 of 14 May 2014 has expanded the list of sectors in which foreign investors must seek prior authorisation by the French Ministry of Economy. The list is broader for non-EU/EEA countries' investors than for EU or EEA Member States' investors, and now includes, for the latter type, activities deemed crucial to France's national interests (*i.e.*, relating to public order, public security and national defence), encryption and decryption, communications interception and activities relating to integrity, security and continuity of electronic communication services and networks.

Any transaction concluded in violation of these rules is null and void, and the investor is subject to criminal sanctions (five years' imprisonment and a fine amounting to twice the amount of the transaction).

Further, regulation also provides for specific restrictions on foreign investments in the media sector. Unless otherwise agreed in international agreements, a foreign investor may not acquire shares in a company holding a licence for a radio or television service in France and that uses radio frequencies, if this acquisition has directly or indirectly the effect of raising the share of capital or voting rights owned by foreign nationals to more than 20%.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

France has been a World Trade Organisation (WTO) member and a member of GATT since 1 January 1995. It is a Member State of the European Union and all EU Member States are WTO members, as is the EU in its own right.

The EU has made commitments regarding telecommunications relating to unfair competitive practices, interconnection, universal service, licences and the allocation of scarce resources (notably in the document entitled "GATS/SC/31.Suppl3").

The principles of the WTO telecoms reference paper have been implemented under French law.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

Telecoms activities are regulated under the CPCE.

The operation of public networks and the provision of electronic communication services to the public are subject to prior notification to the ARCEP. However, the use of radio frequencies and numbering resources is based on an authorisation regime, and therefore requires an individual licence to be granted by the ARCEP.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The telecom regulator ARCEP is in charge of the regulation of the postal and electronic communications sectors. It ensures the implementation of a universal service, defines *ex ante* regulations applicable to operators that have a significant market power on certain defined markets, is involved in defining the regulatory framework, allocates scare resources (radio spectrum and numbering), imposes sanctions in case of infringement of the sector-specific regulations, and settles disputes arising between operators.

The Competition Authority AdlC enforces general competition rules. It is the result of Law n°2008-776 of 4 August 2008 on the modernisation of the economy (*LME*), passed on 4 August 2008, which transformed the *Conseil de la Concurrence* into a new *Autorité de la Concurrence*. This reform created a single agency with strengthened powers and means. The Competition Authority carries out all activities of competition regulation (inquiries, antitrust activities, merger control, publication of opinions and recommendations).

The two authorities interact frequently, as each can solicit the other's opinion on the subjects of its competence. For example, when conducting market analysis to identify operators with significant market power in a relevant market, the ARCEP must solicit the opinion of the Competition Authority.

Also, both authorities provide opinions to the government.

The ARCEP and the Competition Authority are state agencies, but are independent from the government; this independence is statutory.

Alongside the ARCEP and the AdlC, the ANFR is a specialised regulatory body dedicated to spectrum management, as it is a scarce resource. It especially interacts with the ARCEP for spectrum matters, such as, for instance, 450 MHz PMR applications or LTE. The ANFR is in charge of the national spectrum plan and has the ability to negotiate at the CEPT and ITU level on behalf of the French government (see *infra* question 3).

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

The ARCEP's administrative decisions are enforceable but can be appealed before the Administrative Supreme Court (*Conseil d'Etat*) for decisions made by the Executive Board, or before the Paris Administrative Court (*Tribunal Administratif de Paris*) for decisions made by the Chairman under his own powers.

The ARCEP's arbitration decisions relating to disputes can be appealed before the Court of Appeal of Paris (*Cour d'appel de Paris*). The chamber of Court specialised in regulation and competition litigation can cancel, confirm or amend the ARCEP's arbitration decisions. The decision of the Court of Appeal can be challenged before the Judicial Supreme Court (*Cour de cassation*).

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The French telecommunication sector is based on a general authorisation regime. According to article L.33-1 of the CPCE, the establishment and operation of networks open to the public and the provision of electronic communications services to the public are free, subject to prior notification to the ARCEP by filling in a form available on its website. No notification is required for the establishment and operation of internal or independent (dedicated Closed User Groups) networks.

Based on Law n°2015-990 of 6 August 2015 to promote economic growth, activity and economic opportunity (*Loi Macron*), the ARCEP is now entitled to force any actor which has infringed the notification obligation to compulsorily declare itself to the ARCEP.

By abrogating section VII of article 45 of Law n°86-1317 of 30 December 1986 (Finance Law for year 1987), article 27 of Law n°2015-1785 of 29 December 2015 (Finance Law for year 2016) withdrew provisions relating to the administrative tax owed by operators to the ARCEP.

Operators have to contribute to the financing of universal service. To this end, every year they have to declare their turnover of the previous year after deduction of access and interconnection revenues (article L.35-3 of the CPCE) and after deduction of €100 million (article R.20-39 of the CPCE).

The use of scarce resources (frequency and numbering) is subject to an individual authorisation, the number of which can be limited by the ARCEP and which can be granted through competitive procedures.

A bill is currently under review by the Parliament to supress the prior notification requirement.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The general authorisation to establish and operate networks open to the public and to provide electronic communications to the public is subject to a prior notification to the ARCEP, which is now completed online. Following the ARCEP's receipt of such notification, the applicant is eligible for certain rights and is bound by various obligations. The main requirements associated with the general authorisation are as follows:

- compliance to standards and specifications for the networks and services offered;
- quality and availability;
- compliance with regulations in respect of health and the environment, and occupation of the public domain;
- sharing of infrastructure and local roaming;
- interconnection and access;
- contribution to universal service and payment of taxes;
- compliance with public order and national defence imperatives;
- confidentiality and neutrality in respect of transmitted communications; and
- payment of an annual administration fee.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Individual authorisations relate to the use of radio frequencies or numbering resources. The allocation decision defines the usage conditions, in particular the authorisation's duration. According to article L.42-1 (for spectrum) and article L.44 (for numbering resources) of the CPCE, their duration cannot exceed 20 years.

GSM mobile operators' licences were initially awarded for a period of 15 years, and were renewed in 2006 for the same duration. In June 2010, UMTS licences were granted for 20 years and, in December 2015, 700 MHz spectrum was allocated for 15 years.

Individual authorisations can be transferred subject to the transfer having received the ARCEP's approval (for spectrum allocated through a competitive procedure or used for a public service mission), or if the transfer was declared to the ARCEP (for spectrum allocated based on the rule of "first come, first served"). The ARCEP must take a decision within three months in the first case and within six weeks in the second case. In case of spectrum assignment, the benefiting operator has to fulfil all conditions imposed on the operator initially holding the licence, and take responsibility for all the commitments contracted by the former operator.

By way of derogation, certain frequencies can be assigned on the secondary market (see *infra* question 3.6).

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

According to article L.45-9 of the CPCE, public network operators have a right of way on public land roads and on public networks that are part of the public domain (for example, underground pipes), except for electronic and communications networks and infrastructure. This right is granted by a unilateral administrative authorisation (*permission de voirie*) provided by the public authority in charge of the public land in question.

Regarding other parts of public land, operators have to negotiate a right of way and to enter into a contract (*convention d'occupation du domaine public*) with the public authority in charge of the public land in question.

Public land occupation can give rise to the payment of fees that are capped by a decree. The competent authority will take a decision within two months from the request.

The competent authority is the authority in charge of managing the public land in question, *i.e.*, either the one which owns such public land or the one to which the management of such public land has been delegated (*i.e.*, another public entity or a private entity such as a concessionaire for, *e.g.*, highways).

Regarding private land occupation, operators of networks opened to the public benefit from easements on private properties, allowing network installation and operation.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Public network operators have the obligation to negotiate with all other public network operators requesting access and interconnection. Operators are free in their negotiation on this subject. Access can only be refused if justified.

Technical and financial conditions of interconnection and access are agreed upon between the two operators and formalised by a private law agreement which may be transmitted to the ARCEP, upon request.

In case of dispute, the ARCEP can impose interconnection and access conditions on objective, transparent, non-discriminatory and proportionate grounds.

In accordance with article L.36-8 of the CPCE, the ARCEP has the competence to settle disputes in case of refusal of access or interconnection, failure of commercial negotiations, or disagreement on the conclusion or execution of an access or interconnection agreement to an electronic communications network.

The ARCEP has to render its decision within a maximum of six months from the referral by a declared operator and define the fair technical and tariff conditions for access and interconnection. In case of emergency, the ARCEP is entitled to adopt interim measures.

The ARCEP's decisions can be appealed before the Paris Court of Appeal.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Operators that are designated as having significant market power (SMP) in a specific market are required to publish a standard interconnection offer. The ARCEP conducts rounds of market analysis and then decides for each relevant market which operators have SMP. Currently, the fifth round of market analysis is valid until 2020.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Only the charges for interconnection or network access of SMP operators can be subject to a price or cost regulation. The ARCEP conducts analysis of the markets and can impose various obligations on SMP operators, including cost-orientation of their tariffs regarding selected relevant markets, based on a long-run incremental cost model.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

a) In France, the first accounting separation of France Telecom was set up by the regulatory authority from the opening of competition. It was broadened in 2006 by the ARCEP's Decision n°06-1007, further to the implementation of the new regulatory framework.

It requires France Telecom, now Orange, to distinguish, from an accounting point of view, its various activities in

accordance with the segmentation of the relevant markets and to make sure that its retail activities are consistent with the wholesale offers it produces, in conditions equivalent to those granted to alternative operators when they position themselves in the retail markets. This supply leans in particular on the formalisation of internal transfer protocols on which the regulator can exercise control.

b) In March 2011, the Competition Authority invited the ARCEP to begin preparatory work related to the possible functional unbundling of monopolistic activities of France Telecom from competitive activities, but the project was put aside.

c) No operator has been required to separate parts of its business into separate legal entities.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

The regulatory framework considers high-speed and very high-speed broadband networks on a different basis.

- High-speed broadband networks are copper-based and therefore regulated through the unbundling of the local loop which belongs to Orange, as the incumbent operator. Ducts and related infrastructure are regulated by the ARCEP's decision n°2017-1488, adopted on 14 December 2017. Also, decision n°2017-1570 of 21 December 2017 is currently regulating tariffs until 2020.
- Very high-speed broadband networks are fibre-based, as the regulatory framework especially emphasises FTTH technology. The ARCEP therefore adopted a series of decisions setting up a nationwide roll-out plan dividing the territory into denser areas and less dense areas (*zones très denses – ZTD* and *zones moins denses – ZMD*). Decision n°2009-1106 of 22 December 2009 is the main regulation for both areas.

The incumbent operator is the only one with a copper local loop, and is subject to an obligation to give access to its local loop in the technical and tariff conditions defined in its reference offer, issued annually under the control of the ARCEP.

Cable operators are not subject to a local loop access obligation.

Regarding access to passive infrastructure and for very high-speed broadband, the CPCE sets forth specific rules. According to article L.34-8-2-1, infrastructure managers should grant access to any operator of very high-speed broadband networks formulating a reasonable request. Access conditions, especially financial, must be fair and reasonable, as the infrastructure manager shall cover its expenses. On the other hand, the access request can be denied only upon special motives, such as lack of capacity or national security.

Cable TV still has a hybrid regulatory status between telecommunications and media regulations.

There are no regulatory holidays for infrastructure access. However, where private initiative is not sustainable, the local government Code (*Code Général des Collectivités Territoriales – CGCT*) authorises local public entities to operate networks, under article L.14215-1.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Universal service is the only service in which retail prices can be controlled. CPCE provisions require an operator to be designated as a universal service provider. Among specific obligations such as quality of service, universal service is based on solidarity. Therefore, the designated provider of universal service must offer adapted retail prices as specified in regulations. The current provider of universal service is Orange, as per an order of 2017 (*Arrêté du 27 november 2017 portant designation de l'opérateur chargé de fournir les prestations "raccordement" et "service téléphonique" de la composante du service universel prévue au 1° de l'article L.35-1 du CPCE*).

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The Consumer Code sets a certain number of rules specific to the provision of electronic communication services to consumers (including the information obligation, minimum commitment period, reimbursement of advances and deposits) which were reinforced over time, notably by Law n°2008-3 of 3 January 2008 on competition and consumer protection (*Loi Chatel*), according to which technical assistance and customer care services cannot be premium-rated and the waiting time for connect-calls to those services should be free-of-charge, and which also sets strict rules regarding cancellation fees, notice periods for termination and maximum contract duration.

The CPCE also organises specific protection such as the right to be listed or not in directories, and the right to a detailed invoice.

The Commission of Unfair Clauses regularly declares abusive clauses contained in the operators' general conditions.

More recently, Law n°2014-344 of 17 March 2014 (*Loi Hamon*) also affected the telecom sector, by setting limits to phone marketing and specific rules regarding portability, billing, information on value-added services, etc.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The operators ask the ARCEP to award them numbering resources based on the National Numbering Plan (such as prefixes, short numbers and blocks of numbers) according to their needs. These operators can reserve such numbering resources, which are then given to each customer of the operator. In case of scarcity, the ARCEP may decide to limit the number of licences and to implement a call for the tender procedure. In case of absence of scarcity, the "first come, first served" rule applies.

2.17 Are there any special rules which govern the use of telephone numbers?

The ARCEP defines, manages and controls the National Numbering Plan, which awards the various types of numbers to the electronic communications services (fixed-line, mobile, and value-added services). The National Numbering Plan was reviewed in 2018 (decision n°2018-0881), which notably unified the existing regulations and set tighter restrictions on the use of numbering resources.

2.18 Are there any obligations requiring number portability?

Each operator has to answer to a portability request from a customer wishing to subscribe to an offer from another operator within a maximum of three working days for mobile phone operators (except for overseas territories). It is also a maximum of three working days for fixed operators (seven working days for the B2B segment).

3 Radio Spectrum

3.1 What authority regulates spectrum use?

Spectrum use is regulated by the ANFR which manages and provides spectrum resources for services (broadcasting, electronic communications services, defence, etc.).

The frequency bands assigned to these services are respectively awarded to the operators by the ARCEP and the CSA.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Frequency allocation depends on the nature of the frequencies. Pursuant to article L.42-2 of the CPCE, in case of scarcity, the ARCEP may decide to limit the number of licences and to implement a call for the tender procedure (comparative submission or auctioning). In case of absence of scarcity, the "first come, first served" rule applies.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

In general, the use of frequencies requires an allocation decision issued by the ARCEP. Nevertheless, certain frequencies are exempted from authorisation of use, but have no guarantee against interference. This is notably the case of spectrum used by low power and small-range systems such as RFID, WiFi frequencies, anti-intrusion alarms, medical devices, etc.

The ARCEP can also decide, within the framework of an experimental procedure, to temporarily exempt certain technologies from frequencies authorisation of use.

The ARCEP also recently launched a regulatory "sandbox" which has the purpose of allowing companies to experiment with innovative services and applications in a lightened framework, particularly for spectrum licences.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

As spectrum is part of the public domain, the use of radio frequency spectrum gives rise to the payment of a fee, the amount of which is set by a ministerial decree, or by the allocation decision according to the frequency band used and the operator's expected profitability resulting from this use.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Any change of control must be declared to the ARCEP in order to allow it to verify that the conditions under which the spectrum licence was initially awarded are still respected.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

This depends on the type of frequencies.

The transfer of spectrum licences is subject either to notification to the ARCEP, which may oppose it, or, when frequencies are used for public service missions or were granted within the framework of a selection process, to the prior approval of the ARCEP.

Ordinance n°2011-1012 of 24 August 2011 introduced a greater flexibility in spectrum assignment by giving the operators the ability to trade frequency licences on the secondary market. The list of frequency bands which can be traded was set by the Ministerial Order of 11 August 2006, pursuant to article L.42-3 of the CPCE and Decree n°2006-116 of 11 August 2006. The spectrum licence holder may transfer all of its rights and obligations to a third party for the entire remainder of the licence (full transfer), or only a portion of its rights and obligations (geographical region or frequencies).

Spectrum licences can be sub-licensed, subject to the ARCEP's prior approval. The ARCEP must make a decision within two months.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The legal framework for cybersecurity is set out by:

- Law n°2013-1168 of 18 December 2013, stating legal requirements for the providers of critical infrastructure;
- Law n°2018-133 of 26 February 2018, implementing the provisions of the Directive concerning measures for a high common level of Security of Network and Information Systems (NIS Directive), of 6 July 2016;
- Decree of the *Conseil d'Etat* of 25 May 2018, concerning the security of network and information systems applicable to operators of essential services and to the digital service providers; and
- Decree of 13 June 2018 establishing the terms provided by articles 8, 11 and 20 of the above-mentioned Decree.

Furthermore, specific requirements relating to cybersecurity are stated by the Data Protection Law (articles 34 and 35) and by article D98-5-III of the CPCE.

In addition, article L.33-14 of the CPCE, created by Law n°2018-607 of 13 July 2018 on military programming, states that, for the purposes of security and defence of information systems, operators are authorised to install, on their networks, at their own expense and after informing the French National Cybersecurity Agency (*Agence Nationale de la Sécurité des Systèmes d'Information – ANSSI*), devices using technical markers in order to detect events affecting security. In the case of detection of such events, operators are not obliged to interrupt the attack but shall inform ANSSI without delay. Upon ANSSI's request, operators shall also inform their subscribers of the vulnerability of their information systems or the breaches they have suffered.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The interception of electronic communications was instituted as part of the effort to fight serious crime and terrorism. In the context of an increased terrorism threat, this subject has become a major issue.

Regulation regarding the technical measures for lawful interception is the result of various successive legal texts. Regulation varies depending on the authority (either judicial or administrative) from which the interception operation originates.

See *infra* question 4.3 for the description of the administrative interception regulation.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

a) Regulation of judicial interceptions

Firstly, the interception of electronic communications can be ordered by judicial authorities pursuant to article 100 of the Criminal Procedure Code, resulting from article 2 of Law n°91-646 of 10 July 1991 regarding correspondence secrecy. Electronic communications which can be intercepted include voice, videoconferencing, mobile data (Short Message Service [SMS] and Multimedia Messaging Service [MMS]) as well as Internet data.

Secondly, connection data can be required through judicial requisitions issued based on articles n°60-2, 77-1-2 and 99-4 of the Criminal Procedure Code. Connection data which can be gathered include data retained by electronic communications operators pursuant to articles L.34-1 and R.10-12 to R.10-14 of the CPCE, and by hosting service providers and ISPs pursuant to article 6-11 of LCEN and Decree n°2011-219 of 25 February 2011.

Since the enactment of Law n°2011-267 of 14 March 2011 relating to domestic security (*LOPPSI*), it is also possible to capture in real-time keyboard entry data (via key loggers) and data displayed on the screen as part of the fight against serious crime and terrorism, upon authorisation of the examining magistrate.

However, these provisions proved to be largely insufficient as they did not address VoIP.

Law n°2014-1353 of 13 November 2014, strengthening anti-terrorism provisions, addressed this shortcoming by introducing the right to also capture data sent to or issued from peripheral audio-visual devices (article 706-102-1 of the Criminal Procedure Code). This regulation was designed to give the possibility of monitoring the private conversations of Skype users.

However, article 226-3 of the Criminal Code prevented this new provision from being implemented, as technologies allowing for such capture were still banned as a result of the Ministerial Order of 4 July 2012, which had not been amended to consider this new provision. The new regulation was completed when the Ministerial Order of 17 July 2015 added to the list of authorised technologies – technologies allowing for the capture of data sent to or issued from peripheral audio-visual devices.

As a result, electronic communication services such as VoIP services are now subject to interceptions through the implementation of spyware.

In order to improve judicial interception capacity, responsiveness and security, the information system for the management of judicial interceptions (*Système de Transmission d'Interceptions Judiciaires – STIJ*), authorised by Decree n°2007-1145 of 30 July 2007, was replaced by a new centralised management platform (*Plate-forme Nationale des Interceptions Judiciaires – PNIJ*) instituted by Decree n°2014-1162 of 9 October 2014.

More recently, Law n°2016-731 of 3 June 2016 reinforcing efforts to fight against organised crime and terrorism provided additional investigative powers to magistrates, notably by allowing the use of technical devices to directly capture connection data necessary for the terminal equipment or the user subscription number (IMSI catcher). In addition, data access is not limited to data displayed on the screen or that are sent to or issued from peripheral audio-visual devices, but now includes data stored on the user IT system.

Interception decisions are taken for a maximum duration of four months, and can be renewed without exceeding one year (two years when in relation to major infringements).

b) Regulation of administrative interceptions

Used without any legal basis before 1991, administrative interceptions – like judicial ones – were regulated by Law n°91-646 of 10 July 1991, after France was condemned by the European Court of Human Rights (CEDH, 24 April 1990, *Huvig and Kruslin c/ France*), which provided that they could be implemented subject to a decision of the Prime Minister under the control of an independent authority (*CNCIS*). Law n°2004-669 of 9 July 2004 extended the scope of these interceptions beyond telephony interceptions to include all electronic communications.

Law n°2006-64 of 23 January 2006 providing for anti-terrorism measures allowed police forces to access electronic communication services, the access to which was initially restricted to judicial authorities. This data includes all data retained by electronic communications operators pursuant to articles L.34-1 and R.10-12 to R.10-14 of the CPCE, and by ISPs and hosting service providers pursuant to article 6-11 of LCEN and Decree n°2011-219 of 25 February 2011.

Law n°2013-1168 of 18 December 2013 on military programming (*LPM*) gave various state agencies the right to access Internet users' communications data, including the data issuer, data recipient, time of the communications, websites visited and real time geolocation outside of any judicial proceeding.

Law n°2015-912 of 24 July 2015, relating to intelligence, reinforced the anti-terrorism legal arsenal by legalising and providing a legal framework for practices implemented by intelligence services (namely, *Direction Générale de la Sécurité Extérieure – DGSE*, *Direction de la Protection et de la Sécurité de la Défense – DPSD*, *Direction du Renseignement Militaire – DRM*, *Direction Générale de la Sécurité Intérieure – DGSI*, *Direction Nationale du Renseignement et des Enquêtes Douanières* and *Tracfin*).

The said law sets out the conditions of broad administrative surveillance by granting intelligence services the right to use various technologies, such as online correspondences' administrative interceptions, IMSI catchers and device geolocation.

Furthermore, the said law enforces the use of "black boxes" within Internet service providers and telecoms operators' networks, aiming at collecting suspicious connection data in order to detect a terrorist threat (article L.851-3 of the Domestic Security Code). Although this text gave rise to strong reactions, these provisions were validated by the Constitutional Council (decision n°2012-713 DC of 23 July 2015).

As the implementation of black boxes may result in mass surveillance, this provision was very controversial and considered by numerous commentators as an infringement of the private life rights of French citizens; "black boxes" would analyse the metadata

of all communications (the origin or recipient of a message, IP address of a visited website, and connection duration).

To date, the government announced that "*only data concerning suspicious people will be stored. All other data will be immediately destroyed*".

There were many opponents of this law, including several associations as well as the French Data Protection Authority (*Commission Nationale de l'Informatique et des Libertés – CNIL*), and, more recently, the Office of the United Nations High Commissioner for Human Rights (OHCHR), which stated that it was "*worried about wide intrusive powers*" granted to intelligence services.

Following censorship of the international surveillance provisions by the Constitutional Council, the French Parliament adopted complementary legal provisions by passing Law n°2015-1556 of 30 November 2015, relating to the surveillance of international electronic communications.

c) Obligations incumbent upon operators

To comply with these interception obligations, operators have to fulfil the following obligations:

- to retain certain data pursuant to articles L.34-1 and R.10-12 to R.10-14 of the CPCE (see *infra* question 4.6);
- to put in place all necessary means to enforce interceptions requested under Law n°91-646 of 10 July 1991 (article D.98-7 III of the CPCE); and
- to appoint qualified personnel to conduct interception operations in compliance with Decree n°93-119 of 28 January 1993.

The use of technologies such as spyware and IMSI catchers does not require any action to be taken by the operators. In contrast, the implementation of black boxes should be the responsibility of the operators.

4.4 How does the state intercept communications for a particular individual?

Before resorting to surveillance technologies, intelligence services must obtain the prior authorisation of the Prime Minister granted after the opinion of the National Commission of Control of Intelligence Techniques (*Commission Nationale de Contrôle des Techniques de Renseignement – CNCTR*) (the derogation for "operational urgency" to this principle was censored by the Constitutional Council). The use of these technologies is subject to a "strict proportionality test".

See *supra* question 4.3 for the description of the administrative interception regulation.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Pursuant to article 30 of Law n°2004-575 of 21 June 2004, the use of encryption means on the French territory is free.

However, unless exempted based on Appendix I of Decree n°2007-663 of 2 May 2007, and Category 5 Part 2 of Appendix I of Commission Delegated Regulation (EU) No 1382/2014 of 22 October 2014, the supply, import and export of cryptology means in and from France are subject to a prior declaration or a prior authorisation of the French National Cybersecurity Agency (*ANSSI*), depending on the technical functionalities and commercial operation (provision or import) which are based on Decree n°2007-663 of 2 May 2007.

The export of encryption means can also fall under the regulation of dual-use items, and can require in certain cases a prior authorisation from the Ministry of Industry through its Dual-Use Items Department (*Service des Biens à Double Usage – SBDU*). By exception, export is free for encryption means used for consumer purposes that are certified as "*grand public*" by ANSSI, through the process set out by Decree n°2007-663 of 2 May 2007 (no ANSSI export authorisation and no SBDU licence).

These formalities are specified by the Ministerial Order of 29 January 2015. They are incumbent upon the provider of the encryption means.

In addition, pursuant to article 230-1 of the Criminal Procedure Code, certain magistrates can request encryption/decryption keys to be provided if necessary for the investigation. Infringement of this obligation is punishable by imprisonment of up to three years and a €270,000 fine (article 434-15-2 of the Criminal Code); this sanction can be brought up to five years' imprisonment and a €450,000 fine, if complying to the obligation could have avoided a crime being committed or could have mitigated its consequences.

The use of encryption means can also fall under foreign ownership restrictions (see *supra* question 1.4).

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

The French government instituted an obligation of retention of data relating to electronic communications (Daily Safety Law n°2001-1062 of 15 November 2001), codified under article L.34-1 of the CPCE. On a purely exceptional basis, operators were authorised to keep this data for one year for billing needs and for the purposes of research and infringements proceedings. A new exception was created by Law n°2003-239 of 18 March 2003 (*Home Safety Law*) which made these provisions perennial, while they were supposed to last only until December 2003.

In 2006, the new French Anti-Terror Act (Law n°2006-64 of 23 January 2006) extended the provisions concerning retention data in two ways. Firstly, not only the judicial authority but also the police forces may access the retained data. Secondly, data retention obligations now apply to Internet cafés, hotels, restaurants, and more generally to any person or organisation providing Internet access, free or for a fee, as a main or side activity. These provisions were lastly completed by Law n°2013-1168 of 18 December 2013 on military programming (*LPM*).

Decree n°358-2006 of 26 March 2006, on electronic communications data retention, and Decree n°2012-436 of 30 March 2012 specified the retention and anonymisation obligations of traffic data which are incumbent upon operators, pursuant to articles L.34-1 III and IV of the CPCE.

According to article R.10-13 of the CPCE, operators must retain the following data:

- user identification data;
- the terminal equipment used to make the communication;
- the technical characteristics, date, time and duration of each communication;
- any associated services requested or used by the user, and the suppliers of those services;
- the recipient of the communication; and
- for telephony services (in addition to the above), geolocation data.

Retention of content is strictly forbidden (article L.34.1 VI of the CPCE).

The data must be retained by the operator for 12 months (article R.10-13 III of the CPCE).

These data retention obligations apply to all ECN operators and all ECS providers.

Costs incurred by operators are reimbursed by the state.

Failing to comply with data retention obligations is punishable by up to one years' imprisonment and a €75,000 fine (article L.39-3 of the CPCE).

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The distribution of audio-visual media is regulated by Law n°86-1067 of 30 September 1986 on Communication Freedom under the supervision of the CSA.

This regulation applies to both radio and television, and provides as a core principle that "*any communication to the public via electronic means is free*" (article 1 of Law n°86-1067).

However, this communication freedom is restricted by various obligations imposed on audio-visual media companies from the public and private sectors, such as:

- child protection (article 15 of Law n°86-1067);
- advertising, teleshopping and sponsorship (Decree n°92-280 of 27 March 1992);
- product placement (article 14-1 inserted by Law n°2009-258 of 5 March 2009);
- film works broadcasting quotas (Decree n°90-66 of 17 January 1990); and
- French songs broadcasting (Law n°94-88 of 1 February 1994).

Public audio-visual media dsitribution companies are subject to additional rules, notably in terms of programmes to be broadcast and advertising.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Pursuant to article 2 of Law n°86-1067 of 30 September 1986, modified by Law n°2009-258 of 5 March 2009:

- "*A television service or a communication service to the public via electronic means, means a service intended to be simultaneously received by the whole public or by a category of the public and for which the program is comprised of emissions including sounds*"; and
- "*An on-demand audio-visual media service means any communication service to the public via electronic means, allowing for programs viewing at the moment chosen by the user and upon its request […]*".

No differentiation is made between traditional broadcasting and broadcasting over the Internet (*e.g.*, on-demand video services, on-demand audio-visual services and catch-up TV).

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The formalities of audio-visual media broadcasting, using frequencies assigned by the CSA, differ according to whether the operator falls within the public or private sector.

Private companies are subject to the CSA's prior authorisation to operate television or radio services. Key obligations are then formalised in a contract entered into between the CSA and the company which has been granted the authorisation to operate.

Public sector companies (public TV channels, namely channels of the group France Télévisions, Arte, LCP, Assemblée Nationale and Public Sénat and the three public radio stations, namely Radio France, Réseau France Outre-mer and Radio France Internationale) are not subject to the CSA's prior authorisation, but must draft specification requirements (*cahier des charges*) taking into account the obligations resulting from the public missions assigned to them, notably regarding education and culture, and submit them to the CSA. They are also bound by the terms of the contracts signed with the government with regards to their goals and means (*contrats d'objectifs et de moyens*).

Distributors of audio-visual media services that do not use frequencies assigned by the CSA (satellite, cable, Internet, ADSL) are only subject to prior notification to the CSA.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

The CSA can withdraw any authorisation in case of substantial changes to the conditions according to which the authorisation was initially granted (share capital, executive bodies, financing arrangements, etc.).

The CSA can agree to an assignment of the authorisation if the assignee is the legal person controlling or controlled by the initial holder.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Article L.32-3-3 of the CPCE protects telecommunications operators and ISPs from both civil and criminal liability for content carried over their networks, by stating that they cannot be held liable save if: *(i)* they requested the communication; *(ii)* they selected the addressee of the communication; or *(iii)* they selected or modified the transmitted content.

The courts have, on several occasions, exonerated telecom operators and ISPs from all liability in respect of content. However, ISPs can, to a certain extent, be under the obligation to restrain access to certain websites (see *infra* question 6.4).

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

France was an early adopter of a graduated response approach, understanding it as a way to protect artistic creation. In 2007, the Minister of Culture ordered a report regarding online copyright protection, which led to an agreement signed by copyright holders as well as network operators.

This report led to the enactment of Law n°2009-669 of 12 June 2009 aiming to promote broadcasting and protection on the Internet (*Loi*

Création et Internet), which created an independent administrative authority: the Supreme Authority for the Broadcasting of Works and the Protection of Rights on the Internet – HADOPI.

In cooperation with ISPs, HADOPI is in charge of identifying online copyright infringers and to implement a graduated response (codified under L.331-12 *et seq.* of the Intellectual Property Code).

Firstly, HADOPI requires ISPs to send warning notices to online copyright infringers. Secondly, if the same Internet user continues its illegal downloading activities after six months, HADOPI shall send a warning email and a registered letter. In case of repeated infringement after this second warning, HADOPI shall transfer the files of repeated infringers to criminal courts for prosecution.

If the Internet user is prosecuted by criminal courts for copyright infringement, the judge will be empowered to pronounce a complementary penalty, which may lead to the suspension of the infringer's Internet access as well as the imposition of a range of criminal penalties. Article 7 of Law n°2009-1311, regarding penal protection of intellectual property, foresees that the judge may pronounce the suspension of the Internet access for a maximum of one year. During such suspension, the subscriber is still under the obligation to pay their Internet subscription.

Pursuant to this law, ISPs are also under the obligation to provide their subscribers with customers' contracts containing specific information on various subjects, such as:

- the obligation of vigilance which is incumbent upon the subscriber;
- the existence of legal content offers;
- the means of securing connections;
- the criminal and civil penalties incurred in case of copyright violation; and
- the threat posed by unlawful copying practices to the artistic creation and the cultural sector's economic sustainability.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Pursuant to article L.32-1 of the CPCE, the ARCEP must ensure "*that no discrimination exists, under analogous circumstances, in the relationship between the operators and providers of publicly available online electronic communication services in traffic routing and access to these services*" and "*end users' ability to access and distribute information and to access the applications and services of their choice*".

In the context of this mission, the ARCEP issued a series of recommendations for ISPs in 2010 and in 2012. In 2011, a Parliamentary report concluded with concrete proposals for legislative provisions and recommended that net neutrality become a political objective in France, as did the *Conseil National du Numérique*.

The European Regulation (EU) 2015/2120 of 25 November 2015, laying down measures concerning open Internet access, entered into force on 30 April 2016.

The text introduces the guiding principles of open Internet access and net neutrality into European legislation: on the one hand, equal and non-discriminatory treatment of Internet traffic; and on the other hand, all end users' (*i.e.*, consumers and content providers) rights to distribute and to access the information and content of their choice.

The text provides for the following rules:

- Reasonable traffic management by ISPs is acceptable in only a limited number of circumstances, and must not be based on commercial considerations.
- ISPs are prohibited from degrading or blocking traffic (or certain categories of traffic), except under clearly defined circumstances. These practices are justifiable in only a small number of instances: to comply with court orders; to protect the integrity or security of the network; or to prevent impending network congestion that occurs temporarily and under exceptional circumstances.
- In addition to providing Internet access, ISPs can offer services that need to be transmitted in an optimised fashion to meet certain specific requirements, provided that these practices do not have a negative impact on the availability or general quality of Internet access services.
- ISPs' commercial practices are now subject to scrutiny, notably their promotion of bundled online services. The national regulator has the right to monitor the features of these products.
- Operators are subject to strengthened transparency obligations. These pertain in particular to providing more detailed information in customers' contracts: the possible impact of traffic management techniques used by the ISPs; the concrete impact of the (traffic, speed, etc.) caps or allowances attached to the plan; and information on connection speeds, etc.

Within nine months of the Regulation entering into force, the Body of European Regulators for Electronic Communications (BEREC) must "*issue guidelines for the implementation of the obligations of national regulatory authorities*" under article 5.3 of the Regulation, to set out the concrete implementing procedures for the Regulation. The guidelines will ensure that the principles contained in the Regulation are implemented in a harmonious way across the European Union. The ARCEP actively contributed to the work done by the BEREC to prepare these guidelines.

On 6 June 2016, the BEREC launched a public consultation on draft guidelines which aim to support the national regulator in monitoring net neutrality.

The BEREC's guidelines are still to be adopted.

Law n°2016-1321 of 7 October 2016 formally introduced net neutrality in the CPCE, giving to the ARCEP the authority to ensure net neutrality and oversee open Internet access.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Law n°2004-575 of 21 June 2004 (*LCEN*) provides that ISPs cannot be subject to any general monitoring obligation. Content suspension and access can only be decided by courts under specific circumstances. As an example, Orange, Bouygues Telecom, SFR and Free were recently ordered to prevent access from France to the music downloading website T411 (TGI Paris, 2 April 2015).

However, telecommunications operators and/or ISPs may be under obligations to block access to certain sites or content under specific circumstances, such as:

- Terrorism:
  - Law n°2014-1353 of 13 November 2014 for strengthening anti-terrorism provisions increased criminal sanctions for apology of terrorism on the Internet, and authorised the blocking of Internet sites "*encouraging or making apologist arguments for terrorism actions*".

- Law n°2016-731 of 3 June 2016 for strengthening the fight against organised crime, terrorism and its funding, and improving the efficiency and warranties of criminal procedure, creates a criminal offence for the obstruction of blocking websites encouraging or making apologist arguments for acts of terrorism.

- Child pornography:
  - Since the enactment of Law n°2011-267 of 14 March 2011 (*LOPPSI*), websites obviously publishing child pornography can be blocked by ISPs upon request of the administrative authority in charge, the Central Office of Anti-Criminality Committed with Information and Communication Technologies (*Office Central de Lutte contre la Criminalité liée aux Technologies de l'Information et de la Communication – OCLCTIC*).
  - If the pornographic nature of the content is not "*obvious*", the administrative authority can bring the matter before the judicial authority.
- Online gambling:
  - Law n°2004-575 of 21 June 2004 (*LCEN*) provides that ISPs cannot be subject to any general monitoring obligation. Temporary monitoring obligations can only be decided by judicial courts under specific circumstances.
  - However, all ISPs must prevent online access to gambling services that have not been granted an authorisation by the Online Gambling Authority (*Autorité de Régulation des Jeux en Ligne – ARJEL*), in order to prevent French residents from gambling on blacklisted sites.

Decree n°2015-253 of 4 March 2015, for the delisting of websites encouraging acts of terrorism or broadcasting child pornography, provides for the delisting of illicit websites through a purely administrative procedure which does not require any judicial decision. In accordance with these new provisions, the OCLCTIC directly addresses to search engines the URL links of the websites to be delisted. Search engine companies then have 48 hours to make the search results disappear and operate the delisting. The Decree also specifies the conditions under which expenditure resulting from the search engines' obligation to delist may be supported by the government.

By contrast, hosting service providers are subject to a broader liability if they were actually aware of the illegal character of content, and did not act promptly to withdraw this content or make access to it impossible (article L.32-3-4 of the CPCE and article 6 of LCEN).

As for consumer VPN services, they are neither regulated nor blocked for the time being.

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Attorney at law of the Paris Bar since 1997, Anne-Solène Gay has developed expertise in telecommunications, space activities, IT and IP.

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BEHRING is a law firm specialising in telecommunications, space activities, IT and IP.

The firm was founded by Anne-Solène Gay, a leading legal expert on these issues for 20 years.

Highly knowledgeable in the industrial sectors in which our clients are involved, BEHRING's legal team provides crucial assistance for the many challenges our clients face during their business development.

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BEHRING supports its clients for contractual and regulatory matters, both in France and abroad, notably in Africa, Asia and North America.

Thanks to its expertise and global practice, BEHRING is regularly awarded in international rankings, such as *The Legal 500* and *Chambers & Partners*.

Chapter 14

Germany

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

(a) According to the annual report of the *Bundesnetzagentur* (German Federal Network Agency, "*Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen*"), the annual revenue of the telecoms sector in Germany (including the internet) was EUR 56.7 billion in 2017 (as cited by the Annual Report 2017 of the German Federal Network Agency, Markets in the Digital Revolution).

Today, major players include Deutsche Telekom with a 35.8% market share for mobile services, Vodafone Deutschland with a share of 26.1% and Telefónica Germany with 38.0% (Financial Statement of Télefonica 2017). Deutsche Telekom used to be a state-owned monopoly company until the telecoms market was liberalised in 1996, but since then it has been facing competition from operators with their own networks. In 2014, Telefónica Germany acquired its competitor E-Plus (KPN's mobile unit in Germany), making it the market leader by overall number of customers. Prior to the E-Plus merger, Telefónica Germany was only represented by its brand o2 (which is now Telefónica's main brand in Germany), holding at the time the fourth-largest share of mobile customers in Germany.

The costs to obtain the required mobile spectrum licences are relatively high in Germany. Consequently, barriers of entry to the market are significant, as shown by the fact that there are only three companies in the market with their own networks. Yet, barriers to entering as a Mobile Virtual Network Operator (MVNO) are much lower, as it is relatively simple and low-cost to rent capacity from the established network operators and then set up a business.

Concerning the broadband market, Deutsche Telekom (40.8%) still dominates, with more than double the number of customers subscribed to the company, with the next biggest share of customers being Vodafone (19.8%, including KabelDeutschland). 1&1 follows with 13.7% and Unitymedia with 10.5% of customers. Telefónica Germany only offers a fixed line through its o2 brand, reaching 6.5% of customers (www.statista.com). However, from its marketing activities, it is clear that Telefónica Germany is attempting to catch up with the market leaders.

(b) The distribution of audio-visual media as part of broadcasting is a component of the telecoms sector with respect to signal transmission, e.g., cable, satellite, etc. The total revenue in the private broadcasting sector was EUR 11.1 billion in 2017 (according to the website of *Verband privater Rundfunk und Telemedien e.V.*). The pay-tv sector generated revenues of about EUR 2.326 billion in the same year. Home Video services, including DVD sales and rentals, reached EUR 3.017 billion. The market for audio-visual media distribution is dominated by ProSieben Sat1 Media, the RTL group and Sky Deutschland.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) On a European level, the EU Commission adopted the Digital Single Market Strategy, which will be followed by the future revision of certain EU directives. Furthermore, provisions such as EU Regulation 531/2012 on roaming fees are of importance.

The German telecommunications market is mainly governed by the Telecommunications Act ("*Telekommunikationsgesetz*", abbr. TKG), which is partly based on EU directives. The Telecommunications Act provides for various regulatory fields, including regulation of market, access, fees and market abuse. Several sub-statutory ordinances further specify the requirements of the Telecommunications Act; see question 2.2 for details.

(b) The audio-visual media distribution sectors are principally governed by the Interstate Broadcasting Agreement ("*Rundfunkstaatsvertrag*"), the Interstate Treaty on the Protection of Minors in Broadcasting and Telemedia ("*Jugendmedienschutz-Staatsvertrag*") and the Telemedia Act ("*Telemediengesetz*", abbr. TMG). Other Interstate Agreements cover the funding of public service broadcasting ("*Rundfunkfinanzierungsstaatsvertrag*", "*Rundfunkbeitragsstaatsvertrag*").

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) The Federal Network Agency ("*Bundesnetzagentur*") is the competent regulatory authority for the telecoms sector, headquartered in Bonn.

The Federal Cartel Office ("*Bundeskartellamt*", abbr. BKartA) takes care of possible anti-competitive practices and merger control procedures and enforces the Act against Restraints on Competition ("*Gesetz gegen Wettbewerbsbeschränkungen*", abbr. GWB). However, this does not include the control of

market abuse by companies with significant market power, which is carried out by the Federal Network Agency according to sections 28 and 42 of the Telecommunications Act.

The individual Federal State competition authorities ("*Landeskartellbehörden*") implement the Act against Restraints on Competition. They enforce the ban on cartels according to section 1 of the Act against Restraints on Competition, controlling abuses by undertakings which dominate the market or are in strong market positions. They also keep a check on violations of the ban on discrimination and impediment. Their jurisdiction is limited to cartel law-related actions which do not extend beyond the territory of each Federal State (which is uncommon with regard to circumstances concerning internet and broadcasting). The body responsible for issues that extend beyond the borders of one Federal State and for the control of mergers is the Federal Cartel Office based in Bonn.

Following section 14 of the Federal Data Protection Act ("*Bundesdatenschutzgesetz*", abbr. BDSG), the Federal Data Protection Commissioner ("*Bundesdatenschutzbeauftragter*") is responsible for the application and proper implementation of provisions of the Federal Data Protection Act and Regulation (EU) 2016/679 on the protection of natural persons, with regard to the processing of personal data and on the free movement of such data ("GDPR") and for advising federal authorities, other public bodies on the federal level, telecommunications and postal service providers according to the Telecommunications Act and the Postal Act ("*Postgesesetz*", abbr. PostG). The Commissioner advises and monitors the implementation of security checks under the Security Screening Act ("*Sicherheitsüberprüfungsgesetz*", abbr. SÜG) in respect of public authorities and private companies. Where personal data is collected, processed or used for the commercial provision of telecommunications services, the Federal Data Protection Commissioner is responsible for monitoring compliance with data protection regulations and for the provision of any complaints to the Federal Network Agency, according to section 115 (4) of the Telecommunications Act.

The Data Protection Commissioners of the respective Federal States ("*Landesdatenschutzbeauftragter*") are responsible for controlling and advising public authorities of the respective states on matters of data protection.

The Centre for Protection against Unfair Competition ("*Wettbewerbszentrale*") has a formal, i.e. judicially authorised, right to initiate legal action against those who infringe the Act against Unfair Competition ("*Gesetz gegen den unlauteren Wettbewerb*", abbr. UWG), and is a self-regulatory body in trade, industry and commerce for the purpose of the Act. This includes any misleading advertisements (e.g., showing cheaper prices on the platform of Google Shopping than actual prices in the online shop) and sole position advertisements (e.g., "cheapest flat rate in Germany") in particular. According to section 8 (3) of the Act against Unfair Competition, individual competitors, trade organisations, consumer organisations and the chamber of commerce have a right of action against unfair competitors, which excludes individual consumers (although they may have claims under contract or general tort law).

(b) The 14 Federal State media authorities in Germany ("*Landesmedienanstalten*") are in charge of licensing, controlling, structuring and promoting commercial radio and television in Germany. Furthermore, there are self-regulatory bodies such as the German Association for Telecommunications and Media ("*Deutscher Verband für Telekommunikation und Medien e.V.*", abbr. DVTM) and the German Voluntary Self-Regulation of the Movie Industry ("*Freiwillige Kontrolle der Filmwirtschaft GmbH*", abbr. FSK).

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

(a)(i) Historically, the German telecommunications industry has been characterised by public service monopoly providers, run in conjunction with postal services. The liberalisation of the telecoms market began in the first half of the 1980s and was fully liberalised in 1998, leading to considerable reductions in some prices and a wider range of services being provided.

(a)(ii) Concerning investment, there are no restrictions to foreign investment in the telecoms market.

(b)(i) Together with the telecoms market, the audio-visual media distribution sectors were fully liberalised in 1998. Still, EU Directive 2010/13/EU concerning the provision of audio-visual media services (Audio-visual Media Services Directive) promotes European programmes.

(b)(ii) There are no foreign investment restrictions in the audio-visual media distribution sector.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Germany is a member of the WTO, signed the GATS in 1994, and, furthermore, has adopted and implemented the Telecoms Reference Paper, initially signed by the European Communities, including Germany.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

As already mentioned in question 1.2, the telecoms market is primarily governed by the German Telecommunications Act ("*Telekommunikationsgesetz*", abbr. TKG).

Yet, several ordinances further detail and specify these provisions, including the Telecommunications Numbering Ordinance ("*Telekommunikationsnummerierungsverordnung*", abbr. TNV), Telecommunications Numbering Fees Ordinance ("*Telekommunikationsnummerierungsgebührenverordnung*", abbr. TNGebV), Emergency Calls Ordinance ("*Notrufverordnung*", abbr. NotrufV), Telecommunications Fees Ordinance ("*Telekommunikationsgebührenverordnung*", abbr. TKGebV), Telecommunications Monitoring Ordinance ("*Telekommunikations-Überwachungsverordnung*", abbr. TKÜV), Frequency Fees Ordinance ("*Frequenzgebührenverordnung*", abbr. FGebV), or the Frequency Levy Ordinance ("*Frequenzschutzbeitragsverordnung*", abbr. FSBeitrV).

Other statutes contain additional provisions that refer to the regulation of the telecommunications market. These acts include the Telemedia Act ("*Telemediengesetz*", abbr. TMG), Federal Data Protection Act ("*Bundesdatenschutzgesetz*", abbr. BDSG), the European General Data Protection Regulation and Local Data Protection Acts of the individual Federal States. The Federal Data

Protection Act has been amended in order to regulate aspects such as the sectoral regulations, the transitional rules or the implementation of additional requirements, where discretion is given by the European General Data Protection Regulation.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The Federal Network Agency ("*Bundesnetzagentur*"), the Federal Cartel Office ("*Bundeskartellamt*"), the competition authorities of each Federal State ("*Landeskartellbehörden*"), the Federal Data Protection Commissioner ("*Bundesdatenschutzbeauftragter*"), the Data Protection Commissioners of the respective Federal States ("*Landesdatenschutzbeauftragter*") and the Centre for Protection against Unfair Competition ("*Wettbewerbszentrale*") are the main regulatory bodies for the telecommunications market, which are independent from the government. Regarding their different roles, see question 1.3.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

The decisions of the Federal Network Agency ("*Bundesnetzagentur*") can be appealed according to section 137 of the Telecommunications Act ("*Telekommunikationsgesetz*", abbr. TKG). The grounds for an appeal are not specifically stated in the Telecommunications Act. The decisions can be appealed due to procedural or substantive reasons.

Procedural reasons are the breach of formal requirements during the decision making of a public authority (e.g., the Federal Network Agency). These reasons include the lack of competence of the deciding authority and a violation of procedural matters, such as a proper hearing of the concerned parties, the participation and cooperation of third parties, the public information and consultation, the proper form of the decision (e.g., written decision with valid information about the possibilities of appeal), or the proper statement of grounds of the decision.

Substantive reasons are the wrongful applications of statutory law, which include the wrongful application of the legal basis (e.g., not acknowledging an exemption from general rules), the wrong subject of the Federal Network Agency order (e.g., imposition of access obligations despite the fact that the recipient does not possess significant market power), the legal or factual impossibility of the execution of the order, a lack of clarity of the imposed obligation (e.g., price regulation decision without a clear and transparent price definition), or the lack of proportionality and reasonableness of the decision (e.g., clear and significant disproportion between the purpose and the means of the order).

The Federal Network Agency's order can be *appealed* to the Administrative Court of Cologne and the German Federal Administrative Court ("*Bundesverwaltungsgericht*", which is headquartered in Leipzig), following the Administrative Procedure Act and Rules of the Administrative Courts ("*Verwaltungsverfahrensgesetz*", abbr. VwVfG, and "*Verwaltungsgerichtsordnung*", abbr. VwGO), as well as the German Federal Constitutional Court ("*Bundesverfassungsgericht*", abbr. BVerfG, which is headquartered in Karlsruhe) and the European Court of Justice in particular circumstances.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

Individual licences to provide telecommunications services are no longer required under German law. Instead, there is a general authorisation for companies to offer telecommunications services to the public. This entitles them to:

- negotiate interconnection with other providers in the EU;
- obtain access to or interconnection with other providers; and
- be designated to provide certain universal service functions.

However, the provider must notify the Federal Network Agency ("*Bundesnetzagentur*").

As there are no specific licences for the provision of general telecommunications services, no licence fees are charged. However, providers must pay a Frequency Usage Fee and a Frequency Levy according to the Frequency Fees Ordinance and the Frequency Levy Ordinance, which are calculated by taking into account the turnover of the individual companies. The Federal Network Agency provides annual information about the above fee and levy.

The spectrum use is assigned individually on application within a six-week period. Where there is not sufficient spectrum available for assignment, the Federal Network Agency orders that an award procedure in the form of an auction takes place. Previously, there have always been more applicants for the frequencies than available spectrum. Therefore, auctioning is the usual way of allocation.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Only the *allocation of frequency spectrum* is subject to general authorisation. Section 52 of the Telecommunications Act ("*Telekommunikationsgesetz*", abbr. TKG), the Frequency Ordinance ("*Frequenzverordnung*", abbr. FreqV) and the Federal Network Frequency Plan (which is updated every year) specify the allocation.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Individual authorisations mainly concern the use of certain telephone numbers, the usage of individual spectrum allocations and certain rates.

Regarding *spectrum allocations*, according to section 55 (9) of the Telecommunications Act, frequencies are typically assigned for a *limited period*, with the possibility of extension. The time limit shall be appropriate to the service concerned, thus the investment made. The duration usually ranges between 10 to 20 years. All *other* individual authorisations are also limited in time.

Spectrum can be *transferred*, as set out in our answer to question 3.6. *Numbers* may only be transferred to affiliates and/or legal successors, requiring the Federal Network Agency's consent. *Rights of way* are highly personal rights which can be transferred to an undertaking only after verification that the applicant possesses the required reliability, efficiency and specialised knowledge. Such rights of use can therefore only be used by the holders themselves, and may not be given or transferred to another undertaking, nor passed on to another undertaking by legal succession (sections 68 *et seq.* of the Telecommunications Act).

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Since 2004, the German Telecommunications Act has included new provisions on the *rights of way* (section 68 *et seq.* of the Telecommunications Act). The Federal Network Agency transfers the rights of way, upon written application, to the public telecommunications network operators. If such use is not possible, or is possible only at a disproportionately high cost, the operator is granted a shared use of other installations that already exist, where shared use is economically reasonable and no major additional construction work is needed.

According to section 76 of the Telecommunications Act, *private property* owners have to bear installation, operation or renewal of telecommunications insofar as:

(1) on his property, a line or installation that is secured by right is used also for the installation, operation or renewal of a telecommunications line and the usability of the property is not thereby additionally restricted on a lasting basis; or

(2) the property is not, or is not significantly, affected by such use.

A property owner having to acquiesce in actions may claim appropriate pecuniary compensation from the operator of the telecommunications line or the owner of the network, under the particular circumstances set out in section 76 (2) of the Telecommunications Act.

Civil or administrative courts would have to deal with the above-mentioned issues.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Upon request, every public telecommunications network operator is required to make an interconnection offer to other public telecommunications network operators in order to secure user communication, the provision of telecommunications services and service interoperability throughout the European Union (section 16 of the Telecommunications Act).

The Federal Network Agency can impose obligations, upon request, on public telecommunications network operators that control access to end-users and do not have significant market power to interconnect their networks with those of other public telecommunications network operators (section 18 (1) of the Telecommunications Act).

In order to promote sustainable competition in the retail market, the BNetzA can require public telecommunications network operators controlling access to end-users to not treat other public telecommunications network operators differently, without objectively justifiable reasons (section 18 (2) of the Telecommunications Act).

Furthermore, the BNetzA is able to require public telecommunications network operators with *significant market power* to create the necessary prerequisites for the interoperability of end-to-end communication, including the provision of facilities for intelligent network services and roaming (section 21 (2) no. 4 of the Telecommunications Act).

As mentioned, each operator of a telecommunications network which serves to provide telecommunications services to the general public is under an obligation to enter into negotiations concerning the interconnection of its network with that of other operators upon request. If the parties do not reach an agreement or do not agree on the fee that is to be paid for the interconnection, they can appeal to the Federal Network Agency, which can hence order interconnection after hearing the parties within a period of no longer than 10 weeks (section 25 of the Telecommunications Act). In the event of other interconnection disputes, the ruling chamber of the Federal Network Agency can also issue a binding decision on request of either party and after hearing both of the parties within four months of the request, according to section 133 of the Telecommunications Act.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

The Federal Network Agency requires SMP operators to publish a reference offer, which sets out the specifics of the granted access (section 23 of the Telecommunications Act).

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

The German Telecommunications Act generally provides for an *ex ante price regulation* (section 30), an *ex ante rate regulation* (section 39) and an *ex post rate regulation* (section 38).

The *interconnection prices* can be regulated by the Federal Network Agency (section 30 *et seq.* of the Telecommunications Act) if the interconnection is ordered in accordance with section 21 of the Telecommunications Act. However, such an order is only possible for public telecommunications providers with *significant market power*.

For providers *without* significant market power, the Federal Network Agency cannot regulate the interconnection prices. The providers can only make an offer to other providers on request, according to section 16 of the Telecommunications Act. The Telecommunications Act does not state any details about such an offer (in particular, there are no details regarding pricing) and does not entitle the Federal Network Agency to set these prices. The TeliaSonera decision of the Court of Justice of the EU is important here, as the European court ruled that if a company without significant market power makes an interconnection offer on terms that are likely to hinder the development of a competitive market at the retail level, this constitutes a breach of the negotiation obligation. Therefore, even if the interconnection charges are not regulated for providers without significant market power, the providers cannot issue offers that are completely commercially unviable in relation to charges.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Operators are not subject to accounting, functional or legal separation in Germany. In regard to access services, the Federal Network Agency may impose obligations as functional separation under certain conditions, e.g., lack of competition or market failure.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Due to the federal structure of Germany, the regulation applicable to high-speed broadband networks is highly complex.

On a federal level, the regulatory framework on next-generation access ("*Next-Generation-Access-Rahmenregelung*") deals with possible incentive measures for broadband expansion. This framework tries to ensure that state aid on broadband expansion complies with the EU regulation on state aid, pursuant to article 101 *et seq.* of the Treaty of the Functioning of the European Union (English abbr. TFEU). In Germany, funding is granted for two models on a federal level:

(1) the profitability gap model ("*Wirtschaftlichkeitslücken-modell*"), where the profitability gap is covered by the state; and

(2) the operator model ("*Betreibermodell*"), where municipalities are subsidised to roll out passive infrastructure that will be leased to network operators.

Around 75% of funds go to the profitability gap model (according to "Europe's Digital Progress Report 2017").

Still, the regulatory provisions of *each Federal State* (economic law for communes, "*kommunales Wirtschaftsrecht*") are applicable if municipalities decide to support broadband expansion.

Furthermore, the Telecommunications Act includes provisions on high-speed broadband networks, such as the regulatory objective in section 2 (2) no. 5 of the Telecommunications Act, in order to accelerate broadband network expansion. Also, investments on high-speed broadband networks must be taken into account by the Federal Network Agency, according to section 30 of the Telecommunications Act. According to section 15a of the Telecommunications Act, the Federal Network Agency has the power to adopt administrative provisions in order to establish a regulatory approach for broadband network expansion. As regards details on the *sharing of passive infrastructure*, see question 2.8, and especially section 77a *et seq.* of the Telecommunications Act.

In 2016, the Network Alliance for a Digital Germany ("*Netzallianz Digitales Deutschland*") and the Federal Ministry of Transport and Digital Infrastructure ("*Bundesministerium für Verkehr und digitale Infrastruktur*", abbr. BMVI) set out the first gigabit strategy in the document entitled "*Eckpunkte Zukunftsoffensive Gigabit-Deutschland*", which stresses the need to install fibre infrastructure on a large scale. The roadmap envisages four stages and outlines the following goals: 50 Mbps for all households (by the end of 2018); deployment of fibre infrastructure in underserved industrial areas (by the end of 2019); creating the preconditions for nationwide 5G roll-out (by the end of 2020); and gigabit-capable converged infrastructure (by 2025).

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

As regards *retail price controls*, the Telecommunications Act does not provide for any *ex ante* control measures. However, according to section 66d of the Telecoms Act, price caps apply to premium services and shared cost services as well as to roaming, pursuant to Regulation (EU) 2015/2120.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

"Universal services" are basic services regarded as indispensable to the public. Where there is insufficient supply, the telecommunications providers must ensure the provision of "universal services", which are a minimum set of services to the public with a certain defined quality, and to which all end-users must have access at an affordable price regardless of their place of residence or business (section 78 *et seq.* of the Telecommunications Act).

The Telecommunications Act contains provisions for details regarding the price communication in advertisements and proper information on the terms and conditions (section 43a *et seq.* of the Telecommunications Act). Furthermore, rates must be announced prior to the start of a telephone service; maximum charges can be set and premium rates must be interrupted after 60 minutes (section 66a *et seq.* of the Telecommunications Act). Section 47a of the Telecommunications Act provides for an arbitration board for consumers.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The Federal Network Agency allocates telephone numbers on request and provides these telephone numbers in accordance with the Telecommunications Act ("*Telekommunikationsgesetz*", abbr. TKG), the Telecommunications Numbering Ordinance ("*Telekommunikationsnummerierungsverordnung*", abbr. TNV) and the Telecommunications Numbering Fees Ordinance ("*Telekommunikations-Nummerierungsgebührenverordnung*", abbr. TNGebV). The allocation method for geographic numbers is described in detail in an administrative instruction that is available on the Federal Network Agency's website. The Federal Network Agency aims at providing a non-discriminatory and technology-neutral solution with sufficient availability of geographic telephone numbers, while also protecting the interests of consumers. It publishes an annual numbering policy stating the current development of the telecommunications market, and the possible implications of such current development on telephone number allocation practice. The numbering policy for the year 2014 is available on the Federal Network Agency's website.

2.17 Are there any special rules which govern the use of telephone numbers?

Telecommunications service providers must provide a number of different services. The most important of such services are *emergency calls* (section 108 of the Telecommunications Act), *grid interconnection* (section 16 of the Telecommunications Act) and *universal services* (section 78 *et seq.* of the Telecommunications Act).

Any person offering publicly available telephone services must provide all users with access to the emergency services by using, free of charge, the single European emergency call number "112" and the additional national emergency call numbers determined in the respective ordinance (Emergency Calls Ordinance, "*Notrufverordnung*", abbr. NotrufV). Any person operating telecommunications networks used for publicly available telephone

services must transmit to the local emergency service centre, without undue delay, emergency calls, including the calling line identity or, where the calling line identity is not available, the data required to prosecute any misuse of emergency calls as provided in the Emergency Calls Ordinance, and the information required to identify the location from which the emergency call originated.

In case of insufficient supply, the telecommunications providers must ensure the provision of the "universal services", which are a minimum set of services to the public with a certain defined quality, and to which all end-users must have access at an affordable price regardless of their place of residence or business. "Universal services" are basic services regarded as indispensable to the public.

Additional services, such as ensuring access to their grid for the benefit of other service providers, must be provided by telecommunications service providers with significant market power, according to section 21 of the Telecommunications Act.

2.18 Are there any obligations requiring number portability?

All undertakings that provide publicly available telecommunications services and assign telephone numbers to end-users (including all fixed and mobile network operators and VoIP service providers) underlie obligations that require number portability. Porting to another telecommunications service provider must be conducted without interruption (one day) (section 46 of the Telecommunications Act).

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The Federal Network Agency allocates frequency spectrum use according to section 52 *et seq.* of the Telecommunications Act.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Frequencies are typically assigned *ex officio* by the Federal Network Agency as *general assignments* for the use of particular frequencies by the general public or a group of persons defined by general characteristics, according to section 55 (2) of the Telecommunications Act. Where general assignment is not possible, frequencies for particular usages are *assigned individually* by the Federal Network Agency upon written application.

In case there is no sufficient spectrum available, the Federal Network Agency may order that an assignment be preceded by an *award procedure*, which is an *auction*, unless an auction is not likely to comply with regulatory aims. In this case, the Federal Network Agency invites tenders (in a so-called "*beauty parade*").

On 15 July 2016, the Federal Network Agency published the "*Frequenz-Kompass*", which gives interested parties an overview of forthcoming frequency regulation activities. This document prepares the next spectrum assignment procedure for mobile broadband, serves as an initial orientation guide and identifies some early regulatory areas of action, especially the provision of 2 GHz and additional spectrum.

The next big step regarding the use of radio spectrum is the 5G frequency auction, which will take place in spring 2019. The auction shall ensure that a wider commercial operation of the 5G spectrum can begin at the end of the year 2020. It is expected that the bidders will include not only the existing MNO, but also various companies which in the past acted as MVNOs only.

The use of 5G spectrum is highly anticipated in Germany as it includes various technology and applications. In addition to faster mobile internet, 5G plays an important role in the Internet of Things and industry. For example, companies can create networked production processes and a higher level of automation with their own 5G infrastructure. 5G applications are also available for digitised warehouse management.

In this respect, and in contrast to previous spectrum auctions, the German industry appears to have a serious interest in regional 5G frequencies. Several DAX companies, such as Daimler, Volkswagen, Siemens and BASF, signalled interest, and could use local and regional rights of spectrum use for their own 5G networks in their factories. Thus, such companies would be independent of the expansion plans of the three existing mobile network operators Telekom, Vodafone and Telefónica and any new operators with their own 5G licences.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

No, as a licence is always needed.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

A one-time fee is payable, as set forth in the Frequency Fee Ordinance ("*Frequenzgebührenverordnung*"), and an annual fee is calculated in accordance to the Frequency Usage Contribution Ordinance ("*Frequenznutzungsbeitragsverordnung*").

3.5 What happens to spectrum licences if there is a change of control of the licensee?

A change of control does not affect the spectrum licence, but must be notified to the Federal Network Agency.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

According to section 55 (5) of the Telecommunications Act, frequencies shall be *assigned* subject to:

(1) their designation for the planned usage in the Frequency Usage Plan;

(2) their availability;

(3) their compatibility with other frequency usages; and

(4) their efficient and interference-free use being secured for the applicant.

Furthermore, applicants are not entitled to any one particular frequency.

In theory, spectrum bands can be released for *trading*, *rent* or *communal* use by the Federal Network Agency ("*Bundesnetzagentur*"). Also, if a company were to restructure, they are permitted to transfer frequency usage rights by singular or universal succession, although this requires the consent of the Federal Network Agency, according to section 55 of the Telecommunications Act. The conditions to transfer spectrum rights are set out in section 55 (8) of the Telecommunications Act. The *same rules* for the initial

allocation also apply for transferring the spectrum rights, which makes it unusual that spectrum is sublicensed or transferred in Germany after the initial allocation by the Federal Network Agency.

In particular, many licences allocated by the Federal Network Agency are provided under certain obligations that have to be fulfilled by the tendering parties (for example, grid or network construction and putting services physically into operation). Examples are the German companies Quam and Mobilcom, which both had to return their 3G spectrum licences (which they acquired for EUR 8.5 billion and EUR 8.4 billion, respectively) to the Federal Network Agency in 2007. The companies failed to fulfil the licensing obligations (in particular, setting up a grid available to 25% of the German population).

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Germany's strategy to ensure cybersecurity basically builds on its IT security law ("*IT-Sicherheitsgesetz*"), which was passed in 2015, and promotes cooperation between the German Federal Office for Information Security ("*Bundesamt für Sicherheit in der Informationstechnik*", abbr. BSI) and the industry in protecting critical infrastructure. To enforce the IT security law, the powers of the German Federal Office for Information Security were increased by amending the Act on the Federal Office for Information Security ("*Gesetz über das Bundesamt für Sicherheit in der Informationstechnik*", abbr. *BSI-Gesetz* or BSIG). But the protection of infrastructure is only one part of the attempt to achieve cybersecurity.

According to sections 91 (2) and 93 (2) AktG, section 43 (1) GmbHG and section 317 (4) HGB, managers and chairmen can be responsible for ensuring cybersecurity in their companies. Section 203 of the Penal Code ("*Strafgesetzbuch*", abbr. StGB) criminalises the disclosure of personal secrets learned by the perpetrator in his professional function, e.g., as lawyers or physicians (even in case of hacker attacks).

Other aspects on cybersecurity are specified in the Telemedia Act ("*Telemediengesetz*", abbr. TMG), the Telecommunications Act ("*Telekommunikationsgesetz*", abbr. TKG), and the Copyright Law ("*Urheberrechtsgesetz*", abbr. UrhG).

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The state authorities obtain access to private communications on different legal grounds, such as sections 100a and b of the Code of Criminal Procedure ("*Strafprozessordnung*", abbr. StPO), sections 3, 5 and 8 of the Act for Limitation of the Confidentiality of Correspondence, Post and Telecommunications ("*Gesetz zur Beschränkung des Brief-, Post- und Fernmeldegeheimnisses*", abbr. *Artikel 10-Gesetz*), sections 23a to c and e of the Act for the Customs Investigation Services ("*Zollfahnungsdienstgesetz*", abbr. ZFdG), section 20l of the Federal Criminal Office Act ("*Bundeskriminalamtgesetz*", abbr. BKAG) and some additional regulations of the individual Federal States.

The measures pursuant to section 100a of the Code of Criminal Procedure require a prior court order, following an application by the public prosecutor's office. In pressing circumstances, the prosecutor may also issue an order, which must be confirmed by the court within three working days in order not to become ineffective (section 100b (1) of the Code of Criminal Procedure).

An order may only be granted in cases where certain facts give rise to the suspicion that a serious criminal offence, referred to in section 100a (2) of the Code of Criminal Procedure, has been committed (or, in cases where there is criminal liability for an attempt to commit an offence, there was an actual attempt to commit such an offence, or such offence had been prepared by committing a criminal offence), the offence is also one of particular gravity in the individual case, and other means of establishing the facts or determining the accused person's whereabouts would be significantly more difficult. See section 100a (1) of the Code of Criminal Procedure.

The access to private communications is specified in the Telecommunications Act and the Telecommunications Monitoring Ordinance (TKÜV).

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

All persons providing, or contributing to the provision of, telecommunications services on a commercial basis, are required to assist the particular law enforcement authorities to implement the necessary measures required for the interception and recording of communications, and to provide all necessary information without delay (section 100b (3) of the Code of Criminal Procedure). The measures that need to be taken are further specified in section 110 of the Telecommunications Act and the Telecommunications Monitoring Ordinance (TKÜV) and a technical directive. There are exceptions for operators with only a small number of end-customers.

Where the telecommunications service providers do not comply with interception and provision of information orders, regulatory and coercive actions can be taken, generally meaning certain fines can be imposed on the telecommunications service providers.

4.4 How does the state intercept communications for a particular individual?

In order to technically implement a judicial order, according to section 5 of the Telecommunications Interception Ordinance (TKÜV), the telecommunications service providers must provide the state authorities with a full copy of the telecommunications which are conducted via its telecommunications system under the identification to be intercepted. In doing so, it must ensure that the data provided contain only the telecommunications referred to by the judicial order. Thus, only the telecommunications service providers carry out wire-tapping in general. However, source telecommunications surveillance is implemented by the competent authorities themselves, e.g., the installation of trojans on computers.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

There are no rules governing the use of encryption. Section 13 (7) of the Telemedia Act states that there is no obligation to use certain encryption keys.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

The German legislator has adopted a new law on data retention ("*Gesetz zur Vorratsdatenspeicherung*"). The Federal Network Agency has stopped its enforcement after a ruling by the Higher Administrative Court of North Rhine-Westphalia ("*Oberverwaltungsgericht Nordrheinwestphalen*") stating that the law would not be consistent with EU law on data protection.

From 1 July 2017, all providers are formally required to save their customers' telecommunications transaction data listed in section 113b of the German Telecommunications Act for four weeks (concerning location data) or 10 weeks. Breaches of the retention obligation are punishable by a fine. The precedent provision on data retention was held to be unconstitutional by Germany's Federal Constitutional Court.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Audio-visual media are governed by the Interstate Broadcasting Agreement ("*Rundfunkstaatsvertrag*") and the Interstate Treaty on the Protection of Minors in Broadcasting and Telemedia ("*Jugendmedienschutz-Staatsvertrag*"). Furthermore, the Audio-visual Media Service Directive 2010/13/EU applies; see question 1.2 for further details.

It is not clear whether *online streaming services* must be qualified as *broadcasting services* that must be made subject to prior authorisation, *or* if they can be qualified as *telemedia services*. In contrast to radio broadcasts over the internet, TV broadcasts over the internet are not exempted from the obligation to obtain a licence (section 20b of the Interstate Broadcasting Agreement). "PietSmiet TV" has shut down its YouTube channel as a consequence of the Federal State media authority's notice, requesting PietSmiet TV to either obtain a broadcasting licence or to shut down the channel. It is heavily disputed if this practice complies with article 5 of the German Constitution ("*Grundgesetz*", abbr. GG), which prohibits censorship.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Basically, the law is technology-neutral. German law, which is based on the EU's Audio-visual Media Services Directive (abbr. AVMSD), governs EU-wide coordination of national legislation on all audio-visual media, both traditional TV broadcasts and on-demand services. The new AVMSD is currently open for review. A new legislative proposal amending the AVMSD was adopted by the European Commission on 25 May 2016. There is a chance that the new AVMSD might distinguish between online video platforms in general and news platforms using videos.

One of the most interesting developments in the near future will be the implementation of the new European Copyright Directive, in particular: article 11, which intends to give publishers and papers additional revenue when internet companies link to their stories (a similar rule already exists under the German Copyright Act in Germany), although it has been highly opposed and discussed prior to its introduction in the year 2013; and article 13, which requires certain platforms (e.g., YouTube) to stop its users sharing unlicensed copyrighted material.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The law generally distinguishes between "telemedia services" and "broadcasting services". *Broadcasting*, as defined in the Interstate Treaty, means a linear information and communications service that provides and transmits offers for the general public for simultaneous reception, in audio and/or video signals, pursuant to a programming schedule, using electromagnetic oscillations. *Telemedia services* are defined as electronic information and communications services other than telecommunications services and broadcasting (e.g., internet content services).

According to section 20 of the Interstate Broadcasting Agreement, only providers of broadcasting services must obtain a licence. Yet, the term "broadcasting" does not include offers which:

(1) are offered to fewer than 500 potential users for simultaneous reception in any case;

(2) are destined for immediate reproduction from reception equipment storage media;

(3) exclusively serve personal or family purposes;

(4) are not offers edited by journalists; or

(5) consist of programmes which are each activated against individual payment (section 2 (3) of the Interstate Broadcasting Agreement).

The provider's key obligations are set out in the provisions mentioned in question 1.2.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Licences are of a personal nature and cannot be assigned to others. But, if the assignee himself meets the requirements of the Interstate Broadcasting Agreement, the state media authority ("*Landesmedienanstalt*"), as the competent regulatory authority, must issue a licence.

A possible change of control must be announced to the competent regulatory authority, which is the Commission on Concentration in the Media ("*Kommission zur Ermittlung der Konzentration im Medienbereich*", abbr. KEK). The Commission on Concentration in the Media – as representative of the Federal State media authorities – is responsible for reviewing issues related to securing diversity in the media and for avoiding predominant media power.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Following the recent judgment of the European Court of Justice (abbr. ECJ, C-484/14), operators of a public Wi-Fi hotspot are generally not liable for infringements committed by third parties in Germany. However, the ECJ states that the operator can be requested to secure his network with a password in order to prevent violations of the law.

Reacting to this judgment, the German legislator amended the German Telemedia Act, called the "Second Act amending the Telemedia Act" ("*Zweites Gesetz zur Änderung des Telemediengesetzes*"), and provider liability was abolished. The law came into force on 27 July 2016 and concerns compensation for damages incurred by content providers through illicit use of internet access, and liability to cease and desist ("*Störerhaftung*"). However, the WLAN operator is still obliged to ensure that the illicit practices do not continue.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Telecommunications operators and internet service providers are not obligated to disconnect customers who infringe a content owner's right. However, they have to provide information to content owners according to section 101 of the German Copyright Law ("*Urheberrechtsgesetz*", abbr. UrhG). If the requested information concerns traffic data such as IP addresses, copyright owners must obtain a court order.

The new data retention law of 2017 prolongs the period during which telecommunications operators and internet service providers have to store traffic data to at least four weeks.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Originally, Deutsche Telekom had plans to impose speed limits on internet access via DSL. These were blocked by a judgment of the Regional Court of Cologne that declared the respective terms and conditions of Deutsche Telekom null and void. However, this judgment does not guarantee net neutrality in general.

Instead, net neutrality is guaranteed by the third law amending the Telecommunications Act, which sets out the rules on penalties under article 6 of EU Regulation 2015/2120. In particular, it stipulates administrative fines for certain infringements of article 3 and article 4 of EU Regulation 2015/2120, with a possible maximum fine of €500,000.

The Federal Network Agency has received consumer complaints about alleged breaches of the open internet provisions of EU Regulation 2015/2120. It has already investigated some of these cases and is still investigating others. However, no formal decision has so far been taken to impose a penalty for violation of net neutrality provisions. The Federal Network Agency has furthermore not yet taken any decision to impose requirements on technical characteristics, minimum quality of service, or other appropriate and necessary measures under article 5 (1) of EU Regulation 2015/2120.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

As already mentioned in question 6.1, Wi-Fi operators can be obliged to ensure that copyright infringements do not continue; this was recently approved by the Federal Court of Justice ("*Bundesgerichtshof*", abbr. BGH). Consumer VPN services are not regulated or blocked.

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Chapter 15

Greece

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The most recent official publicly available financial data covering the overall telecoms sector refers to the fiscal year 2016. 2016 may turn out to be a turning point for the domestic telecommunications market. The adoption and imminent implementation of the vectoring Regulation is expected to lead to a further multi-benefit increase of investments. The three major telecommunications providers announced a two billion euro investment plan for the next four years. At the same time, competition among bundled offers was further intensified based on high-speed broadband access, mobile broadband and pay-tv services. The contribution of the industry's turnover to Greece's Gross Domestic Product (GDP) ranged at 2.8% in 2016, almost at the same level as in 2015. The turnover of the telecommunications industry stabilised at the level of five billion euros. Revenues from telecommunications services represented the vast majority of all revenues (~90%), while pay-tv revenues were on the rise. The total investment made by the electronic communications providers increased spectacularly by 69% (corresponding to 22.6% of the total industry's turnover), with approximately 70% being carried out on fixed networks and the remaining 30% on mobile networks. The focus of this investment was mainly the telecommunications infrastructure as well as research and development (e.g., software, new services, etc.).

The Earnings before Interest, Tax, Depreciation and Amortization (EBITDA) for the major fixed and mobile operators increased by 2.8% compared to 2015, while their gross profit declined further at about 415 million euros, mainly due to increased depreciation figures. The most significant participants in the fixed communications market are the incumbent (OTE), Vodafone, Wind, Forthnet and CYTA Hellas. In the mobile communications market there are three MNOs: Cosmote (subsidiary of incumbent OTE); Vodafone; and Wind. Furthermore, CYTA Hellas offered mobile services as an MVNO, but has recently merged by acquisition with Vodafone. The notified merger was approved by the EETT (National Commission for Telecommunications and Post) at the end of June 2018, after entering a phase II investigation, but was cleared without commitments.

In the media sector, there is a significant difference between the development and regulation of distribution platforms and pay-tv on one hand, and free-to-air TV content providers on the other hand. In February 2014, the EETT awarded the first licence for a digital television network to Digea Digital Provider Inc (DIGEA). DIGEA provides networking and multiplexing, as well as network broadcasting for any legitimate TV station that uses its services. In the pay-TV market, there are currently two main players ("NOVA" and "COSMOTE TV"). NOVA is affiliated with Forthnet (fixed communications operator) and COSMOTE TV is the pay-tv brand of the fixed incumbent OTE. There are many free-to-air content providers currently operating in the Greek market, including local operators. A tender performed by the Ministry in 2016 for the award of four licences for free-to-air content providers has been annulled by the Council of State, and a new process has been initiated by the National Radio-Television Council for the award of seven licences to providers of free, nationwide, general information, terrestrial digital television broadcasting content on November 2017. Six applications were submitted for the aforementioned licences. Each of the five of them pertaining to SKAI, StarChannel, Alpha, Antenna TV A.E. (Ant1) and "E" TV acquired one licence, whereas the sixth applicant "*ΤΗΛΕΟΠΤΙΚΗ ΕΛΛΗΝΙΚΗ ΑΝΩΝΥΜΟΣ ΕΤΑΙΡΕΙΑ*" was found to be eligible on conditions relating to the proof of the financial capacity of the company. These conditions were not met by the company, resulting in the rejection of its application, in June 2018.

In January 2018, following the issuing of Ministerial Decisions No. 169-171/2018, the EETT launched an auction for the awarding of rights to use radio frequencies of terrestrial digital radio free broadcasting (DAB) of national and regional coverage, with the procedure of sealed tenders in which each tenderer pays the price offered. Through this process, a National Coverage Radio Frequency Use Right would be granted for the DAB + multiplex channels described in the relevant tender document and several Regional Radio Frequency Use Rights for the award areas specified in the same tender document.

The auction received two applications for awarding, which were both found non-eligible by the EETT in May 2018. Analogue radio FM stations in Greece still operate under a temporary licensing regime.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The most important legislation applicable to telecoms, including to the internet and to the audio-visual media distribution sectors, consists of the following acts:

- Law 4070/2012 on electronic communications.
- EETT Decision 792/07/2016 on the fourth round of market analysis of wholesale fixed local access market, and the introduction of VDSL vectoring technology for the provision of NGA access in Greece.

- EETT Decision 834/2/2017 on the regulation of General Authorisations, as amended by EETT Decision 849/3/2018.
- Law 3115/2003 on issues related to the protection of communications privacy.
- General Data Protection Regulation (GDPR) (EU) 2016/679, Laws 2472/1997 and 3471/2006 on the protection of personal data.
- Law 2121/1993 on the protection of intellectual property.
- Presidential Decree 131/2003 on e-commerce, as amended by Law 4403/2016, Article 24.
- Joint Ministerial Decision No. 70330/2015 on adjustments to the Greek legislation in line with Directive 2013/11/EU on Alternative Consumer Dispute Resolution, and the adoption of additional national measures for the implementation of Regulation 524/2013 on Online Dispute Resolution for Consumer Disputes.
- Law 4411/2016 on the ratification of the Convention on Cybercrime and transposition of Directive 2013/40/EU on attacks against information systems, and replacing Council Framework Decision 2005/222/JHA.
- Law 2251/1994 which applies to consumer protection issues.
- EETT Decision 843/2/2018 on the regulation of management and assignment of [.gr] or [.ελ] domain names, which amends and codifies EETT Decision 750/2/2015, as amended by the EETT Decisions 760/3/2015 and 757/2/2015.
- Law 3592/2007 on the licensing of media and other provisions.
- Law 4339/2015 on the licensing of digital terrestrial TV content providers, as amended several times, most recently with Law 4530/2018.
- Ministerial Decision No. 1830/2017 on the determination of the number of tendered licences to providers of free, nationwide, general information, terrestrial digital television broadcasting content.
- Joint Ministerial Decision No. 2178/2017 on the determination of the first bid price of each one of the seven (7) tendered licences to providers of free, nationwide, general information, terrestrial digital television broadcasting content.
- ESR Decisions No. 61, 63/2018 and 65/2018.
- Ministerial Decision No. 169/2018 on the Terrestrial Digital Broadcast Frequency Map.
- Ministerial Decision No. 170/2018 on the assignment of a terrestrial digital radio broadcast spectrum to "Hellenic Radio, Television Company Limited" (ETR S.A.).
- Ministerial Decision No. 171/2018 on the limitation of the number of rights to use radio frequencies of terrestrial digital radio broadcasting, national and regional coverage, and determination of the type of competition.
- Law 4512/2018.
- Law 4463/2017 on the transposition of the cost reduction Directive 2014/61/EU.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Ministry with the most direct involvement and key role in the telecoms and media fields is the Ministry of Digital Policy, Telecommunications and Information.

However, the major responsibilities in these sectors are undertaken by regulatory agencies which are independent administrative authorities, with full independence from network operators and service providers. The agencies that regulate the communications and media sectors are the following:

- the EETT: the national regulatory authority that supervises and regulates the electronic communications and postal services market. It is also responsible for the application of competition law in the electronic communications sector and in the postal services sector;
- the ESR: an independent administrative authority that supervises and regulates the radio and television market;
- the Competition Commission: which is responsible for the application of competition law in all sectors, excluding the telecoms sector under the EETT's field of competence;
- the ADAE (Authority for the Assurance of Communications Privacy): an independent authority responsible for the protection of security and privacy of communications; and
- the DPA (Data Protection Authority): an independent authority responsible for the protection of personal data in all sectors.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised;? and (ii) are they open to foreign investment?

i. *Liberalisation*

The telecommunications and media sectors have developed quite separately in Greece. Telecommunications developed following the decision of the government in 1992 to proceed with the establishment of a competitive market for mobile telecommunications. That year, two licences for mobile networks were granted to two subsidiaries of foreign operators, Vodafone and Telecom Italia, which launched their services in 1993. The incumbent Greek operator, OTE, was then totally excluded from the tender. A licence for mobile networks was granted to OTE in 1995, which launched its services in 1998. At the same time the government started the privatisation of the incumbent, a procedure that ended in 2008, 14 years later.

The key law for the liberalisation of communications was enacted in 2000. The EU Framework on electronic communications networks and services was initially transposed into national legislation with a significant delay in 2006. The revised Electronic Communications Framework was transposed into national legislation through Law 4070/2012.

In the media sector, the liberalisation of the market in Greece, and the transition from state-controlled radio and television to the regime of radio and television operated by privately-owned companies, has been the result of a *de facto* development in the market that occurred before the appropriate legal framework. An immediate effect of this is that the market developed in a totally unregulated way. Few of the free-to-air television stations still operate with a temporary licence, and the majority of the free-to-air radio and television stations operate legally under certain temporary provisions. In October 2015, Law 4339/2015 entered into force, introducing the provisions on the authorisation of digital terrestrial television broadcasting content providers. Law 4367/2016 amended Law 4339/2015 by adding a new Article 2A, which gave the power to the Ministry to perform the first auction for the provision of free-to-air TV licences. The number of licences to be awarded through this process was set to four (4). The auction was performed and completed in September 2016, but the Council of State (Supreme Administrative Court), following appeal of the participants and existing TV operators, found that the process for the award of the licences by the Ministry violated the Constitution and annulled it. Article 2A, which awarded the relevant powers to the Minister, was abolished, and the process for the award of free-to-air TV licences is conducted by the National Radio & Television Council

(ESR). In July 2017, the ESR issued a decision defining that the number of TV licences (to providers of free, nationwide, general information, terrestrial digital television broadcasting content) to be awarded through the tender will be seven (7). Six applications were submitted for the aforementioned licences. Each of the five of them pertaining to SKAI, StarChannel, Alpha, Antenna TV A.E. (Ant1) and "E" TV acquired one licence, whereas the sixth applicant "*ΤΗΛΕΟΠΤΙΚΗ ΕΛΛΗΝΙΚΗ ΑΝΩΝΥΜΟΣ ΕΤΑΙΡΕΙΑ*" was found to be eligible on conditions relating to the proof of the financial capacity of the company. These conditions were not met by the company, resulting in the rejection of its application in June 2018.

In January 2018, following the issuing of Ministerial Decisions No. 169-171/2018, the EETT launched an auction for the awarding of rights to use radio frequencies of terrestrial digital radio free broadcasting (DAB) of national and regional coverage, with the procedure of sealed tenders in which each tenderer pays the price offered. Through this process, a National Coverage Radio Frequency Use Right would be granted for the DAB + multiplex channels described in the relevant tender document, and several Regional Radio Frequency Use Rights for the award areas specified in the same tender document. The auction received two applications for awarding, which were both found non-eligible by the EETT in May 2018. Analogue radio FM stations in Greece still operate under a temporary licencing regime.

ii. *Foreign investment*

Both electronic communications and media sectors are open to foreign investment, subject to generally applicable restrictions. Special conditions related to ownership (applicable both to local and foreign shareholders) apply in the media sector. Law 3592/2007 provides that it is prohibited to control more than one licence in the television or radio sector. Participation in more than one licence is allowed to the extent that one does not exercise control, i.e. may not substantially influence the decision-making process or does not have the power to appoint at least one member of the board of directors or an administrator.

Furthermore, Law 4339/2015 sets the following restrictions on shareholders holding more than 1% of shares, and board members and legal representatives of entities that participate in tenders for digital terrestrial TV content providers: i) non-convictions by irrevocable court decisions for specific crimes; and ii) non-participation in any manner in companies conducting research in the radio or TV market and in advertising companies. The Law also prohibits participation in companies that execute public contracts, and requires licence applicants to submit evidence proving the source of acquisition of the financial means used or intended to be used for the operation of the content provider.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Greece is a member of the World Trade Organisation. Being also an EU Member State, Greece also participates in that capacity through the representation of the European Union, which covers all Member States.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

Electronic communications networks and services providers in Greece are required to obtain a General Authorisation from the EETT. The main law that governs the provision of electronic communications is Law 4070/2012. Secondary regulation is issued by the EETT. The law defines the responsibilities of the competent Ministries (currently the Ministry of Digital Policy, Telecommunications and Information), which are mainly related to defining the national strategy in the sector and the responsibilities of the EETT, which is the key entity responsible for the design, implementation and enforcement of electronic communications regulation. The EETT has the power to issue regulatory decisions defining regulatory obligations or authorised operators, authorise operators, provide Rights of Use of numbers and spectrum, control the market and monitor compliance of authorised operators, enforce relevant obligations, impose sanctions and issue decisions on dispute resolution between authorised operators.

In addition to the electronic communications regulatory framework, the EETT is also the competent authority for the application of competition law in the electronic communications sector, and is granted all the powers of the Competition Commission to this end and to the extent required for the sector of electronic communications. Privacy issues in the electronic communications sector fall under the responsibility of the ADAE.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The intendent regulatory authority responsible for defining and implementing any sector-specific regulation in the electronic communications sector is the EETT. The EETT is also responsible for the application of competition law in the electronic communications sector. Issues related to data protection and privacy of communications are regulated by the DPA and the ADAE respectively, both established by the Greek Constitution. The Competition Commission is also an independent authority, but as with the EETT, it is not established by the Greek Constitution.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions of the regulators can be challenged at the Administrative Appeal Court and the decisions of the court can be challenged at the Council of State. Major regulatory issues are challenged directly at the Council of State. In case of the EETT, all regulatory decisions (regulatory administrative acts) are appealed before the Council of State with a Petition for Annulment, whereas decisions with the content of an individual administrative act are appealed before the Administrative Appeal Court. All regulatory decisions brought before the Council of State and decisions with the content of an individual administrative act, not imposing penalties, are challenged only with regard to the appropriate application of law and procedural rules, and not on the merits (the facts) of the case. Decisions that impose fines, etc., can be challenged both in their substance and with regard to the appropriate application of law and procedural rules at the Administrative Appeal Court. Decisions of the Administrative Appeal Court can be appealed against on a second grade before the Council of State only with regard to the appropriate application of law and procedural rules.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The Greek legal framework, in full accordance with the EU legislation, provides for General Authorisations which are mandatory for any undertaking that wishes to offer electronic communications services. In order to obtain a General Authorisation, the requesting entity needs to submit a Registration Declaration to the EETT, using the standard form provided by the EETT, along with the relevant supporting documents.

This Registration Declaration must be submitted solely through the Online Application System for Electronic Communications Services Providers. When submitting the application, the person concerned must electronically send to the EETT all required supporting documents attached to the "Administrator's Statement". In order to access the Online Application System for Electronic Communication Providers, the applicant must submit such Statement, according to the provisions of the EETT Decision 586/006/2010 as in force.

The person providing this Statement may perform the specific electronic communications activity described in the Registration Declaration, immediately upon filing a complete Registration Declaration. For the Declaration to be deemed complete, relevant administrative fees must be paid.

The requesting operator is included in the Registry of Authorised Operators, and may obtain a relevant certificate by the EETT upon request within seven (7) days of receipt of such request.

In addition to General Authorisations, the law provides for Rights of Use relating to the allocation of exclusive or non-exclusive frequencies, numbers or satellite trajectories, which are assigned individually to operators by decision of the EETT. Further analysis on Rights of Use of Numbers and Spectrum is provided below under the sections on numbering and spectrum, respectively.

As far as licences for antennae and base stations are concerned, the relevant framework has been reviewed to deal with the bureaucracy and the incomplete framework that led to severe delays in the issuance of licences. The main target of the new process is to accelerate the process by establishing a one-stop shop for applications.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Any natural person or legal entity can apply to acquire a General Authorisation to provide electronic communications services or networks, by submitting a Registration Declaration using a standard form provided by the EETT. Only natural persons/legal entities providing public communications networks or publicly available electronic communications services are required to submit a Registration Declaration.

The duration of General Authorisations is indefinite. The EETT shall maintain a Registry of Electronic Communication Network and Service Providers, which includes a record of the Registration Declarations in printed and/or electronic form.

Any person required to submit a Registration Declaration shall notify the EETT of the cessation of electronic communications activities under the General Authorisation Regime, within fifteen (15) days prior to the actual cessation of such activities, using a standard form provided by the EETT. Operators with a General Authorisation are required to submit reports with requested data on a regular basis and pay licensing fees. Licensing fees are paid on an annual basis and correspond to the costs of management, monitoring and compliance with the General Authorisation Regime and to the rights to use radio frequencies and/or numbers. They derive from a formula included in the EETT Decision on General Authorisations. The main factors taken into account for the calculation of the fees are the total turnover from electronic communications networks or services minus the wholesale interconnection and roaming costs paid to other operators. The fees are calculated as a percentage of the total gross revenue from the provision of public communications networks or publicly available electronic communications services under the General Authorisation Regime, according to a formula included in the EETT Decision on General Authorisations.

The General Authorisation Regulation also provides in Annex B a list of specific obligations applicable per category of services provided by the authorised operator.

Operators with General Authorisations are also allowed to use spectrum, except for the cases in which the use of spectrum requires the allocation of a Right of Use. Rights of Use are allocated when they are required in order to: i) avoid harmful interference; ii) ensure the technical quality of services; iii) ensure efficient use of spectrum; and iv) for other reasons pertaining to the public interest, as defined in the relevant European Framework.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Individual authorisations include Rights of Use of Numbers, Rights of Use of Spectrum and licences concerning base stations and antennas.

Rights of Use of Numbers are of indefinite duration. Transfer between users to whom numbers have been allocated at secondary level is only permitted under specific circumstances defined in the EETT Regulation on the allocation and use of numbers.

For Rights of Use of Frequencies, the duration and other terms vary depending on the decision-maker awarding the licences and the spectrum band in question. Rights of Use of Frequencies may be transferred. However, any intended transfer or change of control of the licensee has to be notified to the EETT and is subject to relevant review and approval. The provisions on transfer notification/approval do not apply to Rights of Use of Spectrum that were allocated at no cost.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Law 4070/2012 and secondary administrative provisions cover the issue of Rights of Way for installation of telecommunications infrastructure in public property. The main provisions that define the framework for Rights of Way, co-location and installation of base stations and antennas are set by Articles 28–30 of Law 4070/2012. However, the complete framework consists of multiple special provisions varying from civil code provisions, special laws on archaeological locations and responsibilities of local authorities, which often result in different interpretations by competent authorities and render their implementation challenging.

Law 4463/2017 implemented the EU cost reduction Directive 2014/61/EU. Until the operation of the Information System, which

will support the one-stop procedure for the granting of the Rights of Way, the procedure of Article 11 of Annex X of Law 4070/2012, as amended by Law 4463/2017, applies.

In July 2018, the EETT conducted a public consultation on the modification of the EETT regulation (528/075/2009) for the determination of fees for Rights of Way, Rights of Use of Rights of Way and the amount of guarantees of good performance of Rights of Way operations for Greece with the aim of simplifying the relevant procedures.

Additionally, the EETT issued in August 2018 its new Regulation on Co-location and common use of facilities.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

The interconnection market is regulated. Concerning the fixed market, OTE is designated as having an SMP in the fixed origination and termination markets. All other fixed network operators have been designated as having an SMP in the markets for termination to their individual networks. Interconnection rates in these markets are regulated on the basis of cost-orientation. Additional obligations for transparency, price control, cost accounting separation, access to and use of specific network facilities and non-discrimination have been imposed.

In the mobile market, all MNOs and CYTA have been found to hold an SMP in the markets for termination to their individual networks. Mobile termination rates are regulated on the basis of the cost-orientation principle on a pure LRIC model basis and further obligations on access, transparency, non-discrimination, and accounting separation have been imposed on SMP operators.

In cases of interconnection/access disputes, the EETT can intervene through standard specific Access/Interconnection dispute resolution procedure, provided for by the Law on Electronic Communications and in the relevant Access/Interconnection Regulation.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

The fixed incumbent OTE and the three (3) MNOs (Cosmote, Vodafone, Wind) are required to publish their standard interconnection contracts and prices.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Charges for interconnection (only call termination charges) are subject to price regulation as indicated above (see answer to question 2.9). In addition to fixed and mobile call termination rates, the EETT has also regulated the fixed wholesale local access market, as well as the wholesale central access market, in which the incumbent OTE was found to hold an SMP. In this context, prices for LLU access and ancillary facilities such as co-location are regulated on the basis of cost-orientation. Wholesale broadband access is also regulated, including price and cost regulation. Accordingly, OTE was found to hold an SMP in the market for i) terminating segments of leased lines up to 2 Mbps, ii) terminating segments of leased lines above 2 Mbps, and iii) joint segments of leased lines, which has also led to cost regulation. For that purpose, OTE is subject to an annual auditing of its regulated services contacted by the EETT via an independent auditor. Recently, the EETT has launched a Public Consultation on the third round of market analysis of the wholesale leased lines markets, as specified in the European Commission Recommendation of Relevant Markets of 2014.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

There is an obligation for the structural separation of entities that provide services in the public telecommunications sector using exclusive or special rights granted to them by the Greek state. Functional separation was introduced by Law 4070/2012 as a remedy that may be imposed by the regulator to SMP operators, under the conditions stipulated in law, which are in accordance with the relevant EU directive. However, in practice the issue has not been raised by the EETT and no relevant consultation has been undertaken. Apart from that, accounting separation could be imposed on operators with an SMP in specific markets and has indeed been imposed on the incumbent in the markets where it has been found to hold an SMP, as well as MNOs in the mobile termination markets.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

In the most recent (fourth) round of analysis of the Market for wholesale fixed local access, the incumbent OTE was found to hold an SMP. In this context, the EETT imposed on OTE the full set of *ex-ante* obligations, including access, transparency, non-discrimination, price control, cost accounting and accounting separation. Concerning particularly high-speed broadband networks, the EETT imposed additional obligations on the deployment of NGA Networks through VDSL vectoring. Indicatively, OTE was required to provide information on its local access network for the purpose of assignment of specific local sites to other operators. The EETT manages the allocation process and operators who are allocated these sites undertake to deploy VDSL vectoring infrastructure (or other NGA infrastructure) and to provide high-speed wholesale services under specified terms defined or approved by the EETT.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

The majority of retail price controls which were imposed in the fixed markets have been lifted by the EETT, following the market analysis of retail fixed markets which concluded that the markets should not be subject to *ex-ante* regulation. The only retail market still subject to *ex-ante* regulation is the market for retail leased lines with a capacity of up to 2Mbps, in which the incumbent OTE has been found to hold an SMP, but no price control obligation has been imposed in that market. In the Public Consultation launched by the EETT on the third round of market analysis of wholesale leased lines markets (see answer to question 2.11), the EETT proposes to lift altogether regulation on the retail market for leased lines with a capacity of up to 2Mbps.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The provision of electronic communications services to consumers is subject to general provisions on consumer protection, to the special obligations imposed for each category of services under the General Authorisations Regulation, and to Codes of Conduct for certain categories of services (such as the Code of Conduct for multimedia services).

Any operator with a General Authorisation with a turnover exceeding 15 million euros is required to contribute to the cost for the provision of Universal Service. Universal Service obligations include:

a) access at fixed locations and telephony services;

b) directory services;

c) public pay-phones and other points of access to public telephony; and

d) special provisions for disabled users.

Any operator may express interest for the provision for part or all of the services falling under universal service.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Number allocation includes primary and secondary allocation. Numbers and network identifying codes are primarily allocated by the EETT by awarding Rights of Use of Numbers, following the application of providers which have obtained General Authorisations covering services that justify the use of the requested number range. Providers may proceed to secondary allocation of numbers to users. No third-level allocation is permitted (allocation from one user to another). The decision on the allocation of numbers is issued within three (3) weeks from the date of submission of a complete application. The fees for allocation and use of numbering resources (for the first year) must be paid within two (2) weeks from submission of the application. In case of rejection of the application, the allocation and usage fees are reimbursed to the applicant. The allocation is valid until the due date of payment of the annual usage fees of the coming year and is renewed upon payment of the annual fees every year.

2.17 Are there any special rules which govern the use of telephone numbers?

Special rules applicable to each category/series of numbers are defined in the EETT Regulation on Allocation and Usage of Numbers. These include designating a number series for a specific use, such as freephone, shared cost, premium, adult content, special categories of short codes, etc.

Operators to which numbers are allocated are expected to use numbering resources efficiently. In case of non-efficient use, the EETT may refuse assignment of additional numbers or may revoke an allocation decision.

2.18 Are there any obligations requiring number portability?

Number portability applies to fixed and mobile numbers and to the following special categories of numbers: corporate and VPN access numbers (50); personal numbers (70); freephone numbers (800); shared cost (801); numbers for services with maximum charge (806, 812, 825, 850, 875); numbers used for calling cards services (807); numbers for access to data services (896, 899); and premium charge numbers (90).

Portability requests are addressed to the recipient provider, which communicates the request through the national portability database to the donor-operator.

Portability for both fixed and mobile numbers must be completed within one working day from the date of acceptance of the portability request from the donor-operator. However, for fixed numbers, when the portability request is submitted jointly with an LLU transfer request, the numbers are ported on the date of transfer and activation of the local loop, which technically extends the deadline for fixed numbers.

The EETT's new rules on both fixed and mobile number portability entered into force in June 2018, with the aim of resolving inadequacies of the former framework. Under the new arrangements, a subscriber has the right to withdraw without charge and in case of a contract either remotely (via telephone, internet or fax) or out of the shop (for example, through a representative of the company at the subscriber's site) without explanation. Therefore, they have the possibility of cancelling the number portability application that they submitted. The aforementioned options apply for a period of 14 calendar days from the conclusion of the contract. More specifically, under the new framework:

- The request for portability is forwarded to the actual operator after 14 days, when the implementation process starts.
- If the subscriber wishes the request to be processed earlier than 14 days, he/she must make a declaration to the new company. It is noted that the company has the right either to not accept the request or to ask the subscriber for a written statement that he accepts to lose the right of withdrawal. In this case, the subscriber has the option to apply for cancellation of portability until the service reaches a new company and if the 14-day deadline has not passed.
- In order to cancel portability, the subscriber must send a request only to the company to which he has submitted the portability request and by one of the means of communication available to him for this purpose.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The EETT is the competent authority for spectrum management, frequency assignment, and spectrum monitoring, subject to certain key responsibilities maintained by the Ministry according to the provisions of Law 4070/2012.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Spectrum is allocated by the EETT through the award of Rights of Use of Spectrum. Applications for Rights of Use of Spectrum are processed within six weeks if there is no limitation of the number thereof or up to six months from the application if such a limitation is imposed.

With the exception of free spectrum bands, for all wireless services an individual right to use spectrum is required, and is granted by

the EETT. Only if the spectrum available is not enough to cater for existing demand from existing or new competitors, will a limitation on the number of individual licences be effected. This will be the result of a public consultation that the EETT must prepare following a ministerial decision to that effect. If, as a result of that consultation, the number of individual rights has to be limited, the EETT must decide how this limited number of individual rights will be granted. Any kind of tender can be held in accordance with the principles of transparency, which are set by Greek law in accordance with EU directives. In practice, in cases where there are a limited number of Rights of Use of frequencies, the EETT usually awards them through auctions.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Operators with General Authorisations are allowed to use spectrum, without obtaining a Right of Use, except for the cases in which the use of spectrum requires the allocation of a Right of Use. Rights of Use are allocated when they are required in order to:

i) avoid harmful interference;

ii) ensure the technical quality of services;

iii) ensure efficient use of spectrum; or

iv) for any other reasons pertaining to the public interest, as defined in the relevant European Framework.

Other special cases of exemption for licensing requirements are defined by law in a restrictive manner and for specific purposes.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The law provides both for allocation fees and for usage fees. Allocation fees are paid upon allocation of the frequency and usage fees are paid annually. The relevant cost is defined separately for each category of Rights of Use of Spectrum.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

The Electronic Communications Law provides that in case of the change of control of the licensee, an approval is required by the EETT under the same process that is followed in cases of transfer of a spectrum right. For further information on the review and approval of the EETT, please refer to question 3.6 below.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

The law allows for spectrum trading under specific conditions. In order to transfer, lease or make any change in the control of the rights holder, an application must be filed to the EETT, which considers the relevant application and decides based on specific criteria defined by law. The EETT needs to ensure that any new licensee will continue to fulfil the requirements set by law and by any tender performed for the award of licences. In addition to this, the EETT must ensure that any transfer of licence or change of control will not raise concerns on the basis of competition law.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The legal and regulatory framework that governs cybersecurity issues mainly consists of Law 4070/2012 (particularly Article 37 thereof) and ADAE Regulations 165/2011 and 205/2013 (as in force amended with ADAE Decision 99/2017). According to the applicable provisions of the above, operators offering internet access networks and/or services should maintain and implement security policies, supported by relevant analytical procedures.

In addition to the above, provisions of the Data Protection Law apply which require data controllers and processors to ensure the implementation of appropriate organisational and technical measures to ensure protection of personal data. All of this framework is subject to obligations arising from the GDPR in force, applicable since May 25th 2018.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The lift of communications privacy which allows the competent state authorities to obtain access to private communications is strictly regulated and limited to specific purposes, involving the investigation of serious crimes.

The right of communications privacy is established by Article 19 of the Constitution. Lift of privacy for specific crimes and subject to defined procedures and conditions is governed by Law 2225/1994 (as amended by Law 3115/2003 and in force) and by the Presidential Decree 47/2005. Special provisions on the lift of privacy are also found in Law 3471/2006 on Data Protection in the Electronic Communications Sector, Law 3674/2008 on the enhancement of the framework on privacy of telephony services, Law 3917/2011 on Data Retention and the Electronic Communications Law 4070/2012, as well as the Regulation on General Authorisations as in force.

Operators are required to assist the government to lawfully intercept telecommunications messages after the intervention of the public prosecutor by issuance of a written order, when a major crime is investigated and under the supervision of the ADAE. The ADAE sets the rules that must be followed by all telecommunications operators and service providers in safeguarding secrecy in telecommunications, being a constitutionally protected right.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Regarding the rules and legislation applicable to legal interception by State Authorities, please refer above to question 4.2. The relevant provisions do not explicitly refer to specific types of calls or communications and are generally applicable to all types of electronic communications, including both the content and the external communication information (date, time, duration, location, etc.).

4.4 How does the state intercept communications for a particular individual?

Interception of communications for a particular individual is only permitted when the conditions of Law 2225/1994 are fulfilled, which means that a written order by the public prosecutor must be issued in the context of an investigation for serious criminal offences explicitly defined in the law or for reasons of national security. For further information please refer to question 4.2 above.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

There is no explicit provision on the provision of encryption keys to the state. Encryption is only required as a technical measure to enhance the protection of electronic communications operators against security incidents and violation of communications privacy.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Law 3917/2011 imposes on operators an obligation to store in Greece all data retained in compliance with the data retention obligation for 12 months. The initial wording of the Law in 2011 required retained data to be "generated and stored" in Greece. This was amended in 2013 and the current framework only refers to the obligation to "store" such data in Greece and retain it for a period of 12 months. Operators and service providers must destroy customer data 12 months after the time of every communication unless otherwise specifically requested by the public prosecutor. Operators and service providers are not compensated for their efforts. Following the annulment of the Data Retention Directive (Directive 2006/24/EC) by the European Court of Justice, the national legal framework on data retention is under review, but remains in force. Accordingly, the relevant obligation includes the full list of data that was included in the Data Retention Directive, which was fully transposed into national legislation. Nevertheless, this framework is subject to obligations arising from the GDPR in force, applicable since May 25th 2018.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

With respect to the conditions of liberalisation and the licensing regime for audio-visual media, please refer above to question 1.4.

The decision-making procedure in Greece is divided and fragmented. The basic framework is set out in the acts that are enacted by Parliament. There is, however, an enormous quantity of secondary legislation that involves decisions that must be taken jointly by different ministers and three independent authorities. These are the regulators for telecommunications, the National Commission for Telecommunications and Post (EETT), the National Council of Radio and Television (ESR) and the Competition Committee (CC). The situation gets more complicated, since whereas the ESR is an independent authority that is established by the Greek Constitution, this is not the case for either the EETT or the CC. Therefore, the jurisdiction of the ESR is described in the Constitution and cannot change unless the Constitution is amended, something which is in itself very difficult. This does not allow necessary changes in the legal regime that would lead to a more workable distribution of the issues that fall within the jurisdiction of the ESR and the EETT. The existing regime is drawn along the lines that content is regulated by the ESR and infrastructure and frequencies by the EETT. However, some types of licensing, and in all cases the licences for transmitting content, are still to a great extent granted by the ESR. On the other hand, whereas the EETT is responsible for applying the *ex-ante* rules for the liberalisation of the market, in all the electronic communications markets, including, therefore, that of broadcasting, and also the *ex-post* competition law, the CC is responsible for applying the *ex-post* competition.

In 2014, the EETT awarded the first licence for a digital television network, which was awarded to Digea and defined the techno-economic model to be used in order to define the price caps to be charged by Digea to operators.

According to the applicable legislation, it is relatively simple to obtain a licence for pay-TV via cable or satellite, as it requires an application by a company having the form of a *société anonyme*. There is no limit on the number of licences granted, and there is an obligatory period within which the licence must be granted jointly by the ESR and the Minister, or refused. Breach of this period without a response from the ESR is considered to be a silent approval. The decision is a joint decision of the ESR and the Minister, meaning in practice that the Minister is bound to issue a ministerial decision in line with the proposal of the ESR. An application can be made from any company in the EU having the form of a *société anonyme*. Licensing for terrestrial pay-TV and free-to-air TV is more complicated, based on a tender. Law 4339/2015 has defined the process and key conditions for the award of licences to digital terrestrial TV content providers. Issues that will be evaluated are the extent of the investment, financial reliability, experience and existing position in the market in order to avoid concentration, as well as the kind of programmes that will be transmitted. See also the answer to question 5.3 for further details on licensing framework.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Broadcast media advertising is regulated in accordance with Presidential Decree 109/2010 and the Directives for Television without Frontiers, fully implemented, which are not applicable to online advertising. The latter is regulated by general provisions in the legislation concerning e-commerce and the protection of the consumer. Furthermore, the recently established Electronic Media Business Register aims for the registration of all online media. The relevant Register and its members were published in April 2017 on the website of the Ministry of Digital Policy. Only online media providers which are registered are eligible to receive state advertising.

According to the applicable legislation (Law 3592/2007), new media content and its delivery are regulated in the same way as traditional broadcast media.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

According to the applicable legislation (Law 3592/2007, Law 4070/2012 and Directives for Television without Frontiers),

analogue licences to transmit free-to-air radio programmes and digital terrestrial pay-TV and radio are granted through a tender. The digital television network licences were granted through an auction in February 2014. Regarding licensing of content providers for free-to-air digital terrestrial television, the licensing requirements are defined in Law 4339/2015, as mentioned above. The law provides for the award of licences through an auction conducted by the ESR, following the relevant ministerial decision. Special conditions shall be defined by the ESR, but the law sets requirements with respect to the legal form, the minimum capital, the requirement to identify shareholders, technical infrastructure, programme content, number of employed personnel, etc.

Law 4367/2016 amended Law 4339/2015 by adding a new Article 2A, which gave the power to the Ministry to perform the first auction for the provision of free-to-air TV licences. The number of licences to be awarded through this process was set to four (4). The auction was performed and completed in September of 2016, but the Council of State (Supreme Administrative Court), following the appeal of the participants and existing TV operators, found that the process for the award of the licences by the Minister violated the Constitution and annulled it. Article 2A, which awarded the relevant powers to the Minister, was abolished, and the process for the award of free-to-air TV licences shall be conducted by the National Radio & Television Council (ESR). On July 6th 2017, the ESR issued a decision defining that the number of TV licences to be awarded, to providers of free, nationwide, general information, terrestrial digital television broadcasting content, through the tender launched in November 2017, would be seven (7). Six applications were submitted for the aforementioned licences. Each of the five of them pertaining to SKAI, StarChannel, Alpha, Antenna TV A.E. (Ant1) and "E" TV acquired one licence, whereas the sixth applicant "*ΤΗΛΕΟΠΤΙΚΗ ΕΛΛΗΝΙΚΗ ΑΝΩΝΥΜΟΣ ΕΤΑΙΡΕΙΑ*" was found to be eligible on conditions relating to the proof of financial capacity of the company. These conditions were not met by the company, resulting in the rejection of its application in June 2018.

In January 2018, following the issuing of Ministerial Decisions No. 169-171/2018, the EETT launched an auction for the awarding of rights to use radio frequencies of terrestrial digital radio free broadcasting (DAB) of national and regional coverage, with the procedure of sealed tenders in which each tenderer pays the price offered.

Through this process, a National Coverage Radio Frequency Use Right would be granted for the DAB + multiplex channels described in the relevant tender document and several Regional Radio Frequency Use Rights for the award areas specified in the same tender document.

The auction received two applications for awarding which were both found non-eligible by the EETT, in May 2018. Analogue radio FM stations in Greece still operate under a temporary licensing regime.

The general provisions on radio and television content apply, meaning that the programme must adhere to the general principles of the Constitution and there are further obligations concerning minors, rating of the programmes, advertising, pluralism and non-discrimination, etc. In fact, the Directives for Television without Frontiers are implemented in Greek law by Presidential Decree 109/2010, and apply to providers that are under the jurisdiction of Greece as defined therein. With a few exceptions, this also applies to the programmes and programme providers that originate outside the EU. In the case of pay-TV, the agreements between programme administrators and the holders of a licence (the platform operator) must be approved by the ESR. Only a notification, and not approval, is needed in the case of an agreement with providers concerning a programme that has already been transmitted in public from a licensed free-to-air station in Greece or in another country.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Licences are non-transferrable. The licensee may be transferred, subject to the provisions of Article 1 paragraph 13 of Law 2328/1995. The transfer of the licensee should be notified to the General Secretariat of Information and Communication within ten (10) days.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Greek legislation covers the issue of providers' liability in line with the provisions of Directive 2000/31/EC on e-commerce. Articles 11–14 of PD 131/2003 define the obligations and liability of online providers depending on the type of services they offer.

According to Article 14 of Presidential Decree 131/2003, providers have no general obligation to monitor information they transmit or store and no general obligation to actively seek for any facts or circumstances indicating any illegal action. However, subject to applicable provisions on privacy and data protection, service providers have to directly inform the competent state authorities of any suspected provision of illegal information or suspected illegal activities attempted by their users, and to provide to public authorities upon request any information facilitating the identification of the users of their services. Restrictions of liability of information society providers do not deprive any offended third party from the right to impose judicially, or by administrative order, an obligation to cease or prevent any offence (Article 11, paragraph 3; Article 12, paragraph 2; and Article 13, paragraph 3 of Presidential Decree 131/2003). Additionally, following a petition by the offended parties, the courts may order any other appropriate injunctive measures. In such case, a preliminary order is issued in accordance with Article 691, paragraph 2 of the Civil Procedure Code (Article 17 of Presidential Decree 131/2003, Decision of CFI 11339/2012).

Administrators of websites and blogs bear no civil, criminal or regulatory liability for third-party content hosted on their website, except in the following cases: when the user uploads illegal content under the authority or control of the website administrator; the website administrator in fact knows that the content is illegal and, as far as civil claims for damages are concerned, is aware of the facts and circumstances from which the illegal content derives; or the website administrator does not quickly withdraw or restrict access to illegal content, once it becomes aware of the fact that illegal content is hosted.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

In July 2017, Law 4481/2017 entered into force. The aim of this Law is primarily to incorporate into national law the provisions of Directive 2014/26/EC on collective management of copyright and

related rights and multi-territorial licensing of rights in musical works for online use in the internal market. In addition to this, it introduces several amendments to the basic IP Rights Law (2121/1993). Law 4481/2017 provides, *inter alia*, sanctions for online violations of IP rights and introduces a notice and take-down procedure to protect against IP rights violations.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

There are no relevant specific limits. The EU legislation is fully implemented.

Within that framework, on October 2017, the EETT launched a public consultation on a draft decision for the implementation of measures of Regulation (EU) 2015/2120, concerning access to the open internet and published responses to comments received by the market in December 2017. The draft decision addressed issues such as: speed definitions; methodological framework for speed assessment; user information; definition of continuous or repeated deviation; definition of significant deviation; and control of subscribers' complaints. Additionally, in the field control of commercial practices (regarding zero rating/subsidised access), services/information for purposes of subscribers' support, as well as applications for speed measurement in cell phones is acceptable, whereas the following is not permitted:

- Provider pages that include the promotion of products and services.
- Services (such as music, videos, e-books) favouring the content of the provider itself against third-party content providers.
- Discrimination after exceeding the data cap.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

The Presidential Decree 131/2003 provides for a notice and take-down procedure, which obliges ISPs to remove infringing material without court authorisation. The ISPs must be notified of the illicit nature of the material. The notification must respect strict requirements and include specific elements such as the date and description of the illicit material. Once ISPs are aware of the illicit nature of the material, they must remove or delete it promptly, or they can be held liable for the infringing material. Article 14, paragraph 2 of Presidential Decree 131/2003 provides that, subject to the provisions on the protection of communications' privacy and protection of personal data, ISPs and Information Society service providers should directly inform authorities on any suspicion for provision of illegal material or illegal conduct of their end users.

As indicated in question 6.2, a notice and take-down procedure was also recently introduced for cases of violation of IP rights.

Finally, Law 4002/2011 on Games of Chance imposes on ISPs an obligation to block access to specific sites. To this end, the Hellenic Gaming Commission (HGC) regularly updates a "black list" which includes all unauthorised gambling providers. ISPs are required to check this list for any additions and ensure that access to the sites included in the black list is blocked. Non-compliance with this obligation results in very high fines and criminal sanctions.

The EETT General Authorisation Regulation obliges telecom operators providing publicly available network and/or services to immediately disrupt access to the corresponding numbers or services in which fraud is detected, and to file a complaint with the EETT, describing the incident and the actions which the operator has taken or intends to take to protect its customer base.

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During the last 17 years, Dina's professional career has spanned regulatory policy, competition law and corporate/commercial law experience in, amongst others, the following roles: General Counsel and Head of Legal & Regulatory Affairs in a leading alternative fixed telecoms operator and in a mobile operator in Greece; senior competition law and regulatory policy advisor in the Legal Department of the EETT; and legal consultant in regulatory, competition law and commercial law projects with Greek and international law firms and consultancies.

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LAW FIRM

Nikolinakos – Lardas & Partners is an Athens-based business law firm built upon a strong regulatory, transactional and litigation foundation. Our specialisation covers, *inter alia*, the following areas: Telecommunications, Media & Technology (TMT); Digital Business; Intellectual Property; Competition Law; and Data Privacy & Cyber Security.

Ranked #1 in Greece by *The Legal 500* (for a sixth consecutive year) in TMT, Data Protection & IP.

Chapter 16

Hong Kong

Joshua Cole

Hoi Tak Leung

Ashurst Hong Kong

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

In general, the Hong Kong information and communications sector remains a key driver for and component of Hong Kong's economy. In its *2017 Gross Domestic Product* report, the Hong Kong Census and Statistics Department stated that (in 2016) the information and communications sector contributed 3.5% to Hong Kong's GDP, with a total value of HKD 84,120,000,000.

Hong Kong also remains one of the most advanced telecommunications markets in the world. The International Telecommunication Union, in its *Measuring the Information Society Report 2017*, ranked Hong Kong sixth in the world (and second in Asia, behind South Korea) in its Information and Communication Technology Development Index.

Telecommunications (including internet) sector

The Hong Kong telecommunications market is fully liberalised and has no foreign ownership restrictions. There are currently four mobile network service operators:

- China Mobile Hong Kong Company Limited;
- Hong Kong Telecommunications Limited;
- Hutchison Telephone Company Limited; and
- SmarTone Mobile Communications Limited.

According to the Office of the Communications Authority ("**OFCA**"), Hong Kong has (as of July 2018, unless otherwise stated):

- twenty-seven local fixed network operators;
- four mobile network operators;
- 239 external fixed telecommunications services providers, of which 42 were facility-based and 197 were service-based;
- a residential fixed line penetration rate of HKD 90.34 (as of April 2018); and
- a mobile subscriber penetration rate of 248.2%, with 18.39 million mobile subscribers and 17.18 million mobile broadband subscribers (as of March 2018).

Audio-visual media distribution sector

Licensed broadcasting services contributed an estimated HKD 7.6 billion to the economy in 2015, representing 0.32% of GDP that year. Until 2015, there had only been two domestic free-to-air television programme service providers in the last 30 years. However, since that time, the broadcasting sector has been subject to significant changes, including the expiration of the broadcasting licence of Hong Kong's oldest television programme service provider, Asia Television, and the issuance of new broadcasting licences to HK Television Entertainment Company Limited ("**HKTVE**", a subsidiary of PCCW) and Fantastic Television Limited ("**Fantastic TV**", a subsidiary of i-CABLE Communications Limited).

There are 43 licensed television programme service providers. The three domestic free television broadcasters are Television Broadcasts Limited, HKTVE and Fantastic TV. The two domestic pay television broadcasters are Hong Kong Cable Television Limited and PCCW Media Limited. There are also 15 non-domestic television broadcasters and 22 other licensable television broadcasters. There are 70 Satellite Master Antenna Television licensees providing over 400 free satellite television channels.

Sound broadcasting services are provided by:

- two licensed commercial analogue radio broadcasters – Hong Kong Commercial Broadcasting Company Limited and Metro Broadcast Corporation Limited; and
- one public service analogue radio broadcaster (funded by the Hong Kong government and not subject to a sound broadcasting licence) – Radio Television Hong Kong.

In total, Hong Kong has 13 analogue radio channels. Digital audio broadcasting services were discontinued in March 2017, with final broadcasting terminated in September 2017.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The following is the key legislation applicable to telecommunications, internet and audio-visual media distribution:

- **Communications Authority Ordinance (Cap. 616)**, pursuant to which the Communications Authority ("**CA**") was established.
- **Telecommunications Ordinance (Cap. 106)**. Regulates the licensing and control of telecommunications, telecommunications services and telecommunications apparatus and equipment.
- **Broadcasting Ordinance (Cap. 562)**. Regulates the provision of broadcasting services by licensees.
- **Competition Ordinance (Cap. 619)**. Empowers the CA and the Competition Commission (which have concurrent jurisdiction) to investigate and bring enforcement proceedings against prohibited anti-competitive behaviour in the broadcasting sector before the Competition Tribunal.

- **Trade Descriptions Ordinance (Cap. 362)**. Prohibits unfair trade practices in connection with trades of goods and services. Also empowers the CA and the Customs and Excise Department (which have concurrent jurisdiction) to regulate commercial practices of licensees providing telecommunications or broadcasting services.
- **Unsolicited Electronic Messages Ordinance (Cap. 593)**. Regulates the sending of unsolicited electronic messages.

There are also various pieces of legislation that may have a material impact on telecommunications, internet and audio-visual media distribution in Hong Kong, including:

- **Personal Data (Privacy) Ordinance (Cap. 486)**, which regulates the protection of personal data in Hong Kong.
- Various industry codes and regulations from the CA, including:
  - the **Industry Code of Practice for Telecommunications Service Contracts** in relation to minimum practices for customer contracts, which has been implemented by all major fixed and mobile network operators; and
  - certain activities conducted by licensees; for example, product placement and indirect advertisements in television programmes.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Communications Authority Ordinance combined the functions and powers of the former Broadcasting Authority and Telecommunications Authority when it was formed in 2012.

The CA is an independent statutory body which is responsible for regulating broadcasting and telecommunications affairs in Hong Kong. It is also responsible for enforcing the Unsolicited Electronic Messages Ordinance, and shares concurrent jurisdiction with the Customs and Excise Department and the Competition Commission to enforce the relevant sections of the Trade Description Ordinance and the Competition Ordinance, respectively.

Provisions of the Competition Ordinance relating to certain undertakings in the telecommunications and broadcasting sectors are primarily enforced by the CA, which is empowered to investigate and conduct proceedings before the Competition Tribunal and can generally make any decisions and take any actions with respect to any relevant matter it deems necessary to enforce those provisions.

The CA exercises its powers through its executive arm, the OFCA.

Ms Winnie Tam SC became the new chairperson of the CA in March 2018, replacing Mr Albert Wong.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Telecommunications (including internet) sector

All telecommunications sectors, including the internet, are fully liberalised. There are no foreign ownership restrictions and government policy has been to take a light-touch approach in this sector.

However, the CA has the power to impose any conditions on licences issued under the Telecommunications Ordinance – e.g. validity period – and to suspend/revoke licences in accordance with relevant laws.

Audio-visual media distribution sector

By contrast, varying ownership restrictions apply to different types of broadcasting (television and sound) licensees. Of particular note – it is a universal requirement for this sector that a licensee must be a company formed and registered under the Companies Ordinance (Cap. 622) (i.e. the licensee must be a Hong Kong company).

A domestic free or pay television programme service licensee is subject to the following control criteria:

- The control and management of the licensee must be *bona fide* exercised in Hong Kong.
- The majority of directors must actively participate in the direction of the licensee.
- A quorum of every meeting of directors (which must be at least two directors) has a majority of directors who are presently ordinarily resident in Hong Kong and who have been so resident for at least one continuous period of not less than seven years.
- The majority of both the directors and principal officers must be ordinarily resident in Hong Kong and have been so resident for at least one continuous period of not less than seven years, unless prior written approval was obtained from the CA.
- With respect to a domestic free television programme service licensee:
  - an "unqualified" voting controller, meaning a person not ordinarily resident in Hong Kong, must obtain approval from the CA before he or she can hold, acquire, or exercise more than 2% "voting control";
  - he or she must not exercise in aggregate 49% or more "voting control" in the licensee. "Voting control" means the ability to directly or indirectly exercise voting power in a licensee; and
  - no disqualified person (or their controlling entities) can exercise control over the licence holder.

For non-domestic television programme service and other licensable television programme service licensees, the control criterion is that one director or principal officer of these licensees must be ordinarily resident in Hong Kong and must have been so resident for at least one continuous period of not less than seven years.

An "unqualified" voting controller of a sound broadcasting licensee is also subject to the control criterion set out in question 1.4(e)(ii) above.

Furthermore, sound broadcasting and domestic free television programme service licences are prohibited from being held by any subsidiary. This is to prevent indirect ownership in these licensees.

Note that restrictions are less stringent for non-domestic and other licensable television programme service licence holders, who are only required to have at least one director/principal officer who satisfies the above residency requirement.

Competition law-related provisions

The Competition Ordinance is a general competition law, regulating and prohibiting anticompetitive conduct across different industry sectors, with three main competition rules:

- The First Conduct Rule, which relates to agreements/concerted practices/decisions that prevent, restrict or distort competition in Hong Kong.
- The Second Conduct Rule, which relates to abuse of market power.
- The Merger Rule, which relates to mergers involving telecommunications carrier licensees that have, or is likely to have, the effect of substantially lessening competition in Hong Kong. Note this this rule only applies to entities in the telecommunications sector that hold a carrier licence.

In addition, the Telecommunications Ordinance (Section 7Q) also sets out that a licensee in a dominant position in a telecommunications market must not engage in conduct that, in the opinion of the CA, is exploitative.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Hong Kong has been (and remains) a member of the World Trade Organisation ("**WTO**") since its founding on 1 January 1995. Hong Kong has made specific commitments under the General Agreement on Trade in Services regarding telecommunications services both in the Uruguay Round and the subsequent Fourth Protocol on Basic Telecommunications and has also adopted and implemented the WTO's Basic Telecommunications Reference Paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The key pieces of legislation that regulate telecommunication networks and services are set out at question 1.2. The CA from time to time also issues various statements, decisions, policies, guidelines, consultation papers and other information to supplement the regulations in this sector.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

As discussed at question 1.3, the telecommunications regulator is the CA, which is an independent statutory body whose role is, amongst other things, to facilitate the development of the Hong Kong telecommunications sector by adopting a light-touch and pro-competition regulatory approach.

Under the Telecommunications Ordinance, the Secretary for Commerce and Economic Development may:

- issue policy directions pursuant to which the CA is to carry out its functions and exercise its powers;
- prescribe general conditions for a carrier licence; and
- impose price controls on licensed network operators who are in a dominant position in the telecommunications market.

The competition law authority is the Competition Commission, which is an independent statutory body whose role is, amongst other things, to investigate prohibited anti-competitive conduct and enforce the provisions of the Competition Ordinance.

The Competition Tribunal, as part of the Hong Kong judiciary, hears and decides legal proceedings concerning competition matters.

The CA has concurrent jurisdiction with the Competition Commission to handle competition matters in the telecommunications sector regulated by the Competition Ordinance.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions made by the CA with regard to exploitative conduct of a telecommunications licensee may be submitted for review by the Telecommunications (Competition Provisions) Appeal Board, an independent statutory body. The Appeal Board's decision is final but it may refer any question of law to the Court of Appeal and to the Court of Final Appeal (if leave to appeal is granted).

The Competition Tribunal has jurisdiction to hear and determine:

- applications made by the Competition Commission or CA concerning alleged contraventions of competition rules;
- applications for the review of reviewable determinations made by the Competition Commission or CA (e.g. decisions regarding block exemptions or variation of a commitment);
- private actions regarding contravention of the competition rules; and
- applications regarding the enforcement of commitments.

The Tribunal's decisions may be appealed to the Court of Appeal as of right.

More generally, decisions made by the Competition Authority may be subject to judicial review by the High Court.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

Generally, public telecommunications services are provided either by facility-based operators ("**FBOs**") or service-based operators ("**SBOs**").

FBOs are licensed under unified carrier licences ("**UCLs**") to establish, maintain and provide fixed, mobile and coverage telecommunications services to the public. SBOs are required to be licensed to provide public telecommunications services using networks and facilities established by licensed FBOs and are not authorised to establish or maintain telecommunications. There are currently three different classes of services that an SBO can apply to provide.

There are also other types of more specific telecommunications licences available, such as public radiocommunications service licences, aircraft station licences and hotel television (and transmission) licences.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Licensing requirements

In order to obtain a UCL or SBO licence, an applicant must:

- be a company registered under the Companies Ordinance (which includes a company incorporated overseas but registered under the Companies Ordinance); and
- pay an application fee and an annual licence fee. Currently, such fees are as follows:
  - UCLs – an annual fee of HKD 1,000,000 reduced to HKD 100,000 if the UCL is limited to providing external or radio communication services), an additional yearly fee of HKD 700 per 100 customer connections to the network under the licence.

- SBOs – (1) for any class 1, class 2 or other services (other than class 3 services) – HKD 25,000; and (2) class 3 services – HKD 750 for each type of service authorised under the licence.

Note that for other class licences (e.g. in-building telecommunication systems), no registration or application for a licence is required, but the provider must comply with the licensing conditions of the licence.

The CA does not impose a limit on the number of UCLs or SBO licences that may be issued. If the CA refuses an application, it must provide its reasons for the refusal in writing.

For a UCL and each class of SBO licence, there are a set of general conditions and a set of specific conditions. The general conditions for a UCL are prescribed under the Telecommunications (Carrier Licences) Regulation (Cap. 106V), and the general conditions for SBO licences are regularly gazetted by the government. The CA may also attach additional special conditions for each of the above licences as it may deem appropriate.

Penalties for non-compliance or breach

Any person who establishes or maintains any means of telecommunications, or offering a telecommunication service without an appropriate licence, may be subject to the following penalties:

- A fine of up to HKD 50,000 and two years' imprisonment on summary conviction.
- A fine of up to HKD 100,000 and five years' imprisonment on conviction on indictment.

Under the Telecommunications Ordinance (Section 36(C)), if a licensee breaches any licence condition, requirement or direction issued by the CA or the Telecommunications Ordinance, they can be subject to the following:

- First breach – a fine of up to HKD 200,000.
- Second breach – a fine of HKD 500,000.
- Any subsequent breach – a fine of HKD 1,000,000.

In addition:

- If the CA believes that the above fines are insufficient for the relevant breach and the matter is subsequently referred to the High Court, a fine can be imposed by that court of up to a maximum of 10% of the licensee's turnover during the breach period or HKD 10 million, whichever is higher.
- The CA also can require the relevant licensee to disclose (to the public or any particular classes of persons) information relating to the breach, and to publish a corrective advertisement in any newspaper.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

A UCL allows the licensee to establish, maintain and provide local fixed internal and external services, mobile and coverage services to the public. A UCL is valid for 15 years from the day of issuance with no automatic renewal upon expiration.

An SBO licence allows the licensee to provide local voice telephony services and other types of telecommunications services (including mobile virtual network operator services, public radio communication relay services, etc.) by using networks and facilities established by licensed FBOs. The validity of an SBO licence is one year and may be renewed for one year at a time, subject to the discretion of the CA and the production of supporting documents by the SBO licensee.

UCL licensees and SBO licensees cannot transfer or trade their licences without the CA's consent.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

A UCL licensee may enter public and/or private land to install and maintain in-building telecommunications systems (including cable, wire, support structure, ancillary telecommunications equipment and relevant facilities), provided that appropriate consent is obtained.

According to the CA's Code of Practice for the Installation and Maintenance of In-Building Telecommunications Systems and In-building Access by Telecommunications Network Operators, no UCL licensee is required to pay any money or offer an advantage to any landowner, his agent or lawful representative to allow the installation of any telecommunications system in common parts of a building. In addition, the building management office and the incorporated owners of the building should not impose any charges or fees on the UCL licensee for such access.

The CA also permits a UCL licensee to plant and maintain radio communication installations (including radio transmitter, receiver, aerial and ancillary equipment) over any land for the purpose of providing radio communications services to a public place, with the UCL licensee paying an interim fee to the relevant landowner for such installation.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

UCL licensees and SBO licensees that provide local telephony services are required to achieve any-to-any ("**A2A**") connectivity (i.e. any customer in any one network can have access to any other customer in any interconnecting network). These licensees are also required to provide interconnection promptly, efficiently and on reasonable terms and conditions. The A2A connectivity requirement only applies in respect of the provision of voice services.

The Telecommunications Ordinance provides that where a licensee wishes to use or share a facility with another licensee, the latter will endeavour to commercially agree on the conditions of use (including fair compensation) with the requesting licensee who reasonably requests the use or sharing of the facility concerned.

Intercommunications and access disputes are commercial disputes in nature between the relevant parties. However, if the parties cannot agree on the terms and conditions for the use or sharing of the facility concerned, the CA has the power to determine such terms and conditions, including any compensation payable, on a "fair and reasonable" basis.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

There is no requirement on operators to publish their interconnection contracts.

However, all UCL operators and SBOs are required to publish their tariffs, all relevant charges and service terms for the telecommunications services operated under their licences. A licensee is only required to publish the tariffs of those services which are intended to be offered to more than one customer.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

An SBO licensee providing external telecommunications services must pay the local access charges (and associated transit charges) to the local network operators (both fixed and mobile carriers) for their conveyance of originating and terminating external telecommunications services traffic to and from end users. The level of local access charge is subject to commercial agreement between the connecting parties.

Operators who are in a dominant position in the telecommunications market are subject to price or tariff control measures under the Telecommunications Ordinance.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

The CA requires a dominant operator to maintain and report accounts for different service segments of its licensed operations. Non-dominant operators are required to maintain and report accounts for their overall licensed operations only.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Broadband networks are regulated by the Telecommunications Ordinance.

In line with the CA's light-touch regulatory approach, network sharing arrangements can be negotiated amongst network operators without restrictions, unless it is in the public interest for the CA to intervene. Generally, mobile network sharing takes various forms, such as antenna sharing, site sharing, radio access network sharing, domestic network roaming and capacity leasing.

However, there are restrictions on spectrum assignment or pooling, as mobile network operators should only transmit radio signals using the assigned spectrum as specified under their carrier licences.

There are no specific incentives or "regulatory holidays" in connection with the sharing of or investment into passive infrastructure. In 2008, Hong Kong withdrew the Type II interconnection policy, which requires interconnection of telecommunications operators' networks at the customer access network level. The objective of the withdrawal was to encourage new investment in advanced telecommunications infrastructure and to enhance consumer choice.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

There are no retail price controls imposed on any operator carrying fixed, mobile, or other services. However, the Secretary for Commerce and Economic Development may, on the advice of the CA, impose measures relating to price control on licensees whom it deems are in a dominant position in the telecommunications market.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The CA can require any fixed UCLs to be subject to a universal service obligation requiring good, efficient and continuous basic service to be made reasonably available to all persons. Currently, PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited are the only UCLs that are subject to such universal service obligations. For other UCLs, provision of service and its coverage is at their commercial discretion. The level of "basic" service is set out in section 2 of the Telecommunications Ordinance, including requirements in relation to the public telephone service, public payphones and emergency service warnings.

The provision of electronic communications services is subject to data privacy laws under the Personal Data (Privacy) Ordinance, which regulates the collection, holding, processing or use of personal data.

Consumers are further protected by the Code of Practice for Telecommunications Service Contracts issued by the Communications Association of Hong Kong. The code includes clarifications on telecommunications service contract provisions including contract renewal terms, termination of contract and variation of contact terms and conditions. Service providers such as China Mobile Hong Kong Company Limited, CSL Mobile Limited and Hutchison Telephone Company Limited have adopted the code.

Electronic messages for furthering a business purpose (except for telemarketing calls or electronic messages issued in connection with sound broadcasting or television programme services) are subject to the Unsolicited Electronic Messages Ordinance, which requires the sender of such messages to provide their basic information, honour any unsubscribe requests and adhere to the do-not-call registers.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and network identifying codes are set out under the Numbering Plan produced and managed by the CA. The Numbering Plan sets out the plan of numbers and codes used or designed for use for or in connection with the establishment, operation and maintenance of any means of telecommunications under a licence or an order made by the Chief Executive in Council.

The CA made available mobile phone numbers starting with "4", "7" and "8" in February 2018 – adding to existing mobile phone numbers starting with "5", "6" and "9". This will add 15.72 million numbers for mobiles, and the CA anticipates this will meet demand until 2029.

2.17 Are there any special rules which govern the use of telephone numbers?

The Numbering Plan mentioned in question 2.16 sets out requirements in relation to:

- the format of particular types of telephone numbers; and
- which numbers can be used by particular types of licensees.

The Code of Practice Relating to the Use of Numbers and Codes in the Hong Kong Numbering Plan issued and regularly updated by the CA provides guidance to telecommunications network operators and service providers on how to follow the Numbering Plan.

2.18 Are there any obligations requiring number portability?

Licensees providing fixed or mobile services are required to facilitate operating number portability and mobile number portability amongst their network (as applicable). In order for a customer to retain their assigned numbers or access codes when changing subscriptions from one network operator to another network operator, licensees need to either build their own database or enter into a commercial agreement with other licensees for access to that licensee's system. If the licensee chooses to build their own database, the CA may direct such licensee to provide an administration database (including servers, LANs and routers) to other licensees for facilitating number portability.

Licensed operators should also safeguard the security of third-party data obtained from another licensee's database (which would include operating numbers) and must not disclose such data, or use the data for any promotional activities.

3 Radio Spectrum

Introduction

There have been a number of significant developments in relation to spectrum use and allocation in Hong Kong in recent months, as both the CA and key industry players begin to focus on the development of 5G mobile networks and associated value-added services (e.g. video and audio streaming services), which require significant data bandwidth, speed and capacity:

- In July 2018, the CA proposed assigning 4,100 MHz of spectrum in the 26 GHz and 28 GHz spectrum bands to telecommunication licensees, if demand for those bands is below 75% of supply (as is anticipated following a consultation process with relevant stakeholders). This is with the aim of ensuring a faster roll-out of 5G services in Hong Kong. This spectrum is anticipated to be made available in April 2019. Given the high frequency of such bands, it is likely that any licensees taking up such spectrum will need to install significant numbers of radio base stations to utilise such bands.
- The CA also announced in July 2018 that it will assign (via an auction) an additional 200 MHz of spectrum at the 4.9 GHz and 3.3 GHz bands, for public mobile services (including 5G services). A consultation process for such assignment was launched in August 2018 and closed in September 2018. The CA anticipates making further announcements/decisions regarding such assignment before the end of 2018, with the auction of such spectrum being planned for mid-2019. This follows on from the consultations held by the CA and the Secretary for Commerce and Economic Development in February 2016 and February 2017.
- In September 2018, the CA opened applications for a planned spectrum auction in the 900 MHz and 1,800 MHz bands – with the four existing licensees having a right to first refusal for 20 MHz of their current holdings in the 1,800 MHz band, and the remainder (i.e. 50 MHz of spectrum in the 900 MHz band and 70 MHz of spectrum in the 1,800 MHz band) being assigned via planned auction. Applications close on 15–16 November 2018, with the auction to be held in December 2018.
- In June 2018, the CA agreed to make available 580 MHz of the 5 GHz spectrum for public mobile services, for UCLs on a shared basis – this is a key spectrum band for 5G-related technologies such as Licensed Assisted Access.
- There are ongoing discussions between the CA and key industry players in relation to the 3.4 GHz to 3.6 GHz spectrum, which is a key spectrum band for 5G mobile services. This spectrum band is currently used by Hong Kong's two satellite operators, AsiaSat and APT Satellite. In March 2018, the CA proposed that telecommunication licensees can access this spectrum by April 2020, with exclusion zones around satellite earth station facilities. Consultations continue on this topic between mobile phone network operators, the satellite operators and the CA.
- More generally, the Hong Kong government unveiled (in December 2017) its *Smart City Blueprint* with initiatives in six areas: mobility; living; environment; people; government; and economy. A key part of the "government" pillar is ensuring that Hong Kong is ready to commercially launch 5G services and applications in 2020. There will therefore be continuing focus on topics related to 5G (including spectrum allocation and auction) with this in mind.

3.1 What authority regulates spectrum use?

The CA regulates spectrum use and has the power to assign frequencies (or bands of frequencies) in all parts of the radio spectrum used in Hong Kong or on board a ship, aircraft or space object that is registered or licensed in Hong Kong, or to authorise the use of specified spectrum by a particular class of persons for particular uses (e.g. WiFi).

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Spectrum use is authorised by the CA. Spectrum is allocated according to the CA's Table of Frequency Allocations, which sets out the International Telecommunication Union's Radio Regulations that are applicable to Hong Kong, the allocations which have been adopted by Hong Kong and the band plans in use in Hong Kong.

Generally, the CA assigns spectrum that is in competitive demand to providers of non-government services by way of tender, auction, or a combination of both. As mentioned in this question (3.2) and in question 3.4, spectrum that is not in competitive demand may be allocated on a no-cost basis or other manner by the CA.

Spectrum for government services, non-government services required for public interests, or spectrum without congestion, are normally assigned on an administrative basis upon application.

The CA annually publishes updates to its spectrum release plan for unassigned spectrum available through competitive bidding or tendering over the next three years.

Applicants for a UCL are not automatically granted spectrum rights and must separately acquire such right.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Class licences may authorise the use and sharing of certain spectrum (e.g. WiFi) by persons covered by that class licence, subject to its conditions.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The CA may designate the frequency bands for which a spectrum utilisation fee is payable. The following principles apply in determining the applicable spectrum utilisation fees:

- generally, a spectrum utilisation fee is applicable to all non-government use of spectrum;
- for spectrum allocated by way of a competitive process, the fees payable will be determined in accordance with the terms and conditions of that process; and
- for spectrum allocated administratively, a fee may be applicable if the frequency bands meet certain criteria (e.g. when the frequency band is congested and the demand for the use of such band is expected to grow). The Secretary for Commerce and Economic Development may prescribe the level of spectrum utilisation fees or the method for determining the spectrum utilisation fees. The government plans to implement a charging scheme based on the least-cost alternative approach by the end of 2017 or early 2018 for spectrum assigned administratively.

In addition, UCL licensees are also required to pay an annual spectrum management fee which is calculated based on the amount of spectrum used for providing their licensed services.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Spectrum licensees are normally required by the conditions of their licences to obtain consent from the CA before a change of control occurs.

Furthermore, if the change of control involves the merger of carrier licensees and has the effect of substantially lessening competition in the market, the CA may impose conditions on its approval for that change of control, such as requiring the relinquishment of certain spectrum by the licensee.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Unless the licence expressly permits, a licensee must obtain the prior written consent of the CA to transfer or assign a licence. In practice, transfer or assignment is not common.

In deciding whether to give its consent, the CA may consider matters including the market effect and the financial and technical competence and viability of the transferee.

In practice, while the CA has commissioned feasibility studies on spectrum trading and this is a long-term objective (pursuant to the Radio Spectrum Policy Framework), it does not appear that it considers this to be a priority to be addressed, given the continuing significant demand for spectrum.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The Personal Data (Privacy) Ordinance is the main piece of legislation which governs data security. All organisations that collect, hold, process or use personal data must comply with the ordinance, which requires that all practicable steps be taken to ensure that personal data are protected against "unauthorised or accidental access, processing, erasure, loss, or use". Failure to take such steps could lead to an enforcement notice issued by the Privacy Commissioner for Personal Data, an independent statutory body which oversees the enforcement of the Personal Data (Privacy) Ordinance. It is a criminal offence to not comply with an enforcement notice.

Furthermore, computer crimes such as "accessing a computer with criminal or dishonest intent" and "making a false entry in bank books (including electronic books)" are prohibited under the Crimes Ordinance (Cap. 200).

There are also a number of quasi-legal mechanisms and industry regulations regarding cybersecurity, particularly in relation to certain regulated industries (such as financial services). For instance, the Securities and Futures Commission, an independent statutory body that regulates the securities and futures markets, has issued circulars and codes of conduct that relate to cybersecurity *vis-à-vis* regulated institutions/persons.

Please see our Hong Kong Chapter in *The ICLG to: Data Protection 2018* (https://iclg.com/practice-areas/data-protection-laws-and-regulations/hong-kong) for further information in relation to cybersecurity and data privacy requirements in Hong Kong.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The Interception of Communications and Surveillance Ordinance (Cap. 589) is the main legislation which governs the government's ability to access and intercept private communications. It regulates the interception of communications and the use of surveillance devices by or on behalf of public officers. Subject to exceptions under the ordinance, communications interception and covert surveillance by public officers are generally prohibited.

The Commissioner on Interception of Communications and Surveillance is an independent authority which oversees the compliance of this ordinance and the Secretary for Security has also issued a code of practice providing practical guidance on this ordinance.

In addition, the Telecommunications Ordinance allows the Chief Executive to order the interception of messages for the execution of authorisations under the Interception of Communications and Surveillance Ordinance and for the detection of telecommunications services provided in contravention of the Telecommunications Ordinance.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

There are currently no rules which require market participants to maintain call interception (wire-tap) capabilities.

4.4 How does the state intercept communications for a particular individual?

Before intercepting communications (or conducting covert surveillance), a public officer ordinarily has to seek a prescribed authorisation. The authorisation must be given by a designated authorising officer of the applicant's department for less intrusive interceptions, or from a judge for more intrusive interceptions. These authorisations are issued for specific durations of up to three months and may be renewed for successive periods of up to three months each.

In an emergency where an application for authorisation would ordinarily have to be made to a judge, a public officer may instead apply to his head of department. The maximum duration of an emergency authorisation is 48 hours.

The Interception of Communications and Surveillance Ordinance also provides for other circumstances in which a public officer can intercept communications without a prescribed authorisation. This includes where the interception is permitted by another enactment such as an interception carried out in the course of the execution of a court order authorising the search of premises or the seizure of evidence.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

There is no legislation that governs the use of encryption or the circumstances when encryption keys need to be provided to the government. However, the Import and Export (Strategic Commodities) Regulations (Cap. 60G) requires the import or export of certain encryption products to be licensed.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Under the Personal Data (Privacy) Ordinance, personal data can only be kept for as long as it is necessary to fulfil the purpose for which the data is to be used. Personal data means any data relating to a living individual from which it is practicable for the identity of the individual to be ascertained and which is in a form in which access to or processing of the data is practicable.

The Telecommunications Ordinance further provides that the Chief Executive in Council may make regulations concerning the period for which and the conditions subject to which messages and other documents connected with a telecommunications service shall be preserved. There are no such regulations at the time of writing.

Finally, the Telecommunications Ordinance (section 27A) makes it an offence for:

- A telecommunications officer to:
  - wilfully destroy, secrete or alter any message that they receive for transmission or delivery;
  - forge any message;
  - utter any message that they know to be false;
  - wilfully refrain from transmitting any message, or intercept, detain or delay any message; or
  - copy any message or disclose it to anyone other than the person to whom it was addressed.
- Any person (that is not a telecommunications officer) to wilfully destroy, detain or delay any message that is intended for delivery to another person.
- A person knowingly causing a computer to perform any function to obtain unauthorised access to any program or data held in a computer.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Television and sound broadcasting services are regulated by the CA under a licensing regime described in the response to question 5.3 below.

The Chief Executive in Council is responsible for granting and renewing domestic television programme service licences on the recommendation of the CA. The CA is responsible for granting and renewing non-domestic and other television programme service licences.

The CA's other responsibilities in this area include:

- issuing codes of practice on programme-setting, advertising and technical standards for broadcasting;
- dealing with complaints about broadcasting licences; and
- imposing sanctions on broadcasters.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Traditional television and radio broadcasting must be licensed under the Broadcasting Ordinance and the Telecommunications Ordinance, respectively, but there is no licensing requirement for online television or radio.

Local newspapers (i.e. newspapers printed or produced in Hong Kong) must be registered with the Registrar of Newspapers under the Registration of Local Newspapers Ordinance (Cap. 268). The ordinance does not distinguish between newspapers distributed online or through traditional platforms.

Advertisements are primarily regulated by the Trade Descriptions Ordinance, which applies to both traditional and online content and prohibits the use of false and misleading trade descriptions.

Both traditional and online content, whether in the form of text, sound recording, video or pictures, are regulated by the Control of Obscene and Indecent Articles Ordinance (Cap. 390), which regulates the distribution of obscene and indecent content.

Online content is also indirectly regulated through the criminal offence of "accessing a computer with criminal or dishonest intent" under the Crimes Ordinance.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

There are four types of television licences (all granted under the Broadcasting Ordinance):

- domestic free television programme service licence;
- domestic pay television programme service licence;
- non-domestic television programme service licence (i.e. services that do not primarily target Hong Kong); and
- other licensable television programme service licence (e.g. services in hotel rooms).

A sound broadcasting licence is the only type of radio broadcasting licence and is governed by the Telecommunications Ordinance.

The obligations under these licences vary; key obligations will include:

- compliance with:
  - relevant codes of practice;
  - programme language requirements;
  - investment-related obligations; and
- providing:
  - mandatory programmes; and
  - free television/testing equipment and assistance to the regulator for regulatory purposes when requested.

Apart from the obligations contained in the licences, the Broadcasting Ordinance and the Telecommunications Ordinance also regulate other aspects of television and radio services such

as restrictions on cross-media ownership. The Chief Executive in Council's approval is generally needed before a "disqualified person" (as defined separately under the Broadcasting Ordinance and the Telecommunications Ordinance) can exercise control of a sound broadcasting licensee, a domestic free television programme service licensee, or a domestic pay television programme service licensee.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Assignment of both television programme service licences and sound broadcasting licences are generally prohibited as a condition of those licences.

The Telecommunications Ordinance further provides that without the CA's consent, within three years of the grant of a sound broadcasting licence, any right, title or interest in shares exceeding 15% of the total number of voting shares in the licensee, as at the date of the grant of the licence, may not be transferred or acquired.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

"Mere conduits" of material such as telecommunications operators that provide a passive means for communication generally are not liable for defamatory material carried over their infrastructure.

Also, "subordinate publishers" of content such as internet service providers may be able to rely on the defence of "innocent dissemination" if they can prove that they had no knowledge of the libel statement and that this lack of knowledge was not due to negligence. To rely on this defence, internet service providers should promptly remove any defamatory material after they become aware of it.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Hong Kong case law suggests that courts may order internet service providers to disclose information regarding the identity and IP address of the alleged copyright infringers upon application by the alleged content owner.

An amendment bill to the Copyright Ordinance (Cap. 528) introduced in 2014 sought to, amongst other things, include safe harbour provisions limiting the liability of internet service providers for copyright infringement provided that they comply with certain conditions, including:

- taking reasonable steps as set out in the code of practice published by the Secretary for Commerce and Economic Development to limit or stop a copyright infringement as soon as practicable after receiving notice of any alleged infringement; and
- designating an agent to receive notices of alleged infringements and providing the agent's name and contact details in a publicly accessible location.

However, this amendment bill was later withdrawn and lapsed in July 2016.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

There are currently no net neutrality requirements. However, there are legislation and policies that regulate certain anti-competitive and discriminatory conducts of telecommunications operators and/or internet service providers:

- The OFAC implements a "Fair Usage Policy" which allows service providers to reduce access speed for customers whose data usage has exceeded a specific threshold.
- The Competition Ordinance prohibits certain prescribed anti-competitive conduct.
- The Telecommunications Ordinance prescribes licence conditions relating to interconnection and connectivity access.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

The Copyright Ordinance and the Control of Obscene and Indecent Articles Ordinance criminalises the distribution of unlicensed copyrighted material and obscene or indecent materials, respectively. In these cases, operators and/or providers may be obliged to block access to those materials.

Consumer VPN services are not regulated or blocked.

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- TMT/IP/data-focused corporate transactions – including: M&As; JVs; and restructurings; and
- TMT-related issues – including: fintech; cryptocurrencies; cybersecurity; data privacy and big data arrangements; and emerging technologies and businesses (e.g. blockchain, smart contracts, artificial intelligence and e-sports) in various industry sectors.

Hoi works closely with the Ashurst Advance team – with a particular interest in legal service innovation through technology (including automation of legal tasks and smart contracts). He writes frequently, and is regularly quoted by the media on technology law-related topics.

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Chapter 17

India

Khaitan & Co

Harsh Walia

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Over the years, the digital communications sector has been one of the leading contributors to India's gross domestic product and has been one of the prime focuses of the Government.

According to a report relating to the telecom sector, published in May 2018 by the Indian Brand Equity Foundation ("**IBEF**"):

- India is currently the second largest telecom market in the world with roughly 1.18 billion subscribers.
- With 445.96 million internet subscribers, as of December 2017, India also stands second-highest in terms of total internet users.

Based on reports published by the Telecom Regulatory Authority of India ("**TRAI**"), the gross revenue of the telecom sector in the calendar year 2017 was over USD 38 billion and approximately USD 9 billion in the first quarter of 2018.

Major players in the telecom sector are Bharti Airtel Limited, Reliance Jio Infocomm Limited, Vodafone Idea Limited and Bharat Sanchar Nigam Limited.

According to another report published by IBEF, in relation to media and entertainment:

- The market size is approximately USD 23 billion, as of 2017.
- The industry is expected to grow at a Compounded Annual Growth Rate ("**CAGR**") of 13.9% from 2016–2021.
- The Indian advertising industry is projected to be the second fastest-growing advertising market in Asia after China.
- As of June 2018, advertising revenue accounts for around 0.38% of India's gross domestic product. The Indian digital advertising industry is expected to grow at a CAGR of 32 per cent to reach Rs 18,986 crore (USD 2.9 billion) by 2020, backed by affordable data and rising smartphone penetration.

Major players in the audio-visual distribution industry are Star India, Sony Entertainment, Disney India, Viacom18 and Network18. Platforms such as Netflix, Amazon Prime, Hotstar, etc. have experienced tremendous growth in the online content distribution sector in recent times.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) The following legislation mainly regulates the telecom (including internet) sector in India:

- The Indian Telegraph Act, 1885 ("**Telegraph Act**") along with rules framed under it.
- The Wireless Telegraphy Act, 1933 ("**Wireless Act**") along with rules framed under it.
- Telecom Regulatory Authority of India Act, 1997 ("**TRAI Act**").

Additionally, guidelines, circulars and directions issued by the Department of Telecommunications ("**DoT**") and regulations, orders and directions issued by TRAI play a key role in regulation.

(b) The following legislation mainly regulates the audio-visual distribution/broadcasting sector in India:

- The Cable Television Networks (Regulation) Act, 1995 ("**Cable TV Act**") along with the Cable Television Network Rules, 1994.
- The Cinematograph Act, 1952, along with the Cinematograph Rules (Certification) Rules, 1983.

Additionally, the Uplinking Guidelines ("**UG**"), Downlinking Guidelines ("**DG**") and Guidelines for 'Direct to Home' ("**DTH**"), Internet Protocol Television ("**IPTV**") and 'Headend in the Sky' ("**HITS**") services issued by the Ministry of Information and Broadcasting ("**MIB**"), along with TRAI's regulations relating to tariffs, interconnection and quality of service, play a key role.

(c) Some general laws which may be applicable to both these sectors are:

- The Information Technology Act, 2000 ("**IT Act**") and rules framed under it.
- The Indian Penal Code, 1860 ("**IPC**").
- The Indian Contract Act, 1872.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) The following bodies play a major role in the regulation of the telecom sector in India:

- DoT.
- Wireless Planning and Coordination Wing of the DoT ("**WPC**").

- TRAI.
- Telecom Disputes Settlement and Appellate Tribunal ("**TDSAT**").
- Industry bodies such as the Cellular Operators Association of India, and the Tower and Infrastructure Providers Association also play a role in self-regulation.

(b) The following bodies have a major role in the regulation of the audio-visual media distribution sectors in India:

- MIB.
- WPC.
- TRAI.
- Central Board of Film Certification ("**CBFC**").
- Advertising Standards Council of India ("**ASCI**").
- News Broadcasters Association ("**NBA**").
- Indian Broadcasting Foundation ("**IBF**").

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

(a) Yes, the Indian telecom sector has been liberalised. With effect from 2013, 100% FDI is permitted in the telecom sector. However, notably, government approval is required to be obtained in case FDI exceeds 49%.

According to a fact sheet published by the Department of Investment Policy and Promotion ("**DIPP**"), the telecom sector is currently ranked third among all sectors in India, in terms of FDI inflow. Based on information available on the website of DoT, there has been FDI of more than USD 30 billion in the telecom sector since 2000. One of the goals of the recently-released Draft National Digital Communications Policy, 2018 ("**Draft NDCP**") is to attract investments of USD 100 billion in the 'Digital Communications Sector' by 2022.

(b) Over the years, the Indian broadcasting sector has also been liberalised to some extent. Broadly speaking, the FDI regime bifurcates the broadcasting sector in India in two categories, *viz.* carriage services and content services.

At present, FDI in broadcasting carriage services is permitted up to 100% via the automatic route, meaning that prior permission of the Government is not required to be taken. This includes the activity of setting up teleports and providing DTH, cable networks, mobile TV and HITS services.

With respect to broadcasting content services, the following FDI limits have been prescribed:

- Terrestrial Broadcasting FM – 49%, with prior approval of the Government.
- Uplinking of 'News and Current Affairs' TV channels – 49%, with prior approval of the Government.
- Uplinking of 'Non-News and Current Affairs' TV channels/downlinking of TV channels – 100% via the automatic route.

According to a factsheet published by DIPP, the Information and Broadcasting (including print media) sector is currently ranked 14th among all sectors in India, in terms of FDI inflow. The cumulative FDI inflow (from April 2000 to March 2018) in this sector amounted to approximately USD 7 billion.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

India has been a member of the World Trade Organisation ("**WTO**") since 1 January 1995. India has also adopted the WTO's Basic Telecommunications Reference Paper on Regulatory Principles, subject to commitments made under the General Agreement on Trade in Services ("**GATS**").

India has made commitments regarding telecommunications under the GATS in the 'Schedule of Specific Commitments' and under the 'Fourth Protocol on Basic Telecommunications'. The commitments made by India are limited to the 'commercial presence' mode of supply, which is described as 'mode 3' under the GATS schedule of commitments. Pursuant to mode 3, a service supplier of a member nation may supply services in another member's territory through 'commercial presence' in that territory.

Consequently, a service supplier of another member nation may undertake activities in India after fulfilling the conditions stipulated in respect of FDI, and after obtaining a licence by the 'designated authority', i.e. DoT in the present case.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The telecommunications industry in India is subject to extensive regulation. According to the Telegraph Act, the Central Government has the exclusive privilege of establishing, maintaining and working telegraphs in India. The definition of 'telegraph' under the Telegraph Act is wide enough to encompass the provision of telecom services and deployment of the telecom network. The Central Government, under Section 4 of the Telegraph Act, is empowered to grant licences to establish, maintain or work a telegraph in India, on such conditions and in consideration of such payments as it thinks fit. This licence is in the form of an agreement ("**Licence**") executed between DoT and a successful applicant entity ("**Licensee**") who is a telecom service provider ("**TSP**"). A similar Licence is also granted under the Wireless Act in respect of "wireless telegraphy apparatus". The terms and conditions set out in the Licence, along with guidelines issued from time to time, predominantly regulate the provision of telecom services.

Certain other services like the setting up of passive telecom infrastructure are relatively less regulated, and only require registration as Infrastructure Provider Category-I ("**IP-I**") with DoT. Similarly, companies providing call centre, ITeS, network operations centre services, etc., are also required to register with DoT. Further, for provisioning of only audio conferencing services, a separate licence is granted by DoT.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

TRAI is a statutory body established under the TRAI Act, and is the regulator for the telecom and broadcasting sectors with extensive

powers to regulate the same in India. Some of its main functions include fixing tariffs, prescribing rules for interconnection, and setting standards for quality of services.

Competition Commission of India ("**CCI**") was established to ensure that the interest of consumers is protected and practices having an adverse effect on competition are eliminated. CCI serves as a regulator as well as adjudicatory authority for competition-related issues in India.

Both TRAI and CCI have been established under statute, and function autonomously.

Although CCI and TRAI work in different spheres, there may be a possible overlap in certain cases. Recently, both TRAI and CCI exercised their respective jurisdiction in the telecom sector, when it was alleged by an incumbent TSP that one of the new entrants had engaged in anti-competitive practices by introducing free calling for its subscribers. Consequently, TRAI also amended the Telecommunication Tariff Order ("**TTO**") to incorporate principles related to predatory pricing, and elaborated on concepts such as non-discrimination and transparency.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

The Central Government, State Government, local authority or any person (including an entity holding a License) aggrieved by any direction, decision or order made by TRAI may file an appeal to the TDSAT. The appeal must be filed within the time limits prescribed under the TRAI Act. However, regulations issued by TRAI can be challenged before High Courts.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

At present, DoT grants Licences under the Unified Licence ("**UL**") regime. Individual service authorisations for access services ("**AS**"), national long distance ("**NLD**") and international long distance ("**ILD**"), internet services etc. can be obtained by a desirous applicant. In case an applicant wishes to provide all services, they may obtain a general 'all services' authorisation.

In 2016, DoT introduced the virtual network operator model under the UL regime ("**UL VNO**") to facilitate optimum utilisation of existing telecom infrastructure and resale of services. A Licensee with a UL VNO may also opt for a general or individual service authorisation, as the case may be.

For provision of, *inter alia*, audio-conferencing services, a separate Licence is granted by DoT and is currently not under the UL regime.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The primary condition to apply for a UL (or UL VNO, as the case may be) is that the applicant should be an entity incorporated in India and satisfy the FDI criteria. Additionally, the applicant is required to pay a non-refundable application processing fee and entry fee, maintain minimum equity and net worth, and furnish bank guarantees of such amounts as may be prescribed.

Under UL, the Licensee must make its own arrangements for all infrastructure involved in providing the service (including spectrum, if applicable), and it shall be solely responsible for the installation, networking operation and commissioning of necessary infrastructure, equipment and systems. In case of UL VNO, a Licensee can operate even without installing its own network, and instead use the network of its parent network service operator (a UL holder) to resell its services.

Both UL and UL VNO prescribe conditions relating to commercial, financial, technical, operational and security aspects. Further, each service authorisation may also lay down additional requirements.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

The term of a UL is 20 years. Renewal of the Licence is at the sole discretion of DoT. The validity of these Licences commences from the effective date of the first authorisation. Any authorisation granted subsequently shall be co-terminus with the License. This applies to UL VNO as well, except that its term is 10 years.

Unless expressly permitted by DoT, Licences cannot be assigned or transferred to a third party or subjected to any agreement for sub-licence and/or partnership. DoT has permitted assignment of Licences in favour of lenders, in which case a tripartite agreement is required to be executed between DoT, Licensee and lender. As far as change of control is concerned, please note that both Indian and foreign shareholdings need to be disclosed by a Licensee to DoT every six months, but there is no absolute restriction under the Licence for change of control. Further, if a Licensee has acquired access spectrum, either administratively or by auction, there could be certain lock-in conditions as highlighted in our response to question 3.5 below.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

In respect of public land, a Licensee or IP-I must seek prior permission for installing telecommunications infrastructure in accordance with the Indian Telegraph Right of Way Rules 2016. These rules, *inter alia*, lay down the timelines for processing of applications and provide that applications shall be deemed accepted upon expiry of the timelines. However, practically speaking, the efficacy of this provision is yet to be tested.

In case of private land, the Licensee or IP-I entity typically enters into contractual arrangements with landlords/property owners. However, even in these cases, the entities may have to approach authorities for certificates regarding structural stability, fire safety, compliance with electromagnetic frequency emission standards, etc.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Interconnection and access-related provisions for Licensees are mandated under UL. The UL requires Licensees to adhere to regulations and directions issued by TRAI in this regard, from time to time. However, the regime does not distinguish between

interconnection required for wholesale (all services) and that required for retail purposes (for individual services). TRAI has recently revamped interconnection-related regulations and issued Telecommunication Interconnection Regulations 2018 ("**TIR**"). TIR comprises provisions that aim to ensure that interconnection is facilitated between Licensees in a structured and timebound manner. To resolve disputes in relation to interconnection and access, parties may approach TRAI and TDSAT.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Post TIR coming into force in 2018, the Licensees have to enter into arrangements in a prescribed timebound manner only.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

TSPs are required to pay "interconnection usage charges" or "IUC" to other TSPs for accessing and using their network. IUC are paid in accordance with regulations issued by TRAI in 2003, which have been amended on several occasions subsequently.

Under these regulations, TRAI has prescribed rates (along with corresponding ceilings, in some cases). For instance, zero charges are payable if calls originate or terminate on a fixed line (except in case of international incoming calls). However, termination rates have been prescribed in case of mobile calls and international incoming calls. Notably, the regulations do not specifically govern network access at a wholesale level.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

The telecom regulatory regime in India does not subject TSPs to functional or legal separation. However, practically speaking, considering that licence fees may be levied on certain non-telecom activities as well, Licensees often structure their businesses in a way that such activities are carried out by another legal entity.

However, TRAI imposes certain accounting separation requirements, pursuant to which certain financial data and information must be reported by TSPs on a historical basis for regulatory purposes, such as analysing costs, revenues, capital employed in major areas of an operator's business, measuring financial performance, and profitability of various products and services. It also helps in identifying anti-competitive behaviour of the TSPs. In a bid to simplify processes, TRAI revamped relevant regulations in 2016 by introducing new formats and clearly defined applicability criteria, which were previously ambiguous.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

The authorisations for AS and internet services under the UL permit the provisioning of broadband services by Licensees. As mentioned earlier, the tariffs, quality of service and interconnection are regulated by TRAI. In case of broadband, TRAI has formulated regulations notifying the quality of standards to be adhered to in provision of broadband services.

As stated in our response to question 2.8 above, passive infrastructure like ducts, poles, fibre, etc. can be set up by Licensees or by IP-I entities. The Licences comprise provisions of the terms pertaining to passive and active infrastructure that may be installed. Other than that, DoT issues norms from time to time applicable to IP-I entities in relation to the provisioning of passive infrastructure to Licensees.

The broadband policy was issued by the Government towards the proliferation of broadband access in India, and specifically to rural areas. Initially, internet service providers ("**ISP**") were granted certain exemptions from paying licence fees under Licences. However, these benefits were redacted through subsequent amendments. The Draft NDCP speaks of the proliferation of broadband, Wi-Fi, and FTTH solutions, and has prescribed that necessary incentives must be provided to facilitate their expansion.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

TRAI prescribes tariffs for telecommunication services in India through the TTO. However, broadly speaking, except for the tariffs for national roaming, fixed rural telephony and leased lines, tariffs for other telecommunication service are under forbearance. This means that TRAI has not notified any tariff for these services and the Licensees are free to fix any tariff, depending on the market dynamics. However, while fixing tariffs, TSPs must follow the principles of non-discrimination, non-predation and transparency.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Consumer protection is one of the prime focus areas of telecom regulation. The UL comprises of several provisions, such as the following, that are aimed at securing the interests of the consumers:

- Obligation to provide services on a non-discriminatory basis.
- Obligation to ensure continuity of service, in case of cancellation/suspension of a License.
- Obligation to provide itemised billing, wherever applicable.
- Obligation to devise appropriate fraud management and prevention systems.
- Obligation to provide ample notice before discontinuing a tariff plan.

In addition to the above, TRAI has also taken several steps in this domain and issued regulations over time that ensure that sufficient information is provided to consumers about their tariff plans and usage, complaints are resolved in a timebound and effective manner, services provided by TSPs meet prescribed standards of quality, etc. TRAI also issued a Consumers' Handbook on Telecommunications.

A Telecom Ombudsman will soon be a reality and it shall act as an independent and exclusive body for redressal of telecom consumer grievances.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

In India, the management of numbering resources and network identifying codes is governed by the National Numbering Plan

("**NNP**"). The NNP was formulated in 2003 and has been amended from time to time. DoT carries out the allocation of numbering resources to Licensees, in accordance with the NNP. Under the UL, Licensees are obligated to adhere to the NNP.

2.17 Are there any special rules which govern the use of telephone numbers?

The NNP sets out different numbering schemes for different kind of services. For instance, mobile numbers in India need to be 10 digits long. Recently, DoT had released a notification allowing the use of 13-digit numbers for Machine to Machine services.

2.18 Are there any obligations requiring number portability?

Yes, Licensees are obliged to provide mobile number portability to their subscribers under the Telecommunication Mobile Number Portability Regulations.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

In India, the use of spectrum is predominantly regulated by WPC, a body within DoT that is vested with the task of licensing and managing spectrum. To use the spectrum to provide telecom services in India, an applicant may also be required to obtain clearance from the Standing Advisory Committee of Frequency Allocation ("**SACFA**"), which is a body within WPC.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Considering that radio spectrum is a limited resource, the Government formulated a policy regarding its usage and allocation. This policy, known as the National Frequency Allocation Plan ("**NFAP**"), is based on the standards issued by the International Telecom Union ("**ITU**"). NFAP was first issued in 2000 and has thereafter been amended from time to time.

WPC allocates "access spectrum" to desirous applicants, on behalf of the Government. Earlier, in some instances, "access spectrum" was allocated on a "first-come, first-served" basis. However, pursuant to a judgment of the Supreme Court of India in 2012, now "access spectrum" is allocated by way of auctions only.

In order to participate in an auction, the applicant is required to comply with the terms and conditions of the relevant Notice Inviting Applications ("**NIA**") issued by DoT in respect of different frequency bands.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Yes, the use of spectrum can be made licence-exempt in certain circumstances according to the provisions of the Wireless Act. The Wireless Act requires a licence to be obtained for possession of "wireless telegraphy apparatus". The Wireless Act also empowers the Central Government to grant certain exemptions in this regard.

As a result, various rules have been framed under the Wireless Act in terms of which the requirement to obtain the licence is exempted in certain conditions. At present, this exemption is permitted for frequency bands such as (i) 2.4 GHz to 2.4835 GHz, (ii) 5 GHz for indoor use of low power wireless equipment, and (iii) 5.150 GHz to 5.350 GHz and 5.725 GHz to 5.875 GHz for indoor usage, etc.

Even in case of exemptions, there are certain additional administrative requirements, such as obtaining approvals and certifications, which also need to be complied with.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

Yes, certain fees are payable for the use of radio frequency spectrum in India. These are known as 'spectrum usage charges' ("**SUC**"). At present, SUC is computed as a certain percentage of the Adjusted Gross Revenue ("**AGR**"), which in turn is calculated in accordance with the relevant service authorisation under the UL. The percentage mentioned above varies and is computed based on slab rates prescribed by DoT from time to time. Typically, these slab rates are determined in accordance with the corresponding NIA.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Generally speaking, the spectrum licence held by a Licensee is not impacted by a change in control of the Licensee. However, the conditions regarding FDI need to be adhered to by the Licensee.

Further, NIAs generally prescribe a lock-in period in respect of the equity of the person whose share capital is of a predefined limit in the bidding company (at the time of making the application), and whose net worth has been taken into consideration for determining the eligibility for bidding for spectrum.

In case of a compromise, arrangement or amalgamation between two Licensees, the guidelines issued by DoT in 2014 in relation to the transfer and merger of licences/authorisations under the UL may become relevant. These guidelines stipulate certain conditions with respect to spectrum.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Assignment of spectrum licences are subject to the consent of DoT. The regulatory regime in India is silent on the sub-licensing of spectrum, although the leasing of spectrum by one entity to another is expressly prohibited. Trading of spectrum was permitted by DoT in 2015, after adopting TRAI's recommendations in this regard. The relevant guidelines, which were issued in October 2014, prescribe, *inter alia*, the following:

- Trading is only permitted between two TSPs in the licensed service area in respect of spectrum demarcated for access services. At present, trading is only permitted in 800, 900, 1,800, 2,100, 2,300 and 2,500 MHz bands.
- Trading can only take place two years after the date of (a) acquisition of spectrum (in case it was acquired by way of auction), or (b) conversion to tradeable spectrum (in case spectrum was administratively assigned).
- Both Licensees are required to notify DoT in advance and pay a non-refundable processing fee for administrative purposes.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

At present, the legal framework for cybersecurity is predominantly encapsulated in the IT Act. These provisions relate to compensation for failure to protect data, computer-related offences (such as damage and unauthorised access), or punishments for identity theft, cheating by impersonation or cyber-terrorism. Some offences are also punishable under the IPC.

Additionally, the IT Act lays down provisions for the establishment of the National Critical Information Infrastructure Protection Centre, which is designated as the national nodal agency for protection of "Critical Information Infrastructure" and the appointment of the India Computer Emergency Response Team ("**CERT-IN**"), which performs several functions in the field of cybersecurity.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The ability of the State to obtain access to private communication is a sensitive topic in India, much like in most other countries. Broadly speaking, the right to obtain access to private communication is subject to certain conditions and only available in certain circumstances.

For instance, under the Telegraph Act, the government may order that certain messages be restricted from being transmitted, or intercepted, detained or disclosed if it is necessary in the interest of public safety, national security or prevention of crime. Similarly, the government has the power under the IT Act to intercept/monitor/decrypt information which is generated, transmitted, received or stored in a "computer resource" for reasons similar to those mentioned above. Further, directions may also be issued to an intermediary to block access to any information, for such reasons. Additionally, Central Government is empowered to authorise its agencies to monitor and collect traffic data or information generated, transmitted, received or stored in any computer resource, for the purpose of (a) enhancing cyber security, and (b) for identification, analysis and prevention of intrusion or spread of computer contaminants in India.

Moreover, there are certain obligations cast on Licensees under the UL to provide requisite monitoring/interception facilities and block access to certain content that is, *inter alia*, obscene, infringing and illegal, etc.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

The requirement to maintain lawful interception and monitoring facilities in respect of telecommunication services stems from the UL and is therefore applicable to Licensees. Consequently, such facilities need to be provided in respect of all services governed by the UL, except as specifically stated otherwise. As a result, traditional phone calls, VoIP calls using public internet and all other services under the UL are covered by this requirement. In case of email, interception may be independently sought under provisions of the IT Act (refer to our response to question 4.2 above).

4.4 How does the state intercept communications for a particular individual?

The framework for state interception of communication for a particular individual is mainly laid down in the provisions of the IT Act, Telegraph Act and UL. In the interest of brevity, please refer to our response to question 4.2 above.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

At present, India does not have a robust set of rules governing the use of encryption.

The IT Act provides that the Central Government may, for "*secure use of electronic medium and for promotion of e-governance and e-commerce, prescribe the modes and methods of encryption*". However, notably, no such prescriptions have been made thus far. The Central Government had issued a draft of the National Encryption Policy in 2015, but it was withdrawn shortly after its release on account of wide-scale criticism.

With respect to the telecom sector, there was a requirement under the old licensing regime (prior to the UL) to deposit the decryption key with DoT, in case the level of encryption employed exceeded the prescribed limit. However, this requirement has not been imported to the UL. Under the UL, Licensees are under an obligation to ensure that the use of encryption by their subscribers is in accordance with the provisions of the IT Act.

It is pertinent to mention that certain sectoral regulators such as the Reserve Bank of India ("**RBI**") and Securities and Exchange Board of India ("**SEBI**") have prescribed standards and methods of encryption pertaining to these sectors.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

A Licensee is obliged to retain, *inter alia*, the following data, as a part of its obligations under the UL:

- A record of all the operation and maintenance command logs in respect of the network, for a period of 12 months.
- A record of all commercial records/call detail records, etc. with regard to the communications exchanged on the network, for a period of at least one year.
- The complete audit trail of the remote access activities pertaining to the network operated in India, for a period of six months.
- A record of login/logout details of all subscribers for services provided such as internet access, internet telephony etc., for a minimum period of one year.
- A record of supply chain of the products (hardware/software).

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

In India, the distribution of content is regulated on the basis of the platform used. The following platforms are relevant for audio-visual media:

Television Distribution:

At a consumer retail level, distribution over satellite television is predominantly regulated by the following:

- Cable TV Act, along with rules framed under it.
- Guidelines issued by MIB in relation to DTH, HITS and IPTV. IPTV can also be provided by a Licensee under certain authorisations in the UL.

The UG and DG issued by MIB in 2011 are also relevant. The UG, *inter alia*, regulate the uplinking of television channels from India, whereas the DG regulate the downlinking of television channels in India. Additionally, the Prasar Bharati Act, 1990 regulates broadcasts through Doordarshan (i.e. the national TV channel).

Cinematographic/theatrical distribution:

The Cinematograph Act, 1952 and rules framed under it regulate distribution via cinematograph. However, the operation of theatres and multiplexes are not regulated *per se*.

Please refer to our response to question 5.3 below for more details on this aspect.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

The present legal and regulatory framework relating to regulation of content (including advertising) predominantly encompasses broadcast via traditional means, such as cable television, DTH, IPTV and theatre. Regulation of content is mainly carried out by MIB and by CBFC (in case of films). With respect to advertising, the guidelines prescribed by ASCI should be considered.

At present there is no dedicated framework in India for regulating the distribution of content using internet or other similar platforms. However, general provisions of the IT Act and IPC prescribe penalties for distributing and publishing certain types of content, and such provisions would be applicable.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

Further to our response to question 5.1 above, we will highlight the licences or permissions required to be taken for distribution of audio-visual media in case of television.

Television

An entity desirous of uplinking or downlinking a television channel in India is required to obtain permission from MIB under the UG or DG, respectively. To do so, the applicant must meet the prescribed minimum eligibility criteria, which, *inter alia*, includes the requirement to meet a certain net worth. The entity should be incorporated in India and be compliant with relevant FDI conditions (refer to our response to question 1.4 above). It is also important that any television channel that is uplinked or downlinked in India is registered with MIB.

The key obligations laid down under UG are:

- Uplinking is only permitted using C or Ku Band. Moreover, uplinking through Ku band is only permitted through Indian satellites.
- Compliance with programme and advertising codes laid down under Cable TV Act.
- Maintenance of a record of content uplinked.
- Provision of facilities of monitoring of content.

The key obligations laid down under DG are:

- Compliance with programme and advertising codes laid down under the Cable TV Act.
- Maintenance of a record of content uplinked.
- Provision of facilities to monitor content.
- Prohibition from providing satellite TV signal reception to entities other than registered cable operators or DTH operators.

Such entities must also comply with the terms and conditions of the Wireless Operational Licence to be issued by WPC.

Multi-system operators need to be registered with MIB pursuant to the Cable TV Act. MIB also grants permissions to DTH, IPTV and HITS service providers. The guidelines issued in 2001, 2006 and 2009, respectively, lay down, *inter alia*, the eligibility criteria (which includes financial parameters) that must be met. Some of the key obligations common to both these guidelines are:

- Restriction on carrying any channel that is prohibited by MIB.
- All channels must be provided access to the platform on a non-discriminatory basis.
- Objectionable material should not be carried on the channel.

IPTV services can be provided by a Licensee under certain authorisations under the UL, in which case the obligations thereunder need to be complied with.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Broadly speaking, a licence/permission is not assignable without the prior consent of MIB. However, MIB permits assignment in favour of lenders, in which case a tripartite agreement must be executed. Also, there are no absolute restrictions on change of control as long as FDI and other financial requirements are complied with.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

In India, TSPs fall within the ambit of an "intermediary" under the IT Act, and are therefore entitled to certain statutory exemptions from liability for content carried over their network. This, however, is subject to fulfilment of certain conditions. According to the IT Act, an "intermediary" shall not be liable for any third-party information, data, or communication link made available or hosted by it, if:

- its function is limited to providing access to a communication system over which information made available by third parties is transmitted or temporarily stored; or
- it does not initiate transmission, select the receiver of transmission, and does not modify or select the information contained in the transmission.

Further, to qualify for this exemption, intermediaries are required to observe certain due diligence (as prescribed under rules framed under the IT Act) while discharging their duties. However, an intermediary would be held liable in case they had knowledge of an unlawful act and intentionally omitted to act.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

To avail certain exemptions from liability in case of third-party content, TSP (an intermediary) must, *inter alia*, remove/disable access to any content that is non-compliant, within a prescribed time period after being notified by the aggrieved party.

The provisions of the UL lay down an express prohibition on the carriage of certain types of content (including without limitation, messages or communications infringing copyright and intellectual property right) in any form, on its network. If specific instances of such infringement are reported to the TSP by the enforcement agencies/DoT, such operator shall take necessary measures to prevent carriage of such messages in its network immediately.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Apart from certain provisions under the UL, which encumber all ISPs to ensure that all subscribers have unrestricted access to all the content available on the internet (except for expressly restricted content), net neutrality principles have not been directly inducted in the legal and regulatory framework in India as of now.

In February 2016, TRAI issued the 'Prohibition of Discriminatory Tariffs for Data Services Regulations'. These regulations set out an express prohibition on service providers from charging discriminatory tariffs for data services on the basis of content, or entering into contractual arrangements that have this effect. However, this prohibition is subject to certain exemptions.

TRAI issued its Recommendations on Net Neutrality in November 2017. It states that no ISP shall resort to any form of discrimination, restriction or interference in the treatment of content. However, exemptions have been recommended in respect of certain categories of services that are time-critical. Nevertheless, a concrete law or policy in this regard is yet to be framed. According to recent reports, these recommendations have been adopted by the Telecom Commission and shall be sent for the approval of the Union Cabinet shortly.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

As pointed out in our response to question 6.2 above, obligations to block access to certain sites and content are cast on TSPs under the UL and IT Act. Please refer to the same in the interest of brevity.

VPN services are regulated in India and can be provided by Licensees after obtaining certain authorisations under the UL. Therefore, the obligations relating to blocking of content (as highlighted in our response to question 6.2 above) could be attracted for VPN services as well.

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Chapter 18

Indonesia

Enrico Iskandar

Bimo Harimahesa

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

(a) Telecoms and Internet

Mobile cellular business remains the largest telecoms industry in Indonesia. The telecoms sector in Indonesia is one of the world's most crowded cellular telecoms markets, due to the country's large population, the vast archipelago and the current affordable price in the technology devices market. Nowadays, because of the geographic challenges, there is an increasing demand for mobile data services rather than fixed line subscribers. There are approximately 278 million mobile subscribers in Indonesia, leaving only 11 million fixed line subscribers. Further, nearly 85% of the Indonesian population own mobile phones while 43% carry smartphones. This leads to the domination of mobile operators in the Internet Service Providers ("**ISP**") sector, meaning that most of the approximately 53 million internet users in Indonesia are utilising their mobile phones to gain internet access. Meanwhile, fixed line ISPs are aiming for corporate and residential customers, and apartment buildings. Said ISPs are currently focusing on enhancing their infrastructure by building fibre-optic networks of varying sizes and capacities in several of the largest cities in Indonesia.

Telkomsel, Indosat Ooredoo and XL Axiata are three major operators for mobile subscribers in Indonesia, which dominate 80% of the telecoms market. Whilst Telkomsel is primarily owned by a public listed state-owned telecoms company, namely PT Telekomunikasi Indonesia Tbk (Telkom), the other two major operators are controlled by foreign telecoms companies. Axiata (a Malaysia-based telecoms company) owns 66.4% of XL Axiata's shares, whilst Ooredoo (a Qatar-based telecoms company) owns 65% of Indosat Ooredoo's shares. In respect of annual revenue, Telkomsel has the largest annual revenue among its competitors. In 2017, Telkomsel had IDR 93.2 trillion in annual revenue, while Indosat Ooredoo had IDR 29.9 trillion and XL Axiata had IDR 22.9 trillion.

(b) Audio-Visual Media Distribution

The rise of online digital advertising does not hold back the domineering control of the television sector in the media landscape of Indonesia. With a total audience of almost 240 million people, the television sector is held by many large and diversified media groups, the most significant of which are Media Nusantara Citra (MNC) Group and Trans Corp.

Subscription-based television services are also penetrating the market in numerous major cities in Indonesia, along with their bundled ISP services for residential customers. MNC Group, First Media Group, and recently Telkom are, among others, the big players for bundled cable television-ISP services in Indonesia. However, compared to the annual revenue for the ISP service providers through mobile services, the bundled cable television-ISP service providers are still far behind. For instance, the subsidiaries of First Media Group and MNC group for this particular sector, respectively PT Link Net Tbk and PT MNC Sky Vision Tbk, only reached IDR 3.3 trillion and IDR 2.6 trillion, respectively, for their 2017 annual revenues.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms and Internet

- Law No. 36 of 1999 on Telecommunication ("**Telecoms Law**").
- Law No. 11 of 2008 on the Information and Electronic Transaction, as lastly amended by Law No. 19 of 2016 ("**EIT Law**").
- Government Regulation No. 24 of 2018 on the Online Single Submission ("**GR 24/2018**").
- Government Regulation No. 52 of 2000 on Telecommunications Operations dated 11 July 2000 ("**GR 52/2000**").
- Government Regulation No. 82 of 2012 on Electronic System and Transaction Operations.
- Ministry of Communications and Informatics ("**MCI**") Regulation No. 7 of 2018 on Electronic Integrated Business Licensing Services in the Communications and Informatics Sector ("**MCI Regulation 7/2018**").
- MCI Regulation No. 01/PER/M.Kominfo/01/2010 on the Provision of Telecommunication Networks, as lastly amended by MCI Regulation No. 7 of 2015 ("**MCI Regulation 01/2010**").
- MCI Decree No. KM 21 of 2001 on the Provision of Telecommunications Services as lastly amended by MCI Regulation No. 8 of 2015 ("**MCI Regulation 21/2001**").
- MCI Regulation No. 8/PER/M.Kominfo/02/2006 on Interconnection ("**MCI Regulation 8/2006**").
- MCI Regulation No. 19 of 2014 on the Handling of Negative Contents in the Internet Website ("**MCI Regulation 19/2014**").
- MCI Regulation No. 36 of 2014 on the Registration Procedure of Electronic System Operators ("**MCI Regulation 36/2014**").

- MCI Regulation No. 20 of 2016 on Individual Data Protection in Electronic System ("**MCI Regulation 20/2016**").
- MCI Circular Letter No. 3 of 2016 on the Provision of Application and/or Content Services through Internet (Over the Top) ("**MCI Circular Letter 3/2016**").
- MCI Regulation No. 8 of 2017 on Provision of Internet Telephone Services for Public Purposes (VoIP) ("**MCI Regulation 8/2017**").

(b) Audio-Visual Media Distribution

- Law No. 32 of 2002 on Broadcasting ("**Broadcasting Law**").
- Government Regulation No. 24 of 2018 on the Online Single Submission ("**GR 24/2018**").
- MCI Regulation No. 7 of 2018 on Electronic Integrated Business Licensing Services in the Communications and Informatics Sector ("**MCI Regulation 7/2018**").
- MCI Regulation No. 18 of 2016 on the Procedures and Requirements for Broadcasting Licenses ("**MCI Regulation 18/2016**").
- MCI Regulation No. 41 of 2012 on Provision of Broadcasting by Subscription Broadcasters through Satellite, Cable and Terrestrial ("**MCI Regulation 41/2012**").
- MCI Regulation No. 18 of 2016 on the Procedures and Requirements for Broadcasting Operations ("**MCI Regulation 18/2016**").
- MCI Regulation No. 6 of 2017 on Provisions of Internet Protocol Television ("**MCI Regulation 6/2017**").

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms

- Minister of Communication and Informatics (*Kementerian Komunikasi dan Informatika*/"**MCI**"), Directorate General for Operation of Post and Telecommunication.
- MCI, Directorate General for Operation of Post and Telecommunication.
- MCI, Directorate General for Informatics Application.
- Indonesian Telecommunication Regulatory Authority (*Badan Regulasi Telekomunikasi Indonesia*/"**BRTI**").

(b) Audio-Visual Media Distribution

- MCI, Directorate General for Operation of Post and Telecommunication.
- Indonesian Broadcasting Committee (*Komisi Penyiaran Indonesia*/"**KPI**").

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

(a) Telecoms and Internet

Most of the telecoms sectors, including fixed and mobile telecommunications network providers, telecommunications services providers, and ISP providers are restricted to 67% foreign ownership.

(b) Audio-Visual Media Distribution

Companies in the Private Broadcasting Channel ("**PBC**") and subscription broadcaster sectors can only be initiated by local citizens or Indonesian-owned legal entities. Foreign investors may only participate in the PBC and subscription broadcaster sectors by means of capital injection, with a 20% foreign shares ownership restriction.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Indonesia has been a member of the World Trade Organisation ("**WTO**") since 1994 and entered the WTO Basic Telecommunication Agreement in 1997. The Indonesian government has opened up the telecommunications industry to even more than the agreed 35% of foreign ownership. See question 1.4 above for details on the foreign ownership restriction in the telecommunications industry.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

By virtue of the Telecoms Law, GR 52/2000, MCI Regulation 01/2010 and MCI Regulation 21/2001, the following are the classifications of telecoms operations under the said laws and regulations:

1. The Operation of Telecoms Networks, which consist of:
   a. Fixed Telecommunications Networks, which consist of:
      (i) fixed local networks;
      (ii) fixed long-distance networks;
      (iii) fixed international networks; and
      (iv) fixed closed networks.
   b. Mobile Telecommunications Networks, which consist of:
      (i) mobile terrestrial networks;
      (ii) mobile cellular networks; and
      (iii) mobile satellite networks.
2. The Provision of Telecoms Services, which, among others, consists of:
   a. Basic Telephony Services, which are provided by:
      (i) fixed local network operators (telephone, facsimile, telex, telegraph and data);
      (ii) fixed long-distance network operators (telephone, facsimile, telex, telegraph and data);
      (iii) fixed international network operators (telephone, facsimile, telex, telegraph and data);
      (iv) mobile cellular network operators (telephone, facsimile and data);
      (v) mobile satellite network operators; and
      (vi) radio trunking operators (local telephony).
   b. Value Added Telephony Services, which, among others, consist of:
      (i) premium calls;
      (ii) calling cards;
      (iii) virtual private phone numbers;
      (iv) public telephone recordings;
      (v) store and forwards; and
      (vi) call centres.

c. Multimedia Services, which, among others, consist of:
   (i) ISPs;
   (ii) internet interconnection services ("**NAP**");
   (iii) internet protocol television ("**IPTV**"); and
   (iv) data communication system services.

3. Special Telecoms Operations, which consist of:
   a. Special Telecommunications for Internal Use;
   b. Special Telecommunications for National Defence; and
   c. Broadcasting.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

Generally, the regulatory and competition law authority in Indonesia is the Commission for the Supervision of Business Competition (*Komisi Pengawas Persaingan Usaha*/"**KPPU**"). KPPU is an independent governmental body established pursuant to Law No. 5 of 1999, regarding Prohibition on Monopolistic Practices and Unfair Business Competition ("**Anti-Monopoly Law**"). KPPU rules over business competition in any field in Indonesia. Furthermore, KPPU's members are inaugurated by the President, with approval from the House of Representatives.

Specifically for the telecoms sector, the competition supervisory duty is conducted mutually by KPPU and BRTI (as mentioned in question 1.3 above). As a semi-independent regulatory body, BRTI runs its tasks and functions through the Committee of Telecommunication Regulation, consisting of seven members. Public participation is manifested through the appointment of five public figures as members of the committee, with two members from the government.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

In accordance with Law No. 5 of 1985 regarding the State Administrative Court as lastly amended by Law No. 9 of 2004 ("**State Administrative Court Law**"), the decision of the national regulatory authority shall be considered as a state administrative decision, thus is able to be appealed at the State Administrative Court.

According to Article 1 No. 3 of the State Administrative Court Law, a state administrative decision is defined as a written decision issued by a state administration agency, containing state administration legal actions based on the applicable laws and regulations. Further, such decision must be concrete, individual, and final in character, and has legal consequences for a specific person or legal entity. Examples of state administrative decisions are (i) licences/permits, and (ii) ministerial decrees on legal statuses, rights and obligations for a certain legal entity.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

In general, telecoms licences for commercial use are issued in four stages, which are:

(i) **Business Identification Number** (*Nomor Induk Berusaha* or "**NIB**")

Following the issuance of GR 24/2018 and MCI Regulation 7/2018, generally, all companies in Indonesia will require an NIB in order to be able to obtain further business and operational licences through the Online Single Submission ("**OSS**") system. The OSS system is an online system which will integrate all information and licensing processes from various government institutions in Indonesia, including several licences relevant to the postal, telecoms, and broadcasting sectors, and the usage of radio frequency spectrum.

The government developed this system in order to be able to eliminate the complicated licensing procedure and lengthy timeline usually experienced in the previous regime.

(ii) **Business Licence**

The Business Licence is issued by the OSS system on behalf of the ministry (i.e., Ministry of Communications and Informatics) after obtaining an NIB. The issuance of a Business Licence is conducted on a commitment basis.

(iii) **Fit and Proper Test**

Serving as one of the commitments required for the issuance of an Operational/Commercial Licence, the fit and proper test is a technical inspection conducted by either a team composed by MCI, or accredited assessment institutions, whichever is deemed fit.

(iv) **Operational/Commercial Licence**

The Telecoms Operational Licence shall be in the form of a contract between the relevant telecoms network/services provider with MCI, consisting of operational rights, obligations, sanctions and a report. This contract will be subject to an evaluation every five years.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The main requirements for both the telecoms networks and telecoms services sectors in obtaining telecommunication licences are as follows:

(i) obtaining an NIB;

(ii) obtaining a Business Licence, and

(iii) operating/obtaining a Commercial Licence,

from the OSS system by committing to fulfil all of the commitments, including providing a business plan that includes scope of the development area, services to be built (roll-out plan), and commitment to not change the shareholding structure before fulfilling at least 50% of the development responsibility of the total commitment to develop during the 5 (five)-year period.

Accordingly, the timeframe for fulfilments of commitments through the OSS System for telecoms are different depending on the services which are at the latest:

(i) 1 (one) year from the issuance of a Telecommunication Network Operator Licence.

(ii) 6 (six) months from the issuance of a Telecommunication Service Operator Licence.

(iii) 1 (one) year from the issuance of a Special Telecommunication Operator for Legal Entity Licence.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Currently, there are no individual authorisations established in Indonesia with regard to telecoms business activities.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Construction of telecommunication infrastructure in certain areas, particularly in less-developed cities, may be considered as a development for public interest, hence granting the Indonesian government with the authority to acquire land by giving proper compensation to the relevant land owners. There are two regulations which are relevant for public and private land acquisition for public interest, namely:

(i) Law No. 2 of 2012 on Land Procurement for Development for Public Interest and its implementing regulations.

(ii) Presidential Regulation No. 71 of 2012, as lastly amended by Presidential Regulation No. 148 of 2015.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Under the Telecoms Law, it is clearly mandated that every telecoms network operator shall provide interconnection, based on demand, to any other operator. The interconnection is further regulated under MCI Regulation 8/2006, which also contains the provision regarding interconnection dispute settlement. Pursuant to Annex V of MCI Regulation 8/2006, disputes related to interconnection issues may be resolved by means of mediation or arbitration, without prejudice to the relevant parties' rights in seeking a resolution through the Indonesian District Court. In mediation, the mediator team shall be established by BRTI. Meanwhile, in arbitration, the arbitral tribunal members shall consist of one or more arbitrators appointed by BRTI.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Operators are required to submit interconnection tariffs offers, which include the Interconnection Offer Document (*Dokumen Penawaran Interkoneksi*/"**DPI**") to be reviewed by BRTI. An operator's DPI with an operating revenue of 25% or more from the total revenue of the entire operators in its particular service sector is required to be approved by BRTI.

All operators are also required to publish their DPI and other supporting documents from the interconnection contract for all interested parties, and it is advisable to publish these documents on the operator's website.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Interconnection tariffs are decided on a cost-based basis by considering the economic value (supply and demand), and are subject to the standard formulation provided by the government. The bases of interconnection tariff calculations are transparency and fairness, as the calculation result shall be included in the DPI. Operators are then required to submit the DPI to be reviewed and approved by BRTI.

In calculating the interconnection tariff, references shall be given to the: (i) cost allocation and reporting manual; and (ii) guidelines and calculation formula software for interconnection tariffs, as determined by the Directorate General for Operation of Post and Telecommunication.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

In several lines of telecoms business, MCI requires the operator and/or telecoms service provider to conduct accounting separation, e.g., interconnection services. However, the operators are not subject to any sectoral regulations to undertake any functional separation and/or legal separation.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

There is no specific regulation regarding high-speed broadband networks, nor any incentives or regulatory holidays for this matter.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Pursuant to the Telecoms Law, telecoms network operators have the right to determine the tariff, and they are not subject to any price control or retail tariffs. The government only determines the formula to calculate the tariff.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The Telecoms Law stipulates that in providing its services, each telecoms operator is required to protect its customers' rights, among others, quality of services ("**QoS**"), tariffs and compensation. In relation thereto, MCI has set up several regulations on QoS for certain telecoms services.

Further, in the event that the provision of electronic communications services is considered as public services, the relevant electronic system operator shall be subject to a mandatory registration with the MCI. Based on MCI Regulation 36/2014, provision of the following services shall be considered as public services and are subject to registration:

a. web portals, websites, or online applications via the internet that are used to facilitate the offering and/or trading of goods and/or services;

b. electronic systems that contain payment facility and/or other financial transactions online, by means of communication data or the internet;

c. electronic systems used to process electronic information that contain or require the deposit of funds or other similar forms of funds;

d. electronic systems used to process, administer, or store data related to facilities that are associated with customer data for public-serving operational activity on financial transactions and trading activity; and

e. electronic systems used for the delivery of payable digital material through data networks, either by means of download via a web portal/website, email transmission, or other application to the user device.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and network identifying codes are allocated by MCI through the Directorate General for Operation of Post and Telecommunication. Procedures for allocation and designation of numbers are stipulated under MCI Decree No. 4 of 2001 on the National Fundamental Technical Plan 2000, as lastly amended by MCI Regulation No. 17 of 2014 and MCI Regulation 7/2018. Usage and arrangement of such numbers shall be further carried out by the respective operators.

2.17 Are there any special rules which govern the use of telephone numbers?

Upon obtaining the allocated numbers, operators are obligated to submit a report on the usage of the telephone numbers every six months.

2.18 Are there any obligations requiring number portability?

Number portability, including local number portability and mobile portability, is not applicable for both individual and enterprise customers in Indonesia.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

MCI, Directorate General for Resources and Postal and Informatics Devices.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Based on MCI Regulation No. 4 of 2015 on the Operational Requirements and Licensing Procedures for the Use of Radio Frequency Spectrum ("**MCI Regulation 4/2015**"), every usage of the radio spectrum in Indonesia is required to obtain a usage of radio frequency spectrum licence. There are three types of licence for the usage of radio frequency spectrum, namely:

- Radio Frequency Band Licence (*Izin Penggunaan Pita Radio*/"**IPFR**"), for the usage of radio spectrum in the form of radio frequency band;
- Radio Station Licence (*Izin Stasium Radio*/"**ISR**"), for the usage of radio spectrum in the form of a radio frequency channel; and
- Class Licence (*Izin Kelas*), granted to individuals and/or legal entities to operate a telecoms device which uses the radio frequency spectrum.

The holder of the above licences is required to pay the Rights of Frequency Radio Spectrum Fee (*Biaya Hak Penggunaan Frekuensi Radio* or "**BHP**").

The procedure to determine the candidates entitled to use radio spectrum is based on the selection mechanism, evaluation mechanism and on a "first-come, first-served" basis.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

No, every usage of spectrum must first obtain the related licences.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

According to MCI Regulation 4/2015, only an IPFR and an ISR are payable with licence fees in the form of a Right of Frequency Radio Spectrum Fee – BHP. The BHP must be fully paid in advance via bank transfer with a host-to-host payment gateway on an annual basis.

The amount of BHP for an IPFR shall be determined by the following mechanisms:

- selection process mechanism, by taking into account the public's purchasing power and reasonableness;
- adjustment of selection result mechanism, for the usage of radio frequency spectrum on the same radio frequency band; or
- calculation mechanism, in accordance with the formula determined by MCI.

Meanwhile, the amount of BHP for an ISR shall only be determined by the calculation mechanism, in accordance with the formula determined by MCI.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

In the event that the change of control of the licensee results in the change of (i) the name of the licensee, (ii) the person in charge in the legal entity holding the ISR (only for ISRs), and/or (iii) the domicile of the licensee, then the licensee must submit the change of licensee data.

The change of licensee data shall be submitted to MCI in the case of an IPFR, or the Directorate General of Resources and Postal and Informatics Devices in the case of an ISR.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

No, spectrum licences are not able to be assigned, traded or sub-licensed.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

There is no specific law or regulation for cybersecurity in Indonesia. The main reference for cybersecurity in Indonesia still refers to the EIT Law, which serves as the principal policy for electronic information in Indonesia.

Nevertheless, based on the President of the Republic of Indonesia Decree No. 53 of 2017 on Cyber Body and National Encryption Agency (*Badan Siber dan Sandi Negara*/"**BSSN**"), a non-ministerial agency which is directly responsible to the President through MCI for cybersecurity issues was established. The main role of the BSSN is to effectively and efficiently implement cybersecurity in Indonesia, and it shall carry out the function of drafting and implementing technical policy in the fields of identification, detection, protection, countermeasures, control, monitoring, evaluation, control of e-commerce protection, coding, screening, cyber diplomacy, cyber crisis management centres, cyber contact centres, information centres, mitigation support, vulenerability recovery, incidents and/or cyber attacks.

Additionally, provisions regarding data protection are also scattered throughout several ministerial regulations. For instance, MCI Regulation 20/2016 requires all electronic system operators in Indonesia to store all personal data in its possession in an encrypted form, although there is no further stipulation on the encryption mechanism to be implemented. Further, MCI Regulation 4/2016 requires electronic system operators for public services that utilise strategic or high-level electronic systems to employ SNI ISO/IEC 27001 as their standard of information safety management system.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Lawful interception is permitted and applicable in Indonesia, provided that such interception is conducted by an authorised law enforcer for the purpose of law supremacy and national security. The legal bases for lawful interception are scattered throughout several laws and regulations. Among others, the following are regulations which authorise lawful interception:

- the EIT Law;
- Law No. 30 of 2002 on the Corruption Eradication Commission;
- Law No. 35 of 2009 on Narcotics;
- MCI Regulation 11/PER/M.Kominfo/020/2006 on Information Obtained through Confidential Interception;
- MCI Regulation 8/2014 on Technical Requirements for Lawful Tapping Tools and Equipment for Internet Protocol-Based Information on Implementation of Cellular Mobile Networks and Wireless Local Fixed Networks with Limited Mobility; and
- Eradication of Terrorism Law No. 5 of 2018.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

The Telecoms Law and GR 52/2000 permit the telecoms service provider, for the purpose of criminal proceedings, to record any information delivered or received by it, as well as providing any necessary information upon the following conditions:

- Written request from the Attorney General and/or Head of the Indonesian Police Force for certain criminal acts with five years or more imprisonment, a life sentence, or the death penalty.
- Request from the lawful investigator for certain criminal acts pursuant to the prevailing laws and regulations.

The Telecoms Law and GR 52/2000 expressly state that any kind of information may be recorded and disclosed for criminal proceedings purposes. Accordingly, this interception covers all types of communications facilitated by the relevant telecoms service provider.

4.4 How does the state intercept communications for a particular individual?

Since the telecoms service provider must cooperate for criminal proceedings purposes, the lawful authority may cooperate with the network operators or ISPs to intercept the communications for a particular individual.

Lawful interception and tapping may be conducted by an authorised law enforcer for the purpose of law supremacy, national security, and criminal investigation, with a written request from the Attorney General and/or Head of the Indonesian Police Force for certain criminal acts. The technical requirements for tapping and data interception are regulated under MCI Regulation 8/2014.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

MCI Regulation 20/2016 requires all electronic system operators in Indonesia to store all personal data in their possession in an encrypted form. However, the Regulation does not further stipulate the encryption mechanism that needs to be implemented.

With the obligation of the service providers to cooperate with the state under the Telecoms Law and GR 52/2000, the telecoms service provider must cooperate during criminal proceedings by providing the state with any encyption keys required, in order to provide any necessary information in an encrypted form.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Should there be no statute that specifically governs it, MCI Regulation 20/2016 sets out that the retention period for personal data shall be at least 5 (five) years. By the time a personal data owner is no longer considered as a user, the electronic system operator is obliged to store the relevant personal data starting from the last date of the personal data owner considered as a user.

In particular for telecoms and internet operators, GR 52/2000 requires them to maintain and store a customer data record ("**CDR**") or details of the telecommunication usage. The CDR shall be stored for a period of at least three months.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Media sectors, including the distribution of audio-visual media in Indonesia such as radio and television broadcasts, are regulated under the Broadcasting Law. The Broadcasting Law divides broadcasters into public broadcasters ("**PubBC**"), PBC, community broadcasters and subscription broadcasters. The broadcasting sector is under the auspices of the KPI, an independent body whose responsibility is to regulate and provide recommendations in the area of broadcasting.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

In general, as provided in the Broadcasting Law as well as the EIT Law, both content broadcast via traditional media (e.g., television and radio) and digital media (e.g., internet or other digital platforms) shall not violate the limitations provided by laws (e.g., advertisements for alcoholic beverages and cigarettes) or in conflict with public order, morality, religion or the customs in Indonesia. However, in the area of broadcasting, there are several provisions concerning the minimum local content required to be aired. For example, broadcast content of PBC and PuBC television must contain at least 60% domestic programmes. The KPI also issued the Broadcasting Behaviour Guidelines and Broadcasting Programs Standard ("**P3SPS**") in order to guide broadcasting behaviour.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

MCI Regulation 18/2016 sets out that in order to conduct its broadcasting activities, a company must obtain a broadcasting licence. A broadcasting licence for radio shall be granted for five years, while television broadcasting licences shall be granted for 10 years; both licences are extendable. The broadcasting licence will be issued to the broadcaster immediately after the application. Nonetheless, the broadcaster must fulfil all of the commitments, including receiving worthiness recommendation from the KPI and approval from a joint meeting forum with the Government and the KPI.

The fulfilment of commitments must be conducted within six months following the issuance of a broadcasting licence for radio, and within one year following the issuance of a broadcasting licence for television. Failure to fulfil the commitments within the time period will be subject to an administrative sanction, i.e., the revocation of a broadcasting licence.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

No, a broadcasting licence is not assignable.

The change of control on a PBC is restricted for a maximum of 20% of shares of foreign capital. See question 1.4 above for details on PBC foreign ownership restriction.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Generally, the content shown in these networks are not under the responsibility of telecoms operators and/or ISPs. However, MCI Regulation 19/2014 requires telecoms operators and/or ISPs to block all of the IPs/URLs contained in the TRUST+Positif List, which is a list compiled by MCI, Directorate General of Informatics Applications of websites with negative content (pornography, racism, etc.). Accordingly, telecoms operators and/or ISPs are only liable for the IPs/URLs contained in the TRUST+Positif List.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Not without an instruction from the MCI, as telecoms operators and/or ISPs are only under obligations to block IPs/URLs contained in the TRUST+Positif List. However, content owners may report a domain or URL containing any rights infringement to the MCI, hence the relevant domain or URL may be included in the TRUST+Positif List.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

No, currently there are no net neutrality requirements applicable in Indonesia. Telecoms operators and/or ISPs are granted the rights to block different types of traffic over their networks.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Yes, telecoms operators and/or ISPs are under obligations to block access to certain sites as per the the TRUST+Positif List. Currently, there are no regulations regarding customer access to VPN services.

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Enrico Iskandar is a founding partner of Bagus Enrico & Partners, a firm which advises companies in corporate and commercial transactions, with an emphasis on mergers and acquisitions, corporate restructurings, property, hotels and real estate, technology, media and telecommunications.

In his technology, media and telecommunications (TMT) practice, Enrico has worked on a broad range of transactional, advisory and contentious matters, and regularly advises on regulatory issues in telecommunications, networks and satellite operations, data protection/privacy, encryption, outsourcing, IT contracts, and e-commerce (online securities, trading and advertising). Enrico's considerable experience in relation to TMT has enabled him to steer investors through the inherent practical and regulatory hurdles.

As part of the recognition of his representation for multinational clients in information technology, telecommunications and media, Enrico's team has been recognised by the ***Asia Pacific Legal 500*** **2017** and **2018** editions as Indonesia's **1st Tier** law firm in **IT & Telecoms**. He has also been selected in the **2013**, **2014**, **2015**, **2016**, **2017** and **2018** editions of ***Who's Who Legal***, as a leading individual in **Information Technology**, and in the **2014** and **2015** editions on the same publication, as a leading individual in **Telecoms & Media**.

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Bimo also regularly advises the firm's clients within a wide spectrum of corporate and commercial matters on various sectors, namely, mergers and acquisitions, property, hotels and real estate, and employment, as well as advising various mainstream corporate clients.

In the TMT sector, Bimo's recent representations include advising a major US-based technology company in the preparation of a global unified warranty template for the sales of its hardware products, assisting a UK-based technology company in advising a global privacy policy for the potential roll-out of its intelligent household appliance, and regulatory requirements for the provision of IPVPN services licensing in Indonesia.

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Bagus Enrico & Partners ("**BE Partners**") is one of Indonesia's leading corporate and commercial law firms. Founded by professionals who are recognised for their experience in handling various notable transactions in Indonesia, BE Partners continues its growth with an equal commitment to its reputation as a "boutique practice [which] focuses on client service", and provides its domestic and international clients with high-quality advice, which is commercially focused and personally delivered.

BE Partners has received recognition from the main legal market reviewers. Some of the most international and respected reviewers have placed BE Partners' team as comprising Indonesia's leading professionals in various practices. BE Partners' reputation in diverse aspects of Indonesian law, especially in relation to corporate/commercial law, banking, finance and insurance, mergers and acquisitions, IT, media and telecommunications, energy and resources, property, hotels and real estate, as well as infrastructure, is outstanding.

Chapter 19

Italy

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

According to the last Annual Report of the Italian Communications Authority ("AGCom"), in 2017, the total revenue in the sectors regulated by AGCom – which include telecoms and audio-visual media services (see question 1.2 for in-depth details) – represented 3.16% of the Italian GDP.

(a) Telecoms market

In 2017, the revenues of such market were equal to EUR 32.214 billion.

The main players in the telecoms market are Telecom Italia, WindTre, Vodafone and Fastweb.

(b) Media market

In 2017, the revenues of the media market were equal to EUR 14.618 billion (0.9% lower than in 2016), 41% of which came from advertising, 37.5% from sales of services, and 21.6% from fees and public contributions. Such revenues refer to radio and television, the publishing industry and internet.

Specifically, the audio-visual media sector is the most influential one since its revenues are equal to roughly EUR 8 billion (60% of the total). The main players are the 21st Century Fox group (Sky Italia and Fox Networks Group Italy), Mediaset and RAI.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The electronic communications sector is governed by Legislative Decree No. 259/2003, *i.e.*, the Electronic Communications Code ("*Codice delle comunicazioni elettroniche*", "**ECC**"), which has implemented the EU regulatory framework.

Other important pieces of legislation are:

- Law No. 249/1997, establishing the Italian Communication Authority;
- Legislative Decree No. 206/2005 relating to consumer protection (the "**Consumer Code**");
- Legislative Decree No. 196/2003 (the "**Data Protection Code**"), as recently amended, which provides specific rules concerning the protection of personal data processed by operators in the context of the provision of electronic communications services, in addition to the provisions laid down in the "**General Data Protection Regulation**" (Regulation 2016/679); and
- Legislative Decree No. 70/2003 (the "**E-commerce Decree**"), which provides for the rules governing liability of internet service providers (*i.e.*, access, caching and hosting providers).

Audio-visual media sectors are governed by Legislative Decree No. 177/2005, *i.e.*, the Consolidated Law on Radio and Audio-visual Media Services ("*Testo unico dei servizi di media audiovisivi e radiofonici*", "**AVMS Code**"), as amended, *inter alia*, by Legislative Decree of 15 March 2010, No. 44, which has implemented the Audio-Visual Media Service Directive (Directive 2010/13/EU, "**AVMS Directive**") in Italy, and by Legislative Decree No. 204 of 7 December 2017 ("**Franceschini Decree**"), which amended the provisions concerning promotion of European works.

AGCom resolutions regulate several specific matters in detail.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The main regulators that have a role in the regulation of telecoms and audio-visual media distribution are the following:

- the Ministry of Economic Development ("*Ministero dello Sviluppo Economico*" – "**MiSE**"), which deals with electronic communications, including, among others, allocating frequencies, the monitoring and control of the national radio spectrum, and managing the infrastructure program for broadband. MiSE is also in charge of the general authorisations for electronic communications networks and services, and issues the authorisations to operate digital terrestrial TV channels;
- AGCom is, *inter alia*, the regulator and watchdog in charge of audio-visual media and electronic communications services. AGCom is also in charge of preventing online copyright infringements;
- the Italian Data Protection Authority ("**IDPA**"), an independent authority dealing with the protection of personal data of individuals; and
- the Ministry of Cultural Heritage and Activities and Tourism ("*Ministero dei Beni e delle Attività Culturali*" – "**MiBAC**"), which also plays a role in the audio-visual media sector.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

The telecoms sector has been liberalised; notification to MiSE is sufficient to operate an electronic communications network or provide electronic communication services (general authorisation regime).

The provision of audio-visual media services is subject to individual authorisation in case of linear services, while it is subject to notification (general authorisation regime) in case of non-linear services (*i.e.*, on-demand services).

Under reciprocity conditions, authorisations and general authorisations can also be held by operators residing outside of the EU/EEA.

Restrictions may, however, apply with regard to operators residing outside the EU/EEA for purposes of national security and defence only.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Italy is a member of the World Trade Organisation ("**WTO**"). It is a Member State of the European Union, and the EU is a member of the WTO in its own right.

Italy has made a commitment under the GATS with no exemptions, and has also implemented the principles referred to in the WTO's telecommunications reference paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

Electronic communications are regulated under the ECC.

The operation of electronic communications networks and the provision of electronic communications services to the public are subject to prior notification to MiSE (general authorisation regime).

MiSE also grants individual authorisations for the use of numbers and radio frequency spectrum.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

AGCom is the Italian regulator and watchdog. It ensures the implementation of a universal service and is involved in defining the regulatory framework. AGCom is also devoted to the enforcement of intellectual property rights on the internet. As a watchdog, AGCom is entitled to impose sanctions in case of infringement of the sector-specific regulation, and settles disputes arising between operators.

The Competition Authority ("*Autorità Garante della Concorrenza e del Mercato*" – "**AGCM**") is the Italian consumer and competition authority in charge, among others, of sanctioning anti-competitive practices and unfair commercial practices, as well as of controlling merger operations.

AGCom and AGCM cooperate with each other. Both authorities provide opinions to the government, but they are fully independent therefrom.

On the other side, MiSE – a government ministry – plays an important role in dealing with electronic communications (please see question 1.3).

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Any decision issued by AGCom and AGCM can be challenged by the interested parties before the administrative court of Lazio Region ("*TAR Lazio*"). The *TAR Lazio*'s rulings can be appealed in the second (and last) instance before the *Consiglio di Stato*.

IDPA's decisions can be challenged by the interested parties before the competent judicial authority, by lodging a complaint in the court of the place where the data subject has his/her residence.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The provision of electronic communications services and networks in Italy is subject to a general authorisation/notification to MiSE. In this respect, any operator is required to file an *ad hoc* declaration with MiSE, by providing the latter with a set of general information about the company as well as a technical description of the electronic communications networks or services.

Once the declaration is filed, the applicant may immediately start the activities covered by the declaration itself. In case the company does not meet the requirements provided by the law, within 60 days from the notification, MiSE may serve the company with a reasoned resolution stating that the company must stop the activities.

Operators are required to enrol with the Register of Communications Operators ("**ROC**") held by AGCom.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The notification to MiSE must include general information about the company (nationality, registered office, VAT number, contact information, details of the authorised representative, *etc.*), a technical description of services/networks and a self-declaration which indicates that directors who legally represent the company or the business owner have not been sentenced to more than six months of imprisonment for premeditated crimes, and are not subject to security and prevention measures.

General authorisation is also subject to:

- the payment of the annual fee provided for by the law (Annex 10 of the ECC) and calculated by MiSE; and
- the payment of the annual contribution to AGCom, which is calculated as a percentage of the turnover of the operator.

In addition, the general authorisation is also subject to compliance with the mandatory obligations provided for by the ECC (such as, for instance, contributing to the financing of the universal service, annually paying the fees calculated by MiSE, ensuring both the interoperability and the networks' interconnection, ensuring the protection of personal data with specific regard to the telecommunications sector and complying with consumer protection legislation, *etc.*).

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

General authorisations have a duration of 20 years and are renewable; they may be extended for a period not exceeding 15 years, upon prior presentation of a technical/financial plan from the operator.

According to the ECC, a general authorisation is transferable – even partially – to third parties, provided that a prior communication in this respect is made towards MiSE by clearly pointing out the radio frequencies and numbers assigned. Within 60 days, MiSE may communicate its own denial, based on the transferee's lack of compliance with its requirements.

As far as individual authorisation is concerned, please see question 3.6, which deals with the transfer of individual rights on the use of radio frequencies.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Yes. Operators may ask for to be granted the right to install telecommunications infrastructure on, over or under public or private property. To that end, operators shall obtain a specific authorisation/concession from the competent local authority for the use of public spaces and the execution of the necessary works. When an operator has the right to install telecommunications infrastructure, AGCom shall impose, including by means of specific resolutions, the sharing of such facilities or property, including entries to buildings, building wiring, masts, antennae, towers and other supporting constructions, ducts, conduits, manholes and cabinets.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

In order to ensure the delivery and interoperability of the services within the European Union, operators authorised for the provision of publicly available electronic communications services and networks have the right and, if expressly requested by other authorised operators, the obligation to negotiate an interconnection agreement for the provision of publicly available electronic communications services.

In this respect, also by means of specific resolutions, AGCom ensures that no restrictions preventing operators to enter into interconnection and access agreements apply.

AGCom is in charge of adjudicating any disputes among operators. In more detail, pursuant to AGCom's resolutions No. 226/15/CONS and No. 449/16/CONS, if a dispute arises between operators authorised for the provision of publicly available electronic communications services and networks with regard to the mandatory obligation provided for by the ECC, AGCom, upon request of one of the parties, issues a binding decision aimed at resolving the dispute between the relevant operators as soon as possible and, in any case, by four months. AGCom resolutions can be appealed before the Regional Administrative Court of Lazio, based in Rome.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Telecom Italia S.p.A., the former incumbent telecom operator also designated as having significant market power ("**SMP**") in certain markets, is required to publish a standard interconnection offer (together with technical and economic factors) in accordance with resolutions issued by AGCom. Some transparency requirements are also provided for other SMP operators.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Retail and wholesale price controls are only imposed on SMP operators, irrespective of the service provided. AGCom conducts analysis of the markets and can provide price and cost regulation to SMP operators for each relevant market, including by establishing the criteria of the price calculation, through *ad hoc* resolutions.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

(a) Telecom Italia S.p.A. is subject to accounting separation requirements, since it has been designated as an SMP operator in several markets. The accounting separation obligation is provided for by Article 48 of the ECC and AGCom is in charge of imposing such an obligation on an operator by means of a specific resolution.

(b) Pursuant to Article 50-*bis* of the ECC, AGCom may impose functional separation on operators, on an exceptional basis, where it assesses that any other available remedies have failed to achieve effective competition. In 2008, Telecom Italia S.p.A. set up a business division of the company – *i.e.*, "Open Access" – with the aim of managing the Telecom Italia fixed access network; subsequently, AGCom approved and made binding the separation between corporate functions in charge on one hand for the network management and, on the other hand, for the sale of services.

(c) No operator has been required so far to separate part of their own business into different and autonomous legal entities.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Pursuant to Article 87 of the ECC, operators must obtain authorisation from local authorities for the installation of infrastructure for radio communications equipment, including passive infrastructure.

To facilitate the roll-out of high-speed electronic communications networks, each network operator has the right to offer access to its physical infrastructure elements of high-speed electronic communications networks; at the same time, where an operator expressly requests in writing the installation of elements of a high-speed electronic communications networks, other operators have the duty to allow the requesting operator to access their physical infrastructure.

Incentives for high-speed broadband are provided for in Article 6 of Decree-Law No. 133/2014, and in the investment plan for the

development of high-speed broadband adopted in 2016. The 2018 Budget Law passed by the Italian Parliament in December 2017 has laid down the necessary actions to implement Decision 2017/899 for the 700 MHz Band repurposing. AGCom and MiSE have been vested with the power to adopt the relevant resolutions for defining criteria and modalities for the implementation of such process.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

According to the combination of Articles 50 and 45 of ECC, AGCom is in charge of imposing retail price controls on the undertakings that have been designated as having SMP. AGCom shall ensure that any cost recovery mechanism or pricing methodology, which must be deemed as mandatory, serves to promote efficiency and sustainable competition and to maximise consumer benefits. AGCom has established, by a series of provisions, the maximum price for termination services supplied by SMP undertakings.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Yes, Italian law provides rules intended to guarantee certain rights to consumers. In this respect, the following conditions must be ensured:

- The availability of the universal service: MiSE shall ensure that electronic communications services are made available to all end-users in their territory, regardless of the geographical location on national territory. AGCom shall establish the most efficient approach for ensuring the provision of the above service at an affordable price, in particular in accordance with the principles of objectivity, transparency, non-discrimination and proportionality.
- The right of consumers to enter into an agreement which contains contractual terms and conditions, clearly specifying the type of services provided and all the information regarding the operator, as well as the way in which these services are provided.
- The right of the consumer to obtain transparent and updated information concerning the prices and the terms and conditions, in respect of access to and use of publicly available telephone services.
- The quality of the service. Specifically, AGCom's resolution requires providers of publicly available electronic communications services to publish adequate and up-to-date information on the quality of their services.
- The right to number portability: subscribers of publicly available telephone services have the right to change operator while keeping their numbers.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Pursuant to the ECC, MiSE is the authority in charge of assigning the national numbering resources as well as of managing the national numbering plan of electronic communications services.

AGCom is, instead, the authority in charge of determining which numbers must refer to specific services. The national numbering plan issued by AGCom resolution No. 8/15/CIR (as later modified by resolution No. 17/17/CIR) identifies numbers and codes that may be used by operators for the provision of electronic communications services. The plan is organised by services, and the first digit of each number defines the category of the service provided.

The original assignee of numbers may sub-allocate the same numbers to another duly authorised operator. To this end, the assignee must previously communicate such sub-allocation to MiSE, in order to allow the latter to verify compliance with AGCom's resolution No. 8/15/CIR.

2.17 Are there any special rules which govern the use of telephone numbers?

Yes. Special rules and requirements are provided for by the national numbering plan as well as by *ad hoc* AGCom resolutions, in particular with regard to, *e.g.*, the provision of VoIP services, emergency numbers, toll-free services, shared cost services, premium services.

2.18 Are there any obligations requiring number portability?

Fixed and mobile operators must provide portability to customers. Pursuant to Article 80 of the ECC, AGCom ensures that all users, irrespective of the operator providing the service, are entitled to keep numbers belonging to the national numbering plan and that pricing for portability between operators is cost-oriented. Both mobile and fixed number portability are expressly regulated by AGCom resolutions, establishing the terms of the entire portability process, including duration, costs as well as roles and responsibilities within the process.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

Pursuant to Article 14 of the ECC, AGCom is the authority regulating the spectrum use and the radio frequencies' assignment, while MiSE allocates radio frequencies based on AGCom's resolutions.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Article 27 of the ECC establishes that, when possible, the use of radio frequency spectrum is not subject to the grant of individual right of use; in such a case, the right to use radio frequencies directly derives from the general authorisation held by the operators.

Since resources are scarce and efficiency in the use of frequencies is required, but spectrum using rights are granted on individual basis, the latter are awarded to winners of public comparative or competitive procedures, requiring compliance with a general obligation of transparency and objective non-discriminatory criteria. Recently, the procedure for the granting of use rights for 5G frequencies has been completed.

AGCom may impose limitations on the number of use rights for radio frequencies, in order to grant the efficient use of such frequencies.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

According to the applicable law in Italy, a licence exemption is made only for the use of the liberalised frequencies listed in Articles 105 and 99, paragraph 5, of the ECC. For instance, the use of radio LAN (WiFi) frequencies 2.4 and 5 GHz for collective use is not subject to the grant of an individual right of use. Even in the case of free use of the radio frequencies, the other relevant ECC provisions shall continue to be applicable.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

Operators holding a general authorisation to install and provide public communications networks and/or provide electronic communications services through the use of radio frequency spectrum are subject to the payment of annual administrative fees, calculated on the basis of the potential target population of the provision service. In addition, operators are required to pay fees for rights of use on frequencies they have been assigned, depending on the bandwidth extension of the frequency band.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Pursuant to Article 2 of Law No. 21/2012, undertakings must serve the Presidency of the Council of Ministers with a notice of any merger or transfer of ownership within 10 days. The Prime Minister, by means of a decree adopted by the Council of Ministers, may exercise the veto power of the Government within 15 days from the notification.

In addition, according to Article 16 of Law No. 287/1990, mergers shall be notified to the AGCM, only if the concerned undertakings passed certain turnover thresholds.

Change of control implies that information communicated to the ROC (Registry of Communications Operators) also needs to be updated.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Pursuant to Article 14-*ter* of the ECC, the undertaking can trade on a commercial basis and rent spectrum licences to other operators and holders of the general authorisation or equivalent licence for the provision of network through equivalent technology.

The intention of an operator to transfer the rights of use of the radio frequencies must be notified to both MiSE and AGCom for the relevant approval. MiSE, after hearing from AGCom and consulting the Antitrust Authority, communicates, within 90 days, the authorisation of the transfer of rights or the reasons justifying the refusal. The subcontracting company is required to notify MiSE within 60 days from the occurred transfer of the rights.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Cybersecurity ranks among the "hot topics" in Italy and the Government is focused on it, as proved by the Decree of the President of the Council of Ministers of 17 February 2017, a programmatic document aimed at improving the further development of national cyber architecture and by the recent implementation of the NIS Directive (Directive 2016/1148) by means of the Legislative Decree of 18 May 2018, No. 65. These acts mainly deal with the cybersecurity of critical infrastructures.

In addition to the above, several provisions on security measures are provided for by the Data Protection Code and the GDPR.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Pursuant to Article 15 of the Italian Constitution: "*Freedom and confidentiality of correspondence and of every other form of communication is inviolable. Limitations may only be imposed by judicial reasoned decision and in accordance with the guarantees provided for by the law.*" In other words, the content of the communications is strictly protected by the Italian Constitution, unless a reasoned decision coming from the judicial authority has been issued as well as in compliance with the guarantees expressly provided for by the applicable law.

It is necessary to make a distinction between data retention and interception.

Data retention

According to the combination of Article 132 of the Data Protection Code and the general resolution issued by the IDPA on "*Secure Retention of Telephone and Internet Traffic Data*", available at http://garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/1542849 (the "**General Resolution**"), operators providing electronic communications services available to the public on public communication networks are required to keep both telephone and internet traffic data for justice-related purposes. The public prosecutor may access such data by means of a reasoned decree in compliance with the provisions of the Italian Criminal Procedure Code. As expressly provided for by the Data Protection Code, traffic data does not include the content of communications, which cannot be taken by the operators.

ETNa system: the *Elenco Telefonico Nazionale* (ETNa) is the system developed by the MISE which consists of an informatics interface, allowing it to access end-user databases of telecommunication operators autonomously. According to Section 55, paragraph 7 of the EEC, each company must make available to the Data Processing Centre of the MiSE, for the purposes of justice and upon certain conditions, the lists of their users according to the ETNa system.

In light of this, electronic communication service providers are requested to interconnect their national databases, containing customer's information, with a software application which will automatically retrieve information upon MiSE's request. The framework entails a "de-centralised" database composed by all operators' databases. Operators will be responsible for keeping their database updated and for interconnect it to ETNa. Each time MiSE asks for information, ETNa will send a request to operators and it will retrieve the information from the replying database.

Interception (wire-tap)

Pursuant to Article 96 of the ECC, any company operating a public communications network or providing an electronic communications service is subject to interception obligations. This means that operators are required to allow the competent judicial authorities to intercept communications which originated or are serviced in their networks, and to acquire information about those. The interceptions include the acquisition of communications content. Please see also question 4.4 below.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Operators must properly fulfil any request for interception or information by competent judicial authorities for any justice-related grounds. Consequently, according to the applicable law in Italy, justice-cooperation must be deemed as a mandatory obligation to be fulfilled by any operator. Pursuant to Article 96 of the ECC, any company operating a public communications network or providing an electronic communications service is subject to interception obligations; so far, for instance, in such a definition VoIP calls do not fall *tout court*, but only VoIP services interconnecting with the PSTN. The interception requirements cover traditional calls and SMS as well as any other form of communication which can be deemed as an electronic communications service.

In addition, pursuant to the Italian Criminal Procedure Code, emails can also be subject to interception.

4.4 How does the state intercept communications for a particular individual?

Interception must be ordered by a reasoned decree issued by the Judge or, in case of urgency, by the public prosecutor, in compliance with the provisions set forth by the Italian Criminal Procedure Code. The reasoned decree issued by the public prosecutor must be then validated by the Judge.

According to the applicable law in Italy, the following special rules shall apply with regard to the interception of communications of particular individuals:

- Article 7 of Law No. 219/1989 establishes that the President of the Italian Republic may be subject to interception only for the purposes of the investigations concerning the offences set out in Article 90 of the Italian Constitution. In such a case, the Constitutional Court shall order the suspension of the President of Republic from his office to permit the interception of his communications.
- According to the combination of Article 68 of the Italian Constitution and Law No. 140/2003, to intercept the conversations of the Italian Parliament's members, the authorisation of the House to which they belong to is required. Regarding the interceptions of Ministers' communications, the procedure is the same but, according to the combination of Articles 10 and 5 of the Constitutional Law No. 1/1989, if the Ministers subject to investigation are members of different Houses or if they are not members of Parliament, the House which has to issue the authorisation is the Senate.
- According to the combination of Articles 271 and 200 of the Italian Criminal Procedure Code, interceptions of conversations or communications of persons subject to professional confidentiality (*e.g.*, priests, lawyers, licensed private investigators, and healthcare professionals) may not be used when they concern information protected by professional confidentiality, unless they have been previously disclosed.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Pursuant to the General Resolution, traffic data processed for justice-related purposes must be protected with the help of encryption technology – in particular, against the risk to be acquired and/or accidentally altered in case of maintenance operations performed on IT systems, or else in the course of standard system administration operations. In particular, proper solutions have to be put in place in order to protect the information, which is located in the databases used by the IT applications deployed for the processing in question, from being intelligible to any entity that does not have the right to access and/or proper authorisation profiles. To that end, encryption and/or obfuscation of database parts and/or indexes and/or other encryption-based technical measures can be implemented.

Only in case of a reasoned decree issued by the public prosecutor in compliance with the provisions set forth by the Italian Criminal Procedure Code are operators required to provide data.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Operators providing electronic communications services available to the public on public communication networks are required to keep:

- telephone traffic data for 24 months; and
- internet traffic data for 12 months (except for the contents of the communications, which cannot be kept pursuant to the applicable law).

However, despite the above, Article 24 of Law No. 167 of 20 November 2017 introduced a general derogation from these time restrictions, by extending to 72 months the retention period of telephone and internet traffic data. This provision seems to be manifestly in contrast with the ruling of the Court of Justice of the European Union in *Digital Rights Ireland*, and has come to the attention of the EU institutions, which may now start an infringement procedure against Italy.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The distribution of audio-visual media is regulated by the AVMS Code and specific AGCom Resolutions on the matter. The AVMS Code applies to all radio and audio-visual media service providers, subject to Italian jurisdiction.

The AVMS Code provides obligations which apply both to linear and non-linear audio-visual media service providers such as, among others:

a) protection of minors;
b) ban on the broadcasting of content inciting hatred on grounds of race, sex, religion or nationality;
c) advertisement-specific rules; and
d) broadcasting and investment quotas to support EU works.

The public broadcasting service is subject to additional *ad hoc* rules.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Linear audio-visual media services distributed over the internet or other platforms are subject to the same rules as linear audio-visual media services broadcast via traditional distribution platforms.

Instead, light regulation applies to non-linear audio-visual media services (*i.e.*, on-demand services). Please consider that in this respect, the legal framework will likely be amended in the medium term as a consequence of the reform of the AVMS Directive, which specifically includes provisions on video-sharing platforms.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The AVMS Code provides for an individual authorisation system for linear audio-visual media services, granted – depending on the platform and in accordance with regulations set forth by the relevant AGCom resolutions – by MiSE (for digital terrestrial television and coaxial cable) or AGCom (for satellite, IPTV, mobile, internet and other platforms).

AGCom is the competent authority for compliance monitoring, regardless of the platform.

Specific rules and obligations are provided depending on the type of licence; however, similar obligations are set forth with reference to:

a) enrolment with the ROC; and

b) compliance with rules provided by the AVMS Code (*e.g.*, minors protection, broadcasting and investment quotas, advertising limits, product placement, *etc.*).

A general authorisation regime applies to on-demand audio-visual media services; the providers must submit a notification to AGCom.

No authorisation is required for: (i) catch-up TV, *i.e.*, non-linear services with catalogues consisting exclusively of programs previously broadcast in linear mode, to the extent that the broadcaster's linear service has been already authorised; and (ii) on-demand services and linear services on other platforms (different from digital terrestrial television, satellite and coaxial cable) of which the annual revenues are lower than EUR 100,000.

The public broadcasting service provider is RAI (*Radiotelevisione Italiana S.p.a.*), which has been granted a 10-year concession to broadcast on all platforms by Decree of the President of the Council of Ministers of 28 April 2017.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Licences can be transferred to a third party if the latter meets the requirements provided by the AGCom's resolution governing the licence. The new licensee must communicate the transfer of the licence to the competent authority (*i.e.*, AGCom or MiSE, depending on the kind of licence), which either authorises the assignment or communicates its own denial, based on the assignee's lack of compliance with requirements provided by the law (*e.g.*, if the assignee is based in a non-EU country which does not apply reciprocity, *i.e.*, where an Italian company could not hold an equivalent licence).

In addition, any change of control of the licensee and any assignment of licence must be notified to AGCom. AGCom, before authorising the deal, assesses whether the transfer may lead to the creation of a dominant position on the relevant market, which could adversely affect pluralism.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Article 14 of the E-Commerce Decree, which has implemented in Italy the E-Commerce Directive (Directive 2000/31/EC), sets forth a limited liability regime for mere conduit providers (as well as for other internet service providers) in connection with the transmission of information on a communication network or the provision of access to a communication network, provided that the provider: (i) does not initiate the transmission; (ii) does not select the recipient of the transmission; and (iii) does not select or modify the transmitted information.

Moreover, under the E-Commerce Decree and in accordance with the E-Commerce Directive, internet service providers are bound neither by an obligation to monitor the information that they transmit or host, nor by a general obligation to actively look for facts or circumstances that indicate the presence of illicit activities.

According to a trend of the Italian case law, internet service providers have actual knowledge of the unlawfulness of the content when they are served with a detailed notice (*e.g.*, a cease and desist letter) from an interested third party; in this case: (a) if they are mere conduit providers, they must provide Public Authorities with the data allowing them to identify possible violations of the third party's rights; and (b) if they are hosting providers, they must remove the unlawful content (or anyhow make it inaccessible).

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

There are no such general obligations for mere conduit providers. As to case law governing this matter, please see question 6.1 above.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

EU Regulation 2015/2120 addressed the issue of net neutrality for the first time by introducing some high-level rules on this matter. In particular, Article 3 states that providers must treat all traffic equally, irrespective of the sender and recipient, the content accessed or distributed, the applications or services used/provided, or the terminal equipment used. Nevertheless, providers may implement reasonable traffic management measures. A noteworthy development is that, in August 2016, the BEREC – Body of European Regulators for Electronic Communications – published the Guidelines on the implementation of the net neutrality principle, providing guidance for National Regulatory Authorities in relation to the implementation and enforcement of net neutrality rules.

Following the introduction of such net neutrality rules and in accordance with the BEREC Guidelines, AGCom carried out monitoring and enforcement activities aimed at ensuring the compliance of Italian providers with the net neutrality rules provided in EU Regulation 2015/2120. Amongt others, in March 2017, AGCom issued the first decision against a provider for non-compliance with Article 3 of EU Regulation 2015/2120 (in particular, the decision concerned discrimination of zero-rated traffic compared to "normal" traffic).

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

There are no general obligations in this respect under Italian law, and no specific rules govern consumer VPN services.

However, with specific reference to online copyright infringements, AGCom issued a regulation "*[...] on the protection of copyright on electronic communications networks*", according to which AGCom may order internet service providers to remove online copyright-infringing content. Mere conduit providers, in particular, may be ordered to block the websites hosted on servers located outside Italian territory.

In addition to the above, Italian law provides for mechanisms to block access to non-authorised gaming websites. In particular, access providers must block non-authorised gaming websites that are inserted in the blacklist kept by the Italian Agency of Customs and Monopolies.

Similar mechanisms are provided in relation to websites hosting child abuse-related content.

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Chapter 20

Japan

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

According to the report of the results of the research issued by the Ministry of Internal Affairs and Communications (*Soumu Shou*) ("MIAC") in March 2017, the businesses relating to telecommunications and information, which include, among others, the telecoms and internet infrastructure sectors, generated approximately ¥14,034 billion of annual sales for FY 2015. The annual sales generated by the broadcasting business, which includes, among others, audio-visual media distribution through broadcasting, were approximately ¥3,458 billion for FY 2015.

There are several prominent operators in the various businesses relating to telecommunications and information, such as the group companies of NTT (Nihon Denshin Denwa K.K.), especially NTT East Corporation ("NTT East"), NTT West Corporation ("NTT West") and NTT Docomo Corporation ("NTT Docomo"), KDDI Corporation and Softbank Corp. In the area of broadcasting, several major companies, such as Nippon Television Network Corporation and Fuji Television Network Inc., provide television programmes through terrestrial-based television broadcasting. Nihon Housou Kyoukai, which is unique in its status as a national public broadcasting entity, is also one of the major providers of television programmes. The principal major players in the areas of satellite-based television broadcasting and cable TV broadcasting are Skyperfect JSAT Corporation and Jupiter Telecommunications Co., Ltd.

Regulatory matters on liberalisation and foreign investments will be discussed under questions 1.2 and 1.4.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

Unlike other countries, Japan has traditionally treated the telecommunications business as two distinct categories from a regulatory point of view: telecommunications (*tsushin*); and broadcasting (*housou*). *Tsushin* is defined as sending, delivering or receiving codes, sounds or pictures by wire, wireless means or any other electromagnetic means, which includes internet. *Housou* is generally defined as sending telecommunications for the purpose of being directly received by the public. The major difference between the regulation of telecommunications (*tsushin*) and broadcasting (*housou*) is that the confidentiality of telecommunications content is protected; thus, the regulation of telecommunications content is avoided as much as possible. In contrast, broadcasting (*housou*) content is regulated in accordance with public welfare.

	Wire	Wireless
Basic Law	Cable Telecommunications Law	Radio Wave Law
Telecommunications	Telecommunication Business Law (the "TBL")	
	Law concerning Nippon Telegraph and Telephone Corporation (Nihon Denshin Denwa K.K.) ("NTT") (the "NTT Law") and others	
Broadcasting	Broadcast Law	

As noted above, the TBL applies only to telecommunications, and the Broadcast Law applies only to broadcasting. The TBL primarily regulates the provision of electronic communications networks or services regarding telecommunications (*tsushin*). The TBL permits competition in Japan, although several other laws restrict foreign ownership.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

MIAC and the relevant subordinated administrative agencies regulate telecoms audio-visual media distribution through the broadcasting and internet sectors. See also question 2.3.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Under the TBL, there are no restrictions on direct or indirect foreign ownership; however, under the NTT Law, direct or indirect foreign ownership of one-third or more of NTT is prohibited. There are general foreign ownership restrictions on holding a radio station licence, although the restrictions on a radio station providing telecommunications services were abolished. Under the Broadcast Law, the following entities or parties are basically not eligible to hold a broadcaster licence: (a) a person whose nationality is not Japanese; (b) a foreign government or its representative; (c) a foreign entity;

and (d) a company or entity in which any of the aforementioned entities or persons is the executive director, or holds one-fifth or more of the voting rights.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Yes, Japan has been a member of the World Trade Organisation since January 1, 1995. It adopted the WTO Basic Telecommunications Agreement in 1997 and the telecoms reference paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

Telecommunications networks or services are mainly regulated by the TBL. See also questions 1.2 and 2.6.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

MIAC is the governmental body that has the regulatory authority under the TBL and other relevant laws to grant any permission, licence or approval that is required for any telecoms activity. The competition law authority is the Fair Trade Commission ("FTC"), an independent administrative agency with the authority to prevent unfair trade or market dominance. MIAC and FTC jointly issued the "guidelines for the promotion of competition in the telecommunications business field" (originally issued in November 2001, with the latest revision being issued in May 2016), and they collaborate to promote further competition in the telecoms field.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Yes, MIAC decisions may be appealed to Japanese courts pursuant to the Administrative Case Litigation Act. The appellant may seek, for example, the revocation of an MIAC order on the basis that the order has wrongfully affected the appellant's legal interest.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

It is difficult to classify the authorisations into general authorisations and individual authorisations. As for telecommunications services, the TBL generally classifies a telecommunications carrier as either (i) a registration carrier, or (ii) a notification carrier, as follows:

A carrier installing cable facilities, such as (i) terminal facilities that are installed in multiple municipalities, or (ii) relay facilities that are installed in multiple prefectures, is required to register with MIAC. Other carriers not operating at such levels are required only to notify MIAC prior to providing telecoms services.

The registration procedure typically takes about 15 days, depending on the services to be provided and the circumstances under which they will be provided. It is desirable also to unofficially consult with MIAC (usually for an additional one to two months) before filing an application for registration. If only notice is required, the prior unofficial consultation with MIAC, if necessary, will take a few days if all the relevant information is provided.

Under the TBL, the fee for registration with MIAC is ¥150,000, but no fee is necessary for notification to MIAC.

The TBL further requires other authorisations, which will be explained in question 2.6; this question will also explain authorisations regarding broadcasting.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

(1) Telecommunications (*tsushin*) (see also question 2.5)

(a) Approved carrier (*nintei jigyousha*)

A carrier intending to conduct telecoms business by installing telecommunications circuit facilities, and those which intend to exercise a right-of-way to install transmission lines (such conduct or exercise is, collectively, a "public utility privilege"), may, separately from telecoms business entry procedures such as registration or notice, be granted a public utility privilege for all or part of its telecoms business by obtaining MIAC approval.

(b) Universal service carrier

Any telecoms carrier which provides universal telecommunications services ("Universal Services") must establish tariffs and submit these to MIAC prior to implementation of the services (see question 2.16). The TBL defines Universal Services as telecommunications services, the availability of which should be secured all over Japan because they are essential to the lives of the people in Japan. Under a TBL ordinance, services for public calls, home telephone calls, and urgent calls to police or fire stations are included in Universal Services. Universal Services are funded by NTT East and NTT West and other service providers that benefit by connecting to the facilities of these providers.

(c) A carrier installing telecoms facilities

With a few exceptions, any telecoms carrier installing telecoms facilities for use by its telecoms business (certain telecoms facilities as stipulated in Article 41 of the TBL) must submit notices to MIAC regarding its compliance with technical and administration rules and the appointment of a chief telecommunications engineer. See question 2.9 for further information regarding special regulations for a carrier installing Type I or Type II Designated Facilities.

(d) A carrier providing international services

Any telecoms carrier which provides international telecoms services is required to obtain prior authorisation from MIAC before making any arrangements with a foreign government, entity or individual with respect to any telecoms business.

(2) Broadcasting (*housou*)

Regulation of the television broadcasting business primarily consists of (i) the Broadcast Law (*Housou Hou*), and (ii) the Radio Wave Law (*Denpa Hou*).

(a) Broadcast Law

The Broadcast Law sets forth general principles to regulate broadcast content (i.e., TV programmes). For example, broadcasters, including (a) terrestrial-based television broadcasters, (b) satellite-based television broadcasters, and (c) cable TV broadcasters, must not harm public peace

and must take a neutral political position (Article 4). A broadcaster is required to draw up standards for its television programmes and produce programmes that satisfy such standards (Article 5). Under the Broadcast Law, any person or entity planning to be a terrestrial-based television broadcaster or a satellite-based television broadcaster (*kikan-housou-jigyousha*) is generally required to obtain an authorisation from MIAC. Further, any person or entity planning to be other types of broadcasters, including a cable TV broadcaster (*ippan-housou-jigyousha*), is required to be registered with MIAC.

(b) Radio Wave Law

The Radio Wave Law regulates the use of radio waves and thus may apply to both telecommunications and broadcasting using radio waves. Under the Radio Wave Law, any person or entity planning to establish a radio station is required to obtain a licence from MIAC, except for cases involving certain specialised radio stations.

In order to obtain a radio station licence, an applicant must submit to MIAC a standard application form containing information such as (i) the purpose of the radio station, (ii) its facilities' locations, and (iii) the type and frequency of radio waves to be used. If the radio station plans to provide broadcasting services, certain other information, such as a business plan, items for broadcasting and the area for broadcasting, must also be provided.

MIAC's review of the application will include consideration of the existence of an adequate financial basis to operate the planned business and conformity with standards provided in the relevant MIAC ministerial ordinance. Note that MIAC will allocate available radio frequency (see "Frequency Plan" described in question 3.2); thus, approval of a radio station licence will be subject to such planning, and in the case of the radio station providing broadcasting services, broadcast content and broadcast area requirements.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

In general, licences may not be transferred or traded, but exceptions exist depending on the type of licence. A telecoms carrier's registration, for example, may be transferred to a third party if its entire telecoms business is transferred (including by merger (*gappei*) or corporate split (*kaisha bunkatsu*), in which that third party succeeds to the entire telecoms business).

On May 22, 2015, the TBL was revised (the "Revised TBL"), and the revisions took effect on May 21, 2016. Under the Revised TBL, if a telecoms carrier installing Type I or Type II Designated Facilities plans a merger, a corporate split or a business transfer, it must apply for a renewal of its registration, with certain exceptions.

The duration of a licence depends upon its type or kind. In the case of notice and registration for a telecoms carrier, there is no stated licence duration. In the case of a radio station licence, the duration is five years, with certain exceptions.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Yes, as stated in question 2.6, with MIAC approval, an approved carrier (*nintei jigyousha*) may have certain rights to use land under the TBL.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Generally, a telecoms carrier installing telecoms facilities must interconnect its facilities with other telecoms carriers if so requested by other carriers and there is no justifiable reason under the TBL to reject the request. A carrier providing Universal Services is required to submit for MIAC's approval the terms and conditions (including tariffs) of its services; it must provide telecoms services in accordance with such terms and conditions (see question 2.14).

As NTT group companies (please see question 1.1) have large-scale facilities (e.g., cables direct to users' homes), such facilities could potentially prevent other carriers from providing services. Under the TBL, the NTT group companies' facilities are categorised as Type I or Type II designated facilities ("Designated Facilities"). Like other telecoms carriers holding Designated Facilities, NTT group companies are required to submit to MIAC, and generally, as in the case of a carrier installing Type I Designated Facilities, they must also obtain MIAC's approval regarding the terms and conditions (including tariffs) of interconnection with other carriers, interconnect their telecoms facilities in accordance with such terms and conditions, and provide services to other carriers equally (see question 2.14).

The chart below describes how disputes are resolved.

	Mediation	Reconciliation	Consultation Order	Award
Object	1. Interconnection of telecoms facilities 2. Shared use of telecoms facilities 3. Provision of wholesale telecoms services 4. Installation/maintenance of telecoms facilities for interconnection 5. Utilisation of land and works for interconnection 6. Provision of information for interconnection 7. Entrustment of work 8. Utilisation of facilities for provision of services 9. Operation of facilities for provision of services 10. Utilisation or operation of radio wave facilities operated by non-licensed party		1. Interconnection of telecoms facilities 2. Shared use of telecoms facilities 3. Provision of wholesale telecoms services	
Acting Party	Either consultation party	Both consultation parties	Either consultation party	
Neutral Party	TBDSC Mediator	TBDSC Arbitrators (3)	Minister (referring to TBDSC for deliberation)	
Major Procedures	1. Interview 2. Mediation offer	1. Reply 2. Hearing 3. Facts investigation 4. Settlement offer 5. Judicial decision	1. Hearing 2. Order	1. Reply 2. Award

	Mediation	Reconciliation	Consultation Order	Award
Options to Challenge Procedural Result	Refusal to accept proposed mediation	None	1. Lodging opposition (only for a party who was notified by a notice posted on the notice board of a hearing and did not appear) 2. Lawsuit to seek revocation (w/n six mos.)	1. Civil action to increase or decrease monetary award (w/n six mos.) 2. Lodging opposition (except for the above) 3. Lawsuit to seek revocation (w/n six mos.)

(Source: MIAC, *Fair Settlement of Disputes in the IT Era* (8th ed., Nov. 2008), Ch. 1.)

(a) MIAC Order

MIAC may, under certain circumstances stipulated by the TBL, order a telecoms carrier installing telecoms facilities to start or reopen negotiations (if suspended) with another carrier regarding an agreement to interconnect the former's telecoms facilities, if the former refuses to enter into such an agreement.

(b) MIAC Award

In the event carriers negotiating the interconnection of telecoms facilities fail to agree on such items as monetary payments, a carrier (or carriers) may apply to MIAC for an award (*saitei*) under the TBL. Likewise, if an MIAC order has already been issued, the relevant carrier (or carriers) may apply to MIAC for an award. If MIAC grants an award, the parties are deemed to have come to an agreement. Any carrier dissatisfied with the financial conditions of an award may seek an increase or decrease by filing a lawsuit within six months of the day on which that carrier is notified of the award result.

(c) Mediation (*assen*) and Reconciliation (*chusai*) by Commission

A carrier may choose to apply to the MIAC-run Telecommunications Business Dispute Settlement Commission (the "TBDSC") for mediation or reconciliation in the above cases, but a carrier may not proceed with both an MIAC award and a mediation or reconciliation at the same time.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Operators providing Universal Services and services provided by Type I Designated Facilities are required to publicly disclose tariffs which set forth fees and other terms and conditions, and post them at their offices. Further, operators providing services using Type I Designated Facilities and Type II Designated Facilities are required to publicly disclose the tariffs which set forth interconnection charges.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Charges for interconnection are generally determined by the carrier which provides the connection, with some exceptions, such as the following:

(a) As stated in question 2.9, charges for Universal Services and interconnection for a carrier installing Type I Designated Facilities are generally subject to MIAC approval.

(b) Interconnection charges for a carrier installing Type II Designated Facilities require notice to MIAC.

(c) MIAC may, under certain circumstances under the TBL, change the charges under items (a) and (b) above (see question 2.14).

Charges for wholesale lease lines are not subject to price or cost regulation, and providers may decide prices at their own discretion. If providers cannot reach an agreement in order to provide services by using wholesale lease lines, pursuant to the TBL, MIAC may grant an award.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Under the TBL, the separation of accounting, functional and legal duties is not explicitly required, but the following requirements do exist:

- Telecoms carriers providing Universal Services and certain other services, and installing Type I Designated Facilities and Type II Designated Facilities, are required to organise their accounting pursuant to the relevant law (Article 24 of the TBL).
- Telecoms carriers installing Type I and Type II Designated Facilities are required to disclose their accounting documents (e.g., balance sheets and profit and loss statements) to the public (Article 30-6 of the TBL).
- Telecoms carriers installing Type I and Type II Designated Facilities may not, among other things, (i) use any information that they obtain from an interconnection with other telecoms carriers for purposes other than interconnection, and (ii) prioritise certain telecoms carriers without good reason (Articles 30-3 and 30-4 of the TBL).
- Officers and directors of a telecom carrier installing Type I Designated Facilities may not serve as officers or directors of its affiliates (Article 31-1 of the TBL).

In addition, NTT East and NTT West may not operate telecoms businesses across certain prefectural boundaries, such as long-distance telecoms business, pursuant to the NTT Law. Further, consolidation between telecoms carriers is regulated under the Anti-monopoly Law.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Generally, a telecoms carrier installing telecoms facilities must interconnect its facilities with other telecoms carriers if so requested by other carriers and there is no justifiable reason under the TBL to reject the request. If the copper/fibre networks or other infrastructure are Designated Facilities, a telecom carrier holding Designated Facilities is required to submit to MIAC, and generally as in the case of a carrier installing Type I Designated Facilities, it must also obtain MIAC's approval regarding the terms and conditions (including tariffs) of interconnection with other carriers, interconnect their telecoms facilities in accordance with such terms and conditions, and provide services to other carriers equally (see question 2.9).

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Providers of telecoms businesses, including fixed and mobile services that are either registered with, or have submitted notification to, MIAC under the TBL are not required to submit a tariff or price chart unless they provide Universal Services (see question 2.6) or have Designated Facilities (see question 2.9). Such providers may decide the prices for their services at their own discretion. However, MIAC has the authority to order providers to correct or improve their business if, among other things, fees or charges are not calculated fairly and clearly or services are provided in an inappropriate manner, in either case, to the extent that they impede consumers' benefits.

Providers of Universal Services or those having Designated Facilities are required to submit their tariffs to MIAC and to provide their services in accordance with such tariffs. MIAC has the authority to order providers to correct or amend the tariffs if, among other things, the tariffs fail to set forth a method for calculating fees or charges fairly and clearly.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

As described above, the TBL regulates the provision of electronic communications services. The TBL's principal aim is to secure consumer benefit by ensuring fair provision of services, especially with respect to fundamental public services. In this regard, the TBL requires providers to: (i) give prior notice to consumers if services are to be suspended or discontinued; (ii) explain their terms and conditions to consumers; and (iii) process complaints and inquiries from consumers properly and promptly. Further, under the Revised TBL, in order to protect consumer interest, providers are required to deliver written material to consumers who enter into agreements with those providers regarding the services designated by MIAC. In addition, MIAC has published guidelines for the protection of consumers. As for Universal Services, please see questions 2.6 and 2.14.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers, including mobile telephone numbers, and the network identifying codes are allocated by MIAC following a successful application by the relevant telecoms business provider. Telecoms business providers are required to file an application identifying the necessity for telephone numbers and other items.

2.17 Are there any special rules which govern the use of telephone numbers?

MIAC must maintain a Telecoms Numbering Plan (the "Numbering Plan") in accordance with the TBL and the regulation regarding the telecoms number (the "Number Regulation"). A telecoms business provider is required to use the numbers only for the provision of telecoms business, treat users equally, and identify the type or content of telecoms services by the number under the Number Regulation. If a telecoms business provider fails to comply with the Number Regulation, MIAC may invalidate the allocation of numbers. In addition, if MIAC changes the Numbering Plan, MIAC may change the allocated numbers.

2.18 Are there any obligations requiring number portability?

Number portability for mobile telephones started in 2006, with the issuance of the Rule for Numbers for Telecommunications, which sets forth the obligation requiring number portability.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The Radio Wave Law gives MIAC the authority to allocate frequency spectrum to private telecommunications operators for the establishment of radio transmission stations. Unlike other jurisdictions, which allot frequency spectrums through an auction system, the use of radio frequency spectrum in Japan is allocated at the discretion of MIAC after consultation with the Radio Regulatory Council and consideration of the plans submitted by the operators. In March 2011, the MIAC established a "Panel regarding Spectrum Auction" to consider the implementation of a spectrum auction system. In December 2011, this panel released a report supporting an auction system for 4G mobile telecommunications. Following the publication of this report, a bill to amend the Radio Wave Law to introduce an auction system was submitted to the Diet in 2011. However, due to the shift of political power in Japan in 2012, the Diet was dissolved while deliberations on the bill were ongoing. The bill was not passed and has not been discussed by the Diet since 2012. In January 2013, MIAC announced that it does not have any immediate plans to request the Diet to amend the Radio Wave Law to implement an auction system.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

MIAC generally implements the Frequency Plan by considering the business plans submitted by telecoms carriers.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Yes. Certain types of radio stations that discharge weak radio waves (as designated by the enforcement rule of the Radio Wave Law), such as phone handsets for home use and wireless card systems, are exempt from licensing under the Radio Wave Law.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

Fees for applications for a licence to establish radio stations under the Radio Wave Law vary from less than ¥10,000 to around ¥150,000, depending on the power of the radio station emission. There is a registration fee of ¥30,000 per station generally, but the registration fee for a broadcasting station is ¥150,000. Further,

annual fees for usage of frequency spectrum vary from less than ¥1,000 to over ¥100,000,000, depending on the type of radio station (such as mobiles, satellites or others), the power of the radio station emission and the area of the radio station.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Any person who intends to establish radio transmission stations to be used for allocated spectrum must first obtain a licence from MIAC. In case of a licence for radio transmission stations providing telecommunications services, a change of control of the licensee is not a cause to rescind the licence or to require a notification to MIAC.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Under the Radio Wave Law, a spectrum licence generally may not be assigned, traded or sub-licensed; however, it may be assigned in conjunction with an inheritance, a merger (*gappei*), a corporate split (*kaisha bunkatsu*), or a business transfer upon MIAC approval.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

One of the basic principles, if not the most important principle, of the TBL is the secrecy of communications. The secrecy of communications protects not only the contents of communications but also any information that would enable someone to infer the meaning or the contents of communications. In this regard, access log and IP address data are protected under the secrecy of communications. The TBL does not explicitly provide how a telecoms carrier may deal with cyber-attacks without breaching the secrecy of communications. However, in line with the significant increase in malware and other forms of cyberattack, MIAC issued the "First Report from the Study Group on Properly Dealing with Telecommunications Business Cyber-attacks" in April 2014, the "Second Report from Study Group for Properly Dealing with Telecommunications Business Cyber-attacks" in September 2015 and the "Third Report from Study Group for Properly Dealing with Telecommunications Business Cyber-attacks" in September 2018. All reports address whether a telecoms carrier may deal with cyber-attacks and the issues that may arise in connection with the secrecy of communications. The findings of the First and Second Reports are included in the guidelines dealing with cyber-attacks and the secrecy of communications issued by the Council for the Stable Use of the Internet, a council composed of five associations, including the Japan Internet Providers Association ("JAIPA"). It has not been determined whether and when the guidelines will be revised based on the Third Report.

Further, MIAC established, with internet service providers, cable TV service providers, software security service vendors, and other companies, the Advanced Cyber Threats response InitiatiVE ("ACTIVE") to assist internet users with preventing malware infection and to enhance cybersecurity.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

As the secrecy of telecommunications is protected under the TBL, access to private communications is generally prohibited. The MIAC guidelines regarding the protection of personal information (the latest revision was issued in April 2017) in telecoms businesses state that telecoms carriers may not provide personal information to third parties without the prior consent of the owner of the personal information. However, telecoms carriers may provide the requested information without the required consent if, among others, national or municipal governments or authorities need the information for the due performance of their duties pursuant to applicable laws, and prior consent will harm that due performance.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Telecoms carriers are not required to maintain call interception (wire-tap) capabilities.

4.4 How does the state intercept communications for a particular individual?

If the authorities seek call interception, they are required to follow the procedures set forth in the Criminal Procedure Law and other relevant laws. Qualified prosecutors and policemen may have access to information pursuant to a court-issued warrant, which should specify, among other things, the suspect's name, a summary of the suspected crime, which call to intercept, how and where an interception is planned, the planned period for carrying out the interception, and other conditions for interception. The interception is permitted only regarding certain significant crimes, and the period of the interception term may not exceed 10 days, unless a court extends the term, but only up to 30 days.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

The "Standard for Security and Reliability of the Information Network" issued by MIAC sets forth certain rules to maintain the secured network, which include the obligation to use encryption for confidential telecommunications. Telecoms carriers are generally not required to provide encryption keys to the state.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

As the confidentiality of telecommunications is protected under the TBL, retention of telecommunications data is generally prohibited. The MIAC guidelines regarding the protection of personal information in telecoms businesses state that telecoms carriers are allowed to obtain certain limited personal information only where

such information is necessary to provide the services; however, the retaining or recording of telecommunications content is not allowed. Recording of the date and time of telecommunications, which does not include recording of the content, is allowed to the extent that it is necessary for telecoms carriers' operations, such as billing. According to the guidelines, a telecoms carrier may, but is not required to, retain such information for a period necessary for the purpose (such as billing), and must delete such information after such period.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Audio-visual content is distributed through (a) terrestrial-based television broadcasting, (b) satellite-based television broadcasting, (c) cable TV broadcasting, (d) game software, (e) movie content, (f) video content, and (g) internet content (original video-based net content).

Audio-visual content is protected under the Copyright Law. In this regard, in order to manage the copyrights of audio-visual content appropriately, the Audiovisual Rights Management Association was established in June 2011.

The distribution by way of broadcasting of audio-visual media, such as (a) terrestrial-based television broadcasting, (b) satellite-based television broadcasting, and (c) cable TV broadcasting, is mainly regulated by the Broadcast Law. See also questions 1.2 and 2.6.

The distribution by way of internet is mainly regulated by the TBL.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Terrestrial-based television broadcasting businesses which provide traditional distribution platforms are regulated mainly by the Broadcast Law.

The Broadcast Law requires terrestrial television broadcasters to establish and publicly disclose standards for television programmes. It does not, however, require the inclusion of specific matters in those standards. The Japan Commercial Broadcasters Association (*Nihon Minkan Housou Renmei*) has a template for those standards, which commercial broadcasting companies usually incorporate or refer to in their own standards. Those standards provide for restrictions on advertising, including requirements for broadcasters to make it clear that advertising is for commercial purposes, to ensure viewers do not feel uncomfortable on account of the broadcasting time of the advertisement, and to ensure that the volume of advertising per week is 18% or less of the total broadcasting hours. Note that the Broadcast Law prohibits *Nihon Housou Kyoukai*, as a national public broadcasting entity, from broadcasting advertisements for commercial purposes on behalf of third parties.

Further, those standards provide for the general principles in making television programmes. For example, broadcasters should respect legal requirements and human rights, be careful about the content (e.g., violence or unlawful behaviour) of programmes prepared for children and young people, and consider broadcasting times of programmes, bearing in mind that children and young people may be watching during those times.

In contrast, providers of content delivered over the internet without any hardware such as a set-top box (e.g., over-the-top service providers) are generally not regulated by the Broadcast Law and the TBL.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

See question 2.6.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Under the TBL, the status of a registration carrier or notification carrier is not assignable, except in conjunction with an inheritance, a merger (*gappei*), or a corporate split (*kaisha bunkatsu*) in which all of the telecoms business is transferred to another entity. See also questions 2.7 and 3.6.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Internet service providers ("ISPs") may have immunity against certain liabilities unless certain conditions set forth under the relevant law are met. An ISP may not enjoy immunity for infringement upon a third party's information if: (i) the ISP was technically able to prevent the dispatch of that information, and the ISP knew or should reasonably have known of the infringement; or (ii) the ISP itself dispatched the information.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

A party whose right is infringed by information on the internet may ask ISPs to disclose the name, address and other information of the infringing party if (i) the infringement is apparent, and (ii) pursuant to relevant law, the infringed party has a good reason for such disclosure. Further, JAIPA issued guidelines regarding requests for the deletion of information with respect to infringement. If ISPs do not respond to such requests, they may lose their immunity (see question 6.1).

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

MIAC released a report regarding network neutrality in September 2007 (the "Net Neutrality Report"). The Net Neutrality Report identified two issues as critical to network neutrality – fair allocation of network development costs and fair access to the network by

telecommunications operators, including content providers – and, given the need to enable the network to absorb rapid increases in traffic, discussed who should bear the costs of such development and whether telecommunications operators may engage in packet-shaping (or traffic-blocking) to ensure the network's service quality. In particular, MIAC discussed whether heavy users should be required to pay additional charges based on their packet usage, and whether distributors of rich content should be required to pay ISPs for additional charges. Currently, there is no specific law prohibiting the requirement of such payment, and the Net Neutrality Report essentially concluded that these matters should be left to the market.

As for packet-shaping, four associations comprising telecommunications operators issued a guideline for this in May 2008, pursuant to the discussion in the Net Neutrality Report. The guideline provides that packet-shaping may violate the TBL, because it violates the confidentiality of telecommunications content which is protected under the TBL, but it may be permitted in an exceptional situation, such as general users experiencing difficulty accessing a network due to heavy users' traffic or if a specific application is excessively occupying the network. The guideline also states that telecommunications operators should let users know, in the tariffs, of the possibility of packet-shaping and how and when it would occur.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Under the Act on Development of an Environment that Provides Safe and Secure Internet Use for Young People, telecommunications operators who are engaged in a business relating to providing internet services to teenagers are required to adopt measures to limit the exposure of teenagers to harmful information – for example, information inducing them to commit a crime, information that stimulates sexual drive, or information containing atrocious descriptions such as of murder. No specific law regulates VPN services.

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Mori Hamada & Matsumoto is a full-service international law firm based in Tokyo, with offices in Fukuoka, Nagoya, Osaka, Beijing, Shanghai, Singapore, Yangon Bangkok and Ho Chi Minh, and a Jakarta desk. The firm has over approximately 470 attorneys and a support staff of approximately 480, including legal assistants, translators and secretaries. The firm is one of the largest law firms in Japan and is particularly well-known in the areas of mergers and acquisitions, finance, litigation, insolvency, telecommunications, broadcasting and intellectual property, as well as domestic litigation, bankruptcy, restructuring and multi-jurisdictional litigation and arbitration. The firm regularly advises on some of the largest and most prominent cross-border transactions representing both Japanese and foreign clients. In particular, the firm has extensive practice in, exposure to and expertise on telecommunications, broadcasting, the internet, information technology and related areas, and provides legal advice and other legal services regarding the corporate, regulatory, financing and transactional requirements of clients in these areas.

Korea

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The Korean telecommunications and internet industry generated a total revenue of 37.9 trillion KRW in the year 2016. SK Telecom (SKT), KT and LG U+ are the three significant market participants.

	Annual Revenue (trillion KRW/trillion USD)	Significant Market Participants
Wireless	25.1 / 22.3	SKT, KT, LG U+
Fixed, including internet	10.6 / 9.4	
Lease/Resale/ Intermediate	2.2 / 2.0	
Total	37.9 / 33.7	-

The Korean audio-visual media distribution industry generated a total revenue of 17.0 trillion KRW in the year 2016. The top three significant market participants differ depending on the market or the type of services.

	Annual Revenue (trillion KRW/billion USD)	Significant Market Participants
Terrestrial Broadcasting	4.0 / 3.6	KBS, MBC, SBS
Pay Channels	2.7 / 2.4	Tbroad, CJHello, Dlive
IPTV	2.4 / 2.1	KT, SKB, LG U+
Programme Production, Programme Providers and Other	7.6 / 6.8	-
Total	17.0 / 15.1	-

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The following is the key legislation applicable to the telecommunications and internet industry:

- The Telecommunication Business Act (TBA).
- The Act on Promotion of Information and Communications Network Utilization and Information Protection (ICNA).
- The Radio Waves Act (RWA).

The following is the key legislation applicable to audio-visual media distribution:

- The Broadcasting Act (BA).
- The Act on the Establishment and Operation of the Korea Communications Commission (AKCC).

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Minister of Science and ICT (MSIT) and the Korea Communications Commission (KCC) are the two major government authorities in relation to the telecommunications and broadcasting industry. MSIT is an executive ministry under the authority of the Prime Minister. KCC is a ministerial-level central administrative organisation under the authority of the President.

Telecommunications and internet industry:

- MSIT holds the majority of the rights and authorities in relation to the telecommunications and internet industry, including the granting of licences and implementation of plans, regulations and policies under the TBA, and the allocation and management of radio frequency resources under the RWA.
- Under the TBA, KCC is responsible for maintaining and encouraging fair competition in the industry.

Audio-visual media distribution:

- KCC is the main government authority governing terrestrial broadcasting.
- MSIT has the authority to issue licences for satellite and CATV broadcasting.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Telecommunications and internet industry:

- The Foreign Investment Promotion Act and its decrees restrict foreign investment from exceeding 49% of total

equity shares. In addition, a foreign shareholder cannot be the largest shareholder of KT if he holds more than 5% of total equity shares. No restriction is placed on foreign investment in the value-added telecommunications industry.

Audio-visual media distribution industry:

- The level of foreign investment restriction differs based on the category of business, as follows:
  - Terrestrial broadcasting business: No foreign investment allowed.
  - CATV broadcasting business: Maximum 49%.
  - CATV relay broadcasting business: Maximum 20%.
  - Satellite broadcasting business: Maximum 20% for internet multimedia broadcasting contents providers.
    - Maximum 49% for Others.
- Programme-providing business:
  - Maximum 20% for General Programming.
  - Maximum 10% for News Programming.
  - Maximum 49% for Others.

It is worth noting that certain entities based in a country which have entered into a FTA with Korea may not be considered as foreign shareholders, either in the telecommunications and internet industry or the audio-visual media distribution industry.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Korea became a member of the World Trade Organisation in 1995. Korea has made commitments under the GATS for special-category services and value-added services, and has implemented the telecoms reference paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The TBA and INCA are the main laws which regulate telecoms networks and services.

The TBA states the type, procedure, and requirements of licences necessary for telecoms networks and services providers, and provides rules for the fair use of relevant facilities.

The ICNA regulates the facilitating utilisation of information and communications networks, protecting personal information of people using information and communications services, and developing an environment in which people can utilise information and communications networks in a healthier and safer way.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

In Korea, the Korea Fair Trade Commission (KFTC) is the government authority which formulates and administers competition policies, and deliberates, decides, and handles competition and antitrust cases under the Monopoly Regulation and Fair Trade Act. KFTC is a ministerial-level central administrative organisation under the authority of the Prime Minister, and also functions as a quasi-judicial body.

However, KCC has the power to investigate, decide, and penalise a list of activities prohibited under the TBA as harmful to fair competition in the telecommunications and internet industry. KFTC cannot penalise activities for the violation of the Monopoly Regulation and Fair Trade Act which already have been penalised by KCC.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions made by either MSIT or KCC may be appealed to the Central Administrative Appeals Commission based on the Administrative Appeals Act. Decisions made by the Central Administrative Appeals Commission can be further appealed to the Seoul Administration Court based on the Administrative Litigation Act. Regarding KCC, decisions may be appealed to KCC's internal committee prior to appeal by the Central Administrative Appeals Commission.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

There is no general authorisation for telecoms networks and services, and each entity has to apply for individual authorisations according to the type of services. The TBA classifies telecoms networks and services into three categories and regulates differently based on the nature of services.

Service Type	Authorisation Type	Authority
Common*	Licence	MSIT
Special-category**	Registration	MSIT
Value-added***	Report	MSIT

* Businesses that provide common telecommunications services by installing telecommunications line equipment and facilities.

** Businesses that 1) provide common telecommunications services by using telecommunications line equipment and facilities of common telecommunications businesses, or 2) install telecommunications equipment and facilities in the premises such as in a building or its surrounding area, as prescribed by the Presidential Decree, and provide telecommunications services therein by using such equipment and facilities.

*** Businesses related to telecommunications services, other than common telecommunications services.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

As explained in question 2.5, there is no general authorisation in Korea. MSIT states the detailed evaluation criteria or requirements for individual authorisations. Their key aspects are as follows:

Service Type	Category	Items to be Reviewed or Submitted
Common	MSIT has general discretion to evaluate the capability and plan of the applicant for a common telecommunications service licence.	
	Capability for stable and continuous provision of service	■ Market analysis and competitiveness of service provision plan. ■ Investment plan for network upgradability and nationwide service. ■ Cooperation plan with facility manufacturers. ■ Estimation and investment plan for required facility. ■ Expert experience in telecommunications service. ■ Contribution to healthy development of telecommunications industry and national economy. ■ Effectiveness of investment plan including utilisation of pre-existing fixed/wireless telecommunications facilities.
	Financial capability	■ Financing plan. ■ Financial structure, including profitability, stability, growth, and credibility. ■ Consistency and compatibility of financing plan and other requirements.
	Technical capability	■ Plan and past experience in skill and technology development for service. ■ Technical contribution of strategic partners. ■ System composition and service quality target level. ■ Compatibility and maintenance plan, and emergency plan for interconnection. ■ Plan for expert procurement and training.
	Consumer protection plan	■ Plan for establishment and operation of user protection commission. ■ Procedure for user complaints. ■ Plan for protection of user information.
Special-category	Positive	■ Financial and technical capability. ■ User protection plan and other.
	Negative	■ Default in requisite documents such as articles of association or terms of use. ■ Not in a form of corporation.
Value-added	-	■ Network block diagram. ■ Evidence of construction of personal information protection measures.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

- Common telecommunications (TBA Art. 10)
  - The licence is indefinitely effective unless revoked or cancelled due to other reasons.
  - The licence is not subject to transfer or trade.
  - The following change of control occasions are required to be reviewed and approved by MSIT, as to whether public interests such as national security, public safety and maintenance of order are impaired:
    1) Acquisition of shares equal to or exceeding 15% of the total number of outstanding stocks.
    2) Change of the largest stockholder.
    3) Conclusion of a contract with a foreign party for important managerial matters, such as the appointment and dismissal of executive officers and the transfer or acquisition of business.
    4) Change of the person who has *de facto* management rights.
- Special-category and value-added telecommunications (TBA Art. 24)
  - The registration or report is indefinitely effective unless revoked or cancelled due to other reasons.
  - The registration or report is not subject to transfer or trade.
  - Acquisition, merger or inheritance of a special-category or value-added telecommunications operator should be filed with MSIT.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

- Long-term use (TBA Art. 72)
  - Common telecommunications business operators shall consult with the owner or possessor of land in advance. In case no agreement is reached, the common telecommunications business operator can use the land in accordance with the Act on Acquisition of and Compensation for Land, Etc. for Public Works.
- Temporary use of and access to land (TBA Arts 73, 74)
  - Common telecommunications business operators may temporary use land for inspection, installation or maintenance to the extent the original use of land is not evidently disturbed, subject to prior notice to the possessor. The duration of temporary use shall not exceed six months.
  - Common telecommunications business operators may enter the land for inspection as is necessary for installation or maintenance. However, a prior notice to residents is required in case a common telecommunications business operator needs access to a residential building.
- Request for removal of obstacles (TBA Art. 75)
  - Common telecommunications business operators may request removal of obstacles which have an adverse effect on installation or on telecommunications facilities.

- Reinstatement and compensation (TBA Arts 76, 77)
  - If land used for a telecommunications service is no longer necessary, the common telecommunications business operator is required to reinstate such land or compensate for loss.
  - Any loss caused by temporary use, access, or removal of obstacles should be compensated.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

- Wholesale (TBA Art. 38)
  - Common telecommunications business operators are free to agree to provide wholesale service and interconnection, except those operators who are mandated by MSIT. Such mandated operators are decided considering the scale of the business and market share.
  - Whether mandated or not, the conditions, procedures, methods and calculation of prices should be in accordance with the guidelines published by MSIT.
- Interconnection (TBA Arts 39, 40)
  - In addition to those mandated by MSIT, those who possess equipment and facilities indispensable for other telecommunications business operators are required to permit the interconnection.
- Dispute (TBA Art. 45)
  - Disputes arising in relation to wholesale or interconnection may be brought to KCC for resolution.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

- Provision of information (TBA Art. 42)
  - Upon the request for technological information or users' personal information needed for the provision of telecommunications business by other telecommunications business operators, the common telecommunications business operators mandated by MSIT or who possess equipment and facilities indispensable for other operators are obliged to provide the requested information.
  - MSIT will determine and publicly announce the scope of and guidelines for conditions, procedures, methods and calculation of prices for providing information.
- Public announcement (TBA Art. 42.3)
  - Such mandated operators are to publicly announce technical standards and requirements for interconnection or use of facilities, and other standards required for the creation of environments for fair competition.
  - Currently, MSIT has mandated KT in the wire phone market and SKT in the mobile phone market to provide information.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Please refer to questions 2.9 and 2.10.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

- Accounting separation (TBA Art. 49)
  - Accounting for telecommunications business should be separated from non-telecommunications business performed by such telecommunications business operators. In addition, common telecommunications business and value-added telecommunications business should be separately accounted.
- Functional separation and legal separation (TBA Arts 50, 52)
  - MSIT may order a telecommunications business operator to functionally or legally separate business, if it finds that a telecommunications business operator's actions place unfair or discriminative conditions or restrictions on the provision of equipment and facilities, joint utilisation, interconnection or joint-use services, wholesale services, and/or provision of information.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Under the Framework Act on National Informatization, the government shall devise policies necessary for the efficient expansion and management of such facilities as conduits, common utility ducts, electrical poles, etc., to ensure the smooth expansion of broadband integrated service digital networks. MSIT may also establish, manage and operate a broadband integrated research and development network at the nation's expense, or entrust a dedicated institution with its establishment, management and operation for the purpose of facilitating the establishment of a broadband integrated service digital network.

Key communications business entities such as common telecommunications business operators, CATV broadcasting business entities, and CATV relay broadcasting business entities may request the construction or lease of conduits, etc., necessary for the installation of telecommunications cable facilities to the government, on the condition that such key communications business entities bear the associated costs.

The government and key communications business entities are free to agree on the terms and conditions of the construction or lease of passive infrastructure, and MSIT may mediate in case the parties fail to make a mutual agreement.

There are no incentives or regulatory holidays.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Retail price controls are not imposed on operators.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

A telecommunications business operator shall perform his/her business in a fair, swift and accurate manner at a reasonable fee, and may not refuse to provide any telecommunications service without justifiable grounds.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

MSIT has the authority to establish and enforce rules and guidelines on the management of telephone numbers and network identifying codes. Currently, there are two enforcement rules promulgated by the MSIT; one which regulates the telephone numbers and network identifying codes in general, and the other which regulates the telephone numbers for mobile phones specifically.

2.17 Are there any special rules which govern the use of telephone numbers?

No person may sell or purchase telecommunications numbers, as they are a limited national resource.

2.18 Are there any obligations requiring number portability?

MSIT established and implemented a plan for telephone number portability to enable users to retain their telephone numbers when changing from one telecommunications business operator to another under TBA Art. 58.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

Under the RWA, MSIT has the general authority to allocate and implement policies for the use of spectrum. However, KCC shall be responsible for the management of radio frequencies used in the broadcasting business.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

MSIT will allocate the radio spectrum used for the common telecommunications business or the CATV broadcasting business, pursuant to the following procedure.

- Public notice (RWA Art. 10)
  - Firstly, MSIT will publicly notify the radio frequency to be reallocated and request for tender. MSIT is required to inform the requirements and conditions for tender, such as the range of persons who may apply, the purposes of assigned radio frequencies, technical modes, etc.
- Price competition (RWA Art. 11)
  - Absent exceptional circumstances such as the lack of competitive demand for the relevant radio frequencies, MSIT will assign the publicly notified radio frequency through an auction process.
  - MSIT may determine a minimum acceptable price.
  - The duration of use will be determined by MSIT, with a maximum period of 20 years.
- Beauty contest (RWA Art. 12)
  - If MSIT considers that the auction process is not appropriate for the assignment of radio frequency due to special circumstances, such radio frequency will be assigned by beauty contest.
  - MSIT will decide the user of radio spectrum considering: 1) the efficiency of the use of spectrum resources; 2) the applicant's financial capability; 3) the applicant's technical capability; and 4) characteristics of radio frequencies to be assigned or other matters necessary for the use of radio frequencies.
  - The duration of use will be determined by MSIT, with a maximum period of 10 years.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

- Licence (RWA Art. 19)
  - In general, a radio station requires a licence from MSIT.
- Filing (RWA Art. 19-2.1)
  - A radio station which does not have radio wave interference between nations or regions, or that is not established for the purpose of emergency communication, can be established by filing to MSIT.
  - Radio stations subject to filing are as follows: 1) radio stations that have weak radio waves or that do not need installation and maintenance of radio facilities; 2) radio stations for reception use only; 3) radio stations established by a telecommunications business operator; and 4) radio stations established for digital multimedia broadcasting.
- Exempted (RWA Art. 19-2.2)
  - In addition, the Presidential Decree allows certain radio stations, those with weak transmission power for example, to be established without filing to MSIT.
  - In detail, radio stations exempted from filing obligations are: 1) a radio station using a standard field strength generator, heterodyne-radio frequency measuring instrument, and other small electric power generators for measurement; 2) a citizen band radio station subject to a conformity assessment; 3) a receive-only radio station other than an underground terrestrial broadcasting auxiliary station; and 4) a radio station of specifications lower than determined by MSIT as not obstructive to other radio communications, subject to a conformity assessment.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

- Allocation Fee (RWA Arts 11, 12)
  - In the case of an auction, the allocation fee will be the price offered by the successful bidder. 25% of the allocation fee should be paid at allocation and the remaining 75% should be paid in equal instalments during the period of use.
  - In the case of a beauty contest, the price for assignment of radio frequencies shall be the sum of value calculated based on expected turnover and actual turnover, respectively. 50% of the fee calculated based on the expected turnover should be paid at allocation, and the remaining amount should be paid in three equal instalments from the third year of the use of radio spectrum. The fee calculated based on the actual turnover should be paid annually.
- Spectrum Use Fee (RWA Arts 67, 68)
  - MSIT may collect spectrum fees for the use of radio spectrum. Spectrum will be computed based on the frequency band, the range of radio waves and the antenna supply power, etc., used by the relevant radio station, or for key telecommunications business entities, on the number of subscribers provided with such telecommunications services.

- The spectrum use fee is exempted for government radio stations, non-profit broadcasting stations, terrestrial broadcasting stations of the terrestrial broadcasting business entity which pays contributions under the Framework Act on Broadcasting Communications Development, and radio stations under filing obligations for establishment.
- In addition, MSIT may reduce the spectrum use fee for broadcasting stations of the satellite broadcasting business entity or CATV broadcasting business entity that pays contributions under the Framework Act on Broadcasting Communications Development, radio stations using the radio frequencies assigned by auction, radio stations that are not-for-profit or promote public welfare, and radio stations established in regions declared to be special disaster areas.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Please refer to question 3.6.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Once assigned, the radio spectrum can be transferred or leased following three years from the date of assignment. In case of insolvency, a merger, assignment of business of such assignee, earlier transfer or lease is allowed (RWA Art. 14).

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

- A person who owns, controls, or manages a telecommunication, internet, or electronic system is obliged to take appropriate measures to protect the reliability of the information and security of the information and communications networks under various legislation. A person who fails to abide by his/her obligation may be penalised by imprisonment or with a fine, according to the applicable legislation.
  - The ICNA obliges telecommunications business operators to take appropriate measures.
  - The Personal Information Protection Act governs matters related to personal information.
  - The Act on the Protection of Information and Communications Infrastructure, Electronic Government Act, and the National Cyber Security Management Regulation, include the provisions to protect key or governmental information and communications infrastructure.
- A person who entered into an electronic or internet system by unlawful means and/or damaged, changed, stole, or distributed information from such system will be punished under various legislation, including those listed above. The crimes typically charged under the Criminal Act, for example, will be interference with business using a computer, falsification or alteration of public or private electromagnetic records, fraud by use of a computer, destruction and damage etc. of property, and more.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The Protection of Communications Secrets Act (PCSA) prohibits a person from censoring any mail, wiretapping any telecommunications, providing communication confirmation data, recording or listening to conversations between others that are not to be made public unless the state has allowed otherwise (only in special circumstances), as described in question 4.4. Any materials unlawfully obtained cannot be used as evidence in court proceedings.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Although the PCSA obliges market participants, such as telecommunications business operators, to cooperate with interception in case of imminent risk to the life or health of an individual, such as murder or robbery with hostages. There are no rules requiring market participants to maintain call interception capabilities.

4.4 How does the state intercept communications for a particular individual?

- Occasions for state interception
  - Certain government entities may access private communications if required in the ordinary course of business and allowed under the respective laws, such as the Post Office handling a parcel suspected to be explosive, Customs handling mail other than personal correspondence, communications with a prisoner, or communications with persons declared bankrupt, and MSIT monitoring radio waves for the elimination of interference.
  - The prosecutor may access private communications for the investigation of a crime when: 1) there is a substantial reason to suspect that certain serious crimes related to murder, robbery, rape, arson, drugs, national security etc., have been committed; or 2) the prevention of such crime, arrest of the criminal, or collection of the evidence is difficult. The period of interception for crime investigation cannot exceed two months, but may be extended.
  - The heads of the intelligence and investigative agencies may access private communications for the protection of national security, if there is a threat to national security and such access is required. The period of interception for the protection of national security cannot exceed four months, but may be extended.
- Procedure
  - In principle, the prosecutor or the heads of the intelligence and investigative agencies is/are to be approved by the court prior to the access of private communications. In case the heads of the intelligence and investigative agencies needs to intercept private communications of a foreign entity, the President's prior approval is required.
  - However, the prosecutor or the heads of the intelligence and investigative agencies may begin accessing private communications without prior approval, and then request for approval, in case of an immediate threat or emergency.

- After the interception is completed, the prosecutor or the heads of the intelligence and investigative agencies is/are required to notify of the fact that the interception is executed, the institution that executes interception, and the period thereof within the time stated in the PCSA.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Personal information, such as personal ID, is required to be stored and transmitted by using encryption technology and other methods for security under the ICNA and Personal Information Protection Act.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Under the PCSA, telecoms or internet infrastructure operators are to retain: 1) the date of the telecommunication, the commencement time and end time of the telecommunication, the communication's number of outgoing and incoming calls, the frequency of use, and the location data for 12 months (six months in case of long-distance calls and local call services); and 2) the log records of users and the location data for three months.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The BA is the main legislation which regulates the distribution of audio-visual media. The objective of the BA is to promote the protection of the rights and interests of viewers, the formation of the democratic public opinion and the improvement of national culture, and to contribute to the development of broadcasting and advancement of public welfare, by guaranteeing the freedom and independence of broadcasting and by enhancing public responsibilities of broadcasting.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

The contents delivered over the internet are mainly regulated by the ICNA, which prohibits the circulation of improper information, such as obscene, defamatory, violent, or apprehensive information, and KCC has the power to investigate and order the restriction of the delivery of such unlawful information. In addition, the Act on the Consumer Protection in Electronic Commerce, Etc., which governs electronic commerce transactions, contains provisions regulating advertisements. KFTC, the authority under the act, sets detailed rules and guidelines prohibiting the use of false or exaggerated expression or deceptive advertisements.

The contents of broadcast, including advertising via traditional distribution platforms, are regulated by the rules and guidelines issued by KCC, in accordance with the BA. The rules and guidelines of KCC and those of KFTC are generally similar.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

There are different types of authorisation, depending on the nature of the broadcasting service (BA Art. 9).

- Terrestrial broadcasting business
  - A licence from the KCC is required. In the evaluation for a licence, the result of a technical evaluation for the establishment of radio stations under the RA by MSIT will be taken into consideration.
- Satellite broadcasting business
  - A licence from MSIT under the RA is required. MSIT is required to obtain KCC's consent prior to the issuance of a licence.
- CATV broadcasting business or CATV relay broadcasting business
  - A licence from MSIT under the BA is required. MSIT is required to obtain KCC's consent prior to the issuance of a licence.
- Programme-providing business
  - Basically, registration with MSIT would be sufficient for a programme-providing business, but additional approval may be required for certain types of business. Within seven days from the date of registration or such approval, a programme-providing business should report on the value-added telecommunications business under the TBA.
  - KCC's approval is required to engage in general programming or specialised programming of news reports, and MSIT's approval is required to engage in specialised programming which features and markets products.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

- Assignability (BA Art. 15)
  - In case of transfer or modification of business, an operator should obtain a licence, approval or registration for modification from MSIT or KICC as appropriate: a merger or division of the relevant corporation; conversion of the business run by an individual to the business of a corporation; transfer of the business run by an individual; a modification of broadcast fields; a modification of the broadcasting zone; or other modifications of important facilities.
- Change of control (BA Art. 15-2)
  - If the largest shareholder or holder of substantial management power of an operator is to be changed, the new largest shareholder is required to obtain MSIT's or KCC's approval, as the case may be. MSIT or KCC will examine the possibility of realising the public responsibility, impartiality and public interest of broadcasting, social confidence and financial capacity, protection of the right and interest of viewers, and other matters necessary for business performance, in order to approve such change of control.
  - The voting rights of shares or management power obtained without appropriate approval should not be exercisable. Furthermore, MSIT or KCC may issue an order to dispose such stocks or equity shares without approval.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

- The Copyright Act (Art. 102)
  - Telecommunications operators and/or internet service providers (Online Service Provider, OSP) are not responsible for the infringement of copyright due to the reproduction or interactive transmission of works by other parties in certain conditions. Furthermore, OSPs are exempted if it was technologically impossible for the OSP to suspend or stop such infringement. The aforementioned conditions are described below:
    - In case of transmission of works without modifying the contents, the OSP is not responsible for copyright infringement if it 1) did not initiate the transmission of works, 2) did not select works to be transmitted or the recipients thereof, 3) implemented a policy to penalise accounts repeatedly infringing copyrights of others, and 4) did not interfere with the standard technical protection used on the works.
    - In case of caching services which temporarily store works to allow efficient access by subsequent users, the OSP is not responsible for copyright infringement if 1) it did not modify such works, 2) access is permitted to users in compliance with conditions, if any, 3) it complied with standard data communications protocols, 4) it did not interfere with technology applied to track the use of the work, and 5) it immediately suspended reproduction or interactive transmission of works after actual knowledge of the infringement 6) in addition to the conditions listed above for the transmission of works without modifying the contents.
    - In case of storage, hosting, or clouding services which store works in the OSP's computer, the OSP is not responsible for copyright infringement if it 1) is capable of controlling the infringing activity but did not directly profit from the infringing activity, 2) immediately suspended reproduction or interactive transmission of works after actual knowledge of the infringement, and 3) notified a person relating to such infringing reproduction or interactive transmission 4) in addition to the conditions listed above for the transmission of works without modifying the contents.
    - In case of online search tool services, the OSP is not responsible for copyright infringement if it 1) did not initiate the transmission of works, 2) did not directly profit from such service if the provider has the right and ability to control the infringing activity, 3) immediately suspended reproduction or interactive transmission of works after actual knowledge of the infringement, and 4) notified a person relating to such infringing reproduction or interactive transmission.
- The court
  - The court ruled that when an OSP fails to take adequate measures to delete illegal information which the OSP should have been aware of, the OSP may be an accessory to criminal copyright infringement and responsible in tort.
  - It is the court's interpretation that an OSP will not be found 'technologically possible' because an OSP could shut down all of its services. It would be technologically impossible for an OSP if the OSP cannot selectively suspend or stop infringing activity without keeping the system on and active.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

In a civil or criminal suit against a third party for infringement, OSPs must provide information related to the alleged infringement in its possession. The court has found that it is lawful to search and collect evidence by using a computer at the place of search and accessing outside storage.

- The ICNA (ICNA Arts 44.2, 44.3)
  - The CNA requires internet service providers to delete or temporarily limit access to infringing content and report to the content owner, upon the content owner's request. Internet service providers also has discretion to take temporary measures on information suspected to be defamatory to or infringing an intellectual property right of a third party.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

MSIT issued a guideline for net neutrality and internet traffic management in 2011, which was recently amended in 2018. MSIT issued a guideline for the proper management and use of the network and the transparent management of traffic in 2013, to supplement the former guideline. The guidelines prohibit internet service providers from discriminating between traffic or charging different rates of fees based on content, applications, service type or provider, unless it is reasonably necessary for the security and safety of the network, protection of the majority of users from temporary overload, or execution of obligations under other legislation.

However, the guidelines contain the basic principles of net neutrality at a basic level only and lack detailed requirements, procedure or penalties. MSIT is currently not strictly applying or enforcing the guidelines.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

- Services to minors
  - Under the TBA, telecommunications business operators providing services to minors are obliged to provide means to block obscene or harmful content.
  - Under the Juvenile Protection Act, a provider of an internet game shall not provide such game to minors under the age of 16 from 12 midnight to six in the morning.
- Services to others
  - The Act on the Protection of Children and Juveniles against Sexual Abuse obliges online service providers to take measures to detect and delete child pornography.
  - Under the AKCC, KCC has the right to determine whether the Korea Communications Standards Commission may order sanctions against sites handling illegal or improper information under the ICNA.
- VPN service regulation
  - There is no regulation on VPN service.

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Chapter 22

Macau

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The telecommunications sector is framed by Law no. 14/2001, of August 20 (the Telecommunications Act (http://bo.io.gov.mo/bo/i/2001/34/lei14.asp)), which defines the basis of the telecommunications policy of the MSAR, as well as the general framework for the establishment, management and operation of telecommunications networks and the provision of telecommunications services, although the provisions of said law do not apply to broadcasting services, terrestrial or satellite, in particular to television and sound broadcasting services. Telecommunications shall hence be understood as the transmission, emission or reception of symbols, signs, writing, images, sounds or information of any nature by wire, radio, electricity or other electromagnetic systems.

Law no. 14/2001 also stipulates the objectives of such policy, which include: to gradually liberalise the installation of public telecommunications networks and the provision of public use telecommunications services; to ensure access to telecommunications, at reasonable tariffs and prices, in a non-discriminatory manner and in conditions of quality and efficiency that meet their needs, to the whole population and also to economic and social activities; to ensure the existence and availability of the universal telecommunications service; to ensure equality and transparency of conditions of competition by promoting the diversification of services in order to increase their supply and quality standards to be compatible with the requirements of users; and to ensure the interoperability of public telecommunications networks, as well as the portability of the customer number, among others.

It is incumbent upon the Government to oversee and supervise telecommunications and the activities of telecommunications operators, without prejudice to the specific competencies of the Macau Post Office (in Portuguese, "*Direcção dos Serviços de Correios*"), as we shall see below.

Regarding the hardware part of the telecommunications equation, the Administrative Regulation no. 41/2011, of December 30 (http://bo.io.gov.mo/bo/i/2011/52/regadm41.asp), establishes the system for the installation and operation of fixed public telecommunications networks, understood as telecommunications networks, based on cables, optical fibres, radio-electric or other electromagnetic systems, which connect local fixed points to each other or to the outside of the MSAR, and which support public telecommunications services. The installation and operation of public fixed telecommunications networks are subject to licensing, in accordance with the terms of this Administrative Regulation.

Furthermore, the Administrative Regulation no. 15/2002, of August 12 (http://bo.io.gov.mo/bo/i/2002/32/regadm15.asp), establishes the regime for the management and allocation of the several telecommunications numbering resources, and the Administrative Regulation no. 41/2004, of December 22 (http://bo.io.gov.mo/bo/i/2004/51/regadm41.asp), establishes the regime of interconnection of public telecommunications networks, which shall be made in an environment of equal conditions of competition, in order to ensure that it is carried out in a timely and reasonable manner, ensuring in particular the inviolability and confidentiality of communications, the non-discrimination in the provision of interconnection, the interoperability of telecommunications services, and the integrity of telecommunications networks, installations and equipment assigned to the interconnection.

Regarding the licensing of telecommunications services, the Administrative Regulation 32/2000, of September 11 (http://bo.io.gov.mo/bo/i/2000/37/regadm32.asp), determines the legal regime for provisional licensing of the activities of public network operators and the provision of telecommunications services for public land mobile use, up to a maximum of three licences, operating in certain frequency bands, and with the adoption of the concepts established by the International Telecommunication Union (ITU). The operation of public telecommunications networks and the provision of telecommunications services for public land mobile use are further defined by the Administrative Regulation no. 7/2002, of April 15 (http://bo.io.gov.mo/bo/i/89/36/lei08.asp), which establishes that said activities are subject to licensing, in accordance with this Administrative Regulation.

Radio and television broadcasting

Radio broadcasting in the MSAR is framed by Law no. 8/89/M, of September 4 (http://bo.io.gov.mo/bo/i/89/36/lei08.asp), which establishes the legal regime for radio and television broadcasting. In accordance with said legislation, the purposes of radio broadcasting are:

a) to contribute to the formation of citizens with respect to the ethical and cultural values in force;

b) to contribute to the information of citizens, guaranteeing them the right to inform and to be informed, without hindrance or discrimination; and

c) to contribute to the promotion of social and cultural progress and to the civic and social awareness of citizens.

Television broadcasting is defined as a public service and is exercised under a concession contract, whereas the activity of sound broadcasting is subject to the licensing regime, the exercise of which depends on the attribution of a licence. Both awards are normally preceded by a public tender.

Law no. 8/89/M also creates the Broadcasting Council, an independent body that functions for administrative purposes with the Media Office (which shall be analysed below), with the responsibility to guarantee:

i. the independence of the concessionaires and broadcasting operators, especially in the face of political and economic power;
ii. the safeguarding of pluralism and freedom of expression and of thought;
iii. the accuracy and objectivity of the information;
iv. the quality of the programming; and
v. the defence of the rights and the respect of the obligations set forth in the law.

Furthermore, Law no. 8/89/M stipulates that the right of expression of thought and the right to information are exercised without any form of censorship, impediment or discrimination, respecting individual freedoms and the right of citizens to their moral integrity, good name and reputation. Also, the broadcasting activity is carried out independently and autonomously in the field of programming, and no public or private entity can prevent or impose the broadcasting of programmes. However, broadcasting operators must respect the values of detachment, impartiality and truth in the dissemination of information by refraining from disseminating false or unproven news or giving journalistic treatment to the facts that may distort or mislead the public.

Regarding the administrative procedures related to radio communication services, Decree-Law no. 48/86/M, of November 3 (http://bo.io.gov.mo/bo/i/86/44/declei48.asp), establishes the rules by which said administrative procedures shall be governed, in particular with regards to:

a) the concession, installation and operation of radio communications networks or stations;
b) radio operators;
c) the approval of radio communications equipment; and
d) the commercialisation of radio communications equipment.

Finally, regarding television broadcasts, the Administrative Regulation no. 8/2014, of April 8 (http://bo.io.gov.mo/bo/i/2014/14/regadm08.asp), authorised the establishment of a commercial company between the MSAR, the Teledifusão de Macau, S.A. and the Macau Post Office, named "Macau Basic Television Channels, Limited" (in Chinese "澳門 基本 電視 頻道 股份有限公司"), with the purpose of providing reception assistance services for basic television channels for residents under the terms of the concession contract.

Internet

The regime of access and exercise of the activity of provision of Internet services is set out by the Administrative Regulation no. 24/2002, of November 4 (http://bo.io.gov.mo/bo/i/2002/44/regadm24.asp), which subjects such activity to licensing under the terms of said Administrative Regulation and also establishes the requirements and process for granting a licence, the process for requesting a licence, as well as how to exercise the activity of providing Internet services and the corresponding sanctioning regime.

Previously to the entry into force of the Administrative Regulation no. 24/2002, the provisional licensing of Internet services was regulated by the Administrative Regulation 35/2000, of October 3 (http://bo.io.gov.mo/bo/i/2000/40/regadm35.asp), which established the requirements to be fulfilled by those interested in the provision of the services described therein.

Press

The freedom of press in the MSAR is guaranteed by its Basic Law and framed by Law no. 7/90/M, of August 6 (the "Press Law") (http://bo.io.gov.mo/bo/i/90/32/lei07.asp), which regulates the exercise of freedom of the press, the right to information and the activity of journalistic, editorial and news organisations. Namely, the law guarantees and regulates the right to information, freedom of the press, freedom of access to sources of information, guarantee of professional secrecy and independence of journalists, freedom of publication and dissemination, and freedom of enterprise.

The law also regulates the organisation of publications and press registration, the exercise of the right of reply, denial, rectification, and the right to clarification, as well as the regime regarding liability for unlawful acts not provided for in the common criminal legislation.

Finally, the law created the Press Council, whose duties would have been to ensure:

i. the independence of the press, in particular *vis-à-vis* political and economic power;
ii. the pluralism and freedom of expression and of thought by the press; and
iii. the protection of the public's right to information.

However, the Press Council never came into effect, as its composition was never properly regulated.

In regards to the press registry provided in the Press Law, the Decree no. 11/91/M, of January 28 (http://bo.io.gov.mo/bo/i/91/04/port11.asp), regulates the way in which the press register is processed, through its own media, with the Media Office, described below.

The Media Office (in Portuguese, "*Gabinete de Comunicação Social*") is defined by the Administrative Regulation no. 7/2012, of March 5 (http://bo.io.gov.mo/bo/i/2012/10/regadm07.asp), which regulates the service of coordination, study and technical support to the Government and services of the Administration, in the area of social communication by said Office, as well as its respective attributions.

The Media Office has several responsibilities which were assigned by the Administrative Regulation no. 7/2012, notably:

a) to collaborate in the definition of the media policy of the MSAR and to issue an opinion on matters of social communication of interest to the MSAR;
b) to ensure the implementation of media activities in matters of official information;
c) to promote, within its scope or in collaboration with other services of the Administration and companies with total or partially public capital, the disclosure of facts that may contribute to a better knowledge of the reality of the MSAR;
d) to promote and support initiatives to improve the official information dissemination system;
e) to give technical support to the Government and to the services of the Administration in its relations with the organs and agents of the media; to support such organs and agents in the performance of their duties;
f) to study and propose guidelines for political action in support of the media and ensure their implementation and monitoring;
g) to promote and support initiatives aimed at improving the quality of the media sector;
h) to design, plan and execute, by its own means or in collaboration with the other services of the Administration and companies with total or partially public capital, actions of collective interest that aim to motivate and sensitise public opinion;

i) to foster cooperation and exchange activities with the media based outside the MSAR;

j) to promote the conclusion of cooperation protocols and liaise with media bodies;

k) to ensure the collection, systematic analysis and processing of written and audiovisual information material from the media;

l) to ensure the editorial activity of the Media Office;

m) to register the entities that own news, editorial and news organisations of the MSAR and its correspondents and other forms of representation of the media located outside the MSAR;

n) to proceed with the registration of MSAR periodicals; and

o) to perform all other attributions legally assigned to it.

The Media Office is composed of the following Departments: Information Department; Department of Studies and Promotion; Computer and Archive Division; and Administrative and Financial Division.

Other legislation

In regards to entities which are in contact with or may generally influence the telecommunications sector, we would first underline the Macau Post Office, a body with legal personality and administrative, financial and patrimonial autonomy, with the purpose of providing public postal services and of regulating, supervising, promoting and coordinating all activities related to the telecommunications sector in the MSAR, and also of serving as a credit institution, of which the organic regulation was first approved by the Decree-Law no. 2/89/M, of January 9 (http://bo.io.gov.mo/bo/i/89/02/declei02.asp).

The Macau Post Office integrates several departments, of which we highlight:

- the Postal Operations Department, which is the operational sub-unit in the area of postal traffic with origin, transit or destination in the MSAR, as well as postal relations of an operational nature with international institutions;
- the Electronic Services Department, which is the organic sub-unit responsible for electronic certification services, secure electronic postal services, development of CTT postal and computer technology systems, and electronic commerce services;
- the Telecommunications Management Department, which is the sub-unit responsible for supporting the definition of telecommunications policy, including telecommunications and broadcasting services, and for the management and monitoring of its activities, with the exception of broadcasting content; and
- the Department of Information Technology Development and Management of Resources, which is the sub-unit responsible for supporting the definition of IT policies, promoting the application of these technologies, promoting cooperation in this field with entities outside the MSAR, as well as for the planning and management of public telecommunications resources and the coordination of the use of telecommunications resources in Macau and abroad.

As for the market's most significant players, kindly note the following:

Telephone/Internet

- Companhia de Telecomunicações de Macau S.A.R.L. (net profit in 2017: MOP 880,983,598 (https://bo.io.gov.mo/bo/ii/2018/14/anotariais.asp#267)).
- Hutchison Telephone, Macao.
- Smartone Mobile Communications (Macao) Ltd.
- China Telecom (Macau) Cl. Ltd.
- MTEL – Telecommunication Company Limited.

Television/Radio

- TDM – Teledifusão de Macau, S.A. (net profit in 2017: MOP 17,951,369 (http://portugues.tdm.com.mo/report/2017FIN_report_pt.pdf)).
- TV Cabo Macau, S.A.

Press

- Diário de Macau – Empresa Jornalística e Editorial, Lda.
- Edições Va Kio, Limitada.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms and Internet

- Law no. 14/2001, of August 20 (the Telecommunications Act), which defines the basis of the telecommunications policy of the MSAR, as well as the general framework for the establishment, management and operation of telecommunications networks and the provision of telecommunications services. As stated above, the provisions of said law do not apply to broadcasting services, terrestrial or satellite, in particular to television and sound broadcasting services.
- Administrative Regulation no. 24/2002, of November 4, which sets out the regime of access and exercise of the activity of provision of Internet services, and subjects such activity to licensing under the terms of said Administrative Regulation.

(b) Audio-visual media distribution

- Law no. 8/89/M, of September 4, which establishes the legal regime for radio and television broadcasting and creates the Broadcasting Council, an independent body that functions for administrative purposes with the Media Office.
- Law no. 7/90/M, of August 6 (the "Press Law"), which regulates the exercise of freedom of the press, the right to information and the activity of journalistic, editorial and news organisations.
- Administrative Regulation no. 7/2012, of March 5, which regulates the service of coordination, study and technical support to the Government and services of the Administration, in the area of social communication by the Media Office (in Portuguese, "*Gabinete de Comunicação Social*"), as well as its respective attributions.
- Decree-Law no. 2/89/M, of January 9, which first approved the organic regulation of the Macau Post Office, a body with legal personality and administrative, financial and patrimonial autonomy, with the purpose of providing public postal services and of regulating, supervising, promoting and coordinating all activities related to the telecommunications sector in the MSAR, and also of serving as a credit institution.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms and Internet

The Secretary for Transportation and Public Works is the government ministry responsible for the telecommunications sector within the MSAR Government, as per the Administrative Regulation no. 6/1999, of December 20 (http://bo.io.gov.mo/bo/i/1999/01/regadm06.asp), which determines the organisation, competencies and functioning of public services and entities. Also, Law no. 14/2001 stipulates that it is incumbent upon the Government to

oversee and supervise telecommunications and the activity of telecommunications operators.

As stated above, the Macau Post Office is the entity responsible for providing public postal services and for regulating, supervising, promoting and coordinating all activities related to the telecommunications sector in the MSAR. Within the Macau Post Office, the following departments have a role in the regulation of telecommunications and Internet:

- the Telecommunications Management Department, which is the sub-unit responsible for supporting the definition of telecommunications policy, including telecommunications and broadcasting services, and for the management and monitoring of its activities, with the exception of broadcasting content;
- the Electronic Services Department, which is the organic sub-unit responsible for electronic certification services, secure electronic postal services, development of CTT postal and computer technology systems, and electronic commerce services; and
- the Department of Information Technology Development and Management of Resources, which is the sub-unit responsible for supporting the definition of IT policies, promoting the application of these technologies, promoting cooperation in this field with entities outside the MSAR, as well as for the planning and management of public telecommunications resources and the coordination of the use of telecommunications resources in Macau and abroad.

(b) Audio-visual media distribution sectors

As indicated above, the Media Office is defined by the Administrative Regulation no. 7/2012, of March 5 (http://bo.io.gov.mo/bo/i/2012/10/regadm07.asp), which regulates the service of coordination, study and technical support to the Government and services of the Administration, in the area of social communication by said Office, as well as its respective attributions. Such Office is in the hierarchical or tutelary dependence of the Chief Executive, in accordance with the Administrative Regulation no. 6/1999, of December 20.

Law no. 8/89/M, of September 4, established the legal regime for radio and television broadcasting and created the Broadcasting Council, an independent body that functions for administrative purposes with the Media Office, with the responsibility to guarantee:

i. the independence of the concessionaires and broadcasting operators, especially in face of political and economic power;
ii. the safeguarding of pluralism and freedom of expression and of thought;
iii. the accuracy and objectivity of the information;
iv. the quality of programming; and
v. the defence of the rights and the respect of the obligations set forth in the law.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

As a rule, in accordance with the MSAR Basic Law (http://bo.io.gov.mo/bo/I/1999/leibasica/index.asp), the capitalist system in Macau shall remain unchanged for 50 years after the return of Macau to the People's Republic of China. Also, the Basic Law expressly states that the right to property of companies and investments from outside the MSAR are protected by law.

In regards to the telecommunications sector, Law no. 14/2001 provides that the concession and licensing of the establishment and operation of networks and the provision of telecommunications services is incumbent upon the Government. The same Law further stipulates that the operation of public telecommunications services requires the establishment, management and operation of the infrastructures that constitute the basic telecommunications network and the provision of fixed telephone services, as well as other services considered fundamental, under the conditions defined in the applicable legislation or in concession contracts.

The legal regime for the installation and operation of fixed public telecommunications networks (Administrative Regulation no. 41/2011) states that only entities which are commercial companies regularly incorporated in the MSAR, and whose corporate purposes includes the exercise of the activity to be licensed, can be licensed. The same is to be said for the legal regime for the provision of internet service providers (Administrative Regulation no. 24/2002), which requires applicants to be commercial companies regularly incorporated in the MSAR, and whose corporate purpose includes the provision of Internet services to be licensed.

Regarding radio and television broadcasts, Law no. 8/89/M determines that the television broadcast activity is subject to a concession contract and may be granted to any legal person that is incorporated as such, has its head office in Macau, whose purpose is the exercise of the activity to be granted and offers guarantees of suitability, technical qualification and financial capacity. Similarly, the activity of radio broadcasting is subject to a permit and may be exercised by any legal person having its head office in Macau and offers guarantees of suitability, technical qualification and financial standing.

Under the Press Law (Law no. 7/90/M), the constitution of newspaper companies, editorial companies and news organisations is free, in accordance with the applicable law. However, the registration of entities that own news, editorial and news organisations, indicating their name or company name, permanent establishments, composition of the corporate bodies and distribution of share capital, as well as the registration of correspondents and other forms of representation of media outlets located outside the MSAR, with the indication of their complete identification and the information body for which they perform their functions, must be made with the Media Office prior to the beginning of any such activities.

Hence, the sectors indicated above are generally open to foreign investment; however, they are still subject to licensing/authorisation under the applicable legislation.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

The MSAR has been a WTO member since 1 January 1995 and a member of GATT since 11 January 1991. Furthermore, the MSAR Basic Law also determines that Macau shall continuously effectuate its free trade policy with freedom in the movement of goods, intangible assets and capital (http://bo.io.gov.mo/bo/I/1999/leibasica/index.asp).

The MSAR has not made commitments under GATS regarding telecommunications. The telecommunications reference paper has not been adopted nor implemented in the MSAR.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

As indicated above, Law no. 14/2001 defines the foundations of the telecommunications policy of the MSAR, as well as the general framework which regulates the establishment, management and exploration of telecommunications networks and the provision of telecommunications services rendered. The aforesaid law stipulates that it is the competence of the Government to superintend and supervise the telecommunications sector, as well as the activity of telecommunications operators.

Also, the objectives of such policy include: to gradually liberalise the installation of public telecommunications networks and the provision of public use telecommunications services; to ensure access to telecommunications, at reasonable tariffs and prices, in a non-discriminatory manner and in conditions of quality and efficiency that meet their needs, to the whole population and to economic and social activities; to ensure the existence and availability of the universal telecommunications service; to ensure equality and transparency of conditions of competition by promoting the diversification of services, in order to increase their supply and quality standards compatible with the requirements of users; and to ensure the interoperability of public telecommunications networks, as well as the portability of customers' numbers, among others.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

As indicated above, the Government of the MSAR has the responsibility to oversee and supervise telecommunications and the activity of telecommunications operators. Furthermore, the Macau Post Office is the entity whose purpose is to provide public postal services and also to regulate, supervise, promote and coordinate all activities related to the telecommunications sector in the MSAR, as per the Decree-Law no. 2/89/M. Within the Macau Post Office, the Telecommunications Management Department is the sub-unit responsible for supporting the definition of telecommunications policy, including telecommunications and broadcasting services, and for the management and monitoring of its activities, with the exception of broadcasting content.

Although the Macau Post Office is a body with legal personality and administrative, financial and patrimonial autonomy, under Decree-Law no. 2/89/M, it is under the hierarchical or tutelary dependence of the Secretary for Transport and Public Works, in accordance with the Administrative Regulation no. 6/1999, and therefore is not independent from the Government of the MSAR.

There are no MSAR regulatory authorities for competition law.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Under Law no. 9/1999, of December 20 (http://bo.io.gov.mo/bo/i/1999/01/lei09.asp), which approved the Basic Law on Judicial Organization, the appeals of decisions of the Macau Post Office shall be made with the Administrative Courts of Macau. If, however, the decision comes from the Chief Executive or from the Secretary of Transportation and Public Works (namely, regarding the imposition of fines), the appeal shall be lodged with the Second Instance Court, under the same legislation.

The procedure for appeal shall follow the regime set out in the Code of Administrative Procedure Litigation, approved by the Decree-Law no. 110/99/M, of December 13 (http://bo.io.gov.mo/bo/i/99/50/codpacpt/declei110.asp).

Regarding competition law, as previously stated, no such regulatory entities exist in the MSAR – neither the international trade obligations of Macau under the WTO framework, nor its bilateral trade relations with China and the European Union, have prompted the adoption of a specific competition law regime.

There are, nonetheless, certain provisions in the Commercial Code (article 156 *et seq.*), approved by Decree-Law no. 40/99/M, of August 3 (http://bo.io.gov.mo/bo/i/99/31/codcompt/declei40.asp), which provide for the indemnity of damages caused by anti-competition practices. Article 170 of the Commercial Code provides that the legal action by unlawful competition must be filed before a court within one year from the date in which the person sustaining the damage was aware, or could necessarily have had knowledge, of the person who provoked them, but never after three years from the date in which they occurred. Also, article 172 of the Commercial Code provides that damages suffered by violations of the competition legislation in Macau are indemnifiable.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The operation of public telecommunications networks and of public telecommunications services can be carried out by duly licensed telecommunications enterprises, under regulations to be approved by the Government regarding the access to a specific activity. The licence to exercise such activities shall define the terms and conditions under which they are authorised to carry out the activity, *inter alia*, universal service obligations and the infrastructure owned by authorised telecommunications companies, which they can install for the operation and the connection to the basic telecommunications network.

Under the Administrative Regulation no. 41/2011, the installation and operation of public fixed telecommunications networks are subject to licensing, in accordance with the terms of this Administrative Regulation. The same applies to the operation of public telecommunications networks and to the provision of telecommunications services for public land mobile use, which is also subject to licensing, in accordance with the Administrative Regulation no. 7/2002, and to the access and exercise of the activity of provision of Internet services, under the Administrative Regulation no. 24/2002.

Hence, these various applicable legislations do not differentiate between general and individual authorisations for the purpose of providing telecommunications services.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

This is not applicable.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Public telecommunications networks and public land mobile telecommunications licence (Administrative Regulation no. 7/2002)

The allocation of licences under Administrative Regulation no. 7/2002 is subject to a public tender, and only entities that meet the following requirements can be licensed:

i. those with possession of the nature of a commercial company regularly incorporated in the MSAR, whose corporate purpose includes the exercise of the activity to be licensed, with a capital stock of no less than MOP 10,000,000 (ten million Patacas);

ii. those with possession of the technical capacity and appropriate experience to fulfil the obligations and other specifications of the licence that they propose to obtain, having, in particular, staff qualified to carry out the activity;

iii. those with possession of adequate economic and financial capacity; and

iv. those with possession of updated and adequate accounting for the analyses required for the project that they seek to develop.

The entities to which licences are granted are obliged to reinforce the deposit to the amount set in the public tender regulations, within 30 days after the publication of the dispatch ordering the allocation of the licence, in order to guarantee the obligations assumed and the fines or damages that may be due under the licensed activities.

The licensed entity is subject to the payment of the following fees, of which the amounts and payment deadlines are set by order of the Chief Executive:

a) emission and renewal fees; and

b) an annual operating fee, corresponding to a percentage of the gross revenues from operating the services provided under the licensed activities.

Licences are granted for a maximum period of eight years, and may be renewed for the same period – however, the duration of the licence is not defined by the Administrative Regulation no. 7/2002 and, therefore, it is decided by the Chief Executive on a case-by-case basis.

The licence is transferable, whether for a consideration or free of charge, subject to prior authorisation by the Chief Executive. However, the entity to whom the licence is transmitted shall, under penalty of nullity of the transfer, fulfil the requirements referred to above.

Public fixed telecommunications networks licence (Administrative Regulation no. 41/2011)

Regarding the operation of public fixed telecommunications networks, the allocation of licences is subject to a public tender, and only entities that fulfil the following requirements can be licensed:

i. possess the nature of a commercial company regularly incorporated in the MSAR, whose corporate purpose includes the exercise of the activity to be licensed;

ii. are endowed with a fully paid up capital of no less than MOP 50,000,000 (fifty million Patacas);

iii. have the technical capacity and appropriate experience to fulfil the obligations and other specifications of the licence that they propose to obtain, having, in particular, staff qualified to carry out the activity;

iv. have adequate economic and financial capacity; and

v. have up-to-date financial information appropriate to the analysis of the proposed development project.

The entities to which licences are issued are obliged to provide a deposit of MOP 2,000,000 (two million Patacas) within 30 days of the publication of the allocation order, in order to guarantee the obligations assumed and the fines or indemnities that may be due within the scope of the licence.

The licensed entity is also subject to the payment of licence fees and renewal fees, as well as to a pecuniary fee for the operation of the licensed activities, the amounts and payment deadlines of which are set by order of the Chief Executive.

Licences are granted for a maximum period of 15 years, and may be renewed for periods not exceeding the licensed period; however, the duration of the licence is not defined by the Administrative Regulation no. 41/2011 and, therefore, it is decided by the Chief Executive on a case-by-case basis.

The licence is transferable, whether for a consideration or free of charge, subject to prior authorisation by the Chief Executive. However, the entity to whom the licence is transmitted shall, under penalty of nullity of the transfer, fulfil the requirements referred to above.

Internet services licence (Administrative Regulation no. 24/2002)

The request for the granting of a licence is formulated through an application addressed to the Chief Executive, and only entities fulfilling the following requirements may be licensed as Internet service providers:

i. those with possession of the nature of a commercial company regularly incorporated in the MSAR, whose corporate object includes the provision of Internet services;

ii. those with possession of the technical capacity and appropriate experience to fulfil the obligations and other specifications of the licence that they wish to obtain, having, in particular, staff qualified to carry out said activity;

iii. those with possession of adequate economic and financial capacity; and

iv. those with possession of updated and adequate accounting for the analyses required for the project that they intend to develop.

The request for the granting of a licence is made through an application addressed to the Chief Executive, signed by a person with powers to bind the applicant, with the signature notarised in that capacity, and accompanied by the following documents:

- proof of compliance with the requirements referred to above;
- detailed proposal on the operation of the services, embodied in a technical plan to be developed, including, in particular, the configuration of the technological systems to be used, with reference to the access methods and the necessary equipment, as well as the development planning of the systems and services;
- economic and financial plan, including the price system to be adopted;
- organisational structure of the applicant, including the identification and curriculum of its principal officials, and, where possible, financial statements and audit reports on the accounts for the last three financial years; and
- any other information which the applicant considers relevant for the assessment of his application.

The Telecommunications Management Department is responsible for analysing and issuing an opinion on the licence application, and may request from the applicants any clarifications and additional elements that may prove necessary for their complete analysis.

The licence is valid for a maximum period of five years, and may be renewed for periods not exceeding five years, upon request of the provider, and at least 90 days before the end of the period of validity.

The licence is transferable, whether for a consideration or free of charge, subject to prior authorisation by the Secretary for Transport and Public Works. However, the entity to whom the licence is transmitted shall, under penalty of nullity of the transfer, fulfil the requirements referred to above.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

In accordance with Law no. 14/2001, the expropriation and constitution of administrative easements necessary for the construction and radio-electric protection of the facilities necessary for the supervision of the use of the radio-electric spectrum, as well as for the installation, protection and conservation of the infrastructure of public telecommunications networks, is allowed under the terms of the law.

The regime for expropriation and constitution of administrative easements is governed by Law no. 12/92/M, of August 17 (http://bo.io.gov.mo/bo/i/92/33/lei12.asp), which defines the rules regarding the regime of expropriations for public utility, and also by Decree-Law no. 43/97/M, of October 20 (http://bo.io.gov.mo/bo/i/97/42/declei43.asp), which further develops said legal regime.

Also, the Administrative Regulation no. 41/2011 stipulates that, without prejudice to compliance with the legislation and other regulations in force in the MSAR and after obtaining the appropriate administrative authorisations, the licensed entities are entitled, *inter alia*, to:

- perform works of installation, repair and maintenance of telecommunications networks and conduits, surface and underground, as well as in public and private buildings, including installation of user terminal equipment;
- install telecommunications networks on land in the public or private domain of the MSAR or other legal persons governed by public law; and
- access private lands and buildings, with the consent of their owners, as well as public places, through agents and vehicles, provided that they are properly identified, whenever the nature of the work so requires.

It should be noted that the execution of the civil construction works, or of the alteration of the installations inherent to the exercise of the rights indicated above, requires prior opinion on the issuance of licences under the responsibility of the Department of Soil, Public Works and Transport Services to be issued by DSRT.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Administrative Regulation no. 41/2004 establishes the regime for interconnection of public telecommunications networks, which shall be made in an environment of equal conditions of competition, in order to ensure that it is carried out in a timely and reasonable manner. The Administrative Regulation no. 41/2004 establishes the following essential principles and requirements of interconnection:

- inviolability and confidentiality of communications;
- non-discrimination in the connection offer;
- interoperability of telecommunications services;
- integrity of telecommunications networks, as well as installations and equipment connected to interconnection; and
- accounting separation for legally provided interconnection entities.

It is the responsibility of the Government, at the request of either party in a dispute, to resolve the conflicts arising from the interconnection operation. The intervention of the Government must be requested within a maximum of 30 days from the date of verification of the event that gave rise to the conflict, and the decision of the Government is given within a maximum period of 60 days from the date of the full investigation of the case with the elements necessary for its analysis.

The decision of the Government can be appealed, under the terms of the general law.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Administrative Regulation no. 41/2004 provides that the operators of basic telecommunications networks shall draw up an interconnection reference document which shall include, at least, the following elements:

1) Definitions of concepts used.
2) Principles of interconnection.
3) Description of the interconnection service.
4) Technical standards.
5) Interconnection points.
6) Quality of service standards.
7) Interconnection prices.
8) Billing processes and conditions of payment.
9) Management, operation, maintenance and repair.
10) Confidentiality of communications.
11) Suspension and termination of service.
12) Conflict resolution.
13) Applicable legislation.

The interconnection reference documents and their amendments are subject to Government approval, after which the tendering operator must ensure that they are properly advertised.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

In accordance with Administrative Regulation no. 41/2004, interconnection prices should be set in a transparent, economically viable and cost-oriented manner, and all components of interconnection prices should be appropriately disaggregated so that operators are not burdened with infrastructure, equipment or service charges that are not necessary for the required interconnection.

Furthermore, the law determines that the Government shall periodically assess interconnection prices, taking into account the public interest, market evolution, cost of capital and cost developments as a result of technological development. For this purpose, the Government may request interconnection providers to justify their prices and show that they are calculated based on actual costs of the service, including a reasonable rate of cost of capital, and can determine its cost adjustment, based on separate accounting information.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

As indicated above, the following entities must possess accounting separation:

a) entities who are operators of the basic telecommunications network; and

b) entities who simultaneously provide competing telecommunications services for public use.

Also, without prejudice to the directives of principle issued by the Government, in accordance with actual requirements and in accordance with internationally accepted standards, the separate accounting system for interconnection activity shall include the following elements:

1) the cost model used, including the calculation basis;

2) the identification of all individual components of costs which together constitute the interconnection price, including the cost of capital invested;

3) the method of calculating the cost of capital;

4) cost objects; and

5) the accounting conventions and principles used.

No specific provisions exist regarding functional or legal separation.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Without prejudice to the legislation described above, no specific regulation exists regarding high-speed broadband networks.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Under the Administrative Regulation no. 7/2002, licences shall lay down the terms and conditions for, *inter alia*, supply conditions, including non-discriminatory pricing systems.

Also, the same regulation determines that the prices of services provided by the licensed entities are approved by the Government, which may determine their total or partial liberalisation, by order of the Chief Executive. The prices should be fixed as close as possible to the cost of services rendered, and the Government may set ceilings, taking into account the need for a commercial income on the investment made.

Therefore, prices are not imposed but are subject to the control of the Government.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

There is no specific stipulation regarding the provision of electronic communications services to consumers, such as universal service.

Law no. 14/2001 determines that the telecommunications policy aims to ensure to the whole population and to economic and social activities the access to telecommunications, at reasonable rates and prices, in a non-discriminatory manner, and in conditions of quality and efficiency that correspond to its needs and ensure the existence and availability of the universal telecommunications service.

In accordance with said law, the set of obligations inherent to the universal service of telecommunications shall be determined in an evolutionary way, in accordance with technological progress, market development and changes in demand by users, taking into account the requirements of harmonious and balanced economic and social development.

As regards the operation of public telecommunications networks and telecommunications services for public use, the Law provides that the licence titles for the exercise of the above activities define the terms and conditions under which they are authorised to carry out the activity, namely the obligations of universal service. Hence, the respective licence may stipulate stricter rules/objectives regarding universal service.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and network identifying codes are allocated under the Administrative Regulation no. 15/2002; this regulation further stipulates that the numbering resources are part of the public domain and their use is subject to prior assignment, in accordance with this Administrative Regulation and the Numbering Plan, approved by Dispatch of the Secretary for Transport and Public Works no. 43/2016, of October 17 (http://bo.io.gov.mo/bo/i/2016/42/despstop.asp#43).

2.17 Are there any special rules which govern the use of telephone numbers?

The management and allocation of numbering resources shall comply with the principles of non-discrimination, fairness, transparency and effective and efficient use, and shall not prejudice the freedom of choice of the operator/provider or impede number portability, the functionality through which users who request it can keep their number(s), regardless of the operator or service provider offering the respective service.

With regard to the Numbering Plan, it must have numbering capacity and management flexibility in order to ensure the development of telecommunications, and be capable of adapting to new technologies and services.

2.18 Are there any obligations requiring number portability?

As stated above, the Administrative Regulation no. 15/2002 determines that the management and allocation of numbering resources shall not prejudice the freedom of choice of the operator or provider or impede number portability.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

In accordance with Law no. 8/89/M, radio spectrum belongs to the public domain of the MSAR; the Chief Executive may allocate other

frequency bands of the broadcasting service already available or which, as a consequence of technological development, have been added to the International Frequency Allocation Plan.

Furthermore, Decree-Law no. 18/83/M, of March 12, determines that the Chief Executive is responsible for all activities related to the management, general administration and policy of radio communications, and that such administration shall be exercised through the Macau Post Office, which shall be responsible for:

a) management of the radio electric spectrum;

b) support to the Government in the coordination, tutelage and planning of the radio communications sector; and

c) representation of said sector.

In the area of management of the radio spectrum management, the Macau Post Office is responsible for:

i. the assignment of frequencies;

ii. the setting and monitoring of conditions of use;

iii. the supervision of radio electric installations, with the exception of those related to the Security Forces;

iv. the control and monitoring of radio interference; and

v. the application of sanctions, when applicable.

As previously indicated, the Telecommunications Management Department is the sub-unit with the Macau Post Office which is responsible for supporting the definition of telecommunications policy, including telecommunications and broadcasting services, and for the management and monitoring of its activities, with the exception of broadcasting content. The Telecommunications Management Department is responsible, *inter alia*, for standardising and managing telecommunications and broadcasting activities, in particular to monitor compliance with the provisions of legislation, regulations, licences, contracts or regulatory directives applicable to network operators and service providers, with the exception of broadcasting content.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

As indicated above, Law no. 8/89/M determines that the television broadcast activity is subject to a concession contract and may be granted to any legal person that is incorporated as such, has its head office in Macau, whose purpose is the exercise of the activity to be granted, and that offers guarantees of suitability, technical qualification and financial capacity. Similarly, the activity of radio broadcasting is subject to a permit and may be exercised by any legal person with its head office in Macau, offering guarantees of suitability, technical qualification and financial standing.

The installation and operation of television and sound broadcasting equipment is subject to compliance with the legal provisions on radio communications in force in the MSAR (namely, Decree no. 185/93/M, of June 28, and Decree-Law no. 48/86/M, of November 3) and must be requested from the Macau Post Office.

Furthermore, as already referred to above, the Macau Post Office is responsible for the assignment of frequencies and the setting and monitoring of conditions of use (among others). No specific procedures are presented to allocate spectrum between candidates.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

As a rule, according to Decree-Law no. 18/83/M, no person in the MSAR or on board a ship or aircraft subject to its laws may hold in its possession transmitting, receiving or radio communication transmitting equipment, nor to establish or use a station or a radio communication network, without prior governmental authorisation.

However, said Decree-Law exempts radio equipment from governmental authorisation, namely the radio communications equipment used by the Security Forces and the Judicial Police, which are needed for the collective needs of security and public order, as well as the following equipment:

a) equipment of reduced power and small scope, included in categories to be fixed by governmental order; and

b) receivers of radio and television broadcasting services.

Regarding the activity of television and radio broadcasting, Law no. 8/89/M stipulates that the granting of concessions (for television broadcasting) and the award of permits (for radio broadcasting) shall be preceded by a call for tenders, except where duly motivated and reasoned advice directs adjustment.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The fees and fines applicable to radio services were approved by the Administrative Regulation no. 16/2010, of July 12 (http://bo.io.gov.mo/bo/i/2010/28/regadm16.asp), which sets out the "General Table of Fees and Fines Applicable to Radio Services".

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Under Law no. 8/89/M, for both television and radio broadcasting concessions/permits, the transmission, by any title, of rights or social participation in the broadcasting companies, is dependent on previous authorisation by the Chief Executive.

Furthermore, any such transmission, by any title, of rights or social participation against the provisions of this law is null and void.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Under Law no. 8/89/M, the conveyance of the concession is allowed as long as it is duly substantiated and authorised by the grantor. Regarding radio broadcast permits, the same may be transmitted, free of charge or not, together with the broadcasting station concerned to the licensed wave type, after three years of its attribution or renewal. However, the transmission is subject to prior authorisation by the Chief Executive.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Law no. 16/92/M, of September 28 (http://bo.io.gov.mo/bo/i/92/39/lei16.asp), establishes and regulates the inviolability and protection of the secrecy of postal communications, telecommunications and other private communications. It also prohibits any interference by public authorities in postal communications and telecommunications, except in cases provided for in this law and other applicable legislation.

Under the terms of Law no. 16/92/M, the duty of secrecy in communications covers the secrecy of postal communications (which

includes a prohibition on reading any correspondence, even if not contained in a closed envelope, and on opening closed correspondence) and the secrecy of telecommunications (which consists of the prohibition of learning the content of any message or information, except to the extent that the execution of the service so requires).

The secrecy of postal communications and telecommunications also covers the prohibition on disclosure to third parties of the content of any message or information, which has been duly or unduly known, and of the relationship between senders and recipients and their addresses.

Furthermore, the Chief Executive Dispatch no. 186/2013, of June 24, created the Public Registered Postal E-mail Service and approved the respective regulation; said Service consists of the acceptance by the Public Operator of electronic messages sent by computer means by an authenticated sender in order to be delivered, also by computer means, to the recipient or authenticated recipients, indicated by the sender.

Also, Law no. 11/2009, of July 6 (http://bo.io.gov.mo/bo/i/2009/27/lei11.asp), establishes the criminalisation of computer crimes and also determines a regime for collecting evidence in electronic format (including telecommunications).

Finally, the treatment of personal data is regulated by Law no. 8/2005, of August 22 (http://bo.io.gov.mo/bo/i/2005/34/lei08.asp), which establishes the legal regime for the processing and protection of personal data.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

As indicated above, Law no. 16/92/M establishes and regulates the inviolability and protection of the secrecy of said communications. It also prohibits any interference by public authorities in postal communications and telecommunications, except in cases provided for in this law and other applicable legislation.

Also, the Administrative Regulation no. 41/2004 establishes the regime of interconnection of public telecommunications networks, which shall be made in an environment of equal conditions of competition, in order to ensure that it is carried out in a timely and reasonable manner, ensuring in particular the inviolability and confidentiality of communications, the non-discrimination in the provision of interconnection, the interoperability of telecommunications services, and the integrity of telecommunications networks, installations and equipment assigned to interconnection.

The Macau Criminal Procedure Code (Law no. 17/96/M, of August 12) stipulates that the seizure of letters, packages, valuables, telegrams or any other correspondence can only be made, under penalty of nullity, when authorised or ordered by judicial order and provided there are reasonable grounds to believe that:

a) the correspondence was issued by the suspect or addressed to him, even if under a different name or through a different person;

b) a crime punishable by a prison sentence of a maximum limit of more than three years is at stake; and

c) the inquiry will be of great interest for the discovery of the truth or for the proof of crimes.

Also, the judge who authorised or ordered the proceedings is the first person to take note of the content of the seized correspondence; if he/she considers it relevant to the proof, it will be attached to the procedure; if not, it shall be returned to the relevant person and it cannot be used as a means of proof. Also, the judge is bound by a duty of secrecy in relation to what he has learned and is not considered to be of interest for evidentiary purposes.

Further, in the course of the investigation, it is the sole responsibility of the investigative judge to order or authorise seizures of correspondence (as described above), or interceptions or recordings of telephone conversations or communications, in accordance with the Criminal Procedure Code, and any other acts the law expressly subjects to an order or authorisation of the investigative judge.

Therefore, only a judge may access private communications within the scope of a criminal procedure.

However, in what pertains to the use of telecommunications, the Commission Against Corruption, an independent body that only responds to the Chief Executive (created by Law no. 10/2000, of August 14 (http://bo.io.gov.mo/bo/i/2000/33/lei10.asp)) – whose mission is to promote actions to prevent and investigate crimes of corruption and related crimes of fraud within the framework of public and private sector activities, as well as to serve as Ombudsman, promoting the defence of rights, freedoms, guarantees and legitimate interests of persons, in accordance with their attributions – shall have access, in any form, including computerised form, to the information contained in the files of the Administration and of public and autonomous entities, necessary for the performance of its duties, and for the purpose of criminal investigations, to information contained in the files of the operators of telecommunications services regarding the identity of the owners of telecommunications means.

Finally, Law no. 11/2009, of July 6 (http://bo.io.gov.mo/bo/i/2009/27/lei11.asp), establishes the criminalisation of computer crimes and also determines a regime for collecting evidence in electronic format (including telecommunications). Under this legislation, the access to private communications shall follow the rules of the Criminal Procedure Code (namely regarding the access to private correspondence).

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

No such rules exist – as per the Criminal Procedure Code, the interception or recording of telephone conversations or communications can only be ordered or authorised by order of a judge, if there is reason to believe that such diligence will be of great interest for the discovery of the truth or for the proof of crimes:

a) punishable by imprisonment with a maximum limit of more than three years;

b) relating to the trafficking of narcotic drugs;

c) in relation to prohibited weapons, to explosive devices or materials or similar;

d) of smuggling; or

e) of injuries, threats, coercion and intrusion in private life, when committed by telephone.

4.4 How does the state intercept communications for a particular individual?

Without prejudice to the stipulations regarding criminal procedures and the powers of the Commission Against Corruption, no such terms exist.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Without prejudice to the Public Registered Postal E-mail Service (regarding the encryption of electronic messages by such entity), no specific rules exist regarding encryption.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

No minimum deadline for retaining data exists.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Regarding the press, as indicated above, the main legislation is the Law no. 7/90/M, which regulates the exercise of freedom of the press, the right to information and the activity of journalistic, editorial and news organisations.

The law also regulates the organisation of publications and press registration, the exercise of the right of reply, denial, rectification, and clarification, as well as the regime regarding liability for unlawful acts not provided for in the common criminal legislation. As stated above, the Decree no. 11/91/M, of January 28 (http://bo.io.gov.mo/bo/i/91/04/port11.asp), regulates the way in which the press register is processed, through its own media, with the Media Office.

Without prejudice to the stipulations of the Decree-Law no. 43/99/M, of August 16 (http://bo.io.gov.mo/bo/i/99/33/declei43.asp), regarding the regime of copyright and related rights, no specific stipulations regarding the distribution of audio-visual media exist in Macau.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Without prejudice to specific stipulations regarding the journalistic activity and journalistic content under the Law no. 7/90/M, no differences exist between content broadcast via traditional distribution platforms as opposed to content delivered over the Internet or other platforms.

As for advertisement, Law no. 7/89/M, of September 4 (http://bo.io.gov.mo/bo/i/89/36/lei07.asp), establishes the legal regime of advertising; however, it does not discriminate between the platforms being used for such advertising and, therefore, is applicable regardless of the medium.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

This is not applicable.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

This is not applicable.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

We have no knowledge of any decision on this matter.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Under the Administrative Regulation no. 24/2002, the provider of Internet services shall, *inter alia*, take the necessary measures to ensure the inviolability and confidentiality of communications of the services provided, as well as for the protection of personal data and privacy, to ensure the integrity and inviolability of computer networks and systems, and to observe the laws in force in the MSAR, as well as the orders, injunctions, commands, directives, recommendations and instructions that, under legal terms, are issued by the competent authorities.

Similarly, Law no. 14/2001 determines that the users of telecommunications services are guaranteed, in particular, the right to inviolability and the confidentiality of their communications, in accordance with the law.

Therefore, if there is an injunction or court order in a given procedure regarding the infringement of rights, telecommunications operators must provide the requested assistance.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Law no. 14/2001 determines that operators of the public telecommunications service must guarantee the use of their networks by all telecommunications operators on an equal footing, by allowing the interconnection of telecommunications networks used by other operators, in order to guarantee access and communications among users of the services provided by different operators.

It further prohibits telecommunications operators from engaging in any practice which distorts a level playing field or which leads to an abuse of a dominant position, in particular:

a) discriminatory practices in the context of relations with other telecommunications operators and with the general public;

b) agreements or concerted practices between telecommunications operators or associations of undertakings, irrespective of their form, which have the effect of distorting, restricting or impeding competition; and

c) all forms of cross-subsidisation or other practices which undermine competition or freedom of choice for users, such as unfair customer attraction.

Also, as indicated above, the Administrative Regulation no. 41/2004 establishes the regime of interconnection of public telecommunications networks, which shall be made in an environment of equal conditions of competition, ensuring (*inter alia*) non-discrimination in the provision of interconnection.

Finally, the Administrative Regulation no. 41/2011 stipulates that the licence for the installation and operation of fixed public telecommunications networks may be suspended by order of the Chief Executive when there are acts that distort the conditions of competition, or that lead to an abuse of a dominant position.

In any event, regarding this particular subject, please note that the prices of the services to be provided to the users by the entities licensed are approved by dispatch of the Secretary for Transport and Public Works and, although the total or partial liberalisation of the prices referred to in the previous number can be determined by an order of the Chief Executive, the Administrative Regulation no. 41/2011 stipulates that the prices referred to above must be set as close as possible to the cost of services, and maximum and/or minimum limits may be set, taking into account commercial income and free competition.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Without prejudice to the competencies of the Telecommunications Management Department (as indicated above), no specific regulation exists regarding such matters.

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Rato, Ling, Lei & Cortés – Lawyers is a Macau SAR-based law firm with more than 30 years' experience of legal practice in Macau. Services regularly provided by the firm include issuing legal opinions and advising on Macau law, helping international companies to start their businesses in Macau and assisting in the reorganisation of economic groups with connections to Macau.

In 2016, Rato, Ling, Lei & Cortés partnered with Zhong Yin Law Firm, in the People's Republic of China, and Fongs, in Hong Kong, to open a new office on Hengqin Island, Zhuhai, PRC: ZLF Law Firm. This is the first law office that unites firms from the two Special Administrative Regions and Mainland China.

The firm also recently opened an office in Lisbon.

The academic and professional backgrounds, the update and specialisation, together with the experience of the lawyers of Rato, Ling, Lei & Cortés, are the key to answering the increasing demand of the firm's worldwide clients.

Chapter 23

Malaysia

Shearn Delamore & Co.

Janet Toh

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

(a) The telecommunications sector in Malaysia has seen significant growth in recent decades. The primary regulator of telecommunications in Malaysia is the Malaysian Communications and Multimedia Commission ("the Commission"/"MCMC"). Though market liberalisation has played a big role in ensuring the growth of the industry, regulatory reforms have been a contributing factor too. Telekom Malaysia ("TM") is the largest player, providing fixed-line services in the retail and wholesale telecommunications sector in Malaysia, while Celcom, Digi, Maxis and U Mobile are the larger players in the mobile sector.

Malaysia had a rational four-player telco market right up to 2016, when U Mobile started to become more aggressive with unlimited data plans, while TM's webe (now known as "Unifi") entered as the fifth mobile player. Another recent operator to have emerged on the scene is LTE-only operator Yes. In terms of revenue market share, Maxis is the leader with a market share of 35% in 2017. Meanwhile, Celcom's revenue market was 27% in 2017, whilst Digi's revenue market share averaged at 26%.

(b) Audio-visual Media Distribution

The broadcasting industry in Malaysia has been growing rapidly in recent years with the introduction of the Digital Terrestrial Television Broadcasting ("DTTB") infrastructure, which allows for free-to-air ("FTA") broadcasters to migrate from analogue to the digital platform from 2016. Malaysia Pay TV service providers are met with an increasingly demanding and competitive market by providing more channels as well as services. Although competition is beginning to emerge in Malaysia's Pay TV market, Astro All Asia Networks ("ASTRO") still dominates despite the rapid move towards digitalisation, as high-speed internet remains underpenetrated in rural areas.

ASTRO, with approximately 75% market penetration of Malaysian TV households in 2017, ventured into the IPTV service in 2010. ASTRO is reported to have revenues of RM 5.5 billion in January 2018. The broadcasting industry in Malaysia is open to competition and foreign investment.

(c) Internet

TM is the dominant fixed broadband player in the country, with over 2.35 million of the 2.5 million broadband subscribers as at the end of August 2017. TM continues to monopolise the fixed broadband market with approximately 95% of the market share. The biggest competitors of TM are Time dotCom Bhd and Maxis Berhad.

Mobile companies such as Maxis Berhad, Celcom Axiata Bhd, and Digi.com Bhd play a major role in the provision of cellular or mobile broadband services in Malaysia. The internet industry in Malaysia is liberalised and open to foreign investment.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms, including internet

- Communications and Multimedia Act 1998 (hereinafter referred to as the "CMA").

  The purpose of the CMA is to provide for and to regulate the converging communications and multimedia industry. The CMA forms the core legislation governing the communications and multimedia industry in Malaysia. The CMA provides for the Communications and Multimedia Content Forum to prepare and draw up a Content Code after appropriate consultations, and to enforce the Code containing governing standards and practices in the communications and multimedia industry.

  The Content Code, which the Communications and Multimedia Content Forum of Malaysia has adopted for the purpose of statutory duty, sets out the guidelines and procedures for good practice and standards of content disseminated to audiences by service providers in the communications and multimedia industry in Malaysia.
- Personal Data Protection Act 2010.
- Companies Act 1965.
- Penal Code.
- Financial Services Act 2013.
- Computer Crimes Act 1997.
- Consumer Protection Act 1999.
- Consumer Protection (Electronic Trade Transactions) Regulation 2012.
- Copyright Act 1987.
- Digital Signature Act 1997.
- Electronic Commerce Act 2006.
- Electronic Government Activities Act 2007.
- Capital Markets and Services Act 2007.
- Sedition Act 1948.

- Strategic Trade Act 2010.
- Postal Services Act 1999.
- Film Censorship Act 2002.
- Companies Act 2016.
- Financial Services Act 2013.
- Direct Sales Act 1993.
- Common Gaming Houses Act 1953.
- Betting Act 1953.
- Pool Betting Act 1967.

(b) The above legislation is also relevant to the audio-visual sector as the CMA unified the regulations.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms

- Ministry of Communications and Multimedia – Malaysian Communications and Multimedia Commission. The Ministry of Communications and Multimedia has primary responsibility for determining policies and regulations. The Malaysian Communications and Multimedia Commission was established under the Malaysian Communications and Multimedia Commission Act 1998 as a regulator for the communications and multimedia industry in Malaysia; it regulates the networked information technology industry services and the operational and administrative aspects of the regulatory framework.
- Securities Commission Malaysia.
- Personal Data Protection Commission/Department.
- Minister of Information, Communications and Culture.
- Minister of Domestic Trade and Consumer Affairs.
- Companies Commission of Malaysia.

(b) Audio-visual Media Distribution

- Ministry of Communications and Multimedia Malaysia.
- The Malaysian Communications and Multimedia Commission.
- Department of Personal Data Protection.
- Film Censorship Board Malaysia – Advertising Standards Advisory.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

(a) The communications and multimedia sector in Malaysia has gone through major transformation over the last two decades. It has evolved from the time of the monopoly incumbent operator to the subsequent privatisation of Telekom Malaysia and liberalisation of the telecommunications sector, to the convergence regime under the CMA. This exercise changed the telecommunications sector, which was monopolistic in structure, to one that was highly competitive and service-oriented.

There has been effort by the government to liberalise the market and it has allowed for the injection of foreign investment. In 2012, the government liberalised the services sector by allowing 100% equity participation in phases. The Commission began allowing 100% foreign equity participation for Applications Service Providers ("ASP") licensees in April 2012.

However, only 70% foreign participation is allowed for network facilities providers and network service providers.

(b) Audio-visual Media Distribution

There are no rules restricting foreign ownership or investment in the industry.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Malaysia has been a member of the World Trade Organisation since 1 January 1995 and is a member of the GATT. Malaysia has, under the GATS, made several commitments on limitation on market access, and has adopted and implemented the telecoms reference paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The CMA provides a regulatory framework for the communications and multimedia industry. The CMA has an expansive scope, ranging from spectrum allocation and consumer protection to content regulation and investigatory powers. The main subjects of regulation under the CMA are applications services and network services. The CMA further pertains to content applications services, which appear to include online intermediaries.

The Ministry of Communications and Multimedia has primary responsibility for determining policies and regulations. The governmental actors involved in the administration of the Act are "the Minister charged with responsibility for communications and media" and the Malaysian Communications and Multimedia Commission, which was established under the Malaysian Communications and Multimedia Commission Act 1998, and which regulates networked information technology industry services and operational and administrative aspects of the regulatory framework. The Minister of Communications and Multimedia ("Minister"), to whom the Commission is answerable, has primary responsibility for determining policies and regulations in the communications and multimedia, broadcasting, information technology and postal sectors.

The Minister can give the Commission general directions relating to performance of the Commission's functions and the Commission must comply with them. Certain policy decisions affecting competition in the industry, such as licensing and the principles for spectrum use and rate regulation, are reserved for the Minister. The Commission's primary functions include:

- Advising the Minister on all matters concerning national policy objectives for communications and multimedia activities.
- Making recommendations to the Minister on various matters, including the grant of individual licences, cancellation of a person's registration under a class licence, and variations of licence conditions.
- Implementing and enforcing the CMA.
- Issuing directions in writing to any person regarding compliance with licence conditions, including remedy of a breach of a licence condition, the CMA or its subsidiary legislation.

- Holding public inquiries in relation to proposed changes to regulation.
- Issuing determinations on mandatory standards for matters subject to a voluntary industry code, if the Commission is satisfied that the voluntary industry code has failed and will continue to fail.

With its creation, the Commission set forth 10 national policy objectives to:

- establish Malaysia as a major global centre and hub for communications and multimedia information and content services;
- promote a civil society where information-based services will provide the basis of continuing enhancements to quality of work and life;
- grow and nurture local information resources and cultural representation that facilitate national identity and global diversity;
- regulate for the long-term benefit of the end user;
- promote a high level of consumer confidence in service delivery from the industry;
- ensure an equitable provision of affordable services over ubiquitous national infrastructure;
- create a robust applications environment for end users;
- facilitate the efficient allocation of resources such as skilled labour, capital, knowledge and national assets;
- promote the development of capabilities and skills within Malaysia's convergence industries; and
- ensure information security and network reliability and integrity.

The Commission is committed not only to the licensees under the CMA, but also to the consumers and to the economic and technical regulation of the communications and multimedia industry. In addition, the Commission provides for the framework of the licensing requirements of the communications and multimedia industry. Pursuant to section 81 of the CMA, the Commission maintains a register, in both physical and electronic form, of all matters which are required to be registered under the CMA and its subsidiary legislation.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

Malaysia saw its regulator, the Malaysian Communications and Multimedia Commission, set up in 1999, one year after the introduction of the converged telecoms legislation, the CMA. The CMA contains competition provisions which prohibit a licensee from engaging in conduct which has the purpose of substantially lessening competition in a communications market. The Commission is not independent from the government.

The Commission, however, works separately from the Malaysia Competition Commission ("MyCC"), which was established on 1 April 2011 with the purpose of enforcing the Competition Act 2010. MyCC's key role is to implement and enforce the provisions of the Competition Act 2010, to function as an advocate on competition matters, to conduct studies on competition-related activities and to enhance public awareness of the impact of competition on the economy of Malaysia.

The Competition Act 2010 does not apply to commercial activities under the CMA which, as mentioned above, has its own competition regulations with the Commission as the regulating body.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

The decision of the Commission is appealable by way of judicial review. Section 18 of the CMA provides that the Appeal Tribunal may review any matter on appeal, including a decision or direction of the Commission, but not a determination of the Commission. Section 18 also provides that any decision made by the Appeal Tribunal is final and binding on the parties to the appeal, and is not subject to further appeal. Section 23A of the CMA further provides that any decision given by the Appeal Tribunal may be enforced in the same manner as a judgment or an order of the High Court.

Section 120 of the CMA provides that an aggrieved person or person whose interest is adversely affected by a decision or direction (but not a determination) of the MCMC may appeal to the Appeal Tribunal for a review of the merits and the process of certain decisions or directions of the MCMC, unless the matter is not subject to an appeal to the Appeal Tribunal. Further, section 121 of the CMA provides that a person affected by a decision or other action of the Minister or the Commission may apply to the court for a judicial review of such decision or other action.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The CMA provides for an activity-based licensing regime that is technology neutral. Within the activity categories, there are two key types of licences. Section 126 of the CMA prohibits any person from: (a) owning or providing any network facilities; (b) providing any network services; or (c) any applications services except with a valid individual licence or a class licence, both of which are granted under the CMA.

The four categories of licensable activities are a Network Facilities Provider, Network Services Provider, Applications Service Provider and a Content Applications Service Provider, which are summarised as follows:

(a) Network Facilities Provider's ("NFP") licence

NFPs are the owners/providers of network facilities, namely infrastructure such as cables, towers, satellite earth stations, broadband fibre optic cables, telecommunications lines and exchanges, radiocommunications transmission equipment, mobile communications base stations and broadcasting transmission towers and equipment.

(b) Network Service Provider's ("NSP") licence

NSP licences are given for the purpose of the provision of basic connectivity and bandwidth to support a variety of applications. NSPs would usually deploy the said network facilities. Examples of NSP services are bandwidth services, broadcasting distributions services, and access application services.

(c) Applications Service Provider's ("ASP") licence

ASP licences are given to those who provide for specific particular functions. This would include electronic commerce, internet access, voice services, and messaging services. Application Services are defined as "services provided by means of, but not solely by means of, one or more network services" in the CMA.

(d) Content Application Service Provider's ("CASP") licence

This category of licence is granted to a special subset of ASPs who provide content to end users. This includes satellite broadcasting, terrestrial free-to-air TV, limited content application services and internet content application services.

For each of the above four categories of licence, the licence may be an Individual or Class Licence and the type of licence required will largely depend on the licensable activity. A summary of the types of licences is as follows:

(a) Individual licence

An individual licence is a licence granted for a specified person to conduct a specified activity, and this may be subject to conditions imposed upon such a licence. An individual licence requires a higher degree of control and thus may include additional and/or special conditions.

(b) Class licence

A class licence refers to a licence for any or all persons to conduct a specified activity. It is a "light-handed" form of regulation to promote industry growth and development with easy market access.

(c) Exempt/unlicensed

Pursuant to the Communications and Multimedia (Licensing) (Exemption) Order 2000, certain activities are exempted from the requirement of obtaining a licence. These include internet content application services and web-hosting services.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Standard licence conditions for an individual and class licence are provided in the Schedule of the CMA.

Individual licence

The following persons or classes of persons shall be ineligible to apply for an individual licence:

(a) a foreign company as defined under the Companies Act 2016;

(b) an individual or a sole proprietorship;

(c) a partnership; and

(d) such other persons or classes of persons as may be decided by the Minister from time to time.

Class licence

For a class licence, the licensee must comply with the numbering and electronic addressing plan issued under the CMA, and they must also comply with the spectrum plan and any consumer code registered, as well as other standard conditions declared by the Minister or any other subsidiary legislation. The following persons or classes of persons are not eligible to be registered as class licensees:

(a) a foreign individual who is not a permanent resident; and

(b) a foreign company as defined under the Companies Act 2016.

Regulation 3 of the Communications and Multimedia (Licensing) Regulations 2000 provides that an individual or a class licence shall, in addition to the standard conditions set out in the Schedule to the CMA, include the following standard conditions:

(a) the licensee shall, in respect of all apparatus, equipment and installations possessed, operated, maintained or used under the licence, take all proper and adequate safety measures to safeguard life or property, including exposure to any electrical emission or radiation emanating from the apparatus, equipment or installations so used; and

(b) the licensee shall take reasonable steps to ensure that the charging mechanism used in connection with any of its network facilities and/or network services are accurate and reliable in all material aspects.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

There are four, namely a network facilities provider, network service provider, applications service provider or a content applications service provider. The Schedule under the CMA does provide that a class licence replaces any other licence granted by the Minister, and shall be the sole licence held by the licensee in respect of the network facilities authorised under the licence, as provided under section 126 of the 1998 Act. An individual licence is required by the following providers:

- Network Facilities Providers:
  - earth stations;
  - fixed links and cables;
  - radio communications transmitters and links;
  - satellite hubs;
  - satellite control stations;
  - space stations;
  - submarine cable landing centres;
  - towers, poles, ducts and pits used in conjunction with other network facilities; or
  - such other network facilities which are not exempt under the CMA or are not subject to a class licence under Part IV of the Communication and Multimedia (Licensing) Regulations 2000, or are not listed in this subparagraph.
- Network Service Providers:
  - bandwidth services;
  - broadcasting distribution services;
  - cellular mobile services;
  - access applications services;
  - space services;
  - switching services;
  - gateway services; or
  - such other network services which are not exempt under the CMA or are not subject to a class licence under Part IV of the Licensing Regulations, or are not listed in this subparagraph.
- Applications Service Providers:
  - satellite broadcasting;
  - subscription broadcasting;
  - terrestrial free-to-air TV;
  - terrestrial radio broadcasting; or
  - such other content applications services which are not exempt under the CMA or are not subject to a class licence under Part IV of the Licensing Regulations, or are not listed in this subparagraph.

Individual licences may be transferred by the applicant, who will have to provide the following to the Commission:

(a) a formal letter (details of transfer) and an application fee of RM 5,000 per licence; and

(b) additional information or documents as may be requested by the Commission.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

The CMA provides for the inspection of land in order to determine if the land is suitable for installing or obtaining access to network facilities. Section 214 of the CMA allows a network facilities provider to, in the purpose of determining whether any land is suitable for the purpose of installing, or obtaining access to, enter on, inspect the land and do anything desirable for that purpose. This includes making surveys, taking levels, sinking bores, taking samples, digging pits and examining the soil.

Naturally, the installation of network facilities needs to be authorised with a network facilities installation permit, issued by the Commission under section 226 of the Act. If an NFP is authorised to carry out the installation of network facilities, the NFP may enter and occupy any land and do anything that is necessary or desirable for those purposes.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

There is an obligation under Part X of the CMA, specifically under section 228 of the CMA, for a network facilities provider to provide non-discriminatory access to any post, network facilities or right-of-way. Access may be denied where there is insufficient capacity or for reasons of safety, security, reliability, or difficulty of a technical or engineering nature, of a non-discriminatory nature. The Commission provides for the Commission Determination on Access List No.1 of 2015, which sets out the facilities or services with access obligations under the CMA.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Each Access Provider or operator has to prepare a Reference Access Offer Agreement for each facility listed in the Access List. The Access Provider has disclosure, negotiation, content and service obligations under the Commission Determination on the Mandatory Standard on Access 2009 ("MSA") or under any determinations of the Commission. An Access Reference Document ("ARD") contains terms and conditions of access, including rates of facilities and services on the Access List.

All those with the obligations to provide the facilities and services on the Access List (Access Providers) are obliged to prepare an ARD, setting out detailed terms and conditions of access. Access Seekers are then to negotiate an Access Agreement with the Access Provider based on, and aligned with, the MSA and ARD.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

The Commission regulates the pricing and cost in relation to the services and/or facilities provided. The Commission has issued the Commission Determination on the Mandatory Standard on Access Pricing, the latest being Determination No.1 of 2017, which sets the prices from 2018 to 2020, and which came into effect on 1 January 2018. Hence, the prices of all the facilities and services listed in the Determination apply to Access Providers and Access Seekers beginning from 1 January 2018.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Operators are required to have account separation. The revised Guidelines on Implementation of Accounting Separation in Malaysia were published by the Commission on 1 November 2016. The Commission requires separate accounts for, namely, operators with revenue and total assets in Malaysia exceeding RM 3 billion and below RM 3 billion.

There is, however, no requirement of functional or legal separation.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

High-speed broadband networks which are no different to other communication and multimedia activities are regulated, and are also subject to the Access List. Malaysia has the National Broadband Implementation Strategy or better known as National Broadband Initiative ("NBI") which puts in place a national strategy that brings broadband to the whole nation. Malaysia has invested in national public-private partnership programmes such as High Speed Broadband and Broadband for General Population, prioritising the growth of internet coverage over other parameters. Since 2008, the government had signed a Public-Private Partnership ("PPP") agreement with Telekom Malaysia Berhad ("TM") to roll out high-speed broadband infrastructure in selected areas.

This project is called the High Speed Broadband ("HSBB") Project for the deployment of a network with speeds greater than 10 Mbps in strategic areas with high economic impact. Since 2014, the Commission has implemented an initiative called Fiber Optic Network Expansion, in which the existing core networks that connect the communications towers will be upgraded to fibre optics. The upgrading of core networks will enable 3G and 4G broadband services to be provided. This is to accommodate the demand for high-speed broadband.

In January 2018, TM and Tenaga Nasional Berhad ("TNB") signed a Memorandum of Understanding ("MoU") to jointly develop an implementation plan to deliver on the government's Nationwide Fiberisation Plan ("NFP").

The Commission has published Technical Codes for the testing and certification of both fixed and wireless communications equipment. These documents deal primarily with the technical requirements for safety, frequency bands, interoperability, electromagnetic compatibility and non-interference.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Currently, only fixed phone lines ("PSTN2") and internet dial-up rates are regulated. The Communications and Multimedia (Rates)

Rules 2002 ("Rates Rules") came into operation on 1 March 2002, revoking the Telephone Regulations 1996 ("Telephone Regulations"). The Rates Rules regulate the retail prices for Public Switched Telephone Network ("PSTN") services, which include rental on: exchange lines, local and national call charges, connection and reconnection fees; emergency services; operator assistance services; directory assistance services; and payphone services for local calls, national calls and national calls through operator assistance, internet access services and audiotext hosting services.

NFPs, NSPs, ASPs, and CASPs are generally allowed to set the retail price according to market rates. Retail rate regulation is set out in Chapter 4 of Part VIII of the CMA. Sections 197 and 198 relate to rate setting by service providers, wherein section 198 provides the principles that service providers should follow in setting their rates. Section 197 of the CMA provides that providers may set rules in accordance with the market rates, and further publish the rates charged to customers for one or more services.

Section 198 of the CMA provides that the provider shall set the price based on the following principles:

(a) rates must be fair and, for similarly situated persons, not unreasonably discriminatory;

(b) rates should be oriented towards costs, and cross-subsidies should be eliminated;

(c) rates should not contain discounts that unreasonably prejudice the competitive opportunities of other providers;

(d) rates should be structured with levels set to attract investment into the communications and multimedia industry; and

(e) rates should take account of the regulations and recommendations of the international organisations of which Malaysia is a member.

Sections 199 to 201 relate to the powers of the Minister in relation to setting rates; for example, the Minister may make rules under section 201, i.e., the current Rates Rules, or the Minister may determine a special rate regulation regime under section 200.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Section 2 of the CMA provides that one of the 10 policy objectives is to promote a high level of consumer confidence in service delivery from the industry, which is further reflected in section 188 of the CMA, which sets out that providers must deal reasonably with consumers and adequately address consumer complaints. To ensure enforcement of the provision, operators can be fined no more than RM 20,000, or imprisonment for a term not exceeding six months or both. The CMA provides for consumer protection, such as rate regulations and consumer dispute resolutions.

The Commission's General Consumer Code of Practice sets out the mechanism for the handling and resolution of consumer disputes. The Commission monitors and regulates the performance of Network Service and Application Service providers by setting Quality of Service Standards.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The Commission is empowered to control, plan, administer, manage and assign the numbering and electronic addressing of network services and application services. The Commission allocates telephone numbers and network identifying codes in accordance with the Numbering and Electronic Addressing Plan ("NEAP"), issued on January 2006.

2.17 Are there any special rules which govern the use of telephone numbers?

Pursuant to section 179(1) of the CMA, the Commission is vested with the control, planning, administration, management and assignment of the numbering and electronic addressing of network services and applications services. The NEAP governs the use of telephone numbers.

The following persons are required to comply with the NEAP:

(i) all licensees;

(ii) all registrars; and

(iii) any other parties specified by the Commission.

The NEAP provides that the Commission may reserve any unassigned number for planning purposes or to realise the value of cherished numbers.

2.18 Are there any obligations requiring number portability?

Mobile Number Portability ("MNP") was implemented by the Commission to allow consumers to switch mobile service providers without the need to change their mobile numbers, in line with the aim of ensuring effective competition in the market. This is to enable freedom of choice and to enhance competition in the market. All licensees providing application services for the delivery of voice and data communications shall:

(a) perform all acts necessary to prepare and/or facilitate the implementation of MNP; and

(b) ensure that all calls and data are delivered to the appropriate recipient mobile network, in accordance with the provisions of the NEAP.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

In Malaysia, the Commission manages spectrum allocation for telecommunication use, and regulates as well as ensures that use of spectrum is in accordance with the CMA and the Communications and Multimedia (Spectrum) Regulations 2000.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

There are three types of assignments in Malaysia, namely Spectrum Assignment, Apparatus Assignment, and Class Assignment:

(a) Spectrum Assignment confers rights on a person to use one or more specified frequency(ies) for any purpose consistent with the assignment conditions. This is subject to specified fees.

(b) Apparatus Assignment confers on a person the right to use one or more specified frequencies to operate an apparatus for a specified purpose. This is subject to specified fees.

(c) Class Assignment allows the MCMC to issue and impose conditions on the class assignment to allow any person to use the frequency for a list of devices, and there is no need to pay a sum of fees.

Section 177 of the CMA provides the procedures for spectrum assignment and apparatus assignment which are included in the Spectrum Plan (latest edition of 2014). The Spectrum Plan is a document developed by the Commission, pursuant to section 172 of the CMA. It contains information on frequency allocation for various wireless services in Malaysia, international allocation of spectrum as agreed by the International Telecommunication Union ("ITU") for all three ITU regions, procedures for assignment and reassignment of spectrum and general information on spectrum usage in Malaysia.

The Spectrum Plan provides for several methods of assignment, which include the following:

(a) Fixed Price – where the assignment is offered on a fixed price set by the Minister for spectrum assignment, or the MCMC for apparatus assignment.

(b) Auction – where the assignment is made based on the highest bid price. This requires a marketing plan where the present options and/or proposal shall be laid out.

(c) Tender – where there is competition for a particular spectrum band. There are mainly two types of tender, i.e., "beauty contest" and "comparative tender with price".

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

There is no spectrum that can be made licence-exempt. The Minister may, however, exempt a person from requiring an assignment via an Exemption Order as provided under section 157 of the CMA.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The relevant instrument is the Communications and Multimedia (Spectrum) Regulations 2000. The First and Second Schedule provide a list of appropriate fees depending on the nature of the services. The First Schedule of the Communications and Multimedia (Spectrum) Regulations 2000 ("the Regulations") provides for fixed fees as well as variable fees for the assignment of an apparatus or spectrum.

The Second Schedule in the Regulations provides for the application fees that have to be paid.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Regulation 19 of the Communications and Multimedia (Spectrum) Regulations 2000 provides, in sub-regulation (1), for the conditions which a spectrum assignment holder may transfer or otherwise deal with the spectrum assignment, subject to:

(a) the conditions of the spectrum assignment;

(b) the eligibility requirements applicable when the spectrum assignment was issued;

(c) the spectrum assignment not having been originally issued in the public or national interest;

(d) the rules made by the Minister under section 163 of the Act; and

(e) such other conditions that the Commission may impose.

The conditions which a spectrum assignment holder may be subjected to under sub-regulation (1) above may result in the right of the spectrum assignment holder to transfer or otherwise deal with the spectrum assignment in the following ways:

(a) transfer or otherwise dealing with the assignment is absolutely prohibited;

(b) transfer or otherwise dealing is permitted if the assignment is transferred or otherwise dealt with in its entirety;

(c) transfer or otherwise dealing is permitted for a geographic area in multiples of the stated geographic unit; or

(d) transfer or otherwise dealing is permitted in multiples of the stated spectrum unit.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Please refer to the answer to question 3.5.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The relevant legislation that governs cyber security is the CMA, the Computer Crimes Act 1997, the Personal Data Protection Act 2010, the Defamation Act 1957, the Sedition Act 1948 and the Digital Signature Act 1997. Malaysia was one of the first nations in Southeast Asia to design a National Cyber Security Policy. Its efforts to secure cyber space have included the creation of CyberSecurity Malaysia and the National Cyber Security Policy.

CyberSecurity Malaysia is the national cyber security specialist agency under the purview of the Ministry of Science, Technology and Innovation ("MOSTI"). The role of CyberSecurity Malaysia is to provide specialised cyber security services and to continuously identify possible areas that may be detrimental to national security and public safety, including: Cyber Security Emergency Services; Security Quality Management Services; InfoSecurity Professional Development and Outreach; and Cyber Security Strategic Engagement and Research.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Section 252 of the CMA provides that the Public Prosecutor may, on the application of an authorised officer or a police officer of or above the rank of Superintendent, authorise the officer to intercept or to listen to any communication transmitted or received by any communications, if he considers that any communications is likely to contain any information which is relevant for the purpose of any investigation into an offence under this Act or its subsidiary legislation. The CMA defines an "authorised officer" as any public officer or officer appointed by the Commission and authorised in writing by the Minister, charged with the responsibility for communications and multimedia. "Intercept", on the other hand, is defined as "the aural or other acquisition of the contents of any communications through the use of any electronic, mechanical, or other equipment, device or apparatus", whilst "Communications" is defined as "any communication, whether between persons and persons, things and things, or persons and things, in the form of sound, data, text, visual images, signals or any other form or any combination of those forms".

In regard to the modern means of evidence collection, subsections 116b and 116c of the Criminal Procedure Code (hereinafter referred to as "this Code") were introduced in the 2012 amendment to this Code, in order to deal with searches and seizures involving computers and other storage devices and information contained in

communications. Section 116b(1) of this Code provides that a police officer, not below the rank of Inspector, conducting a search under this Code shall be given access to computerised data, whether stored in a computer or otherwise. Section 116b(3) of this Code further provides that "access" includes being provided with the necessary password, encryption code, decryption code, software or hardware and any other means required to enable comprehension of the computerised data.

Section 116c of this Code also provides that the Public Prosecutor may authorise a police officer to intercept communications if he considers that it is likely to contain any information relating to the commission of an offence.

Section 6 of the Security Offences (Special Measures) Act 2012 ("SOSM") allows the Public Prosecutor (the Attorney General) and police officers to intercept all communications likely to contain any information relating to the commission of a security offence. A "security offence" is an offence stated in Chapter VI (offences against the state) or Chapter VIA (offences relating to terrorism) of the **Penal Code**; for example, activity detrimental to parliamentary democracy, sabotage, waging war against the Yang di-Pertuan Agong (the King of Malaysia) and committing terrorist acts. Section 6(1) states that the Public Prosecutor may authorise any police officer:

- to intercept, detain and open any postal article in the course of transmission by post;
- to intercept any message transmitted or received by any communication; or
- to intercept or listen to any conversation by any communication,

if he considers that it is likely to contain any information relating to the commission of a security offence.

Under section 6(2) SOSM, a police officer not below the rank of Superintendent of Police may do any of the above without authorisation of the Public Prosecutor in urgent and sudden cases where immediate action is required, leaving no moment for deliberation. In practice, this may give police the power to intercept communications in a wide range of circumstances, including electronic communications.

The Copyright (Amendment) Act 2012 has extended the right of the police to gain access to computerised or digitalised data when carrying out investigations. Under section 50B of the Copyright Act 1987, the Public Prosecutor (the Attorney General) may authorise an Assistant Controller or a police officer not below the rank of Inspector Officer to intercept or to listen to any communications for the purpose of any investigation into an offence under the Copyright Act or its subsidiary legislation, if he considers that the communication is likely to contain information relevant to the investigation.

The Computer Crimes Act 1997 ("CCA") generally protects against the misuse of computers, for example, hacking. Section 10 (1) of the CCA provides that whenever it appears to any Magistrate, upon information and after such inquiry as he thinks necessary, that there is reasonable cause to believe that in any premises there is evidence of the commission of an offence under the CCA, he may, by warrant directed to any police officer of or above the rank of Inspector, empower the officer to enter the premises, by force if necessary, and there to search for, seize and detain any such evidence, and he shall be entitled to:

"*(a) have access to any program or data held in any computer, or have access to, inspect or check the operation of, any computer and any associated apparatus or material which he has reasonable cause to suspect is or has been in use in connection with any offence under this Act;*

(b) Require—

(i) the person by whom or on whose behalf the police officer has reasonable cause to suspect the computer is or has been so used; or

(ii) any person having charge of or otherwise concerned with the operation of, the computer, apparatus or material, to provide him with such reasonable assistance as he may require for the purposes of paragraph (a); and

(c) require any information contained in a computer and accessible from the premises to be produced in a form in which it can be taken away and in which it is visible and legible."

Section 115 of the Personal Data Protection Act 2010 provides that an authorised officer conducting a search shall be given access to computerised data, whether stored in a computer or otherwise. The access includes being provided with the necessary password, encryption code, decryption code, software or hardware and any other means required to enable comprehension of computerised data. This is consistent with the provision in section 79 of the Digital Signature Act 1997.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Section 265 of the CMA provides the Minister with the power to determine that a licensee or a class of licensees shall implement the capability to allow authorised interception of communications. Communication is defined under section 6 of the 1998 Act, which covers traditional telephone calls, VoIP calls, emails and any other forms of communication.

4.4 How does the state intercept communications for a particular individual?

Please refer to question 4.2.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

The CMA provides that where an authorised officer or a police officer conducts a search under sections 247 or 248, they shall be given access to computerised data whether stored in the computer or not. Section 249 of the CMA allows an authorised officer to be provided with the necessary password, encryption code, and decryption code to enable comprehension of computerised data during a search with or without a warrant.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

The Personal Data Protection Act 2010 ("PDPA") regulates the collection of personal data in relation to commercial transactions in Malaysia. Section 10 of the PDPA for the retention principle states that data shall not be kept longer than is necessary, and it is the data user's duty to ensure that all personal data is destroyed or permanently deleted if it is no longer required for the purpose for which it was to be processed.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The CMA regulates the activities of audio-visual media. The Content

Code which the Communications and Multimedia Content Forum of Malaysia has adopted for the purpose of the statutory duty sets out the guidelines and procedures for good practice, and standards of content disseminated to audiences by service providers in the communications and multimedia industry in Malaysia. Content is defined under the CMA as "*any sound, text, still picture, moving picture or other audio-visual representation, tactile representation or any combination of the preceding which is capable of being created, manipulated, stored, retrieved or communicated electronically*".

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

The law has recognised the differences in distribution. For traditional distribution, a licence will be required as provided under the CMA. Order 6 of the Communications and Multimedia (Licensing) Exemption Order 2000 exempts a person who provides internet content application services from requiring a licence from the MCMC.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The CMA provides for two types of licences, namely individual and class licences. The rights and obligations attached to an individual licence are spelt out in section 43 of the CMA, of which one of the obligations allows the Minister to make regulations on matters that may be included in an undertaking by a prospective licensee. Individual licences are applicable to satellite broadcasting, subscription broadcasting, and terrestrial free-to-air TV, while class licences will be applicable to limited content applications services.

Please refer to question 2.5. Individual licensees are required to understand the terms and conditions of the licence and adhere to the provisions of the CMA.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Section 36 of the CMA provides that the grant of an individual licence shall be personal to the licences, and the individual licensee shall not be assigned or transferred to any other party unless the prior written approval of the Minister has been granted.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Section 263 of the CMA 1998 provides that a licensee under the CMA has a duty to prevent the network facilities that it owns or provides, or the network service, applications service or content applications service that it provides, from being used in, or in relation to, the commission of any offence under any law of Malaysia. Section 109 of the CMA provides that compliance with a mandatory standard shall be a defence against prosecution, whilst section 264 further provides that: "*Any network facilities provider, network service provider, applications service provider or content applications service provider or any of his employees, shall not be liable in any criminal proceedings of any nature for any damage (including punitive damages), loss, cost, or expenditure suffered or to be suffered (whether directly or indirectly) for any act or omission done in good faith in the performance of the duty imposed under section 263.*" Further, section 98(2) of the CMA provides that "*compliance with a registered voluntary industry code shall be defence against any prosecution, action or proceeding of any nature whether in court or otherwise regarding a matter dealt with in the Code*".

Therefore, telecommunications operators and/or internet service providers would be able to rely on the Content Code as a defence against any prosecution, action or proceeding of any nature whether in a court or otherwise. Under the Content Code, the concept of an "Innocent Carrier" is one that neither has any control over the composition of such Content nor any knowledge of such Content. An innocent carrier is not responsible for the Content provided.

Section 43C(1) of the Copyright Act 1987 on the other hand exempts a service provider from liability for copyright infringement if the infringement by its user occurs by reason of any of the following:

- the transmission, routing or provision of connections by the service provider of an electronic copy of the work through its network; or
- any transient storage by the service provider of an electronic copy of the work in the course of such transmission, routing or provision of connections.

The exemption is, however, limited to the following situations:

- the service provider did not initiate or direct the transmission of the electronic copy of the work;
- the service provider did not select the electronic copy of the work, but the transmission, routing or provision of connections was carried out through an automatic technical process;
- the service provider did not select the recipient of the electronic copy of the work except as an automatic response to the request of another person; or
- the service provider did not modify the electronic copy of the work other than as part of a technical process.

Section 43D(1) of the Copyright Act 1987 provides that a service provider shall not be held liable for infringement of copyright for the making of any electronic copy of the work on its primary network, if it is:

- from an electronic copy of the work made available on an originating network;
- through an automatic process;
- in response to an action by a user of its primary network; or
- in order to facilitate efficient access to the work by a user,

provided that the service provider does not make any substantive modification to the contents of the electronic copy, other than a modification made as part of a technical process.

Section 43E of the Copyright Act 1987 exempts a service provider from liability in the following situations:

- when storing an electronic copy of a work where this is done at the direction of its user; and
- when referring or providing a link or an information location service to its users where an electronic copy of the work is available at an online location of another network,

provided that the service provider does not have knowledge of the infringing activity, does not receive any financial benefit directly attributable to the infringement and has responded promptly to a notification to take down the infringing copy.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Section 43H of the Copyright Act 1987 provides that where an electronic copy of any work accessible in a network infringes the copyright of a work, the owner of the copyright which has been infringed may notify the service provider of the network of such infringement, by issuing to the service provider a notification in the manner as determined by the Minister. The copyright owner must compensate the service provider for any damages, loss or liability arising from the compliance by the provider within 48 hours from the receipt of the notification. A service provider who has removed the infringing copy of the work shall notify the person who made said copy available of the action taken by the service provider.

The person whose work was removed or to which access has been disabled may send a counter-notice to the service provider. The service provider shall, upon receipt of the counter-notice, promptly provide the issuer of the first notification with a copy of the counter-notice and inform the issuer that the removed work or access to the work will be restored in 10 business days, unless the service provider has received another notification from the issuer of the first notification, informing it that he has filed an action seeking a court order to restrain the issuer of the counter-notice from engaging in any infringing activity relating to the material on the service provider's network.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

There is, as of now, no legislation in Malaysia regulating "net neutrality". Generally, section 3(3) of the CMA provides that nothing in this Act shall be construed as permitting the censorship of the internet. Section 211 of the CMA, however, provides that no content applications service provider shall provide content which is indecent, obscene, false, menacing or offensive in character with intent to annoy, abuse, threaten or harass any person. This implies that net neutrality is a qualified right in Malaysia.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Section 263 of the 1998 Act provides that a licensee shall act, to the best of his ability, to prevent the network facilities that he owns or provides from being used in relation to the commission of any offence. A licensee would be obligated to, as far as reasonably necessary, prevent the commission of an offence, upon written request by the Commission or any other authority.

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Janet focuses on intellectual property and technology issues in a wide variety of transactions, and has worked on a wide range of agreements, including distributorship, licensing, outsourcing, service and consultancy agreements. She has advised clients on intellectual property protection and ownership issues, advertising issues, consumer protection, copyright, domain names, e-commerce, franchise, gaming, regulatory approvals for food and drugs, and telecommunications issues. Janet has also conducted due diligence for various acquisition projects, IT-related contracts, e-commerce and telecommunications, and has advised leading multinational companies in the pharmaceutical, tobacco and internet-related services industries on IP protection.

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Chapter 24

Mexico

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Mexico's telecommunications and broadcasting market has been an important factor of the Mexican economy since it was liberalised in 1995. Better coverage, more services and increased competition, among others, have contributed to this growth. However, there is still much to be done to close the digital gap between Mexican inhabitants. An important constitutional reform on telecommunications was carried out in 2013, creating a fully independent regulatory body named the Federal Telecommunications Institute (hereinafter "IFT"), and subsequently, the Federal Telecommunications and Broadcasting Law (hereinafter "FTBL") was enacted in 2014.

The convergence of telecommunications and broadcasting has allowed the IFT to carry out the first ever auctions for television and radio stations in Mexican history. More spectrum is available for mobile services, consumer protection has taken new dimensions, and asymmetric regulation has stepped up to next level. One of the most significant and important changes of the FTBL was the creation of the legal figure of the "preponderant economic agent", which was used by the IFT in March 2014 to determine that Grupo Carso, S.A.B. de C.V., owners of Telmex and América Móvil (the latter formed by Telcel, Claro and CTI Móvil, among others) and Grupo Televisa, S.A.B. (formed by Bestel, Cablevisión, Cablemás among others), were preponderant economic agents in the telecommunications and broadcasting sectors accordingly.

Now, after more than four years after having implemented these changes, according to The CIU (https://www.theciu.com/publicaciones-2/2018/1/22/telecomunicaciones-en-mxico-2017-y-pronsticos-2018), the annual revenue for 2017 per service is the following (these are considering an exchange rate of 19.5 MXN per 1 USD):

- The whole telecommunications industry: 24,000,000,000.00 USD.
- Fixed services revenue: 6,170,000,000.00 USD.
- Mobile services revenue: 13,360,000,000.00 USD.
- Pay TV services revenue: 4,470,000,000.00 USD.

There has been an important increase in the revenue of the operators in the last few years, but such an increase has not brought an equitable benefit to the population in Mexico; there is still a large percentage of inhabitants in the country who do not have access to telecommunications services, because they are located in rural areas that are unattractive to operators from the point of view of investment and return on profits.

In order to help increase coverage, a wholesale network project (hereinafter "Red Compartida") was implemented in the 700 MHz spectrum. The Red Compartida has the obligation to offer services to all licence holders on a wholesale basis. This network is supposed to serve as an alternative for telecommunication companies to have access to spectrum and provide coverage to up to 92% of the Mexican territory, interconnecting its inhabitants.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The following is a list of the most important legislation applicable to these sectors:

- Federal Telecommunications and Broadcasting Law.
- Measures imposed by the IFT to the preponderant economic agent in the telecommunications and broadcasting markets.
- Must Carry – Must Offer Guidelines.
- Number Portability Rules.
- Federal Economic Competition Law Regulations for the Telecommunication and Broadcasting Sectors.
- Numbering Plan.
- Signalling Plan.
- Procedure for the Electronic Registry of Tariffs.
- Methodology for Calculating Interconnection Costs.
- Minimum Technical Conditions for Interconnection between Networks.
- General Guidelines for Multicasting Access.
- General Guidelines for the Filing of Concessions.
- General Rules for the Filing of Authorisations.
- Agreement for the use of federal property for installing infrastructure.
- Several Technical Standards.
- Guidelines for Collaboration with Justice.
- Quality of Service Guidelines for mobile operators.
- Federal Consumer Protection Law.

For Broadcasting:

- Federal Telecommunications and Broadcasting Law.
- Measures imposed by the IFT to the preponderant economic agent in the telecommunications and broadcasting markets.
- Must Carry – Must Offer Guidelines.

- Mexican State Public Broadcasting System Law.
- Policy for the Transition to Digital Terrestrial Television.
- Agreement that adopts the technical standard for terrestrial digital television and its transition.
- Agreement for the adoption of a terrestrial digital radio standard.
- Several Technical Standards.
- Guidelines for the classification of audio-visual content of broadcast transmissions of the restricted television and audio service.

For Internet services:

- Federal Telecommunications and Broadcasting Law.
- The Federal Law for the Protection of Personal Data in Possession of Private Persons.
- The Copyright Federal Law.
- The Consumer Protection Law.
- Advanced Electronic Signature Law.
- Cybercrime is regulated in the Criminal Code.
- Guidelines that set out the terms under which the dominant economic operator in the telecommunications sector or with substantial power must have a physical presence at Internet traffic exchange points with other operators.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

1. Federal Telecommunications Institute ("IFT").
2. Consumer Protection Agency (hereinafter "PROFECO").
3. National Electoral Institute ("INE" as per its Spanish acronym).
4. Institute for the Administration and Appraisal of National Assets ("INDAABIN" as per its Spanish acronym).
5. Ministry of Communications and Transport ("SCT" as per its Spanish acronym).
6. Ministry of Interior.
7. Ministry of Finance and Public Credit ("SHCP" as per its Spanish acronym).
8. Ministry of Health.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Mexico's Constitution, the FTBL and Foreign Investment Law allow any Mexican individual or company to have a licence (concessions and authorisations) for the provision of telecommunication and broadcasting services. Mexico allows foreign investment of up to 100% for telecommunications and satellite communications, and up to 49% in the broadcasting sector subject to reciprocity from the country of the ultimate investor. Both sectors are liberalised and there is a competition regime.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Mexico has been a WTO member since 1 January 1995 and a member of GATT since 24 August 1986. Mexico adopted the WTO Basic Telecommunications Agreement (GATS/SC/56/Suppl.2, dated 11 April 1997).

It is also important to note that Mexico is part of the International Telecommunication Union and has subscribed to all its treaties since 1906, the most relevant being the Radio Regulations and the Constitution and Convention.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The provision of telecommunications services is regulated by the FTBL, which sets the rules for the use and exploitation of radio spectrum, public telecommunications networks, access to active and passive infrastructure, orbital resources, satellite communication, the provision of public services of general interest in telecommunications and broadcasting, and the convergence between these, the rights of users and audiences, and the process of competition and free competition of these industries.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The IFT is the regulatory and competition law authority in Mexico, whose purpose is to ensure the efficient development of the broadcasting and telecommunications sectors.

It is important to notice that the IFT is an autonomous constitutional body, with legal personality and its own patrimony in accordance with the political constitution. The Ministry of Communications and Transportation ("SCT") is in charge of policies relating to the telecommunications and broadcasting sectors. It also has some minor interventions in satellite licensing, universal coverage, and satellite coordination, among others.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

The general rules, acts or omissions considered as definitive that are issued by the IFT, which is the national regulatory authority in Mexico, can only be appealed through an indirect constitutional appeal (lawfully called "*amparo*"), before the District Courts and Collegiate Courts specialised in Economic Competition, Telecommunications and Broadcasting, in accordance with the provisions of Article 312 of the FTBL.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

According to the FTBL, the following types of licence granted by the IFT are contemplated to provide telecommunications and broadcasting services.

1. Sole Concession: this type of licence allows its holder to provide any kind of telecommunication and broadcasting services (for broadcasting services, a spectrum concession is also required). Depending on the purpose for which it is intended to be used, the sole concession shall be:
   a) For commercial use: profit-oriented.
   b) For public use: for public entities, municipalities, constitutional bodies and institutions of higher education for the fulfillment of their assignments and duties.
   c) For private use: for private communication, experimentation, verification of technical and economic feasibility of technologies in development, or for temporary testing of non-operational commercial equipment.
   d) For social use: confers the right to provide telecommunication and broadcasting services for cultural, scientific, educational or community purposes on a non-profit basis.
2. Spectrum Concession: the same types of usage (commercial, public, private and social) apply to this concession.
3. Orbital Resources Exploitation and Usage Concession: the same types of usage (commercial, public, private and social) apply to this concession.
4. Authorisation: there are five types of authorisations:
   a) To establish, operate and exploit telecommunications services without having the character of a concessionaire.
   b) To install, operate and exploit earth stations to transmit satellite signals.
   c) To install telecommunication equipment and transmission means that cross the borders of the country.
   d) To exploit the rights of emission and reception of signals and frequency bands associated with foreign satellite systems that cover and can provide services in the national territory.
   e) To temporarily use frequency bands for diplomatic visits.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

1. Concessions

1.1 Sole Concession

The Sole Concession shall be granted to Mexican individuals or companies. The requirements for submitting the application are described below:

1. Provide general information and corporate documents.
2. Specify the mode of use, whether commercial, public, private or social.
3. Provide a description of the project, including the main list of equipment and transmission means that will be used to build the network or system designed to start operations.
4. Demonstrate technical capacity to carry out the necessary facilities and the provision of services.
5. Demonstrate the economic capacity of the applicant for the implementation and development of the project.
6. Demonstrate the administrative capacity for the provision of the services to be provided by the project, pointing out the administrative processes of attention to users.
7. Specify the locality or geographical area in which the services are intended to be provided at the beginning.
8. Use the official formats.
9. Payment of fees for the application.

1.2. Radio Spectrum Concession

Concessions for the use and exploitation of the radio spectrum for commercial or private use shall be granted only through a public bid procedure against the payment of fees.

In this regard, the petitioner must comply with the bases of the public bidding, which shall include the frequency bands that are the object of the bid, their mode of use and geographical areas in which they may be used, and power in the case of broadcasting.

Concessions on the radioelectric spectrum for public or social use shall be granted through direct assignment for up to 15 years and may be extended for up to equal terms. The petitioner for these concessions must justify the public or social use of the concession, submit the technical specifications of the project, and the documentation accrediting its technical, economic, legal and administrative capacity, as well as the source of financial resources for the development and operation of the project.

When the exploitation of the services derived from the radio spectrum concession requires a Sole Concession, such Sole Concession shall be granted in the same administrative act, unless the concessionaire already has an existing concession.

1.3. Concessions for the occupation and exploitation of orbital resources

As with spectrum concessions, concessions for the occupation and exploitation of orbital resources for commercial or private use shall be granted only through a public bid procedure against the payment of fees.

However, concessions for the occupation and exploitation of orbital resources may be obtained at the request of an interested party, expressing its interest to the Federal Government to obtain orbital resources in favour of the Mexican State. In order to carry out this process, it will be necessary to submit an application with the expression of interest, supported by an investment project, as well as to provide technical information on the frequency bands, the geostationary orbital position to be occupied, the services to be offered, the documentation accrediting the technical, financial, legal and administrative capacity of the applicant, and the letter of commitment to participate and cooperate with the Federal Government to obtain or register orbital resources in favour of the Mexican State.

The petitioner shall cover, without reimbursement, all expenses incurred before the International Telecommunication Union. If priority is obtained in favour of the Mexican State before the International Telecommunication Union to occupy the orbital resources, which are the object of the request, the IFT shall grant the respective concession directly to the petitioner, subject to payment of the consideration.

2. Authorisations

Authorisations are granted to Mexican individuals or companies and there is no restriction at all with respect to foreign investment. The overall information that must be submitted to obtain an authorisation is as follows:

1. General information and corporate documents.
2. Use of the official formats.

3. Payment of fees for the application.

To obtain an authorisation to install or operate earth stations to transmit satellite signals, the following information must be provided in addition to the above:

1. Technical characteristics (name of the concessionaire, commercial name of the satellite, orbital position, frequency bands).
2. List of earth stations.
3. Location of earth stations.
4. Technical information of the antennas.
5. Transmitter information.
6. Signal information.

To obtain an authorisation to exploit emission and reception rights, the following information must be provided in addition to the requirements stated at the beginning:

1. General information and characteristics of the foreign satellite(s).
2. Documents that prove the technical capacity.
3. Positive opinion from the SCT, regarding the coordination status of the satellite network.
4. Agreement which proves the legal relationship between the foreign satellite operator and the applicant of the authorisation.
5. Copy of the registration of the satellites before the ITU, and their status.

To obtain an authorisation to install telecommunications equipment that crosses the country's borders without using the radio spectrum, the following information must be provided in addition to the requirements stated at the beginning:

1. Technical information of the cross-border connection, including the use or purpose to be given to the connection.
2. Detailed description of the project, including technical characteristics of the equipment or means of transmission crossing the borders of the country, diagram of the connection, the points of intercalation or origin and termination of the means of transmission, and its location in the national territory as well as abroad.
3. Agreement signed with the foreign operator.

To obtain an authorisation to install telecommunications equipment that crosses the country's borders using the radio spectrum, the following information must be provided in addition to the requirements stated at the beginning:

1. Date of grant of the concession or permit through which the interested party is authorised to use and take advantage of the radioelectric spectrum to which the link or the frequency channels to be used are contracted.
2. Characteristics of the cross-border connections, including the electromagnetic compatibility study.
3. Technical information of the cross-border connection, including the use or purpose to be given to the connection.
4. Agreement signed with the foreign operator.
5. List indicating which cross-border connections are expected to be authorised.

It is important to mention that the IFT has a 30-business-day term to grant the authorisation, and if there is no response, it shall be considered as granted.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

1. Sole Concessions

The sole concession shall be granted by the IFT for a term of up to 30 years and may be extended for up to equal terms.

2. Radio Spectrum and Orbital Resources Concessions

The concessions for the use and for the exploitation of radio spectrum frequency bands, and for the occupation and exploitation of orbital resources, may be granted by the IFT for a term of up to 20 years, and may be extended for up to equal terms.

The radio spectrum concessions for public or social use shall be granted through direct allocation for up to 15 years and may be extended for up to equal terms.

Only the concessions for commercial or private use, the latter with purposes of private communication, may be assigned with prior authorisation of the IFT, and only after three years from the date it was granted.

Change of control for concessions requires prior approval from the IFT. The same applies for changes in the shareholders that represent more than 10%. There may be specific cases in which there is a case of concentration, pursuant with economic competition regulation, and a specific process shall apply.

3. Authorisations

The authorisations granted by the IFT will be valid for up to 10 years, renewable for up to the same period, provided the renewal is requested by the authorised reseller within the year prior to the start of the last fifth part of the authorisation, in compliance with the obligations and in acceptance of the conditions established by the IFT. They can be easily transferred, requiring the IFT's approval. There are no restrictions with respect to the change of control for authorisations.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

According to the FTBL, the Federal Executive, states and municipalities as well as the local government of Mexico City, within the scope of their powers, shall collaborate and grant facilities for the installation and deployment of infrastructure, and for the provision of public services of general interest in telecommunications and broadcasting.

Also, the sole concession granted by the IFT foresees the possibility for its holder to carry out the installation and exploitation of the infrastructure associated with these services.

Nevertheless, it is very important to keep in mind that it will be necessary to obtain a permit from the competent authority, depending on the location of the public land which is planned to be acquired before installing infrastructure.

In the case of private land, no contributions or other economic considerations may be imposed in addition to those that the concessionaire has agreed to cover with the owner of the property to install its infrastructure.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Concessionaires that operate public telecommunications networks must interconnect their networks and grant access, in accordance

with the Minimum Technical Conditions for Interconnection, which are published annually by the IFT.

In this regard, concessionaries shall sign an agreement within a period of no more than 60 calendar days from the date on which any of them so requests. The negotiation process is carried out through the Electronic Interconnection System (named "SESI" as per its acronym in Spanish) of the IFT. If no agreement is reached within 60 calendar days, the interested party may request the IFT's intervention to solve the dispute. The dispute is solved approximately within 90 calendar days.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

All operators must submit for registration their interconnection agreements within 30 business days following their execution. In addition, all the concessionaires and authorised resellers must publish their prices in the IFT's Telecommunications Public Registry, which is available to the public.

The preponderant operator shall obtain approval from the IFT and make available to the public its interconnection agreement, roaming agreement, infrastructure sharing agreement, local loop unbundling agreement, access agreement and wholesale resale agreement. In addition, the Red Compartida has the obligation to make public its economic offering.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Concessionaires are free to set their interconnection rate; however, these must be based on costs that allow the recovery of at least the long-run incremental cost and the common attributable cost. Previously, the preponderant economic agent was obliged not to charge interconnection fees; however, it can now do so based on the tariffs established by the IFT.

It is important to mention that the IFT publishes annually the "Minimum Technical Conditions for the Interconnection between Concessionaires of Public Telecommunications Networks and the Tariffs resulting from the Cost Methodologies" that will be in force for the corresponding year, which are precisely the ones that are used to resolve disputes. In this sense, any interconnection dispute over rates will be settled pursuant to the rates established by the IFT in the mentioned Minimal Technical Conditions.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

According to the FTBL, accounting and functional separation are part of the asymmetric regulatory measures that the IFT imposes on the preponderant economic agents in the broadcasting and telecommunications sectors.

In this regard, the preponderant economic agent subject to the accounting separation measure in the telecommunications sector is the economic interest group composed by Telmex, Telnor, Telcel, América Móvil, Grupo Carso and Grupo Inbursa. In the broadcasting sector, the preponderant economic agent is the interest group composed by Grupo Televisa S.A.B. and several related companies, which are subject to the accounting separation measure.

Regarding functional or legal separation, the IFT recently ordered the functional separation of Telmex, a company that belongs to Grupo Carso, as part of an asymmetric regulation imposed on the predominant economic agent in the telecommunications sector. On 27 February 2017, the IFT Plenary issued the final functional separation plan between Telmex and Telnor. Through this functional separation plan, the preponderant economic agent must create two companies, from Telmex and Telnor, which will provide access services to the local network, as well as local dedicated links and passive infrastructure associated to this network, to other operators under non-discriminatory conditions. It is important to point out that the functional separation ordered by the IFT does not imply a structural separation, nor disincorporation of the companies that compose the predominant economic agent, for which reason the latter will be responsible for the technical, economic and financial viability of the new wholesale companies, and for which the IFT will have to provide said agent with the necessary resources so that they fulfil their social purpose, contemplating at all times the respect of the workers' labour rights.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

High-speed broadband networks are regulated under the FTBL and are considered as active infrastructure.

Infrastructure sharing is considered as an interconnection service by the FTBL; in that sense, the IFT is responsible for encouraging the execution of agreements between concessionaires for collocation and shared use of infrastructure. It is mandatory for the preponderant economic agent, and for the rest of the concessionaires it is only mandatory in some specific cases, when it is essential for the provision of services and there are no other substitutes.

In case the concessionaires do not reach an agreement, the IFT will resolve any interconnection disagreements according to the procedure established in the law, except what is foreseen for the resolution period, which will be up to 30 business days.

Economic preponderant agents in the telecommunications and broadcasting sectors are obliged to share their passive infrastructure. For such purposes, a Reference Passive Infrastructure Use and Access Offer for the Preponderant Economic Agents shall be approved by the IFT and properly published.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

The general principle is that retail prices are freely established but must be registered. The IFT authorises retail prices of the preponderant economic agent, and in case there is an agent with substantial market power, it would also be subject to authorisation of retail prices.

In the telecommunications sector, the IFT may impose on the dominant economic agent the obligation to present for authorisation the tariffs it applies to the services it provides to the public, and the intermediate services it provides to other concessionaires and to its operation in a disaggregated and individual manner, in order to prevent cross-subsidies between services or schemes that displace competition.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

There are no universal service regulations for the provision of electronic communication services. The FTBL establishes net neutrality principles, which still have to be developed by the regulator.

The provision of electronic communication services to consumers is also regulated by the Consumer Protection Agency (Profeco), and the end user agreement has to be registered. The main rights of end users are as follows:

1. To freely choose their service provider.
2. To contract and know the commercial conditions established in the end user agreement models registered before the Consumer Protection Agency, through electronic media, including the electronic page of the concessionaire or authorised without prejudice of receiving them by other means.
3. To free choice and non-discrimination in access to Internet services.
4. To be provided with telecommunications services in accordance with quality parameters.
5. To demand the compulsory performance of the end user agreement when the service provider modifies the originally stipulated terms and conditions, and in the event that the service provider does not comply with them, to rescind the agreement.
6. When an end user agreement has been subscribed, it is only possible to change to another by agreement of the parties. Consent shall be given by electronic means.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and network identifying codes are allocated by the IFT through the Numbering Plan to concessionaires and authorisation holders (authorisation for the resale of services). Both shall guarantee that subscribers with numbers from the national telephone numbering plan will keep, upon request, the numbers that they were assigned, regardless of the concessionaire providing the service.

2.17 Are there any special rules which govern the use of telephone numbers?

Mexican legislation contemplates the Numbering Plan and the Number Portability Rules. There are also Technical Plans on numbering and signalling.

2.18 Are there any obligations requiring number portability?

Number portability is an obligation for all fixed and mobile concessionaires that provide telephone services; in this regard, service providers must comply with this obligation when required to do so by their customer.

For users, number portability will not exempt them from complying with their contractual obligations, including, but not limited to: the return of equipment not owned by them; and the payment of outstanding charges and penalties arising from early termination that, if any, they have agreed to in the contract with the telecommunications service provider from which they carry their number.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The radioelectric spectrum is public property of the Nation, whose ownership and administration belongs to the Mexican State. The IFT is the authority that regulates its use.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Radio spectrum for commercial purposes may only be obtained through a public bid, which may be an auction, beauty contest or any other scheme that the IFT may come up with. There is no specific obligation on the process to be used.

However, in the case of a concession on the radioelectric spectrum for public or social use, it shall be granted through direct assignment for up to 15 years and may be extended up to equal terms.

There is a possibility to obtain spectrum for secondary use. This is requested and does not go through any public bid. However, such spectrum does not receive any kind of protection from harmful interference from services provided under primary use.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

It is possible to use unlicensed spectrum. However, it is important to notice that unlicensed spectrum must be declared as such by the IFT. The use of unlicensed spectrum is regulated by its technical specifications and guidelines.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The IFT is responsible for calculating the fees for the use of spectrum. To do so, it requests a non-binding opinion from the Ministry of Finance and Public Credit. Also, the IFT shall consider the frequency band to be used, amount of spectrum, coverage of the frequency band, term of the concession, and the national and international references of the frequency band market value.

Once this has been done, the rights are set out in the Federal Government Fees Law, which establishes the payment of fees for the use and exploitation of frequency bands of the radioelectric spectrum of determined use. Some fees are also established in the licences or may be already included in the terms of the spectrum auctions.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

The validity of the radioelectric spectrum concession will continue if the change of control has been carried out in accordance with the procedure established in the FTBL. Please note that there as a rule, change of control of concessions requires prior authorisation from the IFT.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Concessions for commercial or private use, the latter for the purposes of private communication, may be assigned with the prior authorisation of the IFT under the terms set forth in the FTBL. The spectrum concession for private use for purposes of experimentation, verification of technical and economic feasibility of development technologies, temporary equipment tests, amateur radio, and the one for communication needs for embassies or diplomatic missions visiting the country, shall not be assigned for any reason.

Spectrum for public use may be assigned with previous authorisation from the IFT.

The IFT may authorise, within a period of 90 calendar days from the filing of the application, the partial or total assignment of the rights and obligations established in the concessions, provided that the assignee undertakes to comply with the obligations that are pending and assumes the conditions established for this purpose by the IFT.

The prior authorisation of the transfer referred to in this question may be requested, provided that a period of three years has elapsed following the granting of the concession.

Authorisation by the IFT shall not be required in cases of assignment of the concession by merger of companies, divisions or corporate restructurings, provided that such acts are within the same period, control group or economic operator. To this end, the operation shall be notified to the IFT within 30 calendar days following such transfer.

Spectrum can also be leased or sub-leased; however, it is important to consider that concessionaires may only lease or sub-lease frequency bands granted for commercial or private use.

In the case of spectrum lease, the following procedure shall be observed:

I. that the lessee has a sole concession for the same use (for commercial or private use) or that it has requested it from the IFT;

II. the lessee is jointly and severally liable to the concessionaire for the obligations arising from the concession of the leased frequency band;

III. the continuity of service provision is not affected; and

IV. no phenomena of concentration, hoarding or cross ownership is generated.

If the foregoing is met, the IFT will have 45 business days to decide on the request for the spectrum lease authorisation.

Furthermore, it is important to mention that the IFT published the guidelines for the granting of the authorisation certificate for the use and exploitation of frequency bands of the radio spectrum for secondary use. The purpose of these guidelines is to regulate, under the authorisation regime, the secondary use of frequency bands of the radio spectrum, which are intended to meet the specific telecommunications needs of persons engaged in specific activities which are not intended to provide telecommunications services for commercial purposes, as well as to enable duly approved short-range radio devices to make secondary use of frequency bands of the radio spectrum.

Finally, frequency band or orbital resource exchanges may be made *ex officio* or at the request of an interested party. When the concessionaire requests the exchange referred to in this question, the IFT shall resolve the matter within 90 working days following the date of submission of such request, taking into consideration the efficient planning and management of the spectrum, orbital resources, advances, and other matters, as well as the public interest.

Without prejudice to its rescue spectrum faculties, the IFT may propose the exchange *ex officio*, for which it must notify the concessionaire of its determination and the respective conditions. The licensee shall have the opportunity to respond.

The concessionaires may exchange among themselves a frequency, a set of frequencies, a complete band or several frequency bands or orbital resources for which they have concessions, upon request and authorisation of the IFT. The IFT shall resolve the matter within 45 working days from the date on which the request is submitted.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

By law, every concessionaire, authorised reseller, and provider of applications and content must comply with any order of authority that this is duly founded and motivated, including those related to cybersecurity.

Currently, there are guidelines in force for collaboration with justice, aimed at obtaining geographic location in real time and delivery of retained data from fixed and mobile lines, which seeks to reduce crime margins in Mexico.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The applicable legal framework is the FTBL and the Guidelines for Collaboration with Justice, which allow only those authorities that are designated or empowered to require concessionaires and authorised providers of telecommunications services to collaborate with security, prosecution and justice authorities in a timely and effective manner.

In accordance with such regulation, telecommunication concessionaires and, where applicable, authorisation holders must:

1. Collaborate with the instances of security, procuration and administration of justice, in the geographical location, in real time, of mobile communication equipment, whenever it is duly required by the competent authorities.
2. Preserve a record and control of communications that are made from any type of line that uses its own or leased numbering, under any modality.
3. Provide the record of these communications to the authorities empowered by law to do so.
4. Have a Responsible Area available 24/7 to meet the requirements of information, location and intervention of private communications.
5. Immediately block mobile communication lines that operate under any modality reported by customers, using any means, such as stolen or lost; as well as immediately suspend the telephone service when so instructed by the competent authority to stop the commission of crimes, in accordance with the provisions of applicable law, among others.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Telecommunications concessionaires and, where applicable, authorised resellers shall comply with the following:

- Collaborate with the instances of security, procuration and administration of justice, in the geographic location, in real time, of the mobile communication equipment.
- Keep a register and control of communications made from any type of line that uses its own numbering or leased numbering, under any modality, that allow the following data to be identified with precision. This shall apply to any type of communication (including voice transmission, voicemail, conferencing, and data), supplementary services (including call forwarding or transfer) or messaging or multimedia service used (including short message, multimedia and advanced services).
- Take the necessary technical measures regarding data to be kept, to ensure its conservation, protection, non-manipulation or unlawful access, destruction, alteration or cancellation, and the authorised personnel for its management and control, without prejudice to the provisions of the Federal Law on the Protection of Personal Data in Possession of Individuals.
- Have a Responsible Area available 24/7 and 365 days a year to attend to the requirements of information, geographical location and intervention of private communications.
- Suspend the service of mobile equipment or terminal devices reported as stolen or lost, at the request of the holder.
- Immediately block mobile communication lines that work under any modality reported by customers, using any means, such as stolen or lost; as well as immediately suspend the telephone service when instructed by the competent authority, to cease the commission of crimes. This shall only apply to those communications made through a device or mobile terminal equipment, which should be understood as anything utilised by the user to connect beyond the terminal connection point of a public network for accessing and/or receiving one or more mobile telecommunications services.
- Collaborate with the competent authorities to block mobile phone, radio, data or image transmission signals within the perimeter of social rehabilitation centres, penitentiary establishments or internment centres.

4.4 How does the state intercept communications for a particular individual?

The interception of communications can only be made if there is a written order, which is founded and motivated by a competent authority under the terms established by law.

To this purpose, in the guidelines for collaboration with the justice system, it is foreseen that the concessionaires and authorised parties must use an electronic platform to comply with the electronic requirements of real-time geographical location of the mobile communication equipment, as well as the delivery of conserved data. Real-time geographical location must comply with specific technical requirements and precision parameters, depending on the location.

As for the interception of communications, there are no specifications on how it should be done. Every concessionaire provides all the technical help they can and cooperates with authority.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

In Mexico, the use of encryption is contemplated with the Advanced Electronic Signature Law, which regulates the use of an advanced electronic signature to be used in electronic documents and in its data messages.

In this regard, the use of advanced electronic signatures is subject to the requirements established by such law. Encryption is not mandatory for telecommunication services. There are some specific regulations that require encryption, such as the Guidelines for Collaboration with Justice, but there is not much regulation further than that.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

In accordance with the security and justice obligations established in the FTBL, telecommunications concessionaires and, where applicable, authorised resellers shall keep a register and control of communications made from any type of line using their own or leased numbering, under any modality, that allows the following data to be accurately identified:

- Name or business name and address of the subscriber.
- Type of communication (voice, voicemail, conferencing, and data), supplementary services (including call forwarding and call transfer) or messaging or multimedia service used (including short message, multimedia and advanced services).
- Data necessary to trace and identify the source and destination of mobile communications: destination number; type of lines with a contract; or tariff plan, such as in the form of prepaid lines.
- Data necessary to identify the date, time and duration of communication and messaging or multimedia service.
- The date and time of the initial activation of the service and the location label (cell ID) from which the service is activated.
- Identification and technical characteristics of the devices, including, among others, international manufacturing identity codes of equipment and subscribers.
- Digital location of the geographic positioning of the telephone lines.

Such information shall be kept for a 12-month period allowing real-time consultation and delivery, and for 12 additional months for delivery of information within 48 hours after it is requested by the authorities.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Audio-visual content is regulated in the FTBL as a right to information, expression and reception of content through the public broadcasting service and restricted television and audio. The latter is of free expression, so it will not be subject to any judicial or administrative prosecution or investigation or any limitation or prior censorship, and will be exercised under the terms of the Mexican Constitution, international treaties and applicable laws.

The authorities within their sphere of competence shall promote in audio-visual content: respect for human rights; the principle of the best interests of the child; to fully guarantee children's rights; the protection of children's rights; and gender perspective.

The provision of broadcasting services requires a Sole Concession and a Spectrum Concession, and it has restrictions on foreign investment, as has been mentioned previously. Pay television is considered as a telecommunications service, and OTT (over-the-top) services (video on-demand) are not yet regulated.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Content regulation is different, as the IFT has determined that OTT services are not a public telecommunication service. In this regard, Internet television is practically unregulated, and broadcasting is regulated differently to restricted audio and television. Broadcasting has stricter regulation in terms of official times, electoral matters and advertising times, in comparison to paid television. Rating regulations as well as advertising of alcohol, tobacco and medicines is applicable for both.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

According to the FTBL, the distribution of restricted audio and television requires a Sole Concession and the Spectrum Concession granted by the IFT. Also, the IFT will grant authorisations for access to multiprogramming to concessionaires that request it. Multiprogramming is the distribution of more than one programming channel on the same transmission channel.

For broadcasting operators, it will be necessary to obtain a radio spectrum concession, unlike restricted television and audio concessionaries, who would only need to obtain a sole concession or an authorisation, considering that the latter allows the reselling of all types of telecommunications and broadcasting services without having the status of a concessionaire.

In addition, it is important to mention that there are must-offer and must-carry obligations by which restricted audio and television concessionaries are compelled to retransmit the broadcast signal, free of charge and without discrimination, within the same geographical coverage area, in full, simultaneously and without modification, including advertising and with the same quality of the signal being broadcast, and to include it without additional cost in the services contracted by subscribers and users.

In the case of broadcasting concessionaires, they are obliged to allow the retransmission of their signal, free of charge and non-discriminatory, within the same geographical coverage area, in full, simultaneously and without modifications, including advertising and with the same quality of the signal being broadcast.

There are certain obligations for state times for broadcasting concessionaires, and the provision of channels for the state in the case of Pay TV concessionaires.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Spectrum and sole concessions granted by the IFT to provide broadcasting and restricted audio and television may be assigned according to the rules established in the FTBL, which requires the IFT's authorisation.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

In Mexico, a specific defence available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks is not foreseen in the regulation.

However, with the new trade agreement named USMCA which has been negotiated between Mexico, the United States and Canada, it is expected that due to the growing importance of the digital environment and its close linkage with intellectual property rights, the chapter on telecommunications will foresee a safe-harbour provision – that is, a scheme of limitation of liability for Internet service providers for copyright and related rights violations that occur online. This new trade agreement is currently under study and review by the Senate.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Operators and Internet service providers are obliged to assist content owners whose right may be infringed; however, such obligation is enforceable only if it comes from a court order. However, in the new trade agreement, the intellectual property chapter foresees a scheme of limitation of liability for Internet service providers for violations of copyright and related rights occurring online. This scheme will protect intermediaries who do not control the infringing content, but does not exempt from liability those who have received a benefit by enabling such content online. In that sense, telecommunication operators and/or Internet providers will probably be empowered to assist authors of intellectual property whose rights are infringed by illegal activities. Regulation will have to change, and such process may not require a court order; it is yet to be seen how the USMCA agreement will influence Mexican law.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

The FTBL establishes the general principles of network neutrality.

In that sense, the concessionaires and authorised resellers that provide the service of access to the Internet must comply with these principles, as well as with the guidelines that will be issued by the IFT.

Under these principles concessionaires and authorised resellers cannot obstruct, interfere with, inspect, filter or discriminate content, applications or services. Guidelines for net neutrality are yet to be developed by the IFT.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Concessionaires and authorised entities are obliged to block content, applications or services upon written request from the consumer. Pay TV service providers shall allow consumers to block channels and programs that they do not want to receive.

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From 2015 to 2017, he served as an honorary member of the IFT's Advisory Board and has been part of Directory Boards at several industry associations, combining his professional activity with the academy, where he has taught several law courses at different universities.

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Bernardo Martínez is a Junior Associate of the law firm BGBG; he has three years of experience in the telecommunications and broadcasting sector, assisting clients with the implementation of their business to provide telecommunications services in Mexico. He also has experience in the regulatory field of the obligations that must be fulfilled by the concessionaires and/or authorised in accordance with the applicable legal framework in Mexico. He maintains constant communication with the authorities of the sector and is part of associations focused on these sectors. He also possesses a diploma in Information and Communication Technologies Law from the Instituto Tecnológico Autónomo de México (ITAM).

BGBG
– LAWYERS–

The members of BGBG have more than 20 years' experience supporting national and international clients to participate in telecommunications, communication media and new technologies market. Our legal advisory covers matters related to satellites, radio spectrum, frequency bands, broadcasting, MVNOs, Internet, technology contracts, content and government relations.

BGBG has represented sovereign governments and companies before international organisations such as the International Telecommunications Union (ITU). BGBG has also participated in several international satellite coordination meetings and satellite treaty negotiation meetings between Mexico and the United States of America.

BGBG continuously advises important national and international companies in regulatory matters regarding the granting of concessions and authorisations, the establishment of their operations, as well as permanent compliance with the inherent obligations of such concessions and permits.

Part of the advice we give is to help clients in participating in national and international public tenders, and in the execution of any type of governmental contracts related to the area of telecommunications, broadcasting, media, Internet and technology matters.

BGBG has been recognised by various publications such as *Chambers and Partners*, *The Legal 500* and *Leaders League* as one of the best firms in the field of Technology, Media and Telecommunications for its extensive experience and knowledge, as well as for having the best lawyers specialising in the sector.

Chapter 25

Pakistan

Mustafa Munir Ahmed

RIAA Barker Gillette

Shahrukh Iftikhar

Note

This chapter will quote from and discuss the relevant laws and legislation in the context of each question.

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The Pakistan Telecommunication Authority ("**PTA**") has the mandate to regulate the establishment, operation and maintenance of telecommunication systems and the provision of telecommunication services in Pakistan.

According to the figures available on the website of the PTA (updated as of May 2018), there are 150 million cellular subscribers (73.28% tele-density), 55 million 3G/LTE subscribers (27.04% penetration), 3 million basic telephony subscribers (1.30% tele-density), and 58 million broadband users.

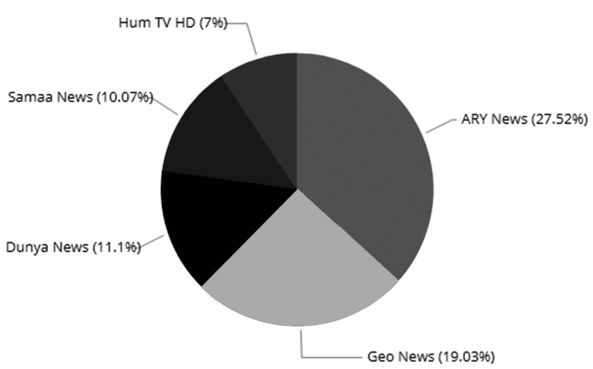
Jazz Mobile (formerly "**Mobilink**") has maintained its leading position with approx. 14.4 million 3G/4G LTE subscribers with the acquisition of Warid in January 2017. Even though Telenor had the second-highest number of subscribers since the launch of Next Generation Mobile Services ("**NGMS**"), it was surpassed by Zong in January 2017. Zong has the largest 4G subscriber base and is gaining market share. The 3G/4G market share of Zong was 30% for NGMS subscribers in August 2017. To remain competitive, Telenor had also acquired a 4G licence in June 2016, while its 3G/4G market share stood at 26% in August 2017. Unlike its peers, Ufone has experienced considerable attrition in market share.

TELECOM REVENUES				(Rs. million)
Types of Service	**2013–14 (R)**	**2014–15 (R)**	**2015–16 (R)**	**2016–17 (E)**
Cellular	322.683	317.016	345.537	369.118
Local Loop	88.952	81.914	76.344	72.937
Long-Distance International	43.901	40.890	32.554	23.083
Class Value Added Services (E)	4.123	2.468	2.499	2.53
Total	459.632	442.287	457.024	467.642

Legend: (R) = Revised; (E) = Estimated.

Pakistan Electronic Media Regulatory Authority ("**PEMRA**") has the mandate to regulate and issue channel licences for the establishment of electronic media broadcast stations.

Top 5 channels currently viewed



Tuesday 24 July 2018, 3.40pm

The information in relation to annual revenues of the entities mentioned in the pictorial representation above is unavailable.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) The most important laws which apply to the telecom sector are as follows:

1. Pakistan Telecommunication (Re-Organization) Act, 1996 (with 2006 amendments) (the "**PTA Act**");
2. AJK Adaptation of the Pakistan Telecommunication (Re-Organization) Act, 2005;
3. Gilgit Baltistan Adaptation Order, 2006;
4. Pakistan Telecom Rules, 2000 (the "**PTA Rules**");
5. Pakistan Electronic Media Regulatory Authority (Council of Complaints) Rules, 2010;
6. Access Promotion Contribution Rules, 2004 (the "**Access Promotion Contribution Rules**");
7. USF Rules, 2006;
8. R & D Fund Rules, 2006;
9. Pakistan Telecommunication Authority (Functions & Power) Regulations, 2006;

10. Class Value Added Services Licensing and Registration Regulations, 2007;
11. Type Approval Regulations, 2004;
12. Fixed Line Tariff Regulations, 2004 (the "**Tariff Regulations**");
13. Interconnection Dispute Resolution Regulations, 2004 (the "**Interconnection Dispute Resolution Regulations**");
14. Mobile Number Portability Regulations, 2005 (the "**Mobile Number Portability Regulations**");
15. Number Allocation and Administration Regulations, 2005;
16. Access Promotion Regulations, 2005;
17. Accounting Separation Regulations;
18. Monitoring and Reconciliation of International Telephony Traffic Regulations, 2008 (the "**Monitoring and Reconciliation of International Telephony Traffic Regulations**");
19. Protection from Health Related Effects of Radio Base Station Antenna Regulations, 2008;
20. Telecom Consumer Protection Regulations, 2009;
21. Protection from SPAM, Unsolicited Fraudulent and Obnoxious Communication Regulations, 2009;
22. Monitoring and Reconciliation of Telephony Traffic Regulations, 2010;
23. PRS/EDGE Service Quality of Service Standards Regulations, 2010;
24. Subscribers Antecedents Verification Regulations, 2010 (the "**Subscriber Antecedents Verification Regulations**");
25. GPRS/EDGE Service Quality of Service Standards Regulation, 2010 (the "**GPRS / EDGE Service Quality of Service Standards Regulation**");
26. Cellular Mobile Quality of Service Regulations, 2011;
27. Numbering Allocation and Administration Regulations, 2011;
28. Mobile Virtual Network Operation ("**MVNO**") Regulations, 2012;
29. Subscribers Antecedents Verification (Amendment) Regulations, 2012;
30. Telecommunication and Terminal Equipment Installer Regulations, 2012;
31. Broadband Quality of Service Regulations, 2014;
32. Regulations for Technical Implementation of Mobile Banking, 2016;
33. Mobile Device Identification, Registration & Blocking Regulations, 2017;
34. Type Approval Technical Standards Regulations, 2017;
35. Subscribers Antecedents Verification Regulations, 2015;
36. The Prevention of Electronic Crimes Act 2016 (Act No. XL of 2016) (the "**PECA**");
37. Electronic Transaction Ordinance, 2002;
38. Telegraph Act, 1885;
39. The Wireless Telegraphy Act, 1933; and
40. The Telecommunications Systems Clock.

(b) The most important laws in the audio-visual media distribution sector are as follows:

1. Pakistan Electronic Media Regulatory Authority Ordinance, 2002 (the "**PEMRA Ordinance**");
2. Pakistan Electronic Media Regulatory Authority Rules, 2009;
3. Television Broadcast Station Operations Regulation, 2012;
4. Radio Broadcast Station Operations Regulations, 2012; and
5. Distribution Service Operations Regulations, 2012.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of telecom and/or audio-visual media distribution sectors are as follows:

1. the PTA;
2. PEMRA;
3. the Ministry of Information & Technology ("**MOIT**");
4. the National Telecommunication Corporation ("**NTC**");
5. the Information Technology & Telecom Division;
6. the Electronic Government Directorate;
7. the Trade Development Authority of Pakistan ("**TDAP**");
8. the Privatisation Commission of Pakistan;
9. the Securities and Exchange Commission ("**SECP**");
10. the Competition Commission of Pakistan ("**CCP**");
11. the Pakistan Software Export Board ("**PSEB**");
12. the Federal Board of Revenue; and
13. the Board of Investment.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

(a) (i) Subject to the passing of the Telecommunication De-Regulation Policy for the Telecom Sector, 2003 ("**De-Regulation Policy**"), the Government's core objective was to de-regulate and liberalise various sectors of the economy.

(a) (ii) The Investment Policy, 2013, provides that all sectors and activities are open for foreign investment unless specifically prohibited or restricted for reasons of national security and public safety; there is no minimum requirement for the amount of foreign equity investment.

(b) (i) The audio-visual media distribution sector is regulated by PEMRA, which is responsible for regulating the establishment and operation of all broadcast media and distribution services in Pakistan established for the purpose of international, national, provincial, district, local or special target audiences. The distribution sector was liberalised by the coming into force of the PEMRA Ordinance.

(b) (ii) Subject to Section 25 of the PEMRA Ordinance, a licence shall not be granted to the following:

(i) a person who is not a citizen of or resident in Pakistan;

(ii) a foreign company organised under the laws of any foreign government;

(iii) a company, the majority of whose shares are owned or controlled by foreign nationals, or companies whose management or control is vested in foreign nationals or companies; or

(iv) any person funded or sponsored by a foreign government or organisation.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Yes. Pakistan has been a member of the World Trade Organization (the "**WTO**") since 1 January, 1995 and member of GATT since 30 July, 1948. Further, Pakistan has adopted the WTO Basic Telecommunications Agreement and is in compliance with the obligations, which include the provision of normal voice telephone services, cellular mobile services, data transmission, satellite services and private-leased line devices, amongst others.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The PTA is the regulatory body for the telecom sector in Pakistan and was established under the Pakistan Telecommunication (Re-organisation) Act, 1996.

No person, unless he has obtained a licence from the PTA, shall establish, maintain or operate any telecommunication system (i.e., any electrical, electro-magnetic, electronic, optical or optio-electronic system for the emission, conveyance, switching or reception of any intelligence (i.e., any speech, sound, data, signal, writing, image or video) within, or into, or from, Pakistan, whether or not that intelligence is subjected to re-arrangement, computation or any other process in the course of operation of the system, and includes a cable transmission system, a cable television transmission system, and switches, equipment, wires, cables, apparatus, poles, structures, ducts, man-holes and other tangible property, software and data, other than terminal equipment, comprising any telecommunication system or used in connection with any telecommunication service) or provide any telecommunication service (i.e., a service consisting in the emission, conveyance, switching or reception of any intelligence within, or into, or from, Pakistan by any electrical, electro-magnetic, electronic, optical or optio-electronic system, whether or not the intelligence is subjected to re-arrangement, computation or any other process in the course of the service).

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The PTA and Ministry of Information Technology and Telecommunication control and regulate telecoms and IT as well as the related ministries. As mentioned above, the PTA is responsible for ensuring fair competition in the telecommunication sector. The PTA promotes investment, encourages fair competition, protects consumer interest and ensures high quality ICT services.

Anti-competitive practices are also subject to general competition law. The Competition Commission of Pakistan is an independent regulatory, quasi-judicial body that helps to ensure healthy competition between undertakings for the benefit of the economy. The CCP prohibits the abuse of a dominant position in the market, certain types of anti-competitive agreements, and deceptive market practices. It also reviews mergers of undertakings that could result in a significant lessening of competition, or which could have the effect of altering market conditions artificially.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Yes, subject to Section 6 of the PTA Act, any person aggrieved by any decision or order of the PTA on the ground that it is contrary to the provisions of the PTA Act, may, within 30 days of the receipt of such decision or order, appeal to the High Court or to any other Tribunal established by the Federal Government for that purpose, in the manner prescribed by the High Court for filing the first appeal before that Court (or the Tribunal); the Court or the Tribunal shall decide such appeal within 90 days.

Please note that no Tribunal has of yet been established by the Federal Government for this purpose; hence, all appeals are made before the relevant High Court.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

In accordance with applicable telecom laws, no licensee shall establish, maintain or operate any telecommunication system or provide any telecommunication service which is not authorised under the licence, and neither is any person permitted to connect terminal equipment to a telecommunication system other than a public switched network without type approval from the PTA.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The main requirements for general authorisations are:

(a) the financial and economic viability of the applicant;

(b) the applicant's experience in telecommunication and relevant past history;

(c) the technical competence and experience of the applicant's management and key members of staff and local participation in the business; and

(d) the nature of the services proposed and the viability of the applicant's business plan, including its contribution to the development of the telecommunication sector.

Please also note that no terminal equipment can be directly and/or indirectly connected to a public switched network, unless a type-approval for such equipment has been granted by the PTA.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Subject to Section 21 of the PTA Act, every licence granted under the Act may, *inter alia*, contain:

(a) conditions requiring the licensee to adhere to the provisions of this Act and the rules and regulations made thereunder;

(b) conditions requiring the licensee to pay the fees for grant or renewal of the licence;

(c) conditions requiring the licensee to allow inspection by the PTA of any premises or telecommunication equipment,

wherever situated, and to furnish the PTA with such information as they may require;

(d) restrictions as to the types of telecommunication system or telecommunication service to be provided by the licensee, the area and period of operation and the types of telecommunication equipment that may be included in its telecommunication system;

(e) the obligation to ensure that only terminal equipment which is approved for connection to the telecommunication system in question is so connected;

(f) the obligation to monitor use of the licensed telecommunication service or telecommunication system and to disconnect the telecommunication service from any user who, after written notice, misuses it;

(g) obligations to provide the telecommunication service to particular persons or areas to meet minimum standards for quality and grade of services requirements;

(h) the obligation not to interrupt service except for failure of the customer to comply with his contractual obligations or out of genuine technical necessity, or by reason of circumstances to which Section 54 applies;

(i) restrictions on the licensee giving undue preference to, or unfairly discriminating against, any person;

(j) restrictions or limitations on transfer or assignment of the licence;

(k) conditions relating to the preservation or the transfer or disposition of telecommunication equipment and other assets used in connection with any public switched network;

(l) obligations for the protection of consumers' interests;

(m) conditions requiring the licensee to contribute to the Research and Development Fund and Universal Service Fund; and

(n) conditions as to the security provided by a licensee to support the fulfilment of the licensee's obligations in the licence, and the realisation of such security by the PTA.

Subject to Rule 8 of the PTA Rules, a licence shall be granted for an initial term of not less than 25 years. Subject to Sub-rule (2) and Rule 9, after the expiry of the initial term, the licence shall be renewed on terms and conditions consistent with the policy of the Federal Government at the relevant time.

Rule 11 of the PTA Rules states that a licence granted under the PTA Act and these rules shall be personal to the licensee and shall not be assigned, sub-licensed to, or held on trust for any person, without the prior written consent of the PTA.

Further, if a substantial ownership interest in, or control of, a licensee is proposed to be changed, the licensee shall give the PTA notice of such fact in writing. That written notice shall include all relevant details of the proposed change. If the PTA is of the opinion that change shall adversely affect the ability of the licensee to provide its licensed telecommunication services, it may impose such additional conditions in the licence as shall be reasonable and directly relevant to the proposed change.

For the purpose of understanding, the terms "control" and "substantial ownership interest" used in the response to this shall bear the following meanings:

(i) "**control**" means the ability to direct the exercise, whether directly or indirectly and whether through one or more entities, of more than 50% of the voting rights exercisable at any general meeting of the shareholders of the licensee; and

(ii) "**substantial ownership interest**" means more than 10% of the issued share capital of the licensee.

Additionally, telecom services cannot be resold without the prior written consent of the PTA. No distinction has been made *vis-à-vis* foreign or local companies in this regard.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

The Telecommunication Infrastructure Provider ("**TIP**") licences are issued under Section 21 of the PTA Act, whereby the licensee has the non-exclusive licence to establish, maintain, lease, rent and/or sell telecom passive infrastructure facilities in Pakistan, subject to the terms and conditions contained in the licence. Such licensee shall not provide any telecommunication/broadcasting service.

All infrastructure/Telecommunication Tower Providers shall be responsible for the safety of public and Government property near or around the area in which its equipment may be installed. Infrastructure/Telecommunication Tower Providers shall enter into a formal lease/rental agreement covering all aspects of the transaction of lease, rent, etc.

Subject to Section 27A of the PTA Act, for the purpose of the installation or maintenance of its telecommunication equipment or for the purpose of establishing or maintaining its telecommunication system, every licensee shall, subject to the conditions provided in Section 27A of the PTA Act and the policy directive issued by the Federal Government under Section 8 of the PTA Act, have the right to share any Public Right of Way or Private Right of Way.

In order to enjoy the rights granted by Section 27A of the PTA Act, the licensee shall request the owner of such Right of Way to approve the mode of execution of the works it proposes to undertake. If the owner of such Right of Way does not respond to such request within a period of 30 days, such request shall be deemed to have been granted. While granting such request, the owner of the Right of Way may impose conditions relating to the payment of fees and the mode or timing of the execution of such work as may be reasonable in the circumstances:

Provided that any right granted under Section 27A of the PTA Act is exercised equitably, ensuring proper compensation to the owner of the Right of Way and the access to provide to the licensee will not adversely affect the owner of the Right of Way.

The licensee shall exercise the powers conferred in such a manner as to cause minimal interference of the enjoyment of the Right of Way by the owner or other users thereof, and if no fees are to be paid by the licensee to the owner of the Right of Way, the licensee shall make reasonable reparation to the owner of such Right of Way.

The fee payable by a licensee to a Public Authority for the use of a Public Right of Way shall be a reasonable amount assessed by the Public Authority after taking all relevant factors into consideration, including the laws applicable to the Public Authority and the relevant laws applicable in the district in which such Right of Way is situated.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

In exercise of the powers conferred under Section 5(2) (h) of the PTA Act, the PTA has issued the Interconnection Guidelines, 2004 ("**Interconnection Guidelines**"). Pursuant thereto, all operators are obliged to provide interconnection to other operators desiring to

interconnect. Interconnection shall be permitted at any technically and economically feasible point. Where an operator submits its request for interconnection with another, the former is required to a response in writing. It may accept the request completely or partially. It can only deny the request in its entirety based on reasons which have been given fairly.

Further, the operator with Significant Market Power ("**SMP**") is obliged to prepare and submit its Reference Interconnect Offer ("**ROI**") to the PTA within one month of its determination as an SMP operator by the PTA. The SMP operator shall make the ROI publicly available within seven (7) days after approval by the PTA.

After the receipt of an interconnection request, both parties shall mutually negotiate interconnection terms and conditions, or adopt the RIO, as the case may be; the negotiations shall be completed as soon as possible but not later than 90 days from the date of the interconnection request.

Subject to the Interconnection Disputes Resolution Regulations, an operator may file a claim with the PTA in the format set out in the Annex to these regulations, if that operator is unable to reach an agreement with the Respondent:

(a) on an interconnection arrangement; or

(b) on a dispute arising out of a subsisting interconnection agreement,

and such failure to agree continues for 60 days after the request for the interconnection arrangement was made or the dispute was raised; provided that, in relation to sub-paragraph (b), the PTA may entertain a claim before the end of 60 days.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Subject to Article 14 of the Interconnection Guidelines, the PTA shall publish all interconnection agreements submitted to it in such a manner as it may deem appropriate. However, the operators may request the PTA to keep confidential any information or any section of an interconnection agreement, the disclosure of which would have the potential to seriously and prejudicially affect the operators. The decision to keep any such information confidential will be at the sole discretion of the PTA.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

The Interconnection Guidelines provide, *inter alia*, that the PTA shall approve the level and structure of interconnection charges. The structure of interconnection charges should be based on the nature of services and facilities provided by the operators and the operator shall charge these services accordingly. Subject to the foregoing, an operator is entitled to determine its rates for interconnection services provided that the same can be objectively justified on the basis of costs incurred in providing such services. Such tariff(s) are required to be approved by the PTA from time to time.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Yes, operators are subject to all of the aforementioned separations.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

The Government of Pakistan aims to increase broadband penetration in the country. The Broadband Policy, 2004 delineates a number of cost-cutting measures, which include, *inter alia*, a reduction in international IP and domestic bandwidth prices. Provision is also made for the reduction of the primary rate interface ("**PRI**") charges, to a level where the gap created in the dial-up infrastructure usage by the dial-up users switching over to broadband services would not make the operational and capital expenditure in the PRI service a liability for the internet service providers.

With respect to acquiring a licence to establish, maintain, lease, rent and sell Telecom Infrastructure Facilities, if the PTA determines that a licensee possesses SMP in a relevant market, the licensee shall comply with orders of the PTA that are intended to promote competition in respect of that relevant market or markets ancillary thereto, including without limitation orders to provide access to its ducts, poles, towers, or other similar facilities for use by licensed telecom Infrastructure Facility Providers.

Please also refer to our response to question 2.8 above.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

The Tariff Regulations provide, *inter alia*, that non-SMP operators are free to set and revise their tariffs at any time and in any manner they like. Provided that they inform the PTA about their proposed tariffs thirty (30) days before the applicability of new tariffs. The PTA may make amendments to the tariffs of non-SMP operators where the tariffs are considered to be unfair and burdensome.

With respect to local loop and long-distance and international telephony operators which have been determined to have SMP status, they shall set a tariff subject to a formula provided for in the applicable telecom laws.

Further, the tariff for leased lines services is contingent on determination by calculations of costs.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Subject to Section 33A of the PTA Act, the Federal Government created a Universal Services fund, whereby person(s) who have been issued a licence to provide telecommunication services are required to pay a USF Charge limited to 1.5% of gross revenue, minus inter-operator and related PTA/FAB mandated payments as determined by the Government.

Further, the Federal Government also created a Research and Development Fund whereby person(s) who have been issued a licence to provide telecommunication services have to contribute 0.5% of gross revenue, minus inter-operator and related PTA/FAB mandated payments, to the Research and Development Fund.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Licensees of the PTA are eligible to apply for allocation of number capacity, as per the Number Allocation And Administration Regulation, 2005.

Numbering is a finite national resource and therefore must be managed prudently to ensure that the numbering resource is adequate to support existing telecommunication services, and has enough capacity for the introduction of new networks and services as these become available.

Section 5 (2) (k) of the PTA Act mandates the PTA to develop and manage a national numbering plan for the provision of a wide range of efficient telecommunication services in Pakistan.

Under the plan, the leading digit defines the service/network for the use of a particular numbering range. The structure of the national numbering plan complies, as far as possible, with the ITU-T Recommendations E.164.

The plan defines number ranges and their assignment to various telecommunication services, including PSTN and Wireless Networks, international direct dialling, emergency and special services such as voicemail, carrier identification/selection codes, and Intelligent Network (IN)-based services.

Numbers beginning with the digit "0" are reserved for national and international services. Level "0" is used as an escape code for long-distance (national) dialling and for access to other networks, i.e., mobile, IP-based services, while "00" is assigned to international direct dialling for all telecommunication users in the country, irrespective of their service provider and as such shared by all service providers.

Numbers starting with the leading digit "1" are reserved for short codes and access to intelligent network-based services. Short codes for emergency services, customer services and carrier selection also start with the digit "1". Some short codes are three digits long while others are four digits long, depending on their use.

The country is divided into two geographic areas, and the leading digits "02" and "04" are assigned to these geographic areas, where the second, third or fourth digit leads to the complete national destination code. The subscriber number consists of six, seven or eight digits. A National Significant Number is 10 digits long in all cases.

The leading digits "01" and "03" are assigned to cellular mobile operations with a two-digit network access code and eight-digit subscriber number. Twenty mobile operators can launch their services while each operator can hold a theoretical base of 100 million customers.

The leading digits "05" and "06" are reserved for future services. The leading digit "07" is reserved for IP-based services, while the leading digit "08" is assigned to freephone and new non-geographic services. The leading digit "09" is assigned to premium rate services and new non-geographic services.

A local loop licensee may request geographic and non-geographic numbers from the PTA, as well as short codes, in accordance with the national numbering plan developed by the PTA, for use in the provision of licensed services in the areas concerned.

The licensee can allocate individual numbers to customers from the blocks allocated to it by the PTA, and shall maintain suitable records of its utilisation of numbering capacity, subject to the following conditions:

(a) the blocks of numbers and short codes allocated to the licensee, and the individual numbers allocated by the licensee to its customers, are a national resource; and

(b) the allocation of a number does not confer ownership of the number to the customer.

However, an allocation conveys an ongoing right of use and an expectation of at least a three-month notice period, should it be necessary to withdraw or change allocated numbers.

2.17 Are there any special rules which govern the use of telephone numbers?

Please refer to our response to question 2.16 above.

2.18 Are there any obligations requiring number portability?

Subject to Regulation 3 of the Mobile Number Portability Regulations, all operators shall make Mobile Number Portability available to their subscribers as per these Regulations.

However, the local loop licensee shall not be required to make available number portability to its customers or other operators unless the PTA so requires.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The Frequency Allocation Board ("**FAB**") was established under Section 42 of the PTA Act, and has exclusive authority to allocate and assign portions of the radio frequency spectrum to the Government, providers of telecommunication services and telecommunication systems, radio and television broadcasting operations, public and private wireless operators, and others.

Every application for allocation and assignment of radio frequency spectrum has to be made to the PTA. The PTA is required to refer the application to the FAB within 30 days from the receipt of such application.

On receipt of the application, the FAB classifies the telecommunication services and may allocate or assign the specific frequencies to the applicant. The FAB is required to notify the applicant of the status of the application within three months.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Subject to Section 43 (5) of the PTA Act, every application for allocation and assignment of radio frequency spectrum shall, in the first instance, be made to the PTA, which shall, after such inquiry as it may deem appropriate, refer the application to the FAB within 30 days from receipt of such application.

On receipt of application under Section 43 (5) of the PTA Act, the FAB shall classify the telecommunication services and may allocate or assign specific frequencies to the applicant.

It may also be noted that the FAB auctions spectrum/frequency for use by cellular/mobile network operators. Please also refer to our response to question 3.4 below.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

The Pakistan Table of Frequency Allocations is the broadest technical document showing the allocation of bands to various types of services. The Pakistan Table of Frequency Allocations is drawn from, and kept current with, the ITU Radio Regulations, which are revised every few years at the World Radio Communication Conferences.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

Subject to Article 4.4 of the Mobile Cellular Policy, 2004 (the "**Mobile Cellular Policy**") for Mobile Cellular Licences, where the assignment of spectrum is linked to a set of licence conditions, the associated fees will consist of two parts:

Cellular Spectrum Price

The Spectrum Price for national mobile cellular licences will be determined through auction.

The Spectrum Price resulting from the auction will also be used as a benchmark to determine price per MHz *per annum* for the existing operators, once they come under the purview of this policy.

The mobile licensees will pay the PTA, in addition to the Spectrum Administration fee and the Spectrum Price, an annual licence Administration fee ("**Regulatory fee**"), to reasonably cover the cost of regulation. The annual Regulatory fee shall not exceed 0.5% of last year's gross revenue, minus inter-operator and related PTA/FAB mandated payments.

Administrative fees for radio spectrum will be set to recover the cost of administration of that spectrum. The total income generated from administrative fees for the whole spectrum should recover the reasonable operational costs by the FAB incurred whilst managing, licensing and policing that spectrum.

Spectrum price for line of site links will be limited to the Administration fees. Please also refer to our responses to questions 3.1 and 3.2 above.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Subject to Rule 11 (5) of the PTA Rules, if a substantial ownership interest in, or control of, a licensee is proposed to be changed, the licensee shall give the PTA notice of such fact in writing. That written notice shall include all relevant details of the proposed change. If the PTA is of the opinion that the change shall adversely affect the ability of the licensee to provide its licensed telecommunication services, it may impose such additional conditions in the licence as shall be reasonable and directly relevant to the proposed change.

For the purpose of understanding, the terms "control" and "substantial ownership interest" used in the response shall bear the following meanings:

(i) "**control**" means the ability to direct the exercise, whether directly or indirectly and whether through one or more entities, of more than 50% of the voting rights exercisable at any general meeting of the shareholders of the licensee; and

(ii) "**substantial ownership interest**" means more than 10% of the issued share capital of the licensee.

Please also refer to our response to question 2.7 above.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

A licence granted under the PTA Act and the PTA Rules shall be personal to the licensee and shall not be assigned, sub-licensed to, or held on trust for any person, without the prior written consent of the PTA.

A framework for spectrum trading is also in place, but is not yet in force.

Please also refer to our response to question 2.7 above.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The current legal framework for cybersecurity is governed by the PECA. The purpose of the PECA is to control the increasing "cybercrimes in Pakistan" and to control the offences related to information systems. It provides mechanisms for the investigation, prosecution and trial of electronic crimes. There are many clauses in this legislation which are considered as restrictions on the freedom of people, especially freedom of expression and freedom of speech.

Activities such as sending text messages without the receiver's consent or criticising Government actions on social media are subject to penalty with heavy fines and imprisonment in jail. Similarly, online criticism of religion, country, courts of Pakistan, armed forces of Pakistan and other institutions of Pakistan are also punishable with fines and imprisonment.

The PECA has also come under fire for including data retention provisions that make it mandatory for service providers to hold traffic data for a minimum 90-day period or as "authorised officers" see fit. The PECA does not, however, explicitly list any provisions for data privacy or protection, outside of conditions that officers of the law must provide anyone "with a legal right to the data" a list of said data, and copies of said data, although this can be refused by an "investigating officer" if there are "reasonable grounds".

Subject to certain provisions of the PECA, "**International Cooperation**" can be tendered whereby the Federal Government may, upon receipt of a request, through the designated agency under the PECA, extend such cooperation to any foreign government, 24 × 7 network, any foreign agency or any international organisation or agency, for the purposes of investigations or proceedings concerning offences related to information systems, electronic communication or data or for the collection of evidence in electronic form relating to an offence, or obtaining expeditious preservation and disclosure of data by means of an information system, or real-time collection of data associated with specified communications or interception of data under the PECA.

The provisions of the PECA are not only specific to the licensees (including MNOs) of the PTA; the scope of the PECA extends to every citizen of Pakistan, wherever he may be, and also to every other person for the time being in Pakistan. The same also applies to any act committed outside Pakistan by any person if the act constitutes an offence under the PECA and affects a (i) person, (ii) property, (iii) information system ("*electronic system for creating, generating, sending, receiving, storing, reproducing, displaying, recording or processing any information*"), or (iv) data ("*any representation of fact, information or concept for processing in an information system including source code or a program suitable to cause an electronic system for creating, generating, sending,*

receiving, storing, reproducing, displaying, recording or processing any text, message, data, voice, sound, database, video, signals, software, computer programs, any forms of speech, sound, data, signal, writing, image or video, to perform a function or data relating to a communication indicating its origin, destination, route, time, size, duration or type of service").

The PECA also provides that the unauthorised access or the unauthorised copying or transmission of data or an information system with the intent of injury, wrongful gain or wrongful loss or harm to any person shall be treated as a punishable offence.

Further, the PECA provides that, a service provider shall, within its existing or required technical capability, retain its specified traffic data (data relating to a communication indicating its origin, destination, route, time, size, duration or type of service) for a minimum period of one year or such period as the PTA may notify from time to time and, subject to the production of a warrant issued by the court, provide that data to the investigation agency or the authorised officer whenever so required.

For the purpose hereof, a "service provider" means to include a person who:

(a) acts as a service provider in relation to sending, receiving, storing, processing or distributing any electronic communication, or the provision of other services in relation to electronic communication through an information system;

(b) owns, possesses, operates, manages or controls a public switched network or provides telecommunication services; or

(c) processes or stores data on behalf of such electronic communication service or users of such service.

Service providers are required to retain traffic data by fulfilling all requirements of data retention and its originality, as per the provisions of the PECA.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Section 54 of the PTA Act provides that notwithstanding anything contained in any law currently in force, in the interest of national security or in the apprehension of any offence, the Federal Government may authorise any person or persons to intercept calls and messages or to trace calls through any telecommunication system. The PTA Act also includes other provisions that restrict the ability of users to be able to communicate privately, or to use systems to access the internet and other ICT services without interference and surveillance.

Section 32 of the PTA Act gives courts the power to authorise searches for "unapproved crypto apparatus" or other "unapproved terminal equipment".

Further, Article 6.13 of the Mobile Cellular Policy states that licensees shall meet the requirements of authorised security agencies for legal interception of calls and messages. Further, the Government of Pakistan has the right to either suspend the service or cancel any licence to safeguard national security.

With respect to the Investigation for Fair Trial Act, 2013, the High Court may issue a warrant of surveillance or interception to allow the lawful doing of any or all of the following acts, namely:

(a) interception and recording of telephonic communication of the suspect with any person;

(b) video recording of any person(s), premises, event, situation, etc.;

(c) interception or recording or obtaining of any electronic transaction including, but not limited to, emails, SMS, etc.;

(d) interception and taking over of any equipment used in the communication in respect of which the warrant is issued, including, but not limited to, telephones, cell phones, mobile SIM cards, electronic databases; demonstrating the linking of electronic communication with the database belonging to the person in respect of whom the warrant has been issued, provided that the judge authorises take-over of equipment only where the material or statement of the authorised officer discloses a substantial threat or possibility of an attempt to commit a scheduled offence;

(e) collection of evidence through any modern devices in addition to the ones mentioned above;

(f) use of human intelligence;

(g) covert surveillance and property interference;

(h) access to any information or data in any form related to a transaction, communication or its content; and

(i) any other form of surveillance or interception that the Federal Government may notify from in this behalf.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

In addition to the response to question 4.2 above, Regulation 4 of the Monitoring and Reconciliation of Telephony Traffic Regulations states that each LDI licensee and Access Provider shall establish the system at its own cost in accordance with these regulations, as determined and required by the PTA from time to time at the PTA designated premises.

Any monitoring system or other system developed under Regulation 4 of the Monitoring and Reconciliation of Telephony Traffic Regulations shall comprise the mandatory features of monitoring links and controlling grey traffic with the minimum of the following features, and shall ensure compatibility to provide such information as required by the PTA, where applicable:

(a) capability to monitor, control, measure and record traffic in real time;

(b) capability for a complete signalling record, including but not limited to billing;

(c) capability to accurately measure the quality of service;

(d) a complete list of Pakistani customers and their details; and

(e) complete details of capacity leased by the licensee(s) to their customers.

Further, Regulation 8 states that LDI licensees shall ensure full accounting of international traffic on all Access Providers' networks. The monitoring system(s) and other system(s) should be capable of identifying, analysing and reconciling all data and voice-signalling information in a clear and transparent manner for identification of the total traffic, irrespective of the path taken in such format and with such features as required by the PTA.

For the purposes of the Monitoring and Reconciliation of Telephony Traffic Regulations, the term "system(s)" has been defined as a system which includes but is not limited to hardware, software, firmware, peripherals, cables, connectors and internal and external interfaces to be installed and deployed for the monitoring, aggregating, measuring and reconciling of traffic, monitoring and controlling of grey traffic, removal of asymmetry, billing and quality of the licensed service.

4.4 How does the state intercept communications for a particular individual?

Subject to Section 54 of the PTA Act, in the interest of national security or in the apprehension of any offence, the Federal Government may authorise any person(s) to intercept calls and messages or to trace calls through any telecommunication system.

During a war, a period of hostility towards Pakistan by any foreign power, internal aggression, or for the defence or security of Pakistan, the Federal Government shall have preference and priority in telecommunication systems over any licensee.

Please also refer to our responses to questions 4.2 and 4.3 above.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

As part of the obligations placed on a licensee under the Monitoring and Reconciliation of Telephony Traffic Regulations, the licensee(s) and Access Providers shall ensure that signalling information is uncompressed, unencrypted, and not formatted in a manner which the installed monitoring system is unable to decipher using installed capacities.

Further, the licensee(s) and Access Provider(s) shall provide access to the authorised representatives of the PTA for obtaining information directly through the system of any traffic routed through their network, as and when required by the PTA.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Pursuant to the Electronic Transactions Ordinance, 2002 ("**ETO**"), the requirement under any law for any document, record, information, communication or transaction to be in written form shall be deemed satisfied where the document, record, information, communication or transaction is in electronic form, if the same is accessible so as to be usable for subsequent reference.

However, in light of Section 16 of the ETO, documents are required to be retained pursuant to specific laws (as discussed herein) and preserved in hard form if the original document was produced in hard form, e.g., instruments which require stamping, registration and/or signatures as in terms of the Stamp Act, 1899, and the Registration Act, 1908, and/or as may be required by the competent authority in accordance with its respective laws. Therefore, in order to appropriately use and rely upon documents/instruments (originally produced in hard form) which may need to be presented as evidence, in terms of Chapter V of the Qanun-e-Shahadat Order, 1984, must be retained in hard form irrespective of the electronic form *supra*.

PTA Rules

Every licensee is required each month, or at such intervals as designated, to furnish the results of quality tests and surveys to the PTA. The licensee is required to keep a record of the said quality tests and surveys for three years, and such record shall at all times be open to inspection and audit by the PTA.

The Access Promotion Contribution Rules

Every licensee shall keep all books and accounts pertaining to payments made or received pursuant to the Access Promotion Contribution Rules, and the telecommunication services to which such payments relate, including call detail records and itemised billing data, for a period of at least three years.

Subscriber Antecedents Verification Regulations

All operators shall ensure the maintenance of updated record of all SIM(s) to subscribers, and every operator shall ensure the confidentiality of all the information disclosed by the subscriber under the provisions of these Regulations.

All operators shall ensure the cleaning of old data for verification of all subscribers' data as and when required by the PTA. Although there is no specific time period provided for the PTA to call for such subscriber data verification, it is clear that such data can be retained in electronic form as per Section 6 of the ETO.

Mobile Number Portability Regulations

Every recipient operator shall keep and maintain records of the application forms of those subscribers who have requested porting for at least six months, for inquiry by concerned donor operators or examination by the PTA.

The operators are required to maintain usage records including, where available, called and calling numbers, date, duration, time and the called number cell, with regards to usage made on its central databases for a rolling 12 months, for scrutiny by, or as directed by, the PTA, or as required by any law enforcement or intelligence agency.

GPRS/EDGE Service Quality of Service Standards Regulation

Every licensee is required to carry out "Quality of Service" on different factors, and retain and maintain the record of the same in its own safe custody for a period of three years.

The PECA

A service provider is required to retain its specified traffic data for a minimum period of one year, or such period as the PTA may specify from time to time.

Further, if an authorised officer is satisfied that:

(a) specific data stored in any information system or by means of an information system is reasonably required for the purposes of a criminal investigation; and

(b) there is a risk or vulnerability that the data may be modified, lost, destroyed or rendered inaccessible,

the authorised officer may, by written notice given to the person in control of the information system, require that person to provide the data or to ensure that the data specified in the notice be preserved, and for the integrity thereof to be maintained for a period not exceeding 90 days, as specified in the notice.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

PEMRA, created pursuant to the PEMRA Ordinance, is the relevant regulator which, *inter alia*, issues licences to establish and operate a broadcast station and/or distribute programmes through cable or television networks.

Any person desirous of operating broadcast media (such media which originate and propagate broadcast and pre-recorded signals by terrestrial means, or through satellite for radio or television, and include teleporting, provision of access to broadcast signals by channel providers and such other forms of broadcast media as PEMRA may state, with the approval of the Federal Government, by notification in the official gazette) or a distribution service (a service which receives broadcast and pre-recorded signals from different channels and distributes them to subscribers through cable, wireless or satellite options, and includes cable TV, LMDS, MMDS, DTH and such other similar technologies), shall be required to procure a licence from PEMRA.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

PEMRA regulates the traditional distribution platforms, whereas the PTA, in addition to PEMRA, jointly regulates internet-based platforms.

It is also to be noted that the PTA, as the country's telecom regulator, will implement policies to block websites with blasphemous, un-Islamic, offensive, objectionable, unethical, and immoral material. In this regard, the PTA, as and when directed by the Federal Government, directs/requires its licensees to implement IP/URL blocking/filtering protocols.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

Subject to Section 18 of the PEMRA Ordinance, PEMRA shall issue licences for broadcast media and distribution services in the following categories, namely:

(a) international and national scale stations;
(b) provincial-scale broadcasts;
(c) local area or community-based radio and TV broadcasts;
(d) specific and specialised subjects;
(e) distribution services; and
(f) up-linking facilities, including teleporting and DSNG.

Further, PEMRA may sub-categorise the categories specified in any of the aforementioned sub-sections.

A person who is issued a licence under the PEMRA Ordinance shall:

(a) ensure the preservation of the sovereignty, security and integrity of the Islamic Republic of Pakistan;
(b) ensure the preservation of the national, cultural, social and religious values and the principles of public policy as enshrined in the Constitution of the Islamic Republic of Pakistan;
(c) ensure that all programmes and advertisements do not contain or encourage violence, terrorism, racial, ethnic or religious discrimination, sectarianism, extremism, militancy, hatred, pornography, obscenity, vulgarity or other material offensive to commonly accepted standards of decency;
(d) comply with rules made under the PEMRA Ordinance;
(e) broadcast, if permissible under the terms of its licence, programmes in the public interest specified by the Federal Government or PEMRA in the manner indicated by the Government, or, as the case may be, PEMRA, provided that the duration of such mandatory programmes does not exceed 10% of the total duration of the broadcast or operation by a station in 24 hours, except if, by its own volition, a station chooses to broadcast such content for a longer duration;
(f) comply with the codes of programmes and advertisements approved by PEMRA and appoint an in-house monitoring committee, under intimation to PEMRA, to ensure compliance with the Code;
(g) not broadcast or distribute any programme or advertisement in violation of copyright or any other property right;
(h) obtain NOC from PEMRA before the import of any transmitting apparatus for broadcasting, distribution or teleporting operation46; and
(i) not sell, transfer or assign any of the rights conferred by the licence without prior written permission of PEMRA.

Pursuant to Section 19 of the PEMRA Ordinance, PEMRA shall have the exclusive right to issue licences for the establishment and operation of all broadcast media and distribution services, provided that this exclusive right shall be used by PEMRA in conformity with the principles of fairness and equity applied to all potential applicants for licences, whose eligibility shall be based on prescribed criteria notified in advance. In case of radio, television and MMDS broadcast station licences, this shall be done through an open, transparent bidding process if the number of applications exceeds the number of licences to be issued by PEMRA. No person or entity can engage in broadcasting or CTV operation except after procuring a licence issued by PEMRA.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Subject to the terms and conditions of the licence granted by PEMRA, a licensee shall not sell, transfer or assign any of the rights conferred by the licence without prior written permission of PEMRA.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Section 21 of the PTA Act places an obligation on licensee(s) to monitor use of the licensed telecommunication service or telecommunication system, and to disconnect the telecommunication service from any user who, after written notice, misuses it.

Therefore, if any of the terms and conditions of the licence are breached, the PTA can cancel the licence of the relevant operator.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

If any content owner is of the opinion that his right(s) have been infringed, such content owner may approach the relevant judicial forum for remedy.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Currently there are no specific laws relating to "net neutrality" in Pakistan.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

It is to be noted that the PTA, being the country's telecom regulator, will implement policies to block websites with blasphemous, un-

Islamic, offensive, objectionable, unethical, and immoral material. In this regard, the PTA, as and when directed by the Federal Government, directs/requires its licensees to implement IP/URL blocking/filtering protocols.

With regards to consumer Virtual Private Networks (VPN) services, please note that transmission of encrypted data on the network as traffic is not permitted under the applicable laws. Non-standard protocols of communication, including encryption, cannot be undertaken without the prior approval of the PTA. Operators are required to obtain prior approval of the PTA if they use a non-standard mode of communication, including VPN and non-standard protocols, which include encrypted messages.

Further, the use of any non-standard of communication, including all mechanisms by means of which communications become hidden or modified to the extent that they cannot be monitored, is a violation of the PTA Rules.

While it is mandatory for such service providers to provide local enforcement agencies with decryption and interception abilities for such encrypted services, we note that messaging and VoIP regulation is highly topical. Platforms offering end-to-end encryption, similar to WhatsApp, are not currently regulated. However, we cannot confirm whether the same will be brought in the ambit of the regulatory regime.

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Shahrukh is based in Islamabad and advises multinational corporations and local companies on various complex commercial transactions.

Shahrukh assists with a range of matters, including: cross-border international trade remedy laws; drafting amendment laws for regulatory bodies; corporate governance and compliance relating to the registration and incorporation of companies in Pakistan; intellectual property; labour law; power purchase agreements; implementation agreements; off-shore and on-shore engineering; procurement and construction contracts for project companies setting up power plants in Pakistan; concession documents pertaining to oil and gas companies; property law; construction law; corporate restructuring for privatisation transactions; and proceedings before the Competition Commission.

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Our expertise includes major telecoms and internet projects, including advising a number of new entrants into the reorganised telecoms sectors, major telephone line projects and privatisations. Our media practice is regularly involved in the incorporation, licensing and operational issues relating to corporate entities involved in the television, satellite broadcasting and print media, as well as digital radio. Our advice blends a commercial perspective regarding foreign direct investment and licensing matters involving applications, presentations and representations to relevant regulatory authorities.

Our practice also includes advising on a range of matters affecting innovative sectors, including media and new technology law, outsourcing agreements, and assists major clients in the sector with their IP portfolios.

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Chapter 26

Singapore

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

According to the latest Annual Survey on Infocomm Industry published by the Info-communications and Media Development Authority ("**IMDA**"), the total info-communications industry revenue for 2016 was S$175.8 billion. According to Infocomm Media 2025 (Supplementary Information Annex), published by the Ministry of Communication and Information ("**MCI**"), the total revenue of the media sector in 2013 was S$33.1 billion.

The three main local telecom service providers in Singapore currently are: Singtel; StarHub; and M1. In 2016, TPG Telecom won the New Entrant Spectrum Auction and is expected to become Singapore's fourth telco offering 4G services when its network rollout is complete.

In the media sector, Mediacorp is the sole licensee broadcasting nationwide free-to-air television ("**FTA TV**") channels in Singapore, while StarHub and SingTel are the main service providers offering nationwide subscription pay-TV services. The current free-to-air radio broadcasters are MediaCorp, So Drama! Entertainment and SPH Radio.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Telecommunications Act ("**TA**") is the primary legislation governing the telecom sector in Singapore. It sets out the broad licensing and regulatory framework for the telecom sector. Other relevant legislation includes the Info-communications Media Development Authority Act 2016 ("**IMDAA**"), the Personal Data Protection Act 2012 ("**PDPA**"), and the Cybersecurity Act.

The Broadcasting Act ("**BA**") is the primary legislation governing the broadcasting sector while the distribution and exhibition of films is primarily governed by the Films Act.

Specific issues and subject matters are dealt with under various regulations, codes of practice, standards of performance, guidelines and other regulatory instruments issued pursuant to these statutes.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

IMDA is the converged regulator for info-communications (including telecoms and IT) and media in Singapore, and is responsible for the development, promotion and regulation of the info-communications and media sectors.

IMDA is under the direct authority of MCI, the government ministry in charge of the development of the info-communications technology, cybersecurity, media and design sectors in Singapore.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Telecoms

The Singapore telecom sector was fully liberalised from 1 April 2000. Since then, there have been no direct or indirect foreign equity limits imposed on persons holding a licence to provide telecom services.

IMDA's current practice is to issue facilities-based operations ("**FBO**") licences only to companies incorporated in Singapore, which can be wholly owned by a foreign entity. In the case of services-based operations ("**SBO**") (individual) licences, IMDA would also issue licences to local registered branches of foreign companies, while SBO (class) licences may also be held by limited liability partnerships or limited partnerships.

Merger and acquisition control regulations exist under the Telecommunications Competition Code ("**TCC**") and Part VA of the TA. For more details, please see the response to question 2.7.

Audio-visual media distribution sector

Part X of the BA regulates foreign participation in a broadcasting company, which is a company incorporated or registered under the Companies Act which holds a free-to-air licence, or any broadcasting licence under which a subscription broadcasting service may be provided, that permits a broadcast capable of being received in 50,000 dwelling houses or more. The following requirements under Part X of the BA apply to all broadcasting companies unless exempted by the Minister for Communications and Information ("**Minister**").

Unless IMDA approves otherwise, the CEO of a broadcasting company and at least half of its directors must be Singapore citizens.

No person may acquire 5% shareholding in, or (alone or with his associates) acquire 12% or more shareholding or voting power in, or otherwise become an indirect controller (as defined under the BA) of, a broadcasting company without first obtaining the Minister's approval.

IMDA's prior approval must be obtained if a person wishes to receive funds from a foreign source to finance any broadcasting service owned or operated by a broadcasting company. In addition, no company (unless the Minister approves otherwise) may be granted or hold a relevant licence (as defined in the BA) if the Minister is satisfied that:

(a) any foreign source(s) either holds no less than 49% of the shares in the company or its holding company, or controls voting power of no less than 49% in the company or its holding company; or

(b) all or a majority of the persons having the direction, control or management of the company or its holding company are appointed by, or accustomed or under an obligation to act in accordance with the directions, instructions or wishes of, any foreign source(s).

Persons specified to be regulated persons pursuant to the IMDAA are subject to further merger and consolidation regulations as set out in the IMDAA and the Media Market Conduct Code ("**MMCC**"). Under the MMCC, a regulated person is required to obtain IMDA's prior written approval before entering into a consolidation (including a merger) with another regulated person or with any ancillary media service provider (as defined under the MMCC).

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Singapore became a member of the World Trade Organisation ("**WTO**") on 1 January 1995. Singapore is a signatory to the GATS protocols on telecommunications (Fourth Protocol) and has made commitments thereunder. Singapore has also adopted the telecom reference paper on regulatory principles.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The operation and provision of telecommunication systems and services in Singapore generally require a licence to be granted under the TA, which can be either an FBO or SBO licence.

Under the TA, "telecommunications" is defined broadly as: "*a transmission, emission or reception of signs, signals, writing, images, sounds or intelligence of any nature by wire, radio, optical or other electro-magnetic systems whether or not such signs, signals, writing, images, sounds or intelligence have been subjected to rearrangement, computation or other processes by any means in the course of their transmission, emission or reception.*"

Where radio frequency ("**RF**") spectrum is required for the provision of wireless services, additional licensing may be required under the Telecommunications (Radio-Communications) Regulations ("**Radio-Communications Regulations**").

Regulatory obligations may be imposed on licensed operators by way of licence conditions and other regulatory instruments.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

IMDA, as the telecom regulator, is responsible for administering and enforcing competition rules in the telecom sector. To this end, IMDA has issued the TCC, which sets out a detailed sector-specific competition framework governing the telecom sector. IMDA is a statutory board under the oversight of MCI.

Competition matters falling under IMDA's jurisdiction are carved out of the purview of the Competition and Consumer Commission of Singapore ("**CCCS**"), which administers the general competition law pursuant to the Competition Act.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Telecom licensees aggrieved by any decision of IMDA under the TA, or anything contained in a code of practice, standard of performance or direction issued under the TA, may request IMDA to reconsider the matter or appeal to the Minister.

Non-licensees may also request IMDA to reconsider, or appeal to the Minister against certain types of decisions, directions or codes of practice issued by IMDA.

IMDA may determine a reconsideration request, and the Minister may determine an appeal, by confirming, varying or reversing the decision/direction or amending the code of practice or standard of performance.

Upon the conclusion of an appeal to the Minister, further legal challenges may be mounted by aggrieved persons by way of an action for judicial review in the courts.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

Persons operating and providing telecom systems and services in Singapore must generally be licensed. IMDA has adopted a two-pronged licensing approach that distinguishes between FBOs (which require an FBO licence) and SBOs (which require an SBO licence).

FBOs refer to the deployment and/or operation of telecom networks, systems and/or facilities (including telecom infrastructure for the carriage of telecom or broadcast traffic) by any person for the purpose of providing telecom and/or broadcasting services outside of his own property boundaries to third parties, who may include other licensed telecom operators, business customers or the general public.

Although the general conditions of an FBO licence are standardised across all FBO licensees, additional specific conditions may apply to each individual FBO licensee depending on the services that the licensee may provide.

SBO licences are granted to operators that do not intend to deploy telecom infrastructure, and that instead lease telecom network

elements from FBO licensees to provide telecom services, or to resell the telecom services of other licensees. SBO licences fall under two categories: SBO (Individual) licences or SBO (Class) licences, depending on the scope of operations and nature of services offered. In general, operators who lease international transmission capacity for the provision of services will be licensed individually. For more details as to SBO (Class) licences, please refer to the response to question 2.6.

FBO licences are on a higher hierarchical level than SBO licences. FBO licensees who wish to offer telecom services that on their own would require an SBO licence do not need to obtain a separate SBO licence. However, the converse is not true. An SBO licensee who wishes to undertake telecom activities that require an FBO licence will need to apply to be licensed as an FBO. The FBO licence will then replace the SBO licence.

Other types of telecom licences may be required for the carrying on of other activities. For example, dealers of telecommunication equipment may require a telecom dealer's licence. The operation of radio-communication stations or networks may also require other licences to be obtained.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Parties that provide telecom services falling within the scope of an SBO (Class) licence are required to register with IMDA before commencing services. There is no renewal required for SBO (Class) licences.

Services that require an SBO (Class) licence include:

(a) call-back/call re-origination services;
(b) internet-based voice and data services;
(c) international calling card services;
(d) resale of public switched telecommunication services;
(e) store-and-retrieve value-added network services;
(f) audiotex services;
(g) public chain payphone services; and
(h) store-and-forward value-added network services.

The standard terms and conditions that apply to SBO (Class) licensees are published in a Gazette for compliance. Operators providing the services within the scope of the SBO (Class) licence will be deemed to have read and agreed to the prescribed terms and conditions.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

The operation or provision of any telecommunication systems and services would require an FBO licence or SBO licence, depending on the intended scope of activities (see the response to question 2.5). Each licensee will be authorised to undertake the activities for which it is granted its licence.

FBO licences are typically granted for 15 years and may be renewed as IMDA deems fit. SBO (Individual) licences are valid for an initial period of five years and may be renewed for further five-year periods. All such licences may not be transferred or traded without IMDA's prior approval.

Under Part VA of the TA, all designated telecommunication licensees ("**DTLs**"), designated business trusts ("**DBTs**") and designated trusts ("**DTs**") are required to comply with merger control requirements. Generally, where the transaction would result in a party and its associates holding or controlling more than 12%, or more than 30%, of the voting power in a DTL, DBT or DT, IMDA's prior approval must be sought for the transaction. In addition, IMDA must be notified if a transaction would result in a person holding or controlling 5% or more but less than 12% of the voting power in a DTL, DBT or DT. Other licensees may, under the conditions of their licence, be required to notify IMDA upon a change of control.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Under the TA, licensees designated as public telecommunication licensees ("**PTL**") by IMDA may, subject to certain conditions and safeguards, exercise certain statutory rights to facilitate the deployment of telecom infrastructure, including the right to enter state and private property to lay telecom infrastructure.

Under IMDA's Code of Practice for Info-communication Facilities in Buildings ("**COPIF**"), building developers and owners are required to provide certain space and facilities to enable the deployment and operation of telecom installations, plants or systems. The COPIF also sets out various duties that developers, owners and telecom licensees are required to observe in relation to the provision, maintenance and utilisation of relevant space and facilities.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Interconnection and access issues are primarily regulated by IMDA pursuant to the TCC. The TCC provides that FBO licensees and SBO licensees using switching or routing equipment to provide services to the public are under a general duty to interconnect with one another. Interconnection agreements must be submitted to IMDA. While IMDA generally does not involve itself in interconnection negotiations between non-dominant licensees, an interconnection agreement between non-dominant licensees must nevertheless fulfil certain minimum interconnection duties as specified in the TCC, and IMDA reserves the right to reject an interconnection agreement between non-dominant licensees that does not fulfil its requirements.

Licensees have a duty to co-operate in good faith and in a commercially reasonable manner in implementing the terms of their interconnection agreements, avoiding unnecessary disputes and resolving any disputes promptly and fairly. IMDA generally recognises that interconnection agreements are private contracts between licensees, and will not involve itself in disputes arising from interconnection agreements where both parties are non-dominant licensees.

Licensees who wish to interconnect with dominant licensees may generally do so under one of three options: (1) pursuant to a reference interconnection offer ("**RIO**") approved by IMDA; (2) on the same prices, terms and conditions that a dominant licensee has agreed to with another similarly situated licensee; or (3) pursuant to the prices, terms and conditions of an individualised interconnection agreement between the two parties.

The TCC sets out certain procedures governing voluntary negotiations for an individualised interconnection agreement with a dominant licensee. Where licensees are unable to reach a voluntary agreement, IMDA may resolve the dispute in accordance with its Dispute Resolution Guidelines.

In the context of the next-generation nationwide broadband network ("**NGNBN**"), IMDA has also imposed similar obligations on the appointed network company ("**NetCo**") and operating company ("**OpCo**"), set out in detail in the NetCo Interconnection Code and the OpCo Interconnection Code (see the response to question 2.13), to make available certain mandated services to qualifying persons under the terms of standardised interconnection offers ("**ICOs**").

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Licensees classified by IMDA as dominant licensees are required to publish RIOs, under which they offer interconnection-related services and mandated wholesale services on prices, terms and conditions that are pre-approved by IMDA, unless specifically exempted by IMDA. A licensee will be classified by IMDA as dominant if:

(a) it is licensed to operate facilities that are sufficiently costly or difficult to replicate, such that requiring new entrants to do so would create a significant barrier to rapid and successful entry into the telecommunication market in Singapore by an efficient competitor; or

(b) it has the ability to exercise significant market power in any market in Singapore in which it provides telecommunication services.

Licensees currently classified as dominant licensees include: Singtel; StarHub Cable Vision; NetLink NBN Management Pte Ltd (as trustee-manager of NetLink NBN Trust); and NetLink Management Pte Ltd (as trustee of NetLink Trust).

Presently, Singtel (which is the incumbent fixed-line network operator and also operates a number of telecom facilities such as submarine cable landing stations) and NetLink Trust (whose assets include central offices, ducts and manholes) have published RIOs pursuant to the TCC.

In the context of the NGNBN, NetLink Trust (as the appointed NetCo) and Nucleus Connect Pte Ltd ("**Nucleus Connect**") (as the appointed OpCo) have published standardised ICOs pursuant to the NetCo Interconnection Code and OpCo Interconnection Code, respectively.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Dominant licensees are required to submit RIOs to IMDA for approval, setting out the prices, terms and conditions on which they offer interconnection-related services and mandated wholesale services (see the responses to questions 2.9 and 2.10). The pricing of interconnection-related services and mandated wholesale services are reviewed by IMDA in line with pricing methodologies set out in the TCC.

In relation to the NGNBN, the NetCo and OpCo Interconnection Codes set out certain price review processes under which IMDA regularly reviews, modifies and approves the prices of mandated services under the respective NetCo and OpCo ICOs. The pricing methodologies used by IMDA will be specified by IMDA at the point of each price review.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Accounting Separation

Certain licensees are subject to IMDA's Accounting Separation Guidelines, which provide for two levels of accounting separation: detailed segment reporting and simplified segment reporting.

Detailed segment reporting generally applies to dominant FBO licensees, and FBOs and SBOs controlled by a dominant licensee. It involves separate reporting of key service segments and certain individual retail services. The requirements include a specified cost allocation process and prescribed allocation methodologies for certain cost and revenue items. Reports include both income statements and mean capital employed statements.

Simplified segment reporting applies to certain entities as specified in the Accounting Separation Guidelines, such as FBO and SBO licensees that control a dominant FBO licensee. It requires less disaggregation of operations and a less rigorous cost allocation process. Only income statement reporting is required.

Functional and Legal Separation

Generally, IMDA does not require functional or legal separation between an operator's network and service activities in Singapore. However, within the NGNBN, IMDA has established a multi-layered industry structure consisting of: the NetCo; several OpCos including the appointed OpCo; and numerous retail service providers.

At the first layer, the appointed NetCo is responsible for building and operating the passive infrastructure, which includes the dark fibre network. OpenNet Pte Ltd was the initial NetCo appointed by IMDA. The assets and operations of OpenNet have since been taken over by NetLink Trust, following NetLink Trust's acquisition of OpenNet effective 1 October 2014. In July 2017, the units in NetLink Trust were fully acquired by NetLink NBN Trust. Under the conditions of the FBO licence held jointly by NetLink NBN Management Pte Ltd (as trustee-manager of NetLink NBN Trust) and NetLink Management Pte Ltd (as trustee of NetLink Trust), the NetCo is required to ensure structural separation, which involves, among other things, ensuring: that it has no effective control over any other telecom licensee or broadcasting licensee; it is not under the effective control of any other telecom licensee or broadcasting licensee; and it is not under the effective control of the same controlling entity as any other telecom licensee or broadcasting licensee.

At the second layer, Nucleus Connect, the appointed OpCo, is responsible for building and operating the active infrastructure, comprising switches and transmission equipment, to provide wholesale network services. While Nucleus Connect may be owned by its downstream operating units, it is nevertheless subject to a range of detailed operational separation requirements under its FBO licence conditions.

Such requirements are intended to ensure, among other things, that downstream operators are treated in a non-discriminatory manner, and that the NetCo or OpCo independently formulates and makes its own commercial decisions.

The TA also empowers the Minister to, subject to certain prerequisites including being satisfied that it is in the public interest to do so, issue a separation order requiring the transfer of a telecom licensee's business or assets to a separate or independent entity.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

At present, NGNBN entities are regulated under existing telecom and media legislation, as well as regulations, directions, licences, codes of practice and other regulatory instruments issued by IMDA. In particular, the respective ICOs of NetLink Trust (which owns and operates the passive infrastructure of the NGNBN) and Nucleus Connect set out the prices, terms and conditions upon which they would provide certain mandated NGNBN services. The ICOs are offered pursuant to the NetCo Interconnection Code and the OpCo Interconnection Code respectively, both of which were issued by IMDA in 2009 and updated in 2017.

Recognising the importance of a pervasive and ultra-high speed broadband network to Singapore's economic development and position as an info-communications hub, the Singapore Government had in 2008 announced that it would provide grants of S$1 billion to fund the development of the NGNBN. Of this figure, S$750 million was allocated to the appointed NetCo to design, build and operate the passive infrastructure layer of the network, and S$250 million was allocated to the appointed OpCo to design, build and operate the active infrastructure.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Except where exempted by IMDA, dominant licensees must file tariffs with IMDA for services they intend to offer, including services provided to end-users, whether on a trial basis or not, and must obtain IMDA's prior approval before offering the services.

The proposed tariff filing must include certain specified information, including: a description of the service; the relevant prices; terms and conditions; any discounts or special considerations that will be offered; and the minimum time period for which the service will be available. IMDA will assess whether the proposed tariff is just and reasonable, which in relation to end-user services includes an assessment as to whether the prices, terms and conditions are excessive or inadequate.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

IMDA has imposed universal service obligations ("**USOs**") in relation to certain basic services provided by PTLs under their licence conditions.

For example, Singtel is required under its licence conditions to provide a basic telephone service to any person in Singapore who requests such service. A similar requirement to provide a basic telephone service upon request can be found in the licence conditions of StarHub.

In relation to the NGNBN, which is intended to deliver high-speed broadband access throughout Singapore, IMDA has imposed USOs on both the appointed NetCo and OpCo following the creation of the NGNBN. The NetCo's USO took effect from 1 January 2013 and requires it to provide its fibre services to all physical addresses in Singapore upon request by qualifying persons. Correspondingly, the OpCo is required under its USO to provide services to all physical addresses in Singapore upon request by qualifying persons.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

IMDA administers the number allocation scheme in Singapore in accordance with its National Numbering Plan ("**NNP**"). Among other things, the NNP sets out rules and guidelines for the use and assignment of numbers to telecommunication services delivered over the public switched telephone network ("**PSTN**"), the radio network and the internet or other IP-based networks, and describes the assignment of numbers to international services, trunk services, emergency services and special services such as voicemail and intelligent network ("**IN**") services.

There is only one numbering area in Singapore, and area or trunk codes are not used. The PSTN, radio network, and IP telephony share the same numbering plan – a uniform eight-digit numbering plan. Numbers are categorised in various services according to the first digit.

2.17 Are there any special rules which govern the use of telephone numbers?

Under the NNP, the allocation of numbers is such that the first digit of the number indicates the type of services offered by that number:

(a) '0' for international services, such as the International Direct Dial service;

(b) '1' for special services which includes calls for operator assistance, service enquiry, machine-to-machine, internet dial-up, voice information, IN services and access code international direct dial type of services;

(c) '3' for the IP telephony service;

(d) '6' for the PSTN and IP telephony service;

(e) '8' and '9' for eight-digit radio network numbers; and

(f) '99' for three-digit emergency services.

2.18 Are there any obligations requiring number portability?

Singapore has had full number portability since June 2008. Number portability across mobile networks and fixed-line services is obligatory. Fixed-line and mobile telephony operators are required to allow consumers to retain full use of their existing phone numbers when switching service providers.

Syniverse Technologies is the centralised database administrator appointed to operate the centralised number portability database system. IMDA has published a document entitled 'Fixed Number Portability Guidelines' to set out the technical approach to fixed number portability by FBOs offering a fixed-line voice service.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

IMDA, as the telecom regulator, regulates spectrum use and is the authority responsible for planning, allocating and assigning frequencies.

Detailed provisions governing the grant of spectrum rights, spectrum sharing and trading, as well as licensing of radio-communication stations and networks are set out in the Radio-Communication Regulations.

IMDA has also issued the Spectrum Management Handbook which describes, *inter alia*, the various spectrum management activities carried out by IMDA, including spectrum allocations, assignment criteria and application procedures for various services including public mobile, private land mobile, terrestrial fixed and broadcasting services.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

The use of radio spectrum is authorised by IMDA by way of a combination of various regulatory instruments including the grant of spectrum rights, licences and exemptions.

IMDA has discretion in relation to the procedure for allocation of spectrum rights. Without limitation to the methods that IMDA may use, spectrum rights may be granted via one or a combination of the following methods: (i) auction; (ii) tender; or (iii) allocation in exchange for a pre-determined or negotiated fee.

Currently, IMDA allocates spectrum through a combination of administrative allocation and market-based (i.e. auction) approaches. Spectrum required for the provision of 2G, 3G and 4G mobile services have been granted as spectrum rights through an auction process. As for other services such as trunked radio and fixed links, IMDA generally applies an administrative allocation-based approach.

Persons may also apply for the use of certain prescribed frequencies on a temporary and occasional use for a period ranging from a few hours to a maximum of 90 days. Such usage is on a shared-use, non-protection and non-interference basis, amongst other conditions.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

IMDA has exempted the operation of certain short-range devices ("**SRDs**") from licensing requirements, provided they fall within certain specified parameters relating to RF bands and maximum field strength or power. IMDA has also published guidelines on the operation of unmanned aircraft systems ("**UAS**"), under which users of UAS will be exempted from IMDA's licensing requirements if these devices are operated within certain prescribed parameters.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The fees payable for the long-term use of radio spectrum typically comprise:

(a) a one-time Application & Processing Fee payable upon approval of frequency(s) assignment; and

(b) an annual Frequency Management Fee, which is a recurrent fee payable annually to cover the cost of the activities performed to safeguard the use of the frequency(s).

Generally, the fee payable for the temporary use of radio spectrum depends on the period of usage, the bandwidth and the frequency band used.

In addition to the foregoing, other charges such as licence fees (as prescribed in the Radio-Communication Regulations) or charges for spectrum rights (e.g., spectrum lot fees in accordance with successful spectrum auction bids) may be payable.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

IMDA is empowered to grant spectrum rights subject to such conditions as it considers appropriate, including conditions requiring IMDA's prior approval for a change of control. In addition, other regulatory requirements pertaining to changes of control, such as under Part VA of the TA (see the response to question 2.7) may apply.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

The Radio-Communication Regulations provide that spectrum right grantees may assign or otherwise deal with the whole or any part of the rights and privileges granted under the spectrum right, subject to IMDA's written approval and subject to such conditions as IMDA may impose.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The key Singapore legislation on cybersecurity issues are the Cybersecurity Act 2018 and the Computer Misuse Act ("**CMA**").

The Cybersecurity Act 2018, which came into operation (in part) in August 2018, establishes a legal framework for the oversight and maintenance of national cybersecurity in Singapore. It provides, *inter alia*, for the following:

(a) powers for the Commissioner of Cybersecurity to designate computers or computer systems in 11 key sectors as critical information infrastructure ("**CII**"), including in the info-communications and media sectors. Owners of CII are subject to certain duties including to provide information, report cybersecurity incidents, comply with codes and directions, and conduct cybersecurity audits and risk assessments;

(b) powers for the Commissioner of Cybersecurity to investigate cybersecurity threats and incidents; and

(c) a framework for the regulation and licensing of service providers involved in providing:

- penetration testing services; and
- managed security operations centre monitoring services.

The CMA criminalises activities such as the unauthorised access to or modification of computer material, using a computer to access any computer program or data to commit an offence, unauthorised use or interception of computer services and unauthorised disclosure of access codes.

Other laws or regulations which may be relevant include:

(a) the PDPA, which establishes a baseline standard of protection for personal data across the private sector, including the obligation for organisations to make reasonable security arrangements to protect personal data under their possession or control; and

(b) sector-specific requirements, such as the technology risk management guidelines issued by the Monetary Authority of Singapore.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

There exist certain broadly worded statutory provisions under various laws and regulations which may be relied upon by the Singapore Government authorities to obtain access to private communications, some examples of which are as follows:

(a) under the Criminal Procedure Act ("**CPC**"), a police officer of sergeant rank or above may issue a written order to a person to require production of, or give access to, any document or thing, if necessary or desirable for any investigation, inquiry, trial or other criminal proceeding;

(b) under the Kidnapping Act, the Public Prosecutor may, in certain prescribed circumstances, authorise any police officer to intercept and read any conversation by phone, or any message transmitted or received by telecommunication;

(c) under the Corruption, Drug Trafficking and Other Serious Crimes (Confiscation of Benefits) Act, for the purpose of investigating drug dealing or criminal conduct, an authorised officer may apply to court for an order requiring the production of particular material;

(d) under the Electronic Transaction Act ("**ETA**"), the controller is empowered to access and inspect and check the operation of any computer system reasonably suspected of having been used in connection with any offence under the ETA;

(e) under the Official Secrets Act, the Minister may, where such a course is expedient in the public interest, require any person who owns or controls any telecommunication system, used for the sending or receipt of messages to or from any place out of Singapore, to produce the originals and transcripts of messages sent or received to or from any place out of Singapore by means of any such telecommunication system; and

(f) under the TA, IMDA is empowered to require any person to produce any document or information which IMDA considers to be related to any matter relevant to an investigation under the TA, or for discharging IMDA's regulatory functions under the TA. Telecom licensees may also be required pursuant to the conditions of their licence to provide documents and information when requested by IMDA.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Telecom licences granted to operators typically contain conditions generally requiring licensees to co-operate with relevant government agencies to support national security, public safety and security, and to participate in emergency activities or preparations thereof. Specific interception requirements are not publicly promulgated.

4.4 How does the state intercept communications for a particular individual?

See the responses to questions 4.2 and 4.3.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

There is no overarching framework regulating the use of encryption. Government authorities may rely on certain statutory provisions to require the provision of encryption keys, for example:

(a) under the CPC, the Public Prosecutor may, for the purposes of investigating an arrestable offence, authorise a police officer or an authorised person to access any decryption information, and require any person reasonably suspected to be in possession of any decryption information to grant him access to such decryption information; and

(b) under the Cybersecurity Act 2018, the Minister may, for the purposes of preventing, detecting or countering serious and imminent threats to essential services and national security (amongst other things), authorise or direct any person or organisation to similarly access any decryption information, and require any person reasonably suspected to be in possession of any decryption information to grant him access to such decryption information.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Telecom licences granted to operators may contain conditions requiring certain records to be kept. The precise scope of records to be kept, and the retention period, will depend on the licence issued and the type of telecom services provided by an operator. Such records may include, for instance:

(a) subscriber particulars (such as: name; address; NRIC/passport/business registration number; billing/service address; contact information – e.g., phone and email; date of activation of account; service types and period; and assigned user ID and equipment ID, where applicable);

(b) data retention records (such as: assigned source/destination IP address and/or port; time stamps; bytes/packets counts; protocol and domain name) and/or call detail records; and

(c) retailer particulars (such as: name; business address; NRIC/passport/business registration number and contact number).

A typical retention period for such records to be kept is twelve (12) calendar months.

IMDA generally reserves the right to require its licensees to retain such other records as it may deem necessary.

To the extent that these records are personal data under the PDPA, the retention limitation obligation applies, and the organisation in question would be required to cease to retain the personal data as soon as it is reasonable to assume that the retention of such personal data no longer serves the purpose for which it was collected, and is no longer necessary for legal or business purposes.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

IMDA is the statutory body responsible for regulating the media (including broadcasting and film) sectors.

The BA regulates, *inter alia*, the dealing in, the operation of and ownership in broadcasting services and broadcasting apparatus. The provision of licensable broadcasting services (as defined under the BA) in or from Singapore requires a licence to be granted under the BA.

The Films Act regulates, *inter alia*, the distribution, exhibition and possession of films in Singapore. Under the Films Act, any person carrying on the business of distributing or exhibiting films is required to obtain a licence. With the exception of certain categories

of videos, all films and videos distributed and exhibited in Singapore have to be submitted to IMDA for classification and certification under the Films Act.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

IMDA's approach to content regulation generally recognises the principle that services with higher reach and impact should be subjected to more stringent content regulatory requirements. To this end, IMDA has issued various medium-specific codes of practice establishing content standards for different platforms.

For example, the Content Code for Nationwide Managed Transmission Linear Television Services outlines general standards for FTA TV services and linear channels of nationwide subscription television ("**Subscription TV**") services. FTA TV services are subject to stricter standards. For example, programmes rated PG13 can only be broadcast on FTA TV channels between 10pm and 6am, while programmes rated higher than PG13 are not allowed for broadcast. In contrast, Subscription TV channels may broadcast programmes rated M18 between 10pm and 6am, while programmes rated R21 are not allowed for broadcast.

The Content Code for Over-the-Top ("**OTT**"), Video-on-Demand ("**VOD**") and Niche Services outlines general standards for those services. Except for services targeting children, such services may offer content rated NC16 or higher, provided that parental locks are available, and R21 content can only be offered with an age verification mechanism and must be locked by default with a PIN.

The Television and Radio Advertising and Sponsorship Code outlines general standards for advertisements and sponsored programmes on FTA TV, FTA radio and Subscription TV services.

IMDA generally adopts a light-touch approach towards regulating internet content, and seeks to strike a balance between ensuring minimum standards for the responsible use of the internet and offering flexibility to industry operators. The Internet Code of Practice requires internet service providers ("**ISPs**") and internet content providers ("**ICPs**") to use best efforts to ensure that prohibited material is not broadcast via the internet to users in Singapore. Prohibited material is generally defined as: "*material that is objectionable on the grounds of public interest, public morality, public order, public security, national harmony, or is otherwise prohibited by applicable Singapore laws.*"

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

Under the BA, IMDA may grant broadcasting licences and broadcasting apparatus licences.

IMDA has established different categories of licences for broadcasting services, depending on the type of service to be offered. The licences issued by IMDA include: free-to-air nationwide television service licences; free-to-air nationwide radio service licences; nationwide subscription TV service licences; niche television service licences; and subscription international television service licences.

The conditions to be observed under each licence may be determined by IMDA in its discretion, and with the exception of the conditions of Broadcasting Class Licences, have not been made publicly available. Without limitation, licensees may be required to make payment of applicable licence fees, as well as comply with applicable content standards, ownership restrictions, and reporting obligations.

Certain broadcasting services, such as audio-text services and computer online services provided by ICPs and ISPs, are subject to the Broadcasting Class Licence Scheme. All Broadcasting Class Licensees must comply with the licence conditions published in the Broadcasting (Class Licence) Notification ("**BCLN**"). Certain categories of Class Licensees are also required to register themselves formally with IMDA, typically within 14 days of commencing services.

At present, the only category of broadcasting apparatus licence issued by IMDA is the television receive-only ("**TVRO**") satellite system licence, which is required for the installation and operation of a TVRO satellite system.

IMDA also issues Film Distribution Licences to companies or organisations wishing to conduct any business of distributing videos, and Film Exhibition Licences to companies or organisations wishing to exhibit films classified as NC16, M18 or R21.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Under the BA, transfers of broadcasting licences or broadcasting apparatus licences require the prior written consent of IMDA, and any purported transfers are deemed void.

Changes of control of broadcasting companies and consolidations involving regulated persons may be subject to prior approval requirements. For more details, see the response to question 1.4.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

The ETA contains a general defence for network service providers ("**NSPs**") from liability for third-party material. Under section 26(1) of the ETA, an NSP shall not be subject to any civil or criminal liability under any rule of law in respect of third-party material in the form of electronic records to which he merely provides access if such liability is founded on: (a) the making, publication, dissemination or distribution of such material or any statement made in such material; or (b) the infringement of any rights subsisting in or in relation to such material. However, the general defence under the ETA does not apply to:

(a) any obligation founded on contract;

(b) the obligation of an NSP as such under a licensing or other regulatory regime established under any written law;

(c) any obligation imposed under any written law or by a court to remove, block or deny access to any material; or

(d) any liability of an NSP related to copyright infringement.

In relation to copyright infringement, Part IXA of the Copyright Act contains several safe harbour provisions that allow NSPs to enjoy immunity from copyright infringement in respect of activities undertaken by NSPs, such as transmission, routing and provision of connections, system caching, storage and information location. NSPs must satisfy certain prescribed conditions under the safe harbour provisions in the Copyright Act, in order to be able to enjoy immunity under those provisions.

The scope and application of the foregoing defences do not appear to have been considered extensively by the Singapore courts. In one case, the Singapore High Court held that an online service provider that allowed users to record free-to-air broadcasts for later viewing was not an NSP for the purpose of the Copyright Act. The court in that case noted that a "network service provider" is commonly understood to mean a "*business or organisation that sells bandwidth or network access by providing direct access to the Internet. In other words, a network service provider provides the service of enabling a person to connect to a network*".

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Content owners may lodge a take-down notice with NSPs in the form prescribed under the Copyright (Network Service Provider) Regulations, to request the removal or disablement of access to material on their networks. Compliance with such take-down notices is one of the conditions which NSPs must fulfil in order to be able to rely on the safe harbour provisions under the Copyright Act.

In addition, the owner or exclusive licensee of copyrighted material may apply to a court for an order requiring an NSP to disable access to online locations that flagrantly infringes copyright.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

IMDA's policy framework on net neutrality is set out in a decision dated 16 June 2011, and sets out five main requirements for ISPs and telecom network operators:

(a) no blocking of legitimate internet content or imposing of discriminatory practices, restrictions, charges or other measures that would effectively render any legitimate internet content inaccessible or unusable;

(b) ISPs and telecom network operators must comply with IMDA's competition and interconnection rules in the TCC;

(c) ISPs and telecom network operators must comply with IMDA's requirements as to information transparency and disclosure to end-users of network management practices and typical internet broadband download speeds;

(d) ISPs must meet the minimum broadband quality of service standards prescribed by IMDA. Reasonable network management practices are allowed, provided that the minimum broadband quality of service requirements are adhered to, and that such practices will not render legitimate internet content unusable; and

(e) niche or differentiated services that meet IMDA's information transparency, minimum quality of service and fair competition requirements may be offered.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

ISPs and other Broadcasting Class Licensees are required to comply with the conditions of the Class Licence, which include the following requirements:

(a) a licensee shall remove or prohibit the broadcast of the whole or any part of a programme included in its service if IMDA informs the licensee that the broadcast is contrary to a code of practice (e.g., the Internet Code of Practice), is against the public interest, public order or national harmony, or offends against good taste or decency. In practice, IMDA may issue directions to ISPs to require end-user access to be blocked to specified websites; and

(b) ISPs offering residential or mobile internet access services are required to offer optional internet filtering services to their subscribers. In this regard, IMDA may require ISPs to modify their content filters to prevent end-user access to internet content that IMDA is satisfied is undesirable, harmful or obscene.

Under the Remote Gambling Act 2014, authorised officers (as defined under the Remote Gambling Act 2014) are empowered to direct IMDA to order ISPs to disable access to online remote gambling services.

Apart from the Broadcasting Class Licence framework, which generally empowers IMDA to issue blocking directions, there are no specific regulations relating to the blocking of consumer VPN services. Providers of VPN services may be subject to general licensing requirements for the provision of telecom services.

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Drew & Napier's Competition and Regulatory Practice Group, established in 1999, is the oldest and largest dedicated competition law practice in Singapore. Established six years before the enactment of the Competition Act (Cap. 50B) in 2005, our experience has grown in tandem with the development of both national and sectoral competition laws in Singapore.

Drew & Napier's Telecommunications, Media and Technology Practice Group is consistently ranked as the leading IT, telecommunications, broadcasting and multimedia legal practice in Singapore. The firm possesses unparalleled transactional, licensing and regulatory experience in the areas of telecommunications, technology, media, and data protection.

We are the preferred counsel of many regional companies, multinational corporations, associations, government bodies and industry regulators, and regularly assist them on a wide range of matters in Singapore and ASEAN member countries.

Chapter 27

Spain

Consuelo Álvarez

Christian Krause

Monereo Meyer Abogados

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Telecoms and digital content are at the forefront of the development of the digital economy of Spain. These sectors have had very positive outcomes these last years; there has been a significant growth in the number of companies, turnover, employment, investment and gross added value.

According to the 2017 annual report of the National Observatory of Telecommunications and the Information Society, the turnover of the IT and digital content sectors in 2016 was 105,868 million euros, meaning an increase in turnover for the third year in a row, confirming the previous year's positive trends. For the IT sector, the turnover was 88,334 million euros, with the branches of computing activities, wholesale trade and ICT manufacturing experiencing a considerable growth. With regard to the digital content sector, the turnover was 17,534 million euros. The sector experienced, in general, a growth of 7.3% in comparison to the previous year.

The most significant market participants, according to the ranking of the National Markets and Competition Commission, are Vodafone España S.A.U., Telefónica Soluciones de Informática y Comunicaciones de España S.A.U. and BT España Compañía de Servicios Globales de Telecomunicaciones S.A.U.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

Basic regulations

- Law 9/2014, of 9 May, of General Telecommunications.
- Law 7/2010, of 31 March, of Audio-visual Communications.
- Royal Decree 726/2011, of 20 May, modifying the Regulation concerning the conditions for the supply of electronic communication services, the universal service and the protection of users.
- Royal Decree 458/2011, of 1 April, concerning radio spectrum matters for the development of the digital society.
- Royal Decree 346/2011, of 11 March, approving the Regulation regulating the common telecommunications infrastructure for access to telecommunications services inside buildings, and the equipment installation and telecommunications systems business.
- Ministerial Order ITC/658/2011, of 18 March, modifying Order ITC/332/2010, of 12 February, approving the National Frequency Allocation Table.

Administrative regulations

- Royal Decree 1152/2011, of 29 July, modifying Royal Decree 1226/2010, of 1 October, developing the basic organic structure of the Ministry of Industry, Tourism and Commerce.
- Decision of 21 June 2011, of the Telecommunications Market Commission, creating the electronic headquarters of the Telecommunications Market Commission.
- Order PRE/1483/2011, of 3 June, publishing the Agreement of the Council of Ministers of 3 June 2011 to promote the effective constitution of the State Council of Audio-visual Media.
- Royal Decree 351/2011, of 11 March, modifying the Statute of the business public entity Red.es, approved by the Royal Decree 164/2002, of 8 February.

Universal service

- Royal Decree 424/2005, of 15 April, approving the Regulation concerning the conditions for the supply of services of electronic communications, universal services and the protection of users.

Quality of Service

- Order IET/1090/2014, of 16 June, regulating the conditions concerning the quality of service in the electronic communication services supply.

User rights

- Charter of rights of the users of electronic communication services, approved by Royal Decree 899/2009, of 22 May.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The government ministry in charge of the regulation of the telecom and audio-visual media distribution sectors is the Ministry of Energy, Tourism and Digital Agenda; in particular, the competent division of the Ministry is the State Secretariat of the Information Society and Digital Agenda.

The competent regulatory authority for the telecoms and audio-visual media distribution sectors in Spain is the National Markets and Competition Commission, which has the aim of ensuring the correct functioning of the electronic communication market through

the establishment of obligations and the supervision of the fulfilment of such obligations by operators, as well as the resolution of the conflicts between market agents.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

The telecom and audio-visual media distribution sectors were gradually liberalised during the '90s. At that point, the liberalisation of the network industry, the end of state monopolies and the need to adapt to the European regulations resulted in the creation of many organisations, such as the Telecoms Market Commission. In 2013, the National Markets and Competition Commission was formed by the unification of six commissions created during the industry liberalisation.

In Spain, there is no restriction on the foreign ownership or the investment in the telecoms, audio-visual media distribution and the internet sectors in Spain.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Spain has been a WTO member since 1 January 1995 and a member of GATT since 29 August 1963, together with the other Member States of the European Community.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

In Spain, the development of the telecoms sector has experienced considerable progress in recent times. The technological progress has led to a parallel growth of the regulations that shape the sector. The liberalisation of the telecoms sector in Spain and the commitments made with the European Union in relation to this matter have led to the emergence of a broad and innovative body of legislation, which is in itself a solid framework for the dynamism and agility required by this sector.

We could structure the legislation of this sector in different branches, such as basic telecommunications regulations, administrative regulations, universal service, the quality of the service, the rights of users, mobile communications, radio spectrum, amateur radio, technical standardisation, fees, rates, numbering policies and specific regulations for radio and television.

The basic telecommunications aspects concerning the provision of telecoms networks and services, the administrative aspects, some aspects of the universal service, the rights of the users, mobile communications, amateur radio, fees and rates are mainly regulated through Royal Decrees and orders of the Ministry of Industry, Tourism and Commerce.

The system of control and monitoring of the obligations concerning universal service is carried out by the Ministry of Energy, Tourism and Digital Agenda. Furthermore, the complaints of users can be filed within the Telecommunications User Support Office. The net cost and finance fixing corresponds to the National Markets and Competition Commission. With regard to the quality of the provision of telecoms networks and services, the body in charge of the regulations is the Ministry of Energy, Tourism and Digital Agenda.

Radio spectrum is mainly regulated in the National Frequency Allocation Table, a basic piece of spectrum regulation in Spain, due to the regulatory and highly technical content of its information regarding the use of radio-electric spectrum. The table indicates the attributions to the radio-electric services and the uses of the different frequency bands in Spain.

Regarding technical standardisation, article 7 of Royal Decree 188/2016, of 6 May, which approves the Regulation establishing the requirements for placing on the market, putting into service and the use of radio equipment, and regulating the procedure for evaluation compliance, market surveillance and the sanctioning regime of telecommunications equipment, indicates that the Secretariat of State for the Information Society and the Digital Agenda will publish in the Official Gazette, through resolutions, the interfaces of radio equipment that can be used in Spain. In addition, any radio equipment intended to be placed on the market using frequency bands whose use is not harmonised throughout the European Union shall be subject to the reporting procedures laid down in Directive 2015/1535/EU.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The regulatory and competition law authorities in Spain are the National Markets and Competition Commission and the competition authorities of the different Spanish autonomous communities.

The National Markets and Competition Commission, which began its operations in October 2013, is an entity that promotes and defends the proper functioning of all markets, in the interest of consumers and businesses. It is a public entity with its own autonomous legal status. It is independent from Spain's central Government, although it is subject to parliamentary control. The main functions of the National Markets and Competition Commission are: (i) the application of Spanish and EU competition regulations; (ii) the promotion of competition and good practices; (iii) market unity; (iv) dispute resolution between economic operators; and (v) monitoring and control over all of the economic sectors.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

The resolutions on anticompetitive practices in the area of competition, of the Council of the National Markets and Competition Commission, may not be appealed by the administrative procedure; however, judicial appeals may be lodged in the terms foreseen in the Administrative Jurisdiction Law 29/1998, of 13 July, before the National High Court. The Judgment of the National High Court can be consequently appealed to the Supreme Court when the amount of the sanction is higher than 600,000 euros.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The current Law on Telecommunications reflects the principles established by European regulations (Directive 97/13/EC). The authorisations include enabling titles, general authorisations and individual licences, which are administrative acts that enable and serve as a legal basis for the provision of services, and the establishment and operation of telecommunications networks; thus, it has been said that the new regulation leaves the traditional system of administrative concession. The general authorisations are used for real services, data transmission services or private networks.

On the other hand, individual authorisations are used for cases such as: the allocation of limited resources; guarantees to the operator of rights of easement, to recognise the beneficiary of the forced expropriation; or the imposition of public service obligations.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

In Spain, the general authorisation is useful when individual licences are not justified, but there are important regulatory objectives that can be achieved by establishing general conditions. Besides these, provisions on consumer protection and other essential requirements must be taken into consideration. General authorisations are usually granted regardless of the open selection procedure; all duly qualified entities are authorised to promote services or operate facilities.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

The legal regime applicable to individual licences establishes a set of general conditions or obligations that must be fulfilled by all holders of such licences, among which the following should be highlighted: to forward the information requested by the administration; to guarantee the rights of subscribers and users; transparency in the prices of the services; compliance with standards and technical specifications that are applicable; confidentiality; secret of communications; protection of personal data; ensuring interoperability of services; effective and efficient use of numbering resources; to contribute to the financing of the universal service; and to ensure the free routing of calls to the emergency services.

In the case of individual licences, limited in number to ensure an effective use of radio spectrum, the award will be made through a tendering procedure, establishing with the Ministry of Public Works the list of bases containing the requirements and conditions to be met by the potential contractors and the service provision regime.

The categories of licences are set out in the Ministerial Order of 22 September 1998 and consist of individual licences classified as A, B and C.

The licences shall be granted for a period of 20 years, renewable for periods of 10 years. The total duration of the licence, including extensions, may not exceed 50 years.

The transfer of individual licences shall be permitted under the provisions of article 115 of the Law on Public Administration Contracts, in what is applicable to the contract for the management of public services.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

In Spain, the specific legal provisions dealing with infrastructure matters are:

- Law 38/1999, of 5 November, on building regulation: this Law amends article 2, section a) of Royal Decree Law 1/1998, of February 27, on common infrastructure in buildings for access to telecommunications services.
- Royal Decree-Law 1/1998, of 27 February: the main objective of this Royal Decree is to guarantee the right of all citizens to access different telecommunications services through the authorised operator of their choice, providing the appropriate infrastructure to enable them; with the shared use of this infrastructure, the Decree also aims to ensure that the level of quality is adequate, and regulates the activity of the installers sector; and, in addition, it ensures that all service operators have equitable rights to use such infrastructure, which allow them to have access to their potential clients.
- Law 10/2005, of June 14, on urgent measures for the promotion of digital terrestrial television, liberalisation of cable television and promotion of pluralism: this Law modifies the content of the sixth additional provision of Law 31/1987, of December 18, on the Telecommunications Ordinance; introduces a series of amendments to Law 41/1995, of December 22, on the regulation of digital television by terrestrial waves; addresses the amendment of the 10th transitional provision of Law 32/2003, of November 3, on General of Telecommunications; and amends certain articles of the Royal Decree-Law 1/1998, of February 27, on common infrastructure in buildings for access to telecommunications services.
- Royal Decree 401/2003, of April 4, which approves the Regulation of the common telecommunications infrastructure for access to telecommunications services inside buildings, and of the installation activity of telecommunications equipment and systems.
- Order CTE/1296/2003, of May 14: this Order establishes the content and structure of technical projects, describing the common telecommunications infrastructure to be included inside the buildings. The Order also approves the Certificate and Bulletin end-of-building models which guarantee, for the benefit of users, that the installation has been carried out in accordance with the technical project, and determines the test protocol to which the installation must be subjected in order to guarantee its quality. In addition, the qualification and the necessary technical means are established for those who wish to take on the status of telecommunications installer, by means of their registration in the Registry of Telecommunication Installers that exists in the Ministry of Telecommunications and the Society of Telecommunications Information (current Secretary of State for the Information Society and Digital Agenda).
- Order ITC/1077/2006, of 6 April: this Order modifies certain aspects of Royal Decree 401/2003, of April 4, and of Order CTE/1296/2003, of May 14. Simply put, it contemplates the aspects to take into account in ICT projects for the incorporation of terrestrial digital television, at the same time that it provides the procedure to follow for the adaptation of existent infrastructure, in buildings that currently have the collective installation of terrestrial analogue television reception, to terrestrial digital television reception.

- Royal Decree 346/2011, of 11 March, which approves the Regulation concerning the common telecommunications infrastructure for the access to telecommunications services inside buildings.
- Order ITC/1644/2011, of 10 June, which develops the Regulation of common telecommunications infrastructure for the access to telecommunications services inside buildings, approved by the Royal Decree 346/2011, of March 11.

Furthermore, there is also specific regulation concerning the procedure to install the Common Infrastructure of Telecommunications in a newly-constructed building, or one that is going to undergo a comprehensive rehabilitation. The drafting of a technical project shall be entrusted to a competent engineer or technical engineer who, in harmony with the architectural project, foresees the characteristics of the Common Infrastructure of Telecommunications in accordance with current regulations and with the needs of each case (article 3.1 of Royal Decree-Law 1/1998). The content and structure of the Common Infrastructure of Telecommunications technical project shall comply with the provisions of Annex I of Order ITC/1644/2011, of 10 June.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Wholesale interconnection and access is monitored by the National Markets and Competition Commission. Within the context of market regulation, certain specific obligations are imposed upon operators designated as having significant market power in the market of reference. These obligations include, among others: obligations to provide other operators with access to their network; obligations regarding price control and cost accounting; and obligations related to transparency and non-discrimination.

Disputes regarding wholesale interconnection and access shall be resolved within the National Markets and Competition Commission.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Operators with significant market power in the market of reference are required to publish their standard interconnection contracts and prices as a consequence of the obligation of transparency established in Law 9/2014, of 9 May, of General Telecommunications, and monitored by the Nationals Market and Competition Commission.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

According to Law 9/2014, of 9 May, of Telecommunications, such charges for interconnection and network access are subject to cost regulations. In particular, the aim of the charges is to cover the administrative costs of regulatory work relating to the preparation and implementation of secondary Community law and administrative acts, such as those relating to interconnection and access. These fees are managed by the general State Administration and are set out in Annex I of the above-mentioned Law.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Operators with significant market power in a market of reference are subject to accounting separation and functional separation.

With regard to the supply of services or exploitation of electronic communication networks, public or private entities that, in accordance with current legislation, have special or exclusive rights for the provision of services in another economic sector and that operate public networks or provide electronic communications services available to the public, shall carry separate and audited accounts for their activities, or establish a structural separation for the activities associated with the operation of networks or the provision of electronic communications services. By means of a Royal Decree, exemption from this obligation may be established for entities whose annual gross operating revenue from activities associated with electronic communications networks or services is less than 50 million euros.

The installation and operation of public networks or the provision of electronic communications services, under the provision of services to third parties by operators controlled directly or indirectly by public administrations, shall be carried out in compliance with the "private investor principle", with due separation of accounts, in accordance with the principles of neutrality, transparency, non-distortion of competition and non-discrimination, and in compliance with the rules on State aid referred to in articles 107 and 108 of the Treaty on the Functioning of the European Union.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

There is no specific regulation at a national level for broadband internet access services offered to end-users, thus it is offered in free competition between operators, which set their prices and coverage areas freely. The providers of broadband internet access services are subject to the general rules that apply to all operators of electronic communications services, in areas such as the defence of consumer and user rights, or quality of service.

At a wholesale level, the National Markets and Competition Commission determines the conditions under which operators can use the operator's network, or the conditions under which designated operators with significant market power can offer their own broadband services in competition with those offered by the operator or operators of such networks. Also, in order to promote competition, the Commission can impose symmetric obligations that apply equally to all operators. In particular, in order to ensure competition, the National Markets and Competition Commission may regulate certain conditions for the provision of services in the broadband internet access market. Following the relevant market analysis, the National Markets and Competition Commission has considered it necessary to intervene at the so-called wholesale level. This means that, despite not intervening in offers for end-users (retail level), the National Markets and Competition Commission sets the conditions under which the operator with significant market power, in this case Telefónica, must make available to other operators certain elements and services of the network, so that they can form their own broadband services at the retail level.

Among the wholesale services that Telefónica are obliged to provide are: (i) unbundled access to the subscriber loop; (ii) indirect access or wholesale broadband access; and (iii) access to passive ducts and infrastructure. These services are regulated in the Offer of Access to the Subscriber Loop (OBA), in the Reference Offer of the New Broadband Ethernet Service (NEBA) and in the Wholesale Offer of Access to Registers and Ducts of Telefónica (MARCo), which are approved by the National Markets and Competition Commission regularly.

On the other hand, the European Commission also regulates the wholesale prices for roaming services, establishing the prices that the operators pay each other for using their respective networks.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Operators with significant market power in a market of reference have the obligation to set the price on the basis of cost-orientation.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

In Spain, universal service consists of a set of basic electronic communications services whose provision is ensured to all users who request it, regardless of their geographic location, with a specified quality and at an affordable price. These services are: (i) provision of the connection to the public electronic communications network from a fixed location with broadband capacity at 1 Mbps; (ii) provision of the telephone service available to the public from a fixed location; (iii) provision of the telephone service of payment with coins or cards through the terminals located in the public thoroughfare (telephone booths); (iv) preparation and delivery of the guide of subscriber numbers; and (v) phone number enquiry service for subscriber numbers.

There are specific measures for users with disabilities.

The applicable provisions regulating this matter are:

- Law 9/2014, of 9 May, on General Telecommunications.
- Royal Decree 424/2005, of 15 April, which approves the Regulation on the conditions for the provision of electronic communications services, the universal service and the protection of the users.
- Royal Decree 726/2011, of 20 May, which modifies the Regulation on the conditions for the provision of electronic communications services, universal service and user protection, approved by Royal Decree 424/2005, of 15 April.
- Order IET/1090/2014, of June 16, which regulates the conditions related to the quality of service in the provision of electronic communications services.
- Order PRE/531/2007, of March 5, which publishes the Agreement of the Delegated Commission of the Government for Economic Affairs of 25 January 2007, which approves the conditions to guarantee the affordability of the offers applicable to the services included in the universal service.
- Order PRE/1619/2010, of 14 June, which publishes the Agreement of the Delegated Commission of the Government for Economic Affairs of 13 May 2010, which modifies the threshold of family income that gives access to the social payment.
- Order ETU/1972/2016, of 23 December, which designates Telefónica de España, S.A.U., as the company responsible for the provision of the universal telecommunications service element related to the preparation and delivery to the subscribers of the telephone service available to the public of the telephone directory.
- Order ETU/1973/2016, of December 23, by which Telefónica de España, S.A.U. is designated as the operator responsible for the provision of universal telecommunications service elements related to the provision of the connection to the public electronic communications network and the provision of a publicly available telephone service.
- Order ETU/1974/2016, of December 23, which designates Telefónica Telecomunicaciones Públicas, S.A.U., as the operator responsible for the provision of the universal telecommunications service element related to the provision of a sufficient supply of public pay telephones.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The Spanish legal framework of numbering, addressing and denomination is designed in Chapter V of Title II of Law 9/2014, of May 9, of General Telecommunications, in Title IV of the Regulation on electronic communications markets, access to networks and numbering, and in the National Telephone Numbering Plan, of which the latter two have been approved by Royal Decree 2296/2004, of December 10.

According to the National Numbering Telephone Plan, telephones are allocated by territorial criteria. The Spanish territory is designated into provincial numbering areas and telephone districts. From the year 2013, there has been a single telephone district for each of the 50 provincial numbering areas. In this way, the boundaries of each of the telephone districts coincide with those of the corresponding provincial numbering area, which roughly coincides with the administrative provinces. All provincial numbering areas have at least two three-digit codes, one starting with nine and another beginning with eight. The number of call signs assigned to each provincial zone depends exclusively on its population and its numbering needs. The call signs for the same provincial area have the same objective: to identify the zone. The National Numbering Plan assigns the telephone numbers.

2.17 Are there any special rules which govern the use of telephone numbers?

See question 2.16 above.

2.18 Are there any obligations requiring number portability?

According to article 21 of Law 9/2014, of May 9, of General Telecommunications, reservation of numbering (portability) is an essential right of subscribers to the telephone service available to the public. The Regulation establishes that operators will ensure that subscribers can keep their telephone number, prior to their request, regardless of the operator providing the service.

The National Markets and Competition Commission can set, by circular, the characteristics and conditions for the conservation of numbers.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

In Spain, the authority which regulates spectrum use is the National Table of Frequency Allocation.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

In Spain, radio spectrum is a public domain property of which the ownership, management, planning, administration and control corresponds to the State. Such management shall be carried out in accordance with the provisions of the Law of General Telecommunications and the international treaties and agreements to which Spain is a party, in accordance with the rules applicable in the European Union, and the resolutions and recommendations of the International Telecommunication Union and other bodies' countries.

Through an Order of the Ministry of Industry, Energy and Tourism, the National Frequency Allocation Table is approved for different types of radiocommunication services, defining the allocation of frequency bands to their respective services with the technical characteristics that may be necessary. Likewise, the National Frequency Allocation Table, in accordance with the international regulation on allocation and allocation of frequency bands and assignments, the national and international availability of the radio frequency spectrum and social demand, may establish the following aspects: a) reserving part of the spectrum for certain services; b) preferences of use because of the social purpose of the service to be provided; c) delimitation of the frequency bands that are reserved to the Public Administrations or public entities of which they are dependent for the direct management of their services; and d) forecasting the future exploitation of the different frequency bands, promoting technological and service neutrality.

In order to ensure efficient and effective use of radio spectrum, the Ministry of Industry, Energy and Tourism may limit the number of official concessions to be granted on that domain for the operation of public networks and the provision of electronic communications services. When this happens, a bidding procedure will be processed for the granting of the same. To this end, the convocation and the list of bases for the bidding will be approved, by order of the Minister of Industry, Energy and Tourism. The bidding procedure must be resolved by order of the Minister of Industry, Energy and Tourism within a maximum period of eight months from the call for tenders.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Operators exploiting the electronic communications networks, or services that make use of the public radio domain, must have the corresponding title authorising such use.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

Regarding the fee for the reservation of the public radio-electric domain for private use, the procedures for calculating the amount of radio-electric public domain (N) and the value of the radio-electric reservation unit (V) are those established in Annex I of the General Law on Telecommunications, considering the quantification of the coefficients in force in each moment according to the annual updates of the Law of General State Budgets. The rate will be the result of dividing the value of the product by N×V, using the conversion rate contemplated in Law 46/1998.

As for the fee for the reservation of the public radio-electric domain for special use, the amount of the fee shall be the one deducted from the provisions of the General Telecommunications Law.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Royal Decree 123/2017, of 24 February, which approves the Regulation concerning the use of the radio spectrum public domain, provides the consequences of a change of control of the licensee.

In the transfer of qualifying titles for the exclusive use of the radio-electric public domain, the ownership of the enabling title is transmitted and, consequently, all the rights of private use of the radio-electric public domain derived from the title are transmitted for the remaining period of time valid and throughout the geographical scope of the title. The new owner will be subrogated in all the rights and obligations of the previous owner, derived from the title to be transferred. In particular, in the case of concessions granted under the tendering procedure, the new holder will be subrogated in all the conditions specified in the base sheet governing that procedure, as well as in all the commitments assumed by the holder in the offer that served as the basis for the award. The approved technical projects and the authorisations for the commissioning, corresponding to stations associated with the qualifying title for the use of the radio-electric public domain object of transfer, will maintain their validity for the new holder. For these purposes, within one month of the date of authorisation of the transfer, the new holder must send to the Secretariat of State for the Information Society and the Digital Agenda the list of stations that he will continue to use. After this period, the Secretariat of State for the Information Society and the Digital Agenda will automatically cancel the rest of the stations.

Entitlements for the private use of the public radio domain that have been transferred may be subject to further transfers. Notwithstanding the foregoing, if the qualifying titles for the use of the public radio domain were granted by means of a tender procedure, and in the regulatory base sheet of the same a minimum period was established in which such qualifying titles could not be transferred, successive transfers may not be made until such period has elapsed from the date on which the previous transfer was authorised.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

See question 3.5 above.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Cybersecurity is a priority objective of the Spanish Government and is under the jurisdiction of National Security. The Government of Spain has prepared a plan that is based on the National Cybersecurity Strategy approved in December 2013 by the National Security Council. Legislation within cybersecurity has two main objectives:

(1) secure cyberspace (information system and people); and (2) provide effective legal instruments to the authorities and security agencies for the investigation and prosecution of criminal activities and terrorism.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Communication intervention has a double nature in a criminal proceeding: (1) it serves as a source of criminal investigation, directing police actions; and (2) it can be used as means of evidence. In both cases, this intervention requires compliance with the essential requirements which ensure that interference, in the scope of privacy, is conducted respecting constitutional rights.

Relevant legislation:

- Article 579 of the Code of Criminal Procedure.
- Organic Law 2/2002, of 6 May, regarding judicial control of the National Intelligence Center.
- Law 25/2007, of 18 October, on data preservation concerning electronic communications and public communications networks.
- Law 32/2003, of 3 November, on General Telecommunications.
- Law 34/2002, of 11 July, regarding Services of the Information Society and electronic commerce.
- Organic Law 4/1981, of 1 June, regarding states of alert, emergency and siege.
- In the military field, the Organic Act 2/1989, of 13 April, regarding military procedure.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

The rules which require market participants to maintain call interception capabilities are mainly regulated in the Ministerial Order IET/2530/2012, of November 19. Some of the obligations of the obligated subjects include providing legal interception of communications as described in the Order, maintaining a maximum number of active interceptions simultaneously, and/or providing information on the location of the terminal of the subject to the interception or of its interlocutors. The rules cover traditional telephone calls, VoIP calls, emails and any other forms of communication.

4.4 How does the state intercept communications for a particular individual?

This could be defined as a diligence investigation, granted by the competent judicial authority in the pre-trial phase, carried out under the supervision and control of the competent judicial body; the investigation has the purpose of gathering content relating to the communications of the suspect, with an immediate end to investigate a crime, the circumstances and the perpetrators, and to provide evidence for the trial.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

The principal rule governing the use of encryption is the Organic Act 15/1999, regarding personal data protection. The main objective of this Act is to ensure and protect, with regard to the processing of personal data, public freedom and fundamental rights of individuals, especially their honour and personal and family privacy.

The core requirement for a transfer of data is the existence of a valid judicial resolution which needs it. This resolution must provide which retained data must be transferred, and the time frame in which it must be transferred. In case no time frame has been indicated, the data should be transferred in the next 72 hours counting from the next day of delivery.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Operators are obliged to retain data relating to web traffic, geographic location and user identification.

This information will be retained normally for 12 months, but the time frame can be expanded for a maximum of two years, or cut down to six months prior to consultation with the operators.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The main norms regulating the distribution of audio-visual media in Spain are:

- Law 9/2014, of 9 May, on General Telecommunications.
- Law 3/2013, of 4 June, on the creation of the National Markets and Competition Commission.
- Law 8/2009, of 28 August, on the financing of the Spanish Radio and Television Corporation.
- Law 7/2010, of 31 March, on General Audio-visual Communication.
- Law 17/2006, of 5 June, on the state ownership of radio and television.
- Law 55/1999, of 29 December, on Fiscal, Administrative and Social Order.

The National Markets and Competition Commission oversees the proper functioning of the audio-visual communication market, including the distribution of audio-visual media.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

In Spain, the main difference regarding content regulation between content broadcast via traditional distribution platforms, and content delivered over the internet or other platforms, is that only the content broadcast via traditional distribution platforms considering this as audio-visual communication, is overseen by the National Markets

and Competition Commission. This implies higher levels of control concerning the control of content, since one of the main duties of the Commission is to ensure that audio-visual content complies with legislation on the subject of protection of minors, advertising and accessibility.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The licences for the distribution of audio-visual media are different depending on the means of the provision. In this sense, the licence can be for the provision of radio, television or related communication services. Such provision of services requires reliable communication with the competent audio-visual authority prior to the commencement of the activity. Furthermore, depending on the territorial scope of the coverage, the licence may be either national or local. In the scope of state coverage, the competition for the granting of licences, including digital terrestrial broadcasting and medium wave, corresponds to the Government, without prejudice to the participation of the Autonomous Communities. To this end, the Government will establish, in agreement with the Autonomous Communities, the mechanisms of collaboration and cooperation that will ensure the participation of the Autonomous Communities in the planning of audio-visual licences at the state level.

For the provision of the television communication service, local licences may provide coverage to one or more neighbouring municipalities and, where appropriate, to a complete insular domain.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

The licences may be subject to transmission and rent.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

According to Spanish case law, internet service providers do not have a general obligation to monitor the information they transmit or store, nor do they have an obligation to actively look for possible illicit conduct of users made through the means of the services of the internet service provider. As a consequence, the general rule is the exemption of liability. However, the internet service may be found responsible if the internet service provider is the owner of the content or if there has been a lack of diligence with effective knowledge.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

According to Spanish case law, internet service providers are obliged to assist content owners whose rights may be infringed by means of file-sharing or other activities.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

The State Secretariat for the Information Society and the Digital Agenda of the Ministry of Energy, Tourism and Digital Agenda is responsible for monitoring net neutrality in Spain. Net neutrality is monitored and safeguarded and no specific requirements have been established.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

As a consequence of net neutrality, the telecommunications operators will not be able to block, discriminate or slow down internet traffic regardless of the contents that go through their networks or their providers. However, an exception to this may be applied by court order, to ensure security, or when it is considered that there is danger of congestion in their networks.

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Chapter 28

Switzerland

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Switzerland has very high-performance, high-speed telecommunications infrastructure. The economy as a whole benefits from competition in infrastructure and services.

The *fixed broadband communications market* – including internet and digital TV – involves telecommunications operators as well as cable (CATV) operators.

At the end of 2016, the total operating revenue was CHF 6,497 Mio (Var. 15–16: -1.8%) for services on fixed networks, and CHF 189 Mio (Var. 15–16: +12.4%) for added-value services (including internet access services).

At the end of 2017, DSL/FTTx telecommunications service providers (TSPs) were still way in front of cable TV providers for *internet access*:

- just over *69%* of surfers opted for an offering from a *telecoms operator* (2,806,000 connections): Swisscom, as the market leader, held a market share of 49.7%; and the share of all the alternative TSPs was 19.5%, 10.4% of which was held by Sunrise; and
- almost *31%* for an offering from a *cable operator* (1,245,500 connections): UPC holds a market share of 18.5%; and the other CATV providers 12.2%.

With almost 46% of the population having broadband access as of the end of June 2017, Switzerland is consolidating its position at the top of the ranking of OECD countries.

In the *mobile market*, at the end of 2016, the total operating revenue for services on mobile networks was CHF 4,367 Mio (Var. 15–16: +4.5%).

At the end of 2017, Swisscom held approximately 58% of the market share, with Sunrise at 25% and Salt at 17%. The percentages include the connections of virtual operators or resellers of services using the networks of Swisscom (M-Budget), Sunrise (Yallo, Lebara, Ortel) and Salt (Coop Mobile).

It should be noted that, in the same period, cable operators had 150,000 mobile customers (of which 115,000 customers are with UPC) and may potentially become serious competitors in this market. At the present time, the market share of CATV operators is just above 1%.

With approximately 11.4 million subscriptions for a total population of 8.48 million inhabitants, the penetration rate of mobile telephony in Switzerland was almost 135% at the end of 2017. This rate is slightly higher than the average for the countries of Europe, which was approximately 130% for the same period.

At the end of 2017, in the *digital TV market* Swisscom held a market share of 36.2%, increasing its share by almost 3.5%, and UPC a market share of 29.6%, losing almost 4% of its share.

The cable operators are continuing to lose customers, with a loss of more than 62,000 TV customers in 2017 – down 2.5%. The market share of all cable operators, at almost 2.4 million customers for digital television, dropped below 60% for the first time. Over the same period, the number of digital television subscribers on the fixed telephony network continued to increase, and the DSL providers are now seriously competing with the cable operators in this market segment.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms

The main law governing the transmission of information by means of telecommunications techniques is the Telecommunications Act (TCA), which is currently under partial revision.

The aim of the TCA is to ensure that a range of cost-effective, high quality, and nationally and internationally competitive telecommunications services is available to private individuals and the business community. The TCA shall, in particular: a) ensure that a reliable universal service is provided at affordable prices for the entire population in all parts of the country; b) ensure that telecommunications traffic is free from interference and respects personal and intellectual property rights; c) allow effective competition in the provision of telecommunications services; and d) protect users of telecommunications services from unfair mass advertising and from abuse associated with value-added services.

On the basis of the TCA, several Ordinances have been enacted: Ordinance on Telecommunications Services; Ordinance on Telecommunications Installations; Ordinance on the Addressing Resources of Telecommunications Services; and Ordinance on Frequency Management and Radio Licences.

Further, the Federal Act on Surveillance of Post and Telecommunications (SPTA) and the respective Ordinance apply to communications services.

The only specific legislation pertaining to the internet is the Ordinance on Internet Domains.

(b) Audio-visual media distribution

Audio-visual media distribution is governed by the Federal Act on Radio and Television (RTVA) and its respective Ordinance, which shall be replaced by a new Act on Electronic Media.

Further, general statutes such as the Federal Act on Data Protection, the Unfair Competition Act, the Ordinance on Price Disclosure, the Code of Obligations and the Criminal Code apply to all sectors.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Federal Communications Commission (ComCom), an independent commission with decision-making powers, is in charge of the regulation of the telecommunications market and awarding the universal service licence, as well as radio communication licences for the use of the frequency spectrum, of determining access conditions and prices when TSP cannot reach agreement, of the approval of the national numbering plans, and of the regulation of the methods of application of number portability and carrier selection.

The Federal Office of Communications (OFCOM) is part of the Federal Department of the Environment, Transport, Energy and Communications (DETEC), and acts as the supervisory authority in the communications sector. It is responsible for tasks relating to regulation and is the national authority in the areas of telecommunications, broadcasting and post, in particular ensuring the quality of the universal service and the public service.

Disputes between customers and TSPs are reconciled by the Ombudscom, while the Independent Complaints Authority for Radio and Television (UBI) assesses complaints concerning radio and television programmes.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

The market for telecommunications services has been liberalised for almost 20 years, with former monopoly situations having been replaced by a system of licences and notification duties. Foreign TSPs are free to enter the Swiss market. Moreover, the development towards an IP-based network offered by new and/or foreign TSPs fuels competition. In general, there are no barriers; however, in the absence of any international obligations to the contrary, the ComCom may prohibit undertakings incorporated under foreign law from providing telecommunications services in Switzerland, unless reciprocal rights are granted.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Switzerland joined the WTO on 1 July 1995. Switzerland has adopted the reference paper on regulatory principles and has made commitments regarding telecommunications under the GATS.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The TCA regulates the transmission of information by means of telecommunications techniques.

Specific Ordinances contain more detailed regulation on topics such as the use of radio spectrum, internet domain names or telecommunications installations.

The TCA is currently undergoing partial revision, with the main aims being further liberalisation of the use of radio frequencies, increased consumer protection and market access conditions, and the removal of notification duties for TSPs.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The regulatory authority for telecommunications is the ComCom (*cf.* question 1.3).

The competition law authority is the Competition Commission (COMCO), subdivided into the Commission and the Secretariat of the Commission. The Commission monitors competition, has decision power, provides its opinion on federal bills that influence competition, makes recommendations to other authorities, and provides them with expert reports. The Secretariat prepares the Commission's business, conducts investigations and advises governmental offices and undertakings on competition matters. Formally part of the Federal Department of Economic Affairs, Education and Research (EAER), the COMCO is independent of the administrative authorities.

In the field of telecommunications, both authorities have concurrent jurisdiction as regards their specific tasks.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions of the ComCom can be appealed to the Federal Administrative Tribunal based on, *inter alia*, violation of federal law including the exceeding or abuse of discretionary powers, and the incorrect or incomplete determination of the legally relevant facts of the case.

Decisions of the Administrative Tribunal can be further appealed to the Federal Supreme Court based on, *inter alia*, the violation of federal law and manifestly incorrect determination of the legally relevant facts of the case. Decisions of the Federal Administrative Tribunal regarding licences granted by means of public tender proceedings, and disputes regarding access to facilities and services of providers with a dominant position, cannot be deferred to the Federal Supreme Court.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

No general authorisation is required for the provision of telecommunication services as such. Currently, there is merely

a notification duty which requires all TSPs to notify the OFCOM of the type of services provided, description of interfaces and infrastructure, as well as corporate information. The OFCOM keeps a register of the providers.

The current revision of the TCA shall limit the registration duty to TSPs using radiocommunications frequency spectrum and addressing resources to provide their services.

Basic telecommunication services must be available to the entire Swiss population in all regions. To ensure that these are affordable, reliable, and of good quality, the ComCom grants a licence for providing universal service within a tender process. The universal services have been awarded to Swisscom, the incumbent provider, for a term of five years, beginning from 2018.

Mobile radio frequencies are subject to licences which are allocated by the ComCom (*cf.* question 2.7 and 3.2).

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Beyond the notification requirement, *cf.* question 2.5, there is no general authorisation for the provision of telecommunication services in Switzerland.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

The TCA provides for a licence requirement to use the radiocommunications frequency spectrum.

The TCA itself does not impose a set duration for licences regarding the use of radio frequencies, but leaves this to the licensing authority. The mobile phone frequencies currently in use are covered by 16-year licences. An auction is planned for 2018/2019, in particular for the allocation of new frequency bands for the introduction of a 5G network.

Licences may be transferred in whole or in part to a third party only with the consent of the licensing authority. The same applies to an economic transfer due to takeover of the licensee.

The current revision of the TCA aims at a paradigm shift on this subject as the frequency spectrum shall, in principle, henceforth not be subject to a licence unless a specific Ordinance of Federal Council provides for the contrary.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

The TCA requires owners of land in public use to allow TSPs to use that land to install and operate lines, provided those installations do not interfere with the public use of the land. The authorisation procedure is simple and rapid. Compensation for the authorisation is limited to an administrative charge covering the costs; additional land use charges are prohibited. Under certain conditions, providers may be granted expropriation rights. As regards passive infrastructure – *cf.* question 2.13.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

The TCA requires providers with a dominant market position to provide access to other providers in a transparent and non-discriminatory manner, at cost-oriented prices. The same applies to universal services providers. The access required by the TCA currently covers interconnection as well as fully unbundled access to the local loop, rebilling for fixed network local loops, leased lines and access to cable ducts, provided these have sufficient capacity.

If the providers in question are unable to negotiate an amicable settlement with regard to access conditions within three months, the dispute may be brought before the ComCom, which decides based on a proposal made by the OFCOM.

Disputes relating to access contracts or decisions are subject to the jurisdiction of the civil courts.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Only providers with a dominant market position, i.e., the incumbent provider Swisscom, are obliged to disclose the conditions and prices for their access services and provide the OFCOM with a copy of their access contracts. There is no publishing obligation; however, the contracts may be accessed by the public unless there is an overriding public or private interest.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Providers with a market-dominating position are obliged to charge cost-oriented prices for interconnection and access on the basis of the functional equivalent. By contrast to other jurisdictions, access charges are not set by the authorities but rather within proceedings initiated by other providers. Over the past years, charges have been lowered considerably.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Providers are not subject to any obligation regarding accounting separation, functional separation and/or legal separation.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

The TCA is essentially technologically neutral and, accordingly, applies to high-speed broadband networks.

However, only owners of existing copper local loop access infrastructure with a dominant position in the market are obliged

to fully unbundle access to the local loop in a transparent and non-discriminatory manner, at cost-oriented prices (*cf.* question 2.9). Broadcasting of radio and television programme services are explicitly exempted from this obligation.

Regulations on FTTH are currently being discussed within the TCA revision. The bill provides for a delegation of competences to the Federal Council, which may provide for technology-neutral access to the local loop, which can be also virtual. However, this regulation was recently rejected by the National Council in September 2018.

At present, there are no incentives or regulatory holidays in force.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

In principle, providers are free to determine the prices for fixed, mobile, or other services, including in particular roaming charges, which are relatively high in Switzerland.

Maximum charges apply, however, to certain telephony services provided by the universal services provider Swisscom, as well as value-added services.

With regard to international roaming, the current revision of the TCA shall empower the Federal Council to issue specific regulations to avoid disproportionately high retail tariffs and to take measures to promote competition.

Lastly, the Federal Price Supervisor monitors price developments and prevents or eliminates the abusive increase and retention of prices based upon the Federal Price Supervision Act, and the COMCO takes measures against unlawful restraints of competition where retail prices are affected, based upon the Cartel Act of the COMCO.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

"Basic telecommunication services must be available to the entire Swiss population in all regions. To ensure that these are affordable, reliable, and of good quality, the ComCom grants a licence for providing universal service within a tender process" (*cf.* question 2.5). Providers are essentially free to determine the general terms and conditions applicable to consumers. However, such general terms and conditions need to comply with data protection law and are subject to the limitations under unfair competition law. Further, providers must comply with the principle of secrecy of telecommunications as well as the data retention obligations.

According to the TCA, TSPs must block the access to telephone and internet services for persons only in circumstances where they have provided false data or failed to provide the necessary documentation.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The OFCOM assigns numbering, naming and addressing resources.

Technical management of the ".ch" domain is currently provided by SWITCH (the registry). The registration of a domain name within the ".ch" domain may be requested from registrars who have concluded a contract with SWITCH. SWITCH itself is not allowed to allocate domain names.

Since autumn 2015, the registration of ".swiss" domain names has been possible upon validation of every application to the OFCOM, in accordance with the principles laid out in the Ordinance on Internet Domains.

2.17 Are there any special rules which govern the use of telephone numbers?

The national numbering plans apply. Furthermore, providers must ensure number portability and freedom of choice of providers – *cf.* question 2.18.

2.18 Are there any obligations requiring number portability?

TSPs must ensure number portability and freedom of choice of providers regarding national and international connections. The ComCom fixes the detailed rules for implementation in the light of technical developments and international harmonisation.

In order to speed up number porting, the ComCom has reduced the deadlines for the original TSP to arrange the number porting application for mobile numbers to the new provider within one working day, and for all other phone numbers within two working days at the latest. Further, the original TSP is obliged to agree to the porting even in the event of disputes with the customer.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The TCA regulates the use of the radiocommunications frequency spectrum and the ComCom grants licences for its use.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

The use of the radio communications frequency spectrum is currently subject to a licence granted by ComCom. Radiocommunication licences shall, as a rule, be granted on the basis of a public invitation to tender if it is intended to provide telecommunications services using the requested frequencies, and there are not enough frequencies available to meet all applicants' present and future needs. The ComCom determines whether the contract is awarded within a competitive process or an auction.

The application process shall be conducted in accordance with the principles of objectivity, non-discrimination and transparency, and guarantee the confidential character of all information provided by applicants.

The current revision of the TCA aims at a paradigm shift on this subject as the frequency spectrum shall, in principle, henceforth not be subject to a licence unless a specific Ordinance of Federal Council provides for the contrary.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

In accordance with the TCA, the Federal Council and the OFCOM have provided exceptions for technical means of limited importance in specific Ordinances on frequency management and frequency licences.

The armed forces and civil defence do not require a licence.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The amount of the fees for the licence shall be calculated on the basis of: the frequency range allocated, the class of frequency and the value of the frequencies; the bandwidth allocated; the territorial scope; and the temporal scope. The Ordinance on Telecommunications Fees provides for different fees depending on the radiocommunication type (directional radio, wireless broadband, satellite transmission, etc.). However, according to the TCA, no licence fees are charged for broadcasting licensed radio or television programme services and the Federal Council may exempt specific institutions and private bodies, i.e., to perform duties of public interest.

In addition to the licence fees, administrative charges and reimbursement of expenses need to be paid to the COMCOM for the grant or amendment of the licence, pursuant to the Ordinance on the Administrative Charges in the Telecommunications Sector.

If the radiocommunication licence is granted by auction (*cf.* question 3.2), the licence fee shall correspond to the amount of the bid, minus administrative charges for the invitation to tender and the granting of the licence.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

The transfer due to change of control is subject to the approval by the licensing authority, *cf.* question 2.7.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Subject to the approval by the licensing authority, the licence may be transferred. To date, the mere use cannot be traded or shared; however, the revision of the TCA aims at a more flexible regime.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Switzerland does not have a specific regulation on cybersecurity. Provisions of general statutes apply, such as the Swiss Criminal Code, the Federal Act on Data Protection (FADP), the TCA, etc.

On 19 April 2018, the Federal Council adopted the "National Strategy for the Protection of Switzerland against Cyber-risks (NCS)" for the period 2018–2022. The strategy builds on the results of the previous NCS adopted earlier in 2012, and aims at further developing it. The objective is to minimise cyber-risks.

The strategy encompasses new standardisation and regulations objectives, and lays the ground for discussions on minimal standards for cybersecurity and new notification duties for cyber-incidents. A new Information Security Act applying to federal authorities and a competence centre for cybersecurity are currently in discussion.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

The Federal Act on Surveillance of Post and Telecommunications (SPTA) and the corresponding Ordinances form the basis for the surveillance of private communications by establishing the Post and Telecommunication Surveillance Service (PTSS), an independent service administratively affiliated to the Federal Department of Justice and Police, which conducts inquiries upon request by Swiss enforcement authorities and has the authority to give instructions to TSPs.

The scope of application of the SPTA is limited to surveillance measures ordered and executed: (i) within criminal proceedings; (ii) for the enforcement of international judicial assistance requests; (iii) for the search of missing persons or criminal fugitives; and (iv) for the enforcement of the Federal Intelligence Service Act (ISA).

Requirements and procedures for ordering surveillance measures are set out in (i) the Federal Code of Criminal Procedure (CCP) and the Military Criminal Procedure (MCP), (ii) the Federal Act on International Mutual Assistance in Criminal Matters (IMAC), (iii) the SPTA, and (iv) the Federal Intelligence Service Act (ISA).

The SPTA further provides for a multitude of challenges to providers regarding data retention (*cf.* question 4.6), interfaces in order for the surveillance authorities to access user communications in real time, as well as information of the authorities on new services and products prior to the go-to-market. The SPTA is complemented with provisions on the deployment of GovWare and IMSI-catchers pursuant to the CCP and the MCP.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

According to the SPTA, TSPs shall at any time be able to monitor the telecommunications services they provide if the surveillance is standardised. The surveillance types the TSPs are obliged to perform are set out in the Ordinance on Surveillance of Post and Telecommunications (OSPT), further standardised in the Ordinance on Implementation of the Surveillance of Post and Telecommunications (OI-SPT). These regulations provide detailed rules on traditional telephone calls, VoIP calls, emails, text and instant messenger, and all other forms of electronic communications such as chatting platforms.

If the surveillance is not standardised, TSPs must cooperate with the PTSS according to its instructions, and take all appropriate measures to ensure their implementation.

The PTSS can request TSPs to prove that they are able to implement the standardised surveillance in accordance with applicable law at their own expense, and instruct them to take technical and organisational measures to remedy deficiencies.

4.4 How does the state intercept communications for a particular individual?

As a general rule, enforcement authorities order the surveillance of post and telecommunications and notify the order to the PTSS, which then implements the order. TSPs must cooperate with and provide information to the PTSS, which in turn grants the enforcement authorities access to communications and information. The order needs to be approved by the supervisory authority. Depending on the procedure, the approval needs to be issued before or after the implementation of the order. The approval is of limited duration and needs to be renewed. Information collected without approval cannot be used in a proceeding and has to be destroyed.

Other measures, such as GovWare and IMSI-catchers, are not implemented by the PTSS.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

According to the TCA, TSPs must comply with security requirements. The specific regulations provide for details on encryption.

Based on the SPTA, once a surveillance order has been issued, TSPs have the duty to disclose their encryption keys to the PTSS.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Pursuant to the SPTA, providers are obliged to retain the data provided by the customer at the beginning of the customer relationship, including identification data, date of birth and profession, addressing resources, and services provided. Such data must be retained for the entire duration of the customer relationship as well as for six months after termination. Further, providers are obliged to maintain all peripheral communication data for six months. The OSPT lays down the details.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The broadcasting, processing, transmission and reception of radio and television programme services are regulated by the Federal Act on Radio and Television (RTVA) and, unless the RTVA provides to the contrary, by the TCA (*cf.* question 1.2).

The RTVA is technologically neutral, meaning that, in principle, it applies to any type of broadcasting, transmission, etc.

In principle, Swiss broadcasters must register with the OFCOM prior to any transmission. The national public broadcaster SRG SSR, as well as other broadcasters with a performance mandate (with or without fee-splitting), require a licence. This applies in particular to those broadcasters making use of VHF frequencies. In order to prevent media concentration, a broadcasting company may, as a rule, obtain a licence for two TV channels and two radio channels at most.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

There are additional rules that apply to content broadcast via television and radio, such as clear separation of advertising and editorial content, split-screen, interactive and digital advertising, ad breaks, limitation/prohibition of advertising for tobacco, alcohol, therapeutic products, political and religious content, etc.

Only licensed broadcasters as well as broadcasters broadcasting abroad are obliged to limit advertising time in line with EU Directives. Special provisions apply to SRG SSR TV programmes, and radio programmes of SRG SSR are not permitted to broadcast advertising.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The SRG SSR holds a licence from the Federal Council and has a constitutional programme service mandate, and must therefore fulfil certain obligations regarding quality, content and diversity of its programmes detailed in the licence and in legislation. Further, there are regional licensed broadcasters with a performance mandate. Finally, broadcasters without a performance mandate must only notify the OFCOM and have, in comparison, more limited obligations.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Licences may be assigned upon prior approval by the DETEC. The same applies in the event that 20% of the share capital changes ownership. If the DETEC deems that the conditions for the licence may no longer be fulfilled after the assignment or change of control, the DETEC will not grant approval.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

General principles of accessorial liability apply, and the jurisprudence has not established clear requirements on accessorial liability for providers yet.

To date, TSPs have not been held liable for any content carried over their networks.

In a leading case, which has been widely criticised, the Federal Supreme Court decided that a publisher of a newspaper had to remove illegal content uploaded by a third party to the blog hosted by the publisher, stating that the publisher was accessorily liable without even being aware of the content (Decision of the Swiss Federal Supreme Court 5A_792/2011).

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

There are no statutory provisions obliging internet service providers (ISPs) to provide information, to inform customers, etc.

The self-regulatory "Code of Conduct Hosting" of the Swiss Internet Industry Association (simsa) contains "notice and notice" and "notice and take down" procedures.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

The TCA does not guarantee net neutrality, but such a statutory provision is currently being discussed within the TCA revision and was accepted by the National Council in September 2018.

So far, the main network operators have concluded a "Code of Conduct on net neutrality" and established a conciliation board for disputes on net neutrality.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

There are no statutory provisions in force obliging ISPs to block access to certain sites or remove content, unless they are themselves held liable.

Currently, the Swiss Coordination Unit for Cybercrime Control at the Federal Office of Police keeps a list of illegal content that is blocked by ISPs on a voluntary basis. New obligations for TSPs to block access to internet offers containing prohibited pornography are discussed within the current revision of the TCA.

With the entry into force of the new Federal Act on Gambling (Gambling Act) in the near future, statutory provisions will oblige TSPs to block access to online gambling offers mentioned on a list provided by the Federal Gaming Board and Swiss Lottery and Betting Board.

Within the revision of the Copyright Act, a "stay down" obligation for hosting providers as regards copyright-infringing content is currently being discussed.

Consumer VPN services as such are neither regulated nor blocked.

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Arioli Law provides legal expertise with a straightforward, hands-on approach. Martina Arioli established her law firm Arioli Law in 2013 in Zurich, after having worked for one of Switzerland's leading law firms as well as for a major Swiss bank and a major Swiss insurance company. Martina Arioli combines in-depth knowledge on complex contractual matters in outsourcing, information technology and telecoms projects with the experience of implementing such global projects as an in-house lawyer. Further, she provides comprehensive advice to companies in the IT industry on software development, licensing, technology-related transactions, IP protection, data protection and compliance as well as employment law. She also regularly advises clients in the entertainment industry, mainly film and music. For almost a decade, she has chaired a prestigious annual conference on data protection in Switzerland.

Thailand

Tilleke & Gibbins

David Duncan

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Thailand's two major state telecommunications operators – CAT and TOT – formerly held monopolies on telecommunications services in Thailand. Traditionally, they provided some services themselves, and they each granted concessions to private operators. The law has made a distinct shift away from the concessions regime, and replaced it with a licensing regime administered by the National Broadcasting and Telecommunications Commission (NBTC). However, some concessions still remain.

There are currently three major private mobile carriers – AIS, DTAC and True, all of which are competitors. In addition, both CAT and TOT host a number of MVNOs. Landline services are provided primarily by TOT and True, but VoIP services are a source of growing competition.

Terrestrial broadcast television has largely transitioned to digital, though some analogue broadcasters remain. As for cable and satellite television, there are several operators in the Kingdom, but the primary operator is TrueVisions.

There are numerous internet service providers, but network infrastructure is owned by a small number of major telecommunications operators (both state and private).

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The primary legislation relevant to telecommunications and audio-visual media distribution are:

- the Radio Communications Act B.E. 2498 (as amended);
- the Telecommunications Business Act B.E. 2544 (as amended);
- the Broadcasting Business Act B.E. 2551;
- the Frequency Allocation Act B.E. 2553 (as amended);
- the Computer Crimes Act B.E. 2550 (as amended); and
- the Film and Video Act B.E. 2551 (as amended).

There is a considerable body of administrative regulations and notifications promulgated under these laws.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

Telecommunications is primarily subject to regulation by the NBTC and the Ministry of Digital Economy and Society (MDES), including the National Information Technology Committee and the National Electronics and Computer Technology Centre. Audio-visual media distribution is primarily regulated by the NBTC, and the Censorship Board, which is a unit of the Ministry of Culture.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

In the telecommunications and internet space, Type 2 and Type 3 licences are unavailable to applicants considered "foreign", as determined according to the provisions of the Foreign Business Act. In addition, these licensees are obligated to observe the NBTC Notification on Prevention of Foreign Dominance. In contrast, Type 1 licences are available regardless of the level of foreign ownership in the applicant; the NBTC Notification on Prevention of Foreign Dominance is not applicable to them. Thus, foreign ownership and control is effectively limited to less than 50% for facilities-based telecommunications operators. Telecommunications operators that would operate on a non-facilities basis, however, can be wholly foreign-owned, provided they do not require a Type 2 licence for the intended services.

As for media, foreign ownership and control of a broadcasting licensee are each limited to 25%.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Thailand has been a member of the World Trade Organization since 1 January 1995, and has made commitments under GATS regarding both value-added services and basic telecommunications.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The provision of telecommunications/electronic communications networks and services is subject to the aforementioned laws, which provide for regulation primarily by the NBTC. The MDES also has a significant role in regulation.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The Trade Competition Commission and the Committee on Prices of Goods and Services are competition and fair trading regulators of general jurisdiction. These bodies are nominally independent, but their members are appointed by the government. It should also be noted that the NBTC has also issued competition regulations specific to telecommunications, as well as specific to broadcasting.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions of the NBTC can be appealed within the organisation itself, subject to the Administrative Procedure Act. Accordingly, further appeal to the Administrative Court would also be possible, depending on the circumstances.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

Primary authorisations take the form of Telecommunications Licences, which are categorised as Type 1, Type 2, and Type 3. Each Telecommunications Licence specifies the type(s) of telecommunications business in which its holder can engage, and it also typically has a range of different conditions and endorsements.

1. **Type 1 Licence**: Type 1 licences are for telecommunications operators that provide services without their own networks.
2. **Type 2 Licence**: Type 2 licences are for telecommunications operators that provide services either with or without their own networks, for use by a limited group of people, or that have no significant impact on competition, public interest, and consumers.
3. **Type 3 Licence**: Type 3 licences are for telecommunications operators that provide services with their own networks, for use by the general public or which may impact competition, public interest, or consumers.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Subject to certain narrow exceptions, individual authorisations – in the form of the licences described in the response to question 2.5 – are required to lawfully engage in any telecommunications business.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

The subject matter of each form of individual authorisation is described in the response to question 2.5.

Type 1 licences are valid for five years, Type 2 licences are valid for 15 to 25 years for operators with their own networks or five years for those without their own networks, and Type 3 licences are granted for periods of 15 to 25 years. Licences are renewable, subject to compliance with regulatory requirements.

Telecommunications licences are not transferable.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

The NBTC administers regulations concerning rights of way for erecting poles, laying conduits or cables and installing equipment for providing telecommunications services. Depending on the type of easement required, a notice may be sufficient – otherwise, it may be necessary to negotiate an agreement. The regulation takes the general approach that such agreements should be reflective of equality, fairness and impartiality.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

There are several regulations on network interconnection and access. Essentially, licensees operating their own telecommunications networks must:

1. permit other licensees to interconnect with their networks;
2. permit other licensees to access their telecommunications networks as a means to access their networks;
3. provide transit services to other licensees through their telecommunications networks;
4. provide roaming services to other telecommunications service providers;
5. offer and provide unbundled network services and essential facilities of their own networks to permit other licensees access or interconnection with their networks; and
6. permit other licensees to access and employ technical specifications on their telecommunications network access, interfaces and protocols, or necessary technology for interoperability, in order to facilitate access or interconnection with their networks.

Licensees with their own telecommunications networks, however, may refuse to permit other licensees access to their networks if their existing telecommunications networks are insufficient to accommodate other licensees. In addition, access may also be refused if there are technical difficulties which may, as a result, cause interference in, or otherwise obstruct, the telecommunications business.

In the case of a dispute, parties may apply to the Dispute Resolution Committee of the NBTC. Detailed procedures are set out in regulations for this purpose.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Licensees with their own telecommunications networks are required to provide Reference Access Offers and Reference Interconnection Offers, with respect to access or interconnection by other licensees.

Licensees must also prepare information on the calculation of charges for network access, interconnection, and unbundled components. This information is to be submitted at the time of a licence application and periodically, and it is subject to consideration by the NBTC.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Standards and pricing methodologies are set in regulations administered by the NBTC. In principle, the approach is that reasonable access or interconnection charges are to be calculated only for each network element used in providing the given service. Other expenses not directly relating thereto are not to be included in the calculation. The NBTC has the authority to order licensees to restructure their pricing, and to submit it for NBTC approval. The NBTC also has the authority to regulate each step of the procedure for access/interconnection and/or to determine network access or interconnection charges that it deems appropriate.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

See the response to question 2.11.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

As a general matter, operators of broadband networks are subject to regulation in the same way as operators of other telecommunications services, and such operators likewise generally have the same sorts of rights.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Regulations administered by the NBTC impose maximum pricing for certain services.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Regulations impose requirements in relation to service contracts, tariffs, and service charges, as well as protection of consumer rights in the areas of personal data, privacy, and freedom of communication via telecommunications networks. Licensees are also required to establish separate call centres to receive complaints, to establish procedures for receiving and considering user complaints, and to comply with regulatory requirements in relation to handling complaints, including an escalation process in which resolution is pursued within particular deadlines.

Licensees must also meet Universal Service obligations (i.e., by making specified contributions to the Universal Service Fund).

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and special codes are allocated by the NBTC, in accordance with regulations which set out, *inter alia*, a numbering plan.

2.17 Are there any special rules which govern the use of telephone numbers?

Telephone numbers can only be allocated to telecommunications licensees for use in their provision of telecommunications service, and there are extensive regulations governing such allocation. Generally, telephone numbers can only be used in providing a service consistent with the numbering plan.

2.18 Are there any obligations requiring number portability?

Mobile service users have the right to mobile number portability, and service providers are generally prohibited from acting to obstruct or impede the porting of mobile numbers to other service providers, though there are exceptions to accommodate technical and other issues. The relevant notifications set out considerable detail as to the mechanics of porting.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The NBTC is the primary regulator of spectrum use.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Radio frequency spectrum is allocated pursuant to the Frequency Allocation Act. For commercial spectrum usage for broadcasting, the Act provides for the NBTC to consider and grant permits for use of spectrum by auction, according to procedures and conditions the NBTC may set. As for telecommunications spectrum, the NBTC can use other methods, but auctions remain required for most commercial applications.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Certain categories of spectrum use are licence-exempt; the conditions depend on the applicable use.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

For commercial broadcasting use, spectrum is allocated by auction, with pricing determined by the auction process. As for telecommunications, pricing can be determined by other methods, but auctions remain required for most commercial applications.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

A licensee must maintain conformity with its licence conditions in order for the licence to remain valid. In this regard, a change in control could result in breach of said conditions (e.g., if the foreign shareholding ratio was breached). Generally, a licensee must notify the NBTC in writing of a change in control, and the NBTC may instruct the licensee to take particular actions as the NBTC deems appropriate.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Pursuant to the Frequency Allocation Act, a permit to use frequency waves for a telecommunications business is the exclusive right of the permit holder and is not transferable. The holder of a permit to use particular frequencies for a telecommunications business must operate the business itself. It cannot assign management of the business, in whole or in part, to someone else, or authorise other persons to operate the business on its behalf.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The Cybersecurity Bill, which has been approved by the Cabinet but remains pending, would establish a National Cybersecurity Committee and a new state agency, the Office of the National Cybersecurity Committee. The Committee would have the responsibility to determine how to respond to serious cyber threats and to be the centre of operation in such IT calamities (save for matters of military security), and to cooperate with other state bodies and private entities for this purpose, among other related responsibilities. The Office of the National Cybersecurity Committee would be responsible for implementing the Committee's policies, as well as related responsibilities specified in the Bill.

As written, the Bill would compel state agencies to follow the Committee's plans and policies, and it sets out mechanisms for achieving that. It also features a reporting mechanism by which state agencies and/or designated persons within each state agency would feed information back to the Secretary of the Committee, so that the Committee could determine what further actions to take in response to particular cyber threats. Further, where it is necessary for the purpose of maintaining cybersecurity, in a circumstance where there may be an effect on financial and commercial stability or national security, the Bill would empower the Committee to order a state agency to take particular actions and to report as the Committee may instruct.

It is envisaged that the Minister would appoint officials to perform under the Act, and that they may be authorised by the Secretary of the Office to issue letters to ask questions or to request a state agency or any person to give testimony, submit a written explanation, or submit materials for inspection or information, all within the scope of the Bill, or to request state agencies or private entities to facilitate the Committee's performance of its duties.

The Bill also provides for officials to be empowered to access communications information, whether in the form of post, telegram, telephone, fax, computer, or any mechanism or device for electronic communication or telecommunications, for the purpose of cybersecurity. However, the Bill also provides that the Council of Ministers would promulgate rules for officials to follow in accessing such information, presumably for the purpose of addressing privacy concerns. The Bill also contains provisions by which to protect such information and to prevent its disclosure, except in cases of prosecution under the Bill (once enacted), abuses of power, or as otherwise authorised by the court.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

In principle, Thai law protects communications from access, interception and disclosure, but it provides certain exceptions for government authorities, particularly in cases that have national security implications, or cases that concern public order or good morals of Thailand. The Constitution contains provisions on privacy, which translate:

> "*A person shall enjoy the rights of privacy, dignity, reputation, and family.*
>
> *An act violating or affecting the rights of a person under Paragraph One, or the use of personal information for benefit by any means shall not be permitted, except by virtue of the provisions of the law specifically enacted as deemed necessary for the public interest.*"

In any case, in the normal course, access is available to governmental authorities through regulatory framework applicable to information technology service providers (through the Computer Crimes Act), and the regulatory framework applicable to telecommunications operators (through the Telecommunications Business Act). In addition, special powers are available to certain government officials handling certain types of cases under the Special Investigation Act, and in emergency situations, under the Emergency Decree on Public Administration in a State of Emergency. Each is explained below.

Computer Crimes Act

The Computer Crimes Act empowers competent officers of the MDES to send enquiry letters, summon concerned persons for interrogation, and request statements, documents, computer data, computer traffic data, and evidence from service providers (as defined in the Act). These officers can also order service providers to hand over certain data pertaining to users, which service providers are obligated to keep, under the law.

In addition, the officers can take further actions, but only with a court order. These include copying computer data or computer traffic data, ordering a service provider to hand over computer data, computer traffic data, or devices, examining and accessing computer systems, computer data, computer traffic data, or devices, decrypting communications, ordering a service provider to decrypt communications, ordering a service provider to assist with decryption, and seizing/attaching a computer system, as necessary. Ministerial regulations promulgated under the Computer Crimes Act set out the specific requirements that each service provider is required to meet, in terms of data retention.

It is important to be aware that the Computer Crimes Act distinguishes between content data and non-content data. As a general matter, a court order is not required to access or obtain non-content data – a competent officer is already authorised to request such data from service providers or other relevant persons. While the Computer Crimes Act does not specifically use the term "intercept" when describing the authorities of the MDES with respect to these issues, such activities could be regarded as included within an officer's authority to examine and access computer systems, computer data,

computer traffic data, or devices, as referenced above. While there is no court decision to offer guidance on this point, it is our view that a competent officer's authority extends to both stored data and those in transmission.

As noted above, the Computer Crimes Act authorises a competent officer to decrypt encrypted computer data, to order concerned persons to decrypt it, and/or to order concerned persons to cooperate with a competent officer in decrypting it, for the purposes of investigating an offence under the Act. Moreover, the Computer Crimes Act purports to apply both domestically and overseas, and compliance obligations are not only applicable to certain licensees. Rather, a competent officer has the authority mentioned above to order any concerned person to decrypt data or allow access to a computer system, among other authorities under the Act.

Telecommunications Business Act

The Telecommunications Business Act imposes certain obligations on telecommunications licensees. Through this regulatory framework, telecommunications licensees are obligated to comply with rules set by the NBTC. Pursuant to regulations under this Act, telecommunications licensees are obligated to retain certain data on service users, to store it according to regulations for certain periods of time, and to provide such data to the Office of the NBTC, on request, for the purpose of supervision of the telecommunications business by the NBTC and the Office of the NBTC. While there are presently no regulations explicitly requiring standing "back doors" for easy government access to communications (whether in transit or stored), regulatory framework would accommodate the imposition of such a requirement.

Special Investigation Act

The Special Investigation Act generally applies to alleged criminal violations of certain laws, which are unusually complex, relevant to national interests, involve influential people or certain officials, or cases otherwise selected by the Special Case Board. With respect to data interception or access, the Special Investigation Act requires Special Case Inquiry Officials to obtain a court order prior to access or acquisition of any documents or information in transmission through various means of communications which have been or may be used to commit a Special Case Offence (as defined in the Act). Under this Act, the competent officer would need to file a petition requesting the court to issue an order authorising such access or acquisition of data.

Emergency Decree on Public Administration in a State of Emergency

The Emergency Decree, *inter alia*, provides for expanded investigative powers usable in the event of an emergency declaration made by the Prime Minister. This Decree gives broad powers to the Prime Minister to act in virtually any way necessary to maintain public order or otherwise maintain control in emergency situations. In such event, the Prime Minister can, among other actions, authorise a competent official to issue an order to inspect any means of communication or issue a notification prohibiting any act or instructing the doing of anything necessary for maintaining the security of the state, the safety of the country or the safety of the people (this is sufficiently broad to include interception of or access to data, as deemed necessary).

Order 3/2558 of the National Council for Peace and Order

Governmental access can also be authorised pursuant to broad authorities existing under Order 3/2558 of the National Council for Peace and Order (NCPO).

Non-compliance under any of the foregoing can result in fines, imprisonment, and/or seizure of equipment, depending on the violation.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Telecommunications licensees are not under a general requirement to maintain or enable interception capability. Nevertheless, regulatory framework would accommodate the imposition of such technical requirements, if such a policy decision were made. Moreover, current law enables officials to order a telecommunications licensee (or any other person) to carry out or to cooperate with interception so ordered. Such order could be issued in respect of any form of communications.

4.4 How does the state intercept communications for a particular individual?

In normal circumstances, with probable cause, the state may apply to the Chief Justice of the Criminal Court for an order permitting interception of communications of any individuals, whether through wiretapping or monitoring of written and/or electronic communications. Such requirements, however, may be circumvented through special procedures under some of the laws described in our response to question 4.2 above, such as the Emergency Decree or NCPO Order 3/2558.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Encryption can be regulated under multiple laws.

With respect to telecommunications applications, the Radio Communications Act provides for the regulation of activities relating to radio communication in Thailand. The Act prohibits any person from producing, possessing, using, importing, exporting, or trading in any radio communication equipment, unless such person is granted a licence by the NBTC. It provides authority for the NBTC to issue notifications to exempt particular types of radio communication equipment, or those used in certain activities, in either case, as a class or on an individual basis. To the extent any item constitutes radio communication equipment, if encryption capabilities exist in such devices, they would be subject to regulation as part of the device. To date, we are unaware of any denial of approval of a device on the basis of encryption functionality.

With respect to military applications, the Armaments Control Act B.E. 2530 (as amended) provides for regulation of the importation, bringing in, manufacturing, and/or possession of any armament. It provides that no person shall import, bring in, manufacture, or possess armaments, except where a licence has been obtained from the Secretary of Defence, or where an exemption is applicable. The definition of armaments can be construed quite broadly, and it even includes several routine items that happen to have military applications (dual-use). As such, to the extent that encryption technology, or equipment or software which includes encryption technology is considered an "armament", a licence would be required to import it or otherwise bring it in to Thailand. We are, however, not aware of this law ever being used to deny the importing/bringing in or possession of routine equipment or software used for computer networking and/or telecommunications applications.

Also, the Computer Crimes Act authorises officials of the MDES to access computer systems to decrypt encrypted computer data, order concerned persons to decrypt such data, and order concerned

persons to cooperate with a competent official in decrypting such data, for the purposes of investigating an offence relevant to the Computer Crimes Act.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Pursuant to regulations issued under the Telecommunications Business Act, telecommunications licensees must retain certain personal data of telecommunications users, including the facts and details concerning each service user by which the service user can be identified, service usage data, telecommunications numbers, and descriptions of individual usage. Licensees must keep personal data of their service users for the last three months (counted from the day following the current day), and in the event that the service is terminated, retain such data for three months following the date of termination of the service. In the case of necessity, the service provider may be required to retain the data for longer than three months after termination of service, but not for longer than two years.

The Regulations issued under the Computer Crimes Act also contain similar obligations that are applicable to service providers (as defined in said Act). Service providers include telecommunications licensees and some operators that are not telecommunications licensees. The Act requires service providers to retain necessary information on each service user, as well as specified computer traffic data; the type of computer traffic data varies by type of provider and/or service. The required computer traffic data must be stored for at least 90 days from the date the data is entered into the computer system, unless extended by a competent official. A competent official may extend this beyond 90 days, but for no more than two years, in particular cases. In addition, service providers must keep user identification data so that the service user can be identified from the beginning of use of the service, and the service provider must keep this data for at least 90 days after termination of the service.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Distribution of television is handled pursuant to the Broadcasting Business Act, with the NBTC as the primary regulator. Other forms of audio-visual media, such as DVDs and computer games, are outside the scope of that Act, but other laws are relevant to them. Notably, the Film and Video Act provides regulatory framework for cinema and DVDs.

The NBTC has been particularly active in exercising its authority with respect to content and competition issues. In multiple cases, the NBTC has fined operators for the broadcast of what was regarded as inappropriate content. It has also intervened in the market to provide for free broadcast of certain sporting events, to address competition concerns.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

The Broadcasting Business Act provides for regulation of the content of television programmes that are broadcast. Content requirements (including advertising) vary between terrestrial broadcasting and non-frequency broadcasting (e.g., cable or IPTV), as well as between different categories of channels.

In addition, the Film and Video Act provides for content controls in respect of movies, commercials, television programmes, videos, certain videogames, karaoke, and other similar content. A committee constituted under that Act has the authority to censor such content, requiring changes before their release.

For some years, OTT services accessible via the public internet have generally operated without regulation, given that most of the providers are abroad and given enforcement challenges in respect of foreign entities. However, there have been recent moves to bring these operators into the regulatory framework, either by asserting that they operate within the regulated space, or on the basis of a new regulatory regime specific to them. Further developments are expected very soon.

It should also be noted that there have been instances of blocking websites and/or parts of websites. The Computer Crimes Act, as well as the Emergency Decree, NCPO Order 3/2558, and the Interim Constitution each provide mechanisms for such blocking.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The Broadcasting Business Act and regulations promulgated thereunder establish the framework for: (i) broadcasting network licences; (ii) broadcasting service licences; (iii) broadcasting facilities licences; and (iv) broadcasting application service licences.

Broadcasting service licences are issued for broadcasts using frequencies (e.g., free-to-air) and not using frequencies (e.g., cable). For broadcasts using frequencies, there are multiple categories of licences for public and community broadcasting, but these are available only to government entities and certain associations, foundations, charities, and educational institutions. With respect to commercial services, these can be licensed at the national, regional, or local levels. Non-frequency broadcasting services are licensed separately. With respect to frequency and non-frequency commercial broadcasting licences, foreign ownership in the licensee is limited to 25%.

Other regulatory requirements deal with the directorship of companies holding the licences (i.e., that at least 75% of the directors be Thai nationals). Analogous ownership and control restrictions apply to licensees that exist as partnerships. Broadcasting licensees are subject to several other regulatory requirements, some of which exist in law and regulations, and others that are imposed through licence conditions.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Licenses are not transferable. However, a licensee may allocate time slots for programming of others, subject to further regulatory requirements.

A licensee must maintain conformity with its licence conditions in order for the licence to remain valid. In this regard, a change in control could result in breach of said conditions (e.g., if the foreign shareholding ratio was breached). Generally, a licensee must notify the NBTC in writing of a change of control, and the NBTC may instruct the licensee to take particular actions as the NBTC deems appropriate.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

According to the Computer Crimes Act, any service provider that cooperates, agrees, or conspires in relation to a specified offence involving a computer system under its control is subject to the same penalty as that imposed upon the person committing the offence, provided that where the service provider has complied with the regulatory notification setting out something largely analogous to a "mere conduit" defence, the service provider shall not be subject to penalty. It is likely that strict compliance with the notification would be necessary in order for a service provider to avail itself of the defence.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

The Copyright Act B.E. 2537 (as amended) addresses obligations of internet service providers in relation to infringing content, providing a mechanism by which one can petition the court to request that infringing content be taken down.

Also, pursuant to the Computer Crimes Act, service providers could be held liable in respect of illegal content on their networks, unless they have acted in conformity with the "mere conduit" regulation. Among the requirements of that regulation, a service provider must have a mechanism for receiving complaints/take-down notices, and for acting on them. The Computer Crimes Act also provides a mechanism by which service providers can be ordered to block/remove illegal content.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Regulations provide that licensees are under general obligations to operate their telecommunications network services and provide services to service users and interconnection users on a non-discriminatory basis. However, they do not go so far as to explicitly require net neutrality.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Pursuant to the Computer Crimes Act, following the issuance of a court order, a competent official under the Computer Crimes Act may block particular websites or other content, or order ISPs to do so. Blocking of websites or content is also possible under the Emergency Decree and NCPO Order 3/2558. As for VPN services, the provider thereof would be regulated as a service provider under the Computer Crimes Act which, as noted above, requires the retention of specified user data. Access to VPN services has been blocked on occasion, but they are generally available.

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David Duncan is a consultant in the Tilleke & Gibbins corporate and commercial group, specialising in technology, media, and telecommunications, antitrust/competition law, and projects. In the TMT space, which comprises the largest part of his practice, David has extensive experience in structuring and negotiating IT outsourcing transactions, developing structures by which to offer new telecommunications and/or IT services in Thailand, handling TMT-related M&A transactions, advising on IT infrastructure projects, and advising on regulatory implications of all the foregoing. He also has particular expertise in government contracting. His client base is foreign and domestic, and he advises new entrants to the market, as well as established operators. David is ranked in the TMT category by *Chambers Asia-Pacific* and *The Legal 500*, and he has also been recognised by *Chambers* and other publications for projects expertise.

Chapter 30

Turkey


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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

(a) Telecoms & Internet

In 2017, the net sales revenue of mobile operators in the telecom sector increased by 11.7% compared to the previous year and reached 39.45 billion Turkish Lira ("TRY") (approx. 7 billion USD; 1 USD amounts to 5.63 TRY as of the date this article was written). The net sales revenues of the mobile operators in the telecom sector in the first half of 2018 exceeded 21.5 billion TRY (approx. 3.817 billion USD).

The distribution of total revenue in 2017 among the operators is as follows:

- Turkcell – 23.8%.
- Vodafone – 21.4%.
- Türk Telekom – 18.9%.
- TT Mobil – 13%.
- Others – 22.9%.

Compared to the previous year, total investments of mobile operators in the telecom sector increased by 2.6% in 2017. At the company level, Türk Telekom's, Turkcell's and Vodafone's investments increased, respectively, by 26.9%, 10.4% and 15.9%, whereas TT Mobil's investments decreased by 20.2%. In general, total investment in 2017 amounted to 5.87 billion TRY (approx. 1,042 million USD). In the first half of 2018, approximately 2.6 billion TRY (approx. 461 million USD) was invested in this sector.

As of the second quarter of 2018, there were 11,491,629 fixed telephone subscribers in Turkey. Accordingly, the penetration rate is about 14.2%. Given this numeric data, it is possible to say that fixed telephone services have reached a significant level in Turkey. In terms of fixed/landline telephone services, the most important companies in the sector based on their market share are TTNET, Turksat and Superonline.

As of the second quarter of 2018, the number of internet subscribers increased by 2.5% compared to the previous quarter and by 8% compared to last year. We expect that internet subscribers will increase due to the increasing availability of access means such as fibre, mobile and xDSL. As of June 2018, the number of internet subscribers reached 71.8 million.

In 2017, the annual service revenues of internet service providers ("ISPs") increased by 15.2% compared to the previous year and reached 7 billion TRY (approx. 1.2 billion USD). In the first half of 2018, total service revenues reached approximately 3.8 billion TRY (approx. 675 million USD). TTNET, Superonline and VodafoneNet are the companies with the largest share in the market in terms of the number of subscribers and revenue.

(b) Audio-Visual Media Distribution

Turkish Radio and Television Corporation ("TRT") was defined as impartial with the constitutional amendment in 1972 and was the single broadcaster in Turkey for 54 years, until Star TV (the first private TV broadcaster in Turkey) was founded in 1990. TRT has 14 TV channels, 16 radio stations, two online news sites and three magazines. TRT is still an important player in the Turkish audio-visual media distribution sector.

In Turkey, there are now 108 TV channels (including 14 national, 11 regional and 83 local) and 83 radio-TV broadcasters. Additionally, there are 1,091 radio broadcasters including 36 national, 102 regional and 953 local.

In 2017, the annual commercial revenue of the Turkish media sector was recorded as 3,870,700,722.88 TRY (approx. 686 million USD). The significant participants with the largest shares in the media sector are Demirören Holding (which has taken over Doğan Media Group), Doğuş Holding, Ciner Holding and Kalyon Holding.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

- Electronic Communications Law No. 5809, dated 5 November 2008.
- Regulation on the Network and Information Security in the Electronic Communication Sector No. 29059, dated 13 July 2014.
- Regulation on Processing and Protection of Personal Data in the Electronic Communication Sector, dated 24 July 2012.
- Regulation on Market Analysis No. 28480, dated 27 November 2012.
- Law on Establishment and Broadcast Services of Radio and Television No. 6112, dated 3 March 2011 ("the Turkish Broadcasting Law").
- Regulation on Consumer Rights for Electronic Communication Sector No. 30224, dated 28 October 2017.
- Authorisation Regulation on the Electronic Communication Sector No. 27241, dated 28 May 2009 ("Authorisation Regulation").
- Regulation on Numbering No. 27276, dated 2 July 2009.
- Regulation on Access and Interconnection No. 27343, dated 8 September 2009.

- Regulation on Tariff No. 27404, dated 12 November 2009.
- Law on the Regulation of the Publications Made Available on the Internet and the Fight Against the Crimes Committed Through Those Publications No. 5651, dated 23 May 2007 ("Law No. 5651").

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms & Internet

The relevant ministry is the Ministry of Transport and Infrastructure.

The main autonomous regulatory authority in the telecom and internet sectors is the Information Technologies and Communication Authority ("BTK"). BTK grants licences, issues relevant regulations, monitors the industry, and sets the standard for telecommunication equipment.

Policymaking, regulation and operation functions are set by Law No. 4502.

The Access Providers Association ("APA") was established in accordance with Law No. 5651 to restrict/block access to unlawful contents. APA is a private law legal entity located in Ankara.

(b) Audio-Visual Media Distribution

The relevant ministry in this sector is the Ministry of Culture and Tourism.

The Radio and Television Supreme Council ("RTÜK") is the regulatory body in the audio-visual media sector. RTÜK is an autonomous and impartial public entity that is responsible for regulating, supervising and licensing radio and television broadcasts via terrestrial, digital satellite, cable and IPTV technologies and platforms.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

There is no restriction on foreign investment in the internet infrastructure and telecom markets in Turkey, since such markets are liberalised.

The foreign investment cap for media distribution companies is 50% and a foreign investor may hold shares in a maximum of two Turkish media distribution companies.

Relevant competition regulation under the supervision of the Competition Authority is applicable.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Turkey has been a World Trade Organisation member since 26 March 1995 and a member of GATT since 17 October 1951. Turkey has also made commitments under the GATS regarding the telecommunications and postal services.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

Please refer to our response to question 1.2. The electronic communications sector is also regulated by other codes or regulations such as the Competition Law.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

BTK is the autonomous regulatory authority overseeing the communication and telecom industries.

The Competition Authority is the autonomous regulatory and supervisory authority that regulates and supervises competition and antitrust matters in Turkey. Pursuant to Article 6 of the Electronic Communications Law, BTK is also authorised to protect fair competition among the industry actors.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Decisions of BTK are regarded as administrative acts. Relevant parties may object to such administrative acts before BTK. If BTK dismisses such objections, the relevant parties may challenge the relevant acts before administrative courts.

The main grounds to challenge BTK's acts can be discrepancy with or violation of the relevant legislation.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

- Provision of electronic communication services and installation and operation of electronic communication infrastructure or networks is subject to the authorisation of BTK.
- Fixed/landline telephone services are subject to the authorisation of BTK.
- Radio and television broadcasts via terrestrial, digital satellite, cable and IPTV technologies and platforms are subject to licensing by RTÜK.
- Registered electronic mail service providers must be authorised by BTK.
- Provision of electronic certificate services is subject to the authorisation of BTK.
- Internet service providers must be authorised by BTK.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The Authorisation Regulation covers the main requirements for authorisation in Turkey. According to Article 7, the following conditions must be met by the applicant company:

- The company must be established as a joint stock or limited liability partnership (the corporate form requirement may vary depending on the type of service to be rendered).
- The relevant fields of activity subject to authorisation must be stipulated in the company's articles of association.

- Shareholders with more than 10% equity in the company and executives authorised to represent the company must have clean criminal records.
- The company must satisfy the capital threshold requirements.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

In principle, BTK may authorise a company for up to 25 years. The licence is transferable, subject to particular requirements. Transfers of more than 10% of the equity in an authorised company are subject to BTK's approval.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Private telecom companies may enter into contracts with owners of immovable properties to obtain rights of access or install infrastructure on such immovable properties. Such contracts are subject to the provisions of general private law such as the Turkish Code of Obligations. Private telecom companies may also enter into agreements with public entities to utilise immovable property.

The Ministry of Transportation and Infrastructure has the jurisdiction to secure or enforce expropriation of private property pursuant to the relevant legislation, and the Ministry of Treasury and Finance is entitled to allocate relevant immovable property for the purposes of telecommunication investments.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

The Electronic Communications Law has vested BTK with the power to resolve disputes between operators. In case of a dispute between two operators, the parties must first extend their best efforts to resolve the dispute within two months. If such efforts fail, either party may demand BTK to resolve the dispute by the power vested in BTK by the Electronics Communications Law.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

BTK may require all operators to publish standard interconnection contracts and prices. Unless otherwise stated, prices are determined annually.

All operators are obliged to perform interconnection negotiations with each other upon request. In case of a failure of the parties to agree, BTK may impose obligations on operators to provide interconnection; operators are then obliged to submit their interconnection and access agreements to BTK within 15 days.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Operators shall freely determine access tariffs, including for interconnection. However, BTK may impose obligations on operators to determine tariffs on a cost basis. If requested by BTK, the operators have to prove that the access tariffs are determined based on cost. BTK is entitled to determine the tariffs if the operators have not determined the tariffs on a cost basis.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

BTK has the authority to impose accounting separation obligations on operators with significant market power in the relevant market.

In addition, under the Authorisation Regulation, operators must keep separate accounts for each type of service they provide. If the operator provides both mobile and fixed line services under a single authorisation, it must keep separate accounts for these services.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Provision of electronic communication services, installation and operation of electronic communication infrastructure and networks and all kinds of electronic communication devices and systems are regulated under the Electronic Communications Law.

It is among the duties and powers of BTK to determine, apply and supervise the compliance of the execution of electronic communication services, networks and/or infrastructure with law. The authorisation required to establish and operate infrastructure in this sector is granted by BTK.

The National Broadband Strategy Action Plan, published on 11 December 2017, projects that broadband internet service will be available everywhere for everyone by 2023.

In Turkey, installing fibre infrastructure is incentivised. Hence, Türk Telekom has laid more than 262,000 kilometres of fibre infrastructure in the last 10 years.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Operators may determine their own prices provided that such prices are reasonable from the perspective of costs and telecommunication policies as a public service. Accordingly, the prices should conform to the requirements under the Tariff Regulation.

Operators must notify BTK of their tariffs at least 15 days before they enter into force. BTK is authorised to consistently monitor the tariffs.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The Regulation on Consumer Rights for the Electronic Communication Sector entered into force on 28 April 2018. Pursuant to Article 7 of the Regulation, subscription agreements can be entered into electronically. Invoices under a certain amount can be carried over to the next invoice period.

The Regulation requires operators to be fully transparent and lays the burden of proof on the operator with respect to subscriber request and approvals.

If the operator suspends its services due to default of the subscriber, no further service fee shall accrue from the date of suspension.

The regulation indicates the provisions which should be stipulated in a consumer telecommunication contract.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Operators or operator candidates may apply for number allocation to BTK. Applicants must also fill in the relevant application form attached to the Numbering Regulation.

The number allocation request specified in the application must comply with the national numbering plan. Requested numbers must be consistent with the description and geographic coverage of the service. The Regulation demands the operator to have adequate technical instructors to manage the allocation of number capacity and make the necessary market estimations and investment plans to be able to support its subscribers.

2.17 Are there any special rules which govern the use of telephone numbers?

Number allocation and usage principles are stipulated in Numbering Regulation No. 27271 and Number Portability Regulation No. 27276. The purpose of these Regulations is to ensure that the numbers used in the electronic communication networks are planned in a national context and that they are used effectively and efficiently in accordance with the plan.

2.18 Are there any obligations requiring number portability?

The Number Portability Regulation allows subscribers to change their operator and all the services they receive without any change to their phone numbers.

BTK takes all necessary measures to protect consumers within the scope of operator number portability.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

BTK allocates radio frequencies and manages the radio spectrum (wireless radio telecommunication). The Turkish Armed Forces may regulate radio frequencies for military purposes within the frequency bands allocated by BTK. RTÜK regulates and licences TV channels and radio frequencies for terrestrial radio and television broadcasting within the frequency bands allocated by BTK. BTK may retrieve frequency bands which it allocates to RTÜK and the Turkish Armed Forces.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

First, the operator must apply to BTK for the spectrum allocation in accordance with the Regulation on Spectrum Management. After BTK approves this application, the operator is allocated a spectrum licence. Then, the operator has to register its allocated spectrum with the registry established by BTK. If a natural or legal person, which is not an operator, wishes to install a device requiring a spectrum allocation by BTK, such person must also apply to BTK for allocation of spectrum.

BTK may determine that certain wireless equipment and systems do not require spectrum allocation and registration.

Pursuant to Regulation No. 22223, RTÜK licenses the radio spectrum within the frequency bands allocated by BTK. In such case, tenders are made to allocate radio frequency or multiplex capacity to media service providers. In order to participate in tenders, media services providers need to (i) be established as a radio broadcasting joint stock company, (ii) operate in the area of radio broadcasting for at least one year, (iii) meet the preliminary requirements in the tender specification, and (iv) obtain a competence certificate from RTÜK.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

As mentioned in question 3.2, BTK may exempt certain wireless equipment and systems from spectrum allocation and registration for a maximum term of five years.

Under the Turkish Broadcasting Law, use of spectrum cannot be made licence-exempt. Media service providers need to obtain separate licences from RTÜK to broadcast through cable, satellite, terrestrial, and similar means pursuant to Article 27 of the Turkish Broadcasting Law.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

RTÜK determines television and radio frequency usage fees for each year, according to Article 37/1(d) of the Turkish Broadcasting Law. Such fees are calculated based on the formula specified in the Regulation on Television Channel and Radio Frequency Annual Usage Fees. Fees to be applied in 2018 are available on RTÜK's website.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

In case of a change of control of the licensee, the parties must apply to BTK for approval of the transaction causing the change of control. Regardless of the BTK application, clearance from the Competition Authority may be necessary depending on the global and local market shares and revenues of the parties.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

The Authorisation Regulation allows the trading of spectrum licences. To transfer spectrum frequency, operators must apply to BTK for approval. BTK evaluates this application by considering the market and competition conditions of the transferee operator and other related issues. After BTK approves such transfer, a right-of-use authorisation will be granted to the transferee operator within one month of the date on which the approval is granted.

There is no specific provision or regulation on the sub-licensing of spectrum licences.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

In order to combat cybercrime, increase resilience and cybersecurity awareness and provide secure and safe utilisation of electronic and digital means telecommunication, various legislative and administrative measures have been taken over the past decade. A recent example of such measures is the Council of Ministers Decision on Conducting, Managing and Coordinating National Cybersecurity Activities, which entered into force on 20 October 2012. Moreover, the Ministry of Transport and Infrastructure published the national cybersecurity strategy and action plan 2013–2014, as well as the national cybersecurity strategy and action plan 2016–2019.

The same Resolution of the Council of Ministers established a Cybersecurity Board to determine the government's precautions regarding cybersecurity, approve the national cybersecurity strategies and procedures and principles, and coordinate national cybersecurity efforts.

Pursuant to Article 19, amended on 29 September 2018, of Regulation on Administrative Sanctions No. 28914 issued by BTK, any natural or legal entity who fails to comply with the obligations related to network and information security and cybersecurity measures to be determined by BTK shall be imposed with an administrative fine of 1,000 to 1,000,000 TRY.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Interception of correspondence via electronic surveillance and wiretapping telecommunication is regulated under Article 135 of the Turkish Criminal Procedure Code and other relevant legislation.

Article 135 stipulates the conditions that must be met to gain access to private communications over telecommunication services and the internet within the course of an investigation or prosecution conducted in relation to a crime.

In such cases, judges, or where extremely urgent, the public prosecutor, may order the interception and/or wiretapping of electronic and digital communications between the suspect and third parties. The decision shall consider the nature of the charged crime, the identity of the individual, the phone number or the code that makes it possible to identify the connection of the communication, the type of measure, its extent and its duration. The provisions related to listening, recording and evaluating the signal information shall only be applicable for "serious crimes" as listed under Article 135/6.

In principle, the decision on such measure may only be given for a maximum term of two months, which can be extended for another month.

Furthermore, the location of a suspect may be obtained by using the location data signalled by the suspect's phone in order to be able to apprehend the suspect. The decision related to this matter shall consider the number of the mobile phone and the duration of the interception. The interception shall be conducted for a maximum of two months; this period may be extended for one month.

Finally, it should be noted that BTK is also entitled to decide on wiretapping and the processes as regards communication via telecommunication services pursuant to Decrees with the force of law issued in a state of emergency.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

BTK is authorised to intercept/wire-tap any type of communication including electronic and digital communication pursuant to the Decree with the force of Law No. 671 issued subject to a state of emergency.

Accordingly, BTK can order APA, telecommunication operators, ISPs and other market participants which provide hosting, access and/or other services to provide necessary information to respond to the demands and orders of BTK or subpoenas of the courts.

4.4 How does the state intercept communications for a particular individual?

The state can intercept communications pursuant to relevant legislation as explained under questions 4.2 and 4.3 above.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Coded and cryptographic communications are regulated under Article 39 of the Electronic Communication Law, dated 5 November 2008. According to Article 39, the Turkish Armed Forces, General Command of Gendarmerie, Coast Guard Command, National Intelligence Organisation, Security General Directorate and Ministry of Foreign Affairs are authorised to make cryptographic communications by radio communications systems. Procedures and principles for making coded and cryptographic communications in electronic communications services of other public institutions, natural and/or legal persons shall be determined by the Authority.

The Regulation on the Procedure and Principles of Coded and Cryptographic Communications among the Public Institutions and Natural or Legal Entities ("Regulation on Coded and Cryptographic Communications") entered into force on 23 November 2010. Providing encrypted telecommunications services is subject to the permission of BTK.

Pursuant to the amendment, dated 12 January 2018, of the Regulation on Coded and Cryptographic Communications, BTK keeps the codes or the encryption algorithms and their keys provided by the developers and encrypted device producers at its Critical Data Center, access to which is logged and physically monitored with closed circuit cameras.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

The Regulation on the Process and the Protection of Personal Data in the Telecommunication Sector ("Telecom Regulation"), which entered into force on 24 July 2012, regulates obligations of telecoms and infrastructure operators regarding data retention. In accordance with Article 13 of the Telecom Regulation, the following data categories have to be stored:

- the origin of telecommunications;
- the conclusion of communications;
- the date, time and duration of communications; and
- the character of communications.

The abovementioned data categories are kept for a term of one year from the date of communication and logs of failed calls are kept for a term of three months. In all cases, personal information and records regarding access to personal data and relevant systems shall be stored for four years. Operators shall not process traffic data for purposes beyond the scope of the service they offer. Likewise, location data shall only be processed in the event of *force majeure* stipulated in the Regulation and only for value-added services purposes.

In addition, the Law on Protection of Personal Data No. 6698 ("Law No. 6698") determines the principles which shall be complied with when processing personal data. Accordingly, data may only be retained for the period of time stipulated by the relevant legislation or for the purpose for which they are processed. Law No. 6698 and the Regulation should be considered together when determining the retention period.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The Turkish Broadcasting Law is the main legislation regulating television broadcasting services, on-demand media services, and commercial communication and radio broadcasting services. Other important regulations on broadcasting via cable networks or satellite are addressed in various different pieces of legislation, set separately by regulations based on the Turkish Broadcasting Law.

As explained under question 1.3, RTÜK is authorised to grant licences to media service providers that broadcast terrestrial, digital, satellite, cable and IPTV media in Turkey. Moreover, RTÜK supervises the radio and TV programmes broadcast by national and regional broadcasters and ensures their compliance with the applicable laws.

On 28 March 2018, Turkey enacted an amendment which introduces an additional article to the Turkish Broadcasting Law concerning the radio, television and on-demand broadcasts provided via the internet.

A Draft Regulation was disclosed for public opinion on 27 September 2018 on RTÜK's website. Relevant Draft Regulation will introduce procedures and principles in relation to obtaining a licence for the radio, television and on-demand broadcasting services via the internet. According to the Draft Regulation, individual communication services, platforms for services provided via the internet, and media service providers willing to broadcast their radio, television and on-demand broadcast services via the internet are obliged to obtain a broadcasting licence from RTÜK.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Media service providers and internet broadcast platform operators shall be subject to RTÜK's content regime and supervision.

Under the Turkish Broadcasting Law, media service providers are entitled to free determination of content and transmission. In other words, they shall not be subject to a prior intervention and the content of the media services shall not be supervised in advance. However, there are quite a few Decrees with the force of law issued within the scope of a state of emergency.

One of these is Decree Law No. 690 banning the following content from radio and TV broadcasting services: (i) dating shows; (ii) the sale, marketing and advertisement of any product claiming to be healthy in contradiction to the relevant legislation; (iii) the promotion of chat lines, dating sites and services; and (iv) radio and TV programmes that grant prizes or reward audience members through, *inter alia*, a contest, sweepstake or lottery that deceptively or unfairly uses fixed and mobile numbers subject to extra charges.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

Media service providers have to obtain separate licences from RTÜK for broadcasting on cable, satellite and terrestrial platforms. The licences specifically indicate the type of broadcasting technique and platform. Therefore, providers who wish to broadcast using different broadcasting techniques and from different platforms simultaneously have to obtain a separate licence for each broadcasting technique and platform. It shall be clearly indicated in the licence document which broadcasting technique and network the licence grants. The term of a broadcast licence is 10 years.

According to the Draft Regulation, which is explained under question 5.1, depending on the service type, media service providers may be provided with the following licences: (i) an INTERNET-RD licence for radio broadcasting via the internet; (ii) an INTERNET-TV licence for television broadcasting via the internet; and (iii) an INTERNET-IBYH licence for on-demand broadcasting via the internet.

The same company may obtain a licence for only one radio broadcasting service, one television broadcasting service and one on-demand media service.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Broadcasting licences are not assignable. However, a licence may be acquired as a result of an acquisition of a company with such a licence.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Law No. 5651 limits the responsibility of ISPs (Law No. 5651 uses the term "access providers") regarding unlawfully created content. Since access providers only provide access to such content, they are not obliged to monitor or approve such content to be lawful.

However, ISPs shall only comply with access restriction orders issued by the competent authorities.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

There are no obligations for telecommunications operators and ISPs to assist content owners whose rights may be infringed by customer activities.

However, access providers have to store traffic information of visitors for a term of one year, assist BTK in tracking internet traffic and provide any traffic information to BTK upon its request, as per Article 15/1 of the Regulation on the Principles and Procedures of Regulating the Publications on the Internet ("Regulation on Internet Publications"). In case of any infringement of a content owner's right, the content owner may apply to BTK to find out the identity of the infringing party by examining the traffic information stored and shared by access providers.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

There is no specific regulation or strategic action plan regarding the net neutrality requirement in Turkey.

However, Article 4(1)/j of the Electronic Communications Law specifies that competent authorities must establish "neutrality" in terms of the provision of electronic communication services and regulations made in this regard. It is not clear whether such provision refers to "net neutrality"; however, we believe that establishing neutrality in electronic communication services may serve the net neutrality concept.

In 2012, BTK issued an administrative fine against the Turkish internet service provider TTNET due to the latter blocking some websites including YouTube, Vimeo, Rapidshare, etc. on its network without any court or competent authority's decision. This decision by BTK can be regarded as in favour of net neutrality.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

As mentioned in question 6.1, ISPs are not obliged to make a self-assessment and block and/or limit access to websites containing unlawful content. However, if the court decides to block certain content, ISPs have to apply such decision by blocking access to the relevant content.

Law No. 5651 also contains a provision that enables the blocking of consumer VPN services. According to Article 6/6(ç), ISPs should also block alternative access services such as VPNs which make unlawful publications/contents accessible. So far, more than 20 VPN services including Tor Project, VPN Master, Zenmate VPN, TunnelBear have been blocked in Turkey. In addition to these VPN services, ISPs have also blocked access to ProtonMail, which provides encrypted e-mail services.

On 24 March 2018, the president of BTK made a public announcement on this issue, stating that BTK will continue to take necessary measures against VPN services in order to prevent illegal access via VPN services to unlawful content.

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Chapter 31

United Arab Emirates

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The UAE's telecommunications sector is currently served by two fully integrated telecommunications operators: Emirates Telecommunications Corporation (Etisalat) and Emirates Integrated Telecommunications Company (du). Etisalat and du provide multiple services across both fixed line and mobile networks.

In October 2015, the UAE Telecommunications Regulatory Authority ("**TRA**") announced fixed network sharing across the UAE, enabling both Etisalat and du to utilise fixed infrastructure and market services across all locations.

In January 2017, du acquired a licence from the Virgin Group to operate Virgin Mobile-branded services in the UAE. The licence term is for five years, granting du full rights to ownership, management and operation of the brand in the UAE.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

- Federal Law by Decree No. 3 of 2002 Regarding the Organisation of the Telecommunications Sector (as amended) (the "**UAE Telecommunications Law**").
- Decision of the Supreme Committee for the Supervision of the Telecommunications Sector No. (3) of 2004.
- Federal Decree Law No. 5 of 2012 on combatting Cybercrimes.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The regulator is the TRA. In addition, the National Media Council ("**NMC**") regulates the content of audio-visual media.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

As set out in the answer to question 1.1, the UAE's telecommunications sector is currently served by two fully integrated telecommunications operators: Etisalat and du.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

The United Arab Emirates has been a member of WTO since 10 April 1996.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The provision of telecoms networks is regulated by the TRA in accordance with the UAE Telecommunications Law.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The TRA regulates the telecommunications sector in the UAE and is also involved in cyber security, and hosts the UAE's Computer Emergency Response Team. Its main purpose is to develop sustainable competition in the UAE's telecommunications sector.

The UAE adopted a competition law framework in 2012 under Federal Law No. 4 of 2012 concerning the Regulation of Competition (the "**Competition Law**"); however, key regulations and instruments such as the executive regulations (Council of Ministers' Resolution No. 37 of 2014) and two relevant resolutions setting out core elements for determining anti-competitive practices,

such as market share thresholds, were not passed until 2014 and 2016 respectively, meaning that competition regulation in the UAE is still in its very early stages.

The Competition Law also provided for a Competition Regulation Committee (the "**Committee**") to be established to oversee general competition law policy in the UAE. Day-to-day enforcement of the Competition Law is the responsibility of the Ministry of Economy, acting through its Competition Department.

The telecommunications sector is currently excluded from the remit of the Competition Law. The TRA includes terms in the licences issued to operators requiring them not to participate in anti-competitive practices.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

To date, there have been no publicised cases of enforcement of the Competition Law, although we are aware that the Competition Department has been established.

The Competition Law stipulates that its provisions shall be enforced on all businesses in relation to their economic activities or the effect of their economic activities in the UAE (even where the conduct takes place outside of the UAE). It is, as yet, unclear how the courts will react to any jurisdictional disputes.

The telecommunications sector is currently specifically excluded from the remit of the Competition Law. The Telecoms Law stipulates that the TRA has the sole ability to issue regulations, instructions, decisions and rules regulating and ensuring competition in the telecommunications sector.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

The TRA is the statutory body that issues licences or licence exemptions in accordance with the Telecommunications Law.

According to the Telecommunications Law, any sale, provision or operation of a Telecommunication Service requires a Telecommunications Licence. In some cases, such services may be provided through an agreement with an existing UAE-licensed operator.

All licences are issued individually to judicial persons (entities) meeting the requirements of the Telecommunications Law and pursuant to a decision made by the TRA Board.

A licence can be categorised as either a "Class Licence" or an "Individual Licence". The two categories refer only to whether scarce resources are requested (spectrum/frequencies and/or numbers) and does not refer to an open class of available licences.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

An entity shall be eligible for a Class Licence if it is either:

- a company incorporated under the Commercial Companies Law (Federal Law No. 8 of 1984) and pursuant to Article 28 of the Federal Law by Decree No. 3 of 2003, Regarding the Organisation of the Telecommunications Sector and its amendments or any legal person approved by the Board of the Authority; or
- a company whose shareholding complies with the resolution in which the particular Regulated Activity has been approved to be licensed.

The TRA requires all applicants for Class Licences to provide it with relevant information. This includes information regarding: their management and shareholding structures; their business operations, including the type of networks and services they intend to provide; and funding sources for these business operations.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

An entity shall be eligible for an Individual Licence if it is either:

- a company incorporated under the Commercial Companies Law (Federal Law No. 8 of 1984) and pursuant to Article 28 of the Federal Law by Decree No. 3 of 2003, Regarding the Organisation of the Telecommunications Sector and its amendments or any legal person approved by the Board of the Authority; or
- a company whose shareholding complies with the resolution in which the particular Regulated Activity has been approved to be licensed.

The TRA requires all applicants for Individual Licences to provide it with relevant information. This includes information regarding: their management and shareholding structures; their business operations, including the type of networks and services they intend to provide; and funding sources for these business operations.

Individual Licences will be issued for services which require the usage of scarce resources of spectrum and numbers. Individual Licences will be issued for a period of 10 years.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

This answer is not available.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

This answer is not available.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

This answer is not available.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

This answer is not available.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

This answer is not available.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

This answer is not available.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

This answer is not available.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Yes. The TRA actively regulates consumer protection through a specific Consumer Protection Regulation.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The TRA licenses telephone numbers and network identifying codes to telecom operators who are licensed to provide telecommunication services in the UAE, i.e. Etisalat and du. Telephone numbers are regarded as part of a national resource which is administered by the TRA and therefore, no licensee shall be entitled to ownership of any number or numbers allocated to that licensee or to any customer of the licensee. Licensees shall not use any numbers other than those allocated by the TRA.

Initially, all allocations for the rights to use number resources will be made by the TRA to licensees, who will then assign the rights to use the individual numbers to its subscribers.

2.17 Are there any special rules which govern the use of telephone numbers?

If a licensee fails to use the allocated number resource within six months of the allocation, the TRA will withdraw the allocation. Similarly, if a licensee fails to achieve the utilisation level set by the TRA, the TRA may withdraw the allocation of the unused numbers. When the rights to use have been withdrawn, the TRA will not normally reallocate the rights to use of that numbering resource for a period of one month to minimise the risk to end users.

2.18 Are there any obligations requiring number portability?

Mobile number portability was announced in December 2013, and since this time, users have been able to switch between Etisalat and du whilst retaining the same number. The change was introduced to promote competition between the two providers.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The TRA is responsible for managing and regulating radio spectrum in the UAE.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

The TRA manages the allocation and assignment of all radio services in the UAE. The TRA manages a national frequencies database, which includes information related to the use of the frequency spectrum by UAE authorised users. The TRA allocates frequencies to all entities, governmental and non-governmental, civil or military, as well as individuals, in accordance with the National Spectrum Plan.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

No. Any use of the radio spectrum without authorisation from the TRA is prohibited. Temporary authorisations are available for periods of between one and 90 days.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The TRA sets the fees and manages the payment. To a large degree, this information is confidential.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

The authorised entity is required to follow the process set out in its authorisation. In the event that the authorised entity breaches the conditions of its authorisation, the TRA may suspend or revoke its authorisation. Prior to such revocation or suspension, the TRA will provide notification of the pending revocation or suspension and set out a stipulated period (set by the TRA in its discretion) for the authorised entity to remedy the breach.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Authorisation can only be transferred or assigned to a third party if (1) the authorisation issued by the TRA includes a provision for the transfer or assignment to a third party, and (2) the prior consent of the Board of Directors of the TRA approves the transfer or assignment. Any transfer that fails to satisfy these requirements is void.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

At a federal level, the main legal framework around cybersecurity is Federal Law No. 5 of 2012 (as amended by Federal Law No. 12/2016) concerning Combatting Information Technology Crimes (the "UAE Cybercrimes Law") and the UAE Penal Code.

The UAE Penal Code contains general provisions prohibiting crimes that will apply to cybercrime; for example, the misuse of confidential information and the Cybercrimes Law specifically targets those crimes involving computers, networks and electronic information.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Cabinet Resolution No. 21 of 2013 concerning Information Security Regulations in the Federal Authorities and Executive Council Resolution No. 13 of 2012 regarding Information Security in the Government of Dubai set out the establishment of a public prosecution body for the investigation of cybercrime.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Voice over internet protocol ("VoIP") services are considered a Regulated Activity and must be licensed by the TRA. However, the TRA has indicated that third parties may work with licensees such as Etisalat and du to legally provide VoIP services in the UAE. The TRA's position is that such restriction to local licensees is required to protect telecom customers, as the TRA can only intervene and assist with issues if the provider of such services is a licensee.

4.4 How does the state intercept communications for a particular individual?

This answer is not available.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

This answer is not available.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

This answer is not available.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The relevant legislation is Cabinet Resolution No. 23 of 2017 Concerning Media Content, which came into force in July 2017.

This sets a number of standards on all media content. These tend to reflect standards already contemplated by the UAE Penal Code, Cybercrimes Law and Press Law. The key distinction is that the cabinet resolution has ushered a media-specific regime that expressly applies these standards on a UAE federal level to both printed and digital content. Key provisions include: respecting Islamic and religious beliefs, cultural heritage, symbols and institutions; anything that harms national unity or security; and not causing harm to vulnerable members of society. The resolution also ensures protection of intellectual property rights and privacy of individuals.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

In accordance with the NMC Chairman's Decision No. 35 of 2013, all advertisements that are produced, placed or distributed within the UAE or imported into the UAE must abide by the national standards for media content set out in Federal Law No. 15 of 1980 Concerning the Press and Publications.

In regard to the internet and other platforms, the TRA implements the Internet Access Management ("**IAM**") policy in the UAE and co-ordinates with the NMC, Etisalat and du to implement the IAM policy.

The same regulation of content applies across all platforms and, in the UAE, OTT providers must comply by the same standards; any content which is contrary to such standards is prohibited.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

Applications for a media licence are required for audio-visual works and are to be filed with the NMC. A licence from the NMC is required for any entity that carries out media activities related to the production, transmission, distribution and transmission of printed, digital, audio and visual information through the media, both in print and online.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

This is dependent upon any restrictions set out in the licence agreement. To the extent that assignment to a third party is not expressly provided for in the licence agreement, such action will be prohibited.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

This answer is not available.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

This answer is not available.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

There are no specific regulations requiring net neutrality in the UAE. Bandwidth throttling by ISPs is quite common in the UAE, and network traffic that relates to VoIP services are sometimes blocked or can have its capacity reduced.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Content is regulated by the TRA and access to websites and webpages that contain prohibited content is blocked by the TRA.

The TRA defines prohibited content as "any content that offends against, is objectionable to, or is contrary to the public interest, public morality, public order, public and national security, Islam morality or is otherwise prohibited by any applicable UAE law, regulation, procedure, order or requirement". Examples of prohibited content include, but are not limited to:

- Internet content that allows users to have access to prohibited content including proxy servers and VPNs.
- Pornography and nudity content.
- Impersonation, fraud and phishing.
- Insult, slander and defamation.
- Invasion of privacy.
- Offences against the UAE and public order.
- Drugs.
- Infringement of intellectual property rights.
- Discrimination.
- Racism and contempt of religion.
- Gambling.
- Terrorism.

The use of VPNs is governed by the UAE Cybercrimes Law. Whilst the use of VPNs for legitimate purposes is permitted in the UAE, it is a criminal offence to use a fraudulent VPN address by using a false or third-party address or to commit any crime or preventing its discovery.

The TRA has clarified that companies, institutions and banks are free to lawfully use VPNs to gain access to internal networks via the internet. However, a business can still be held accountable for misuse of its VPN.

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Robert is a technology and communications sector specialist with over 10 years of international experience supporting the delivery of private and public sector technology and communications projects.

Since relocating to the Middle East in 2011, Robert has been engaged on numerous projects, including mobile network procurements and rollouts, managed services outsourcing for mobile operators, business process outsourcings and tower sale and lease-back initiatives. Most recently, Robert spent time on secondment working with one of the largest mobile, telecoms and media services providers in the UAE, as a key part of their technology and procurement legal team. Robert is a regular participant at industry events and enjoys sharing trends, experiences and best practices with participants in MENA's vibrant and ever-changing telecoms industry.

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Chapter 32

United Kingdom

Arnold & Porter

Rob Bratby

1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

The UK has open and competitive telecoms, internet and broadcasting markets. The Office of Communications' ("Ofcom") '2018 Communications Market Report' reported a total UK communications revenue of £54.7bn in 2017, of which £35.6bn was attributable to telecoms (including internet) and £13.6bn to TV with the balance accounted for by radio and post.

Key participants in the UK market include:

- the ex-incumbent **BT plc**, which in addition to its position in the fixed and broadband markets, competes in the mobile market through its mobile subsidiary **EE** and has entered the pay-TV market;
- national cable TV infrastructure operator **Virgin Media**, which offers mobile telephony through an MVNO in addition to bundled cable TV, broadband and fixed telephony services;
- satellite broadcaster **Sky**, which now also provides broadband, fixed and mobile services;
- 'infrastructure-light' bundled service provider **Talk Talk**;
- 'mainly mobile' (but with bundled offers) **Vodafone**, **O2** and **Three** mobile infrastructure operators;
- the licence-fee funded **BBC** which competes with state-owned but ad-funded **Channel 4** and privately-owned **ITV** and **Channel 5** as public service broadcasters, as well as a wider variety of other broadcast channels; and
- over-the-top providers of both content (such as **Netflix** and **Amazon Prime**) and services (such as **WhatsApp**) as well as internet companies including **Google**, **Apple** and **Facebook**.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms and internet

- Communications Act 2003 ("CA 2003").
- Wireless Telegraphy Act 2006.
- Electronic Communications and Wireless Telegraphy Regulations 2011.
- Digital Economy Act 2017 ("DEA 2017").
- Regulation of Investigatory Powers Act 2000 ("RIPA").
- Investigatory Powers Act 2016 ("IPA").
- Telecommunications (Lawful Business Practices (Interception of Communications)) Regulations 2000.
- General Data Protection Regulation.
- Data Protection Act 2018.
- Privacy and Electronic Communications (EC Directive) Regulations 2003 as amended in 2011.
- Radio Equipment and Telecommunications Terminal Equipment Regulations 2000.
- Network and Information Systems Regulations 2018.

(b) Audio-visual media distribution

- Broadcasting Act 1990.
- Broadcasting Act 1996.
- CA 2003.
- Wireless Telegraphy Act 2006.
- Digital Economy Act 2010.
- Digital Economy Act 2017.
- The Audiovisual Media Services Directive 2010/13/EU.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

(a) Telecoms and internet

- The UK Government Department for Culture, Media and Sport.
- Ofcom.
- The Competition and Markets Authority ("CMA").
- The Competition Appeal Tribunal ("CAT").
- Phone-paid Services Authority.
- The Information Commissioner.
- Nominet.

(b) Audio-visual media distribution

- The UK Government Department for Culture, Media and Sport.
- Ofcom.
- The Advertising Standards Authority (self-regulatory body for advertising).

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

(a) Telecoms and internet

(i) Yes.

(ii) Yes.

(b) Audio-visual media distribution

(i) Yes.

(ii) Yes.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

The UK has been a WTO member since 1 January 1995. It made commitments under the GATS/GATT in relation to the telecommunications market and has adopted the WTO basic telecommunications agreement. The UK has also adopted and implemented the telecoms reference paper, which it jointly sponsored alongside the US in the Uruguay round of WTO negotiations.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The provision of electronic communications networks and services and the use of radio spectrum are regulated by Ofcom.

In particular, Ofcom is responsible for:

- setting and enforcing the General Conditions of Entitlement ("General Conditions");
- undertaking market reviews, setting and enforcing SMP conditions (e.g. access and interconnection);
- setting universal service obligations in accordance with the Secretary of State's specification of services;
- setting consumer protection requirements and dealing with complaints;
- managing numbering;
- issuing and enforcing spectrum licences;
- regulating conditional access and electronic programme guides; and
- resolving disputes.

The day-to-day obligations imposed on electronic communications network and service providers ("Communications Providers") are set out in the General Conditions. These were substantially revised on 1 October 2018. Additional obligations apply to operators with significant market power ("SMP"), and designated universal service providers.

Ofcom also has concurrent jurisdiction with the CMA to enforce competition law in respect of electronic communications matters.

The Phone-paid Services Authority regulates the content and marketing of premium rate services, including directory enquiry services.

The Information Commissioner is responsible for data protection and freedom of information matters.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

Ofcom is the UK's national regulatory authority for communications, and regulates telecoms, the use of radio spectrum, the TV and radio sectors and post. Ofcom is independent from the Government.

The CMA is the UK's consumer and competition authority (though Ofcom also has concurrent powers to apply and enforce competition law in the telecoms sector). The CMA is a non-ministerial government department independent from the Government.

Rules are in place to co-ordinate the regulators' exercise of concurrent competition law jurisdiction under the Competition Act 1998 and the Competition Act 1998 (Concurrency Regulations) 2014. These rules are primarily designed to ensure that only one competent authority may launch a formal Competition Act investigation into the same conduct. Further, information on the operation of concurrency procedures is provided in the CMA's first 'Annual Report on Concurrency', published in April 2015.

Agreements or conduct relating to the sector covered by a concurrent regulator will generally be dealt with by that regulator.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Yes, Ofcom's decisions can be appealed.

Non-price control matters are appealed to the CAT, and price control matters to the CMA.

Since 31 July 2017, appeals are reviewed on a 'judicial review' basis rather than an 'on their merits' basis. This change has made it significantly harder to appeal Ofcom's decisions.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

No licence or other authorisation is required to install or operate electronic communications networks or services unless the use of radio frequency spectrum is involved or the communications require powers to access public or private land.

In order to use radio frequency spectrum, a Communications Provider must have a licence under the WTA, although Ofcom also has the power to authorise spectrum use on a class licence or a licence-exempt basis.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

Ofcom significantly revised the UK's General Conditions of entitlement with the changes taking effect on 1 October 2018. The new General Conditions are split into three sections, summarised below:

Part A – Network functioning conditions

- General network access and interconnection obligations.
- Standards and specifications.
- Availability of Services and access to emergency services.
- Emergency planning.
- "Must Carry" obligations.

Part B – Numbering and technical conditions

- Allocation, adoption and use of telephone numbers.
- Directory information.
- Number portability.
- Access to numbers and services.

Part C – Consumer protection conditions

- Contract requirements.
- Information publication and transparency requirements.
- Billing requirements.
- Complaints handling and dispute resolution.
- Measures to meet the needs of vulnerable consumers and end-users with disabilities.
- Calling line identification facilities.
- Switching.
- Sales and marketing of mobile communications.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

For many activities, individual licences are not required, so the question does not arise.

Whilst there are no hard and fast rules concerning the duration of spectrum licences, typically they are granted for an initial fixed period, with an option to renew on payment of additional licence fees. Where applicable regulations have been passed, the licences may be traded or transferred.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

The DEA 2017 significantly updated and improved the UK's regime enabling access to land – so-called "Code Powers" – from December 2017. The new scheme enables providers of electronic communications networks to construct infrastructure on public land (streets), and to take rights over private land, either with the agreement of the land owner or by applying to court.

In addition, there are also certain exceptions to planning legislation available to Communications Providers. For example, under planning regulations (e.g. the Town & Country Planning (General Permitted Development) (England) Order 2015, as amended), land may be developed by Communications Providers to whom the Code applies for the purposes of their networks, in particular the installation, alteration or replacement of apparatus.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

General Condition A1 requires all Communications Providers to negotiate interconnection on request.

Various SMP conditions also require various UK Communications Providers (most notably BT and, for call termination, mobile operators) to provide various interconnection and/or access services and to publish the reference terms and conditions.

Disputes between different Communications Providers concerning network access and the relevant terms and conditions for such access may be referred to Ofcom for resolution. Ofcom must, other than in exceptional circumstances, make a binding determination resolving the dispute within four months of the date of its decision to handle the dispute, although this timescale is often missed in practice.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Following market reviews, publication obligations have been imposed on Communications Providers including BT for various products, and on Everything Everywhere, T-Mobile and Vodafone for voice call termination.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Interconnection and network access is subject to price regulation in a number of different markets. In general, where wholesale pricing obligations have been imposed, prices are required to be based on forward-looking long-run incremental costs plus a mark-up for common costs including return on capital employed. In certain markets RPI-X price caps have been imposed. A pure LRIC basis is used for setting mobile termination rates.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

(a) Both BT and KCom are subject to accounting separation requirements pursuant to their SMP obligations on certain markets, including cost accounting rules and accounting separation obligations.

(b) In 2005, BT gave Undertakings to Ofcom in order to avoid a reference to the former Competition Commission under the Enterprise Act 2002. Among these obligations was an Undertaking to set up Openreach as a functionally separate business unit of BT to operate BT's local access network.

(c) Following a review by Ofcom, in 2017 BT offered new Undertakings to Ofcom which will replace the 2005 Undertakings when implemented. These include establishing Openreach Limited as a wholly-owned, but legally separate, subsidiary of BT plc, with independent responsibility for the strategy, management and operation of Openreach and the employment of 32,000 employees; Openreach to have a majority independent board; and Openreach having duties to treat all customers equally. The Undertakings also require Openreach control over assets and customer data confidentiality walls.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

BT is the only operator with regulatory obligations to provide access to its high-speed broadband networks, and there are no access obligations imposed on the national cable TV operator Virgin Media, or other fibre network infrastructure operators.

BT is obliged to provide access to its passive infrastructure, copper networks and a "virtual unbundled local access" product on its next generation network.

Some (but not all) of BT's high-speed access products are subject to price regulation.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Mobile operators are subject to the EU-level Mobile Roaming Regulation (Regulation 531/2012), which imposes caps on wholesale and retail charges for mobile calls, SMS and data services while roaming between EU Member States.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

Part C of the General Conditions includes a number of consumer protection obligations and requirements which apply over and above general consumer protection law.

In addition, there are Universal Service obligations on BT.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and network identifying codes are allocated and managed by Ofcom.

2.17 Are there any special rules which govern the use of telephone numbers?

Communications Providers are required by General Condition B1 (Allocation, adoption and use of telephone numbers) to comply with the National Telephone Numbering Plan. Numbers are allocated for specific uses, e.g. geographic, mobile, etc., and may be granted for a limited period of time.

In addition, the services offered behind particular number ranges may be subject to regulation by the Phone-paid Services Authority, for example, premium rate or 09 numbers, 08 and directory enquiry services and premium rate SMS.

Communications Providers are required to unbundle charges for calls made to non-geographic numbers, such as 0845 or 03 numbers.

2.18 Are there any obligations requiring number portability?

All Communications Providers are required by General Condition B3 (Number portability) to facilitate the porting of numbers, including mobile numbers. This means that numbers must be ported on a customer's request, subject to a reasonableness requirement, and Communications Providers must enter into porting arrangements when requested by another operator. Porting must take place within one business day. The cross-industry porting procedure has been defined in detail.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

Ofcom regulates spectrum use.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Spectrum use may be authorised on the basis of individual licences, class licences or licence-exempt use. In general, Ofcom will use auctions to allocate scarce spectrum.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

Yes, pursuant to the Wireless Telegraphy (Exemption) Regulations 2003, as amended.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

For commercially exploitable wireless telegraphy licences, fees will normally be payable, either pursuant to prices bid at auction or under administrative incentive pricing ("AIP") set under specific regulations according to the type of service involved. AIP seeks to set fees to mimic the market value of the spectrum.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

If the legal entity that has the benefit of the spectrum licence does not change, the change of control would not usually result in a change to the spectrum licence. However, in a certain spectrum (notably that used for mobile services), a competition assessment may be triggered.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Yes. The regime for controlling the trading and leasing of spectrum licences is set out in the WTA and the Wireless Telegraphy (Spectrum Trading) Regulations 2012 ("Trading Regulations") which, from 13 September 2012, replaced and revoked the earlier trading regulations. Ofcom's consent is no longer needed for most spectrum trades.

The Trading Regulations allow spectrum licence holders in certain classes to transfer all of their licence rights and obligations.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

The Computer Misuse Act 1990 specifies various hacking offences and the Official Secrets Act 1989 deals with national security.

Each of the Communications Act 2003, the General Data Protection Regulation, the Data Protection Act 2018 and the Privacy and Electronic Communications (EC Directive) Regulations 2003 (SI 2003/2426) contain obligations on Communications Providers (and others) to take appropriate technical and organisational security measures.

The Network and Information Security Regulations 2018 implement the EU Network and Information Security Direction in the UK and impose obligations on operators of essential services in the digital information sector, including top-level domain name registries, domain name system service providers and internet exchange operators that meet certain thresholds.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

RIPA and the IPA govern interception of the content of communications and acquisition of data associated with that communication. Both RIPA and the IPA set out the requirements and process for access to private communications by the state and provide an oversight mechanism.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

The Government can require a Communications Provider to maintain intercept capacity by issuing a specified notice, preceded by consultation.

RIPA sections 12–14 and the Regulation of Investigatory Powers (Maintenance of Interception Capability) Order 2002 set out the framework. Traditional telephone calls, VoIP calls, emails and other forms of electronic communication are all within the scope of interception capability.

4.4 How does the state intercept communications for a particular individual?

Under both RIPA and the IPA, a warrant is required to intercept communications.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Under RIPA, the Government has the power to serve a notice: to require disclosure of protected information in an intelligible form; to require disclosure of the means to access protected information; and to require disclosure of the means of putting protected information into an intelligible form.

Notice to disclose encryption keys may only be served where necessary for: national security; preventing or detecting serious crime; safeguarding the economic wellbeing of the UK; or "effective exercise or proper performance" by a public authority of statutory powers or duties.

Necessity and proportionality tests must be met.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Under the IPA, operators may be required to retain communications data which may be used to identify, or assist in identifying, any of the following:

(a) the sender or recipient of a communication (whether or not a person);

(b) the time or duration of a communication;

(c) the type, method or pattern, or fact, of a communication;

(d) the telecommunications system (or any part of it) from, to or through which, or by means of which, a communication is or may be transmitted; or

(e) the location of any such system, and this expression therefore includes, in particular, internet connection records.

Operators may be required to retain data for a maximum of 12 months.

The law relating to data retention is contentious and subject to ongoing challenges, notably at the ECJ.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Broadcasters of linear and non-linear content are regulated differently (see question 5.2 below). The provision of the infrastructure over which content is delivered is regulated under the telecommunications regulation regime described above.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

- Linear content, whether delivered over the internet or via traditional distribution platforms, is regulated under a licensing regime administered by Ofcom.
- All UK linear TV channels require a licence (see question 5.3 below).
- Since 2009, pursuant to the AVMS Directive, UK-based non-linear services have been subject to a set of minimum standards overseen by Ofcom in respect of editorial and administrative regulation. Ofcom has designated the Advertising Standards Authority as the co-regulator for advertising content on non-linear services.
- Non-linear services do not require a licence, but there is a compulsory pre-notification requirement to Ofcom before making such 'on-demand' services available.
- There is an additional layer of obligations (and benefits) applying to the public service broadcasters ("PSBs") in the UK, which include BBC, ITV, Channel 4, Channel 5 and S4C. The PSBs are under an obligation to make their core channels available to major platforms; however, this does not apply to on-demand services. In addition, there are "Must Carry" obligations on platforms to carry PSB linear channels, which do not apply to on-demand content.
- Broadcasters of linear content are subject to the Broadcasting Committee on Advertising Practice (BCAP) Code, whereas non-linear content falls under the remit of the General Committee on Advertising Practice (CAP) Code. As a result, non-linear content providers are not subject to certain rules, such as those regarding the watershed.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

The BBC operates pursuant to a *sui generis* Royal Charter.

Aside from the BBC, the key licence types are as follows:

- DRL – licence in force for public service broadcasters as the successor to the analogue broadcast licence.
- DPSL – digital programme service licence; for services distributed via UK digital terrestrial television.
- TLCS licence – for linear services distributed via other platforms for reception by members of the public.

DRL licences contain certain public service obligations regarding the types of programming to be broadcast, but beyond these, all licence types contain broadly similar obligations to comply with:

- Ofcom programming standards (including standards of taste and decency, protection of minors and editorial integrity);
- advertising standards (including truth and accuracy in advertising, control over the timing and scheduling of advertisements); and
- minimum requirements for European content and content from independent producers.

For PSB licences, there are limits on the rights which may be acquired under a commissioning arrangement with an independent producer.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Licences are assignable with the prior approval of Ofcom and are subject to the payment of a small fee to Ofcom (currently £1,000). Other than in respect of the public service broadcasting licences, Ofcom will only decline to approve a licence assignment where the assignee would have been ineligible to apply for the licence in the first place or is not a "fit and proper" person to hold a licence.

There are no restrictions on change of control in Ofcom licences, although any company that acquires control of an Ofcom licensee is required to be a "fit and proper" person and to not belong to the category of entities ineligible to hold an Ofcom licence (political and religious bodies, local government authorities and advertising agents and those "connected" with them, as well as those convicted of certain "pirate broadcaster" offences). Notification must be given to Ofcom within 30 days after any change of control takes place.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Under the Electronic Commerce Regulations 2002, provided that a service provider acting as an ISP, network operator or web host complies with the Regulations, it will generally not be liable for any material where it:

- acts as a mere conduit;
- caches the material; or
- hosts the material.

Where a service consists of either transmitting in a communication network of information which has been provided by a recipient of the service (e.g. an ISP transmitting a customer's email) or where the service consists of the providing access to a particular communication network (for example, an ISP), then the service provider will not be liable for damages, any other financial remedy or any criminal sanction if:

- it did not initiate the transmission;
- it did not select the receiver of the transmission; and
- it did not select or modify the information in the transmission.

There is no general obligation on service providers to monitor content, but once a service provider gains "actual knowledge" of any unlawful material or the removal from its original source of any cached material, it must act "expeditiously" to ensure that such material is taken down. This has been construed relatively restrictively, meaning that if a service provider has taken on any editorial role, it cannot rely on this defence.

Section 1 of the Defamation Act 1996 also provides for a defence for a service provider which has published a defamatory statement where it: (a) is not the author, editor or publisher of the material; (b) takes reasonable care in relation to the publication; and (c) does not know or has no reason to believe that what it did caused or contributed to the publication of a defamatory statement. The leading case of *Godfrey v Demon Internet* established that it is not necessary for an ISP to remove defamatory material instantly on notification, but that this must be done within a reasonable time (in this case a delay of 10 days defeated the defence).

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Under the voluntary scheme, Creative Content UK, large ISPs have agreed to collaborate with content owners in a process where infringers are notified and warned of their conduct. In addition, ISPs must provide a list of infringers to the relevant content provider.

Injunctions are available from the UK courts to allow content owners to force ISPs to block access to copyright infringing websites or streaming servers.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Subject to general competition law, Communication Providers are able to differentially charge. However, Communications Providers with SMP (including BT) may be subject to undue discrimination rules.

The Connected Continent Regulation (EU) 2015/2120 sets out high-level rules in relation to net neutrality and BEREC has issued guidelines on its application.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

There are no general obligations to block access.

However, UK copyright law contains a process, under section 97A of the Copyright, Designs and Patents Act 1988, under which content owners have successfully sought injunctions against specific ISPs in connection with sites which are known to be consistent infringers of

IP. Such orders have to date been made requiring most of the major ISPs to block content from, e.g., Pirate Bay, Newzbin and a number of other services which offer peer-to-peer or live streaming services.

The Internet Watch Foundation is a voluntary organisation which helps operators and ISPs identify and block access to certain illegal content.

Whilst there is no regulation of consumer VPN services in the UK, streaming services based in the UK have started to introduce measures to prevent users from using VPN to bypass geoblocking.

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Chapter 33

USA

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Telecommunications is the largest communications sector in the United States, with a total revenue of over $600 billion. AT&T and Verizon are the largest and most diversified telecommunications companies in the United States. Each provides to residential and business customers local, long-distance, and international voice and data services, wireless services, broadband and Internet access, and multichannel video programming. Although wireline services continue to experience contraction, the rapid growth of wireless services, and in particular wireless data services, have ensured that the aggregate telecommunications sector continues to grow. The telecommunications sector is not subject to significant regulatory barriers to entry and generally is open to foreign investment.

Wireline providers generated nearly $86 billion in revenue from Internet access services in 2016. Comcast, the largest Internet access provider, reported over 26.5 million broadband subscribers, while AT&T claimed 14.5 million. Charter Communications serves approximately 23.1 million, and Verizon around 6.9 million.

The wireless telecommunications subsector has a total revenue of over $260 billion. One industry report estimates that there are now more than 400 million wireless connections in the United States, equal to 1.2 wireless devices for every person in the country. According to the most recent report on wireless competition issued by the Federal Communications Commission (FCC), the largest wireless carriers are Verizon Wireless (145.9 million connections), AT&T (134.9 million), T-Mobile USA (71.4 million), and Sprint (59.5 million). In 2018, T-Mobile and Sprint proposed to merge. These figures represent 2016 data, the most recent data then available to the FCC. The FCC's report is available at https://docs.fcc.gov/public/attachments/FCC-17-126A1.pdf.

The audio-visual media distribution sector includes traditional multichannel video programming distributors (MVPDs), such as cable and telephone companies, broadcast television stations, and online video distributors. The sector generated around $138.4 billion in revenue in 2016. AT&T is the largest provider in this sector (over 25.4 million subscribers, which includes subscribers of its satellite television subsidiary DirecTV), followed by Comcast (22.1 million subscribers) and Charter Communications (16.2 million subscribers). MVPDs must obtain authority to provide service, most notably from local or state franchising authorities. There are no significant barriers to foreign investment for cable operators. For satellite, broadcast TV, and radio companies, special regulatory requirements apply for foreign entities seeking a greater than 25% interest. In early 2017, the FCC loosened its policy under which broadcast TV and radio companies could not be more than 25% foreign-owned.

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Communications Act of 1934, as amended (Communications Act), codified as Title 47 of the U.S. Code, is the primary statute governing regulation of the telecommunications and media industries, including governance of the FCC, an independent (*i.e.*, non-executive) federal agency. Most new telecommunications and media laws are adopted by Congress as amendments to the Communications Act, including the Cable Act of 1992 and the Telecommunications Act of 1996.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

Traditional intrastate wireline telecommunications providers primarily are regulated by a public utility commission (PUC) in each state, and some PUCs also lightly regulate wireless companies and/or interconnected Voice Over Internet Protocol (VoIP) providers. Cable operators are licensed and regulated by local or state-level cable franchising authorities.

In addition to any state or local regulation, interstate telecommunications providers, wireless companies, interconnected VoIP providers, Internet service providers (ISPs, which may be telephone companies, cable companies, or other types of providers), radio and TV broadcasters, cable providers, and satellite companies primarily are regulated by the FCC. The FCC is an independent agency that is directed by five Commissioners who are appointed by the U.S. President and confirmed by the Senate. No more than three of the Commissioners can be from the same political party, and one of the Commissioners of the majority party is appointed by the President to serve as Chairman.

Federal government use of radio spectrum is supervised and coordinated by the National Telecommunications and Information Administration (NTIA), an executive branch agency within the

Department of Commerce. The head of the NTIA, the NTIA Administrator, is nominated by the U.S. President and approved by the Senate.

In addition, the Federal Trade Commission (FTC), another independent agency, has jurisdiction over certain consumer protection laws that are applicable to telecommunications, media, and internet companies. In addition to FCC review, the FTC and the Department of Justice (DOJ) have authority to review proposed mergers and acquisitions of such entities under the antitrust laws.

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Pursuant to Section 310(b) of the Communications Act, common carrier wireless licensees and radio and television broadcast licensees may have direct foreign ownership of no more than 20% and indirect foreign ownership of no more 25% without prior FCC approval, which generally is granted upon application. In addition, pursuant to Section 310(a), common carrier wireless licences and radio and television broadcast licences may not be directly held by a foreign government or its representatives. Non-common carrier wireless licensees, wireline providers (including Internet access providers), television cable companies, and most satellite licensees are not subject to statutory foreign ownership caps.

Notwithstanding the foregoing, if a transfer of control, assignment, or common carrier wireline application filed with the FCC proposes a 10% or greater direct or indirect foreign owner, the FCC generally submits the application to Team Telecom for review of any law enforcement or national security concerns raised by such foreign ownership. Team Telecom is an *ad hoc* interagency working group comprised of members of the Departments of Justice, Defense, and Homeland Security. Team Telecom conducts an independent review of the proposed foreign ownership, and the FCC will not approve the underlying application until Team Telecom completes its review. Team Telecom often will require the parties to such a transaction to enter into a national security agreement with the Department of Justice to mitigate any concerns raised by the transaction.

In addition, the Committee on Foreign Investment in the United States (CFIUS), which is an interagency committee led by the Department of Treasury and authorised by the 1988 Exon-Florio Amendment, reviews whether certain foreign investments in U.S. businesses pose risks to national security. CFIUS may impose conditions on a transaction or refer the transaction to the President, who may block the foreign investment. The scope of CFIUS's authority and the types of transactions subject to mandatory CFIUS review were significantly expanded by the Foreign Investment Risk Review Modernization Act of 2018, which was adopted into law in August 2018.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

The United States has been a WTO member since the WTO's inception. The United States has undertaken specific commitments under the GATS to provide market access and national treatment for a broad range of telecommunications services, with certain limited exceptions, as well as additional commitments to the procompetitive regulatory principles set forth in the "Reference Paper". The United States implemented these commitments through two companion orders issued by the FCC in November 1997. These orders collectively established a framework for facilitating entry into the U.S. market by foreign (or foreign-licensed) entities for the provision of telecommunications services.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

The regulatory framework applicable to communications networks and services varies greatly depending on the technology utilised by the service provider, the type of service, and the regulatory classification of the provider. Historically, wireline common carriers have been subject to the highest level of regulation, although the trend primarily is deregulatory. Nevertheless, incumbent local exchange carriers (ILECs), which enjoyed local monopoly status prior to the deregulation of local markets, remain highly regulated at the federal and state levels. Competitive carriers are subject to lighter regulatory requirements at the federal level and varying degrees of regulation by the individual states.

Wireless carriers are primarily regulated by the FCC. The states are precluded from regulating the entry of, or rates charged by, wireless carriers, although they frequently impose consumer protection requirements on wireless carriers.

VoIP providers are subject to substantially less regulation than traditional wireline carriers. However, federal regulation of VoIP providers has increased as they have gained market share. In addition, although state regulation of VoIP providers was initially largely preempted by the FCC, the FCC has recently been permitting increased state regulation.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The FCC has broad "public interest" authority to regulate the telecommunications marketplaces. The DOJ and the FTC hold more limited jurisdiction over antitrust, competition, and consumer protection issues, and, in addition to the FCC, one of these entities typically reviews larger mergers and acquisitions of telecommunications carriers to determine whether the effect of a proposed transaction would substantially lessen competition. The FTC also can exercise continued oversight over various participants in the communications marketplace. Finally, state PUCs play a significant role in regulating intrastate telecommunications, including the review of mergers of intrastate providers.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

FCC staff-level decisions may be appealed to the FCC Commissioners, and decisions of the FCC Commissioners may be appealed to the federal courts. The U.S. courts of appeals have exclusive jurisdiction to enjoin, set aside, suspend, or determine the validity of final orders and decisions of the FCC. Generally, parties that appeal FCC decisions assert that the decisions are arbitrary and capricious under the standards set forth in the Administrative Procedures Act, are inconsistent with underlying federal statutes or outside the FCC's statutory authority, or are contrary to the U.S. Constitution.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

U.S. telecommunications service providers may be required to obtain regulatory authorisations depending on the nature of the services that they provide. Carriers providing only domestic interstate services generally need not seek an individualised authorisation. To provide international common carrier services, U.S. carriers must apply for and receive individualised authorisations under the Communications Act. The authorisations required to provide local exchange and intrastate long-distance services are established by state PUCs and vary by state.

Parties seeking to use radio spectrum to provide service are generally required to obtain a radio spectrum licence from the FCC, and most such licences are awarded by auction. However, no licence is required for the use of certain "unlicensed" spectrum bands.

VoIP providers generally are not required to seek federal authorisation to provide service, although they are required to seek federal permission to discontinue service. In other respects, FCC regulation of interconnected VoIP services has increased. In addition, some states require VoIP providers to register as local exchange carriers (LECs) in order to offer interconnected VoIP services to the public, and some VoIP providers elect to obtain state authorisations in light of particular regulatory considerations.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The United States does not issue a general telecommunications authorisation. Instead, specific state and federal authorisations are required to be obtained to provide certain types of telecommunications. (See questions 2.5 and 2.7.)

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

Radio spectrum licences are issued by the FCC to cover particular radio spectrum frequencies and geographic areas. Although their term varies depending on the type of licence, many last for eight to 10 years and are subject to a renewal expectancy. Satellite authorisations (covering spectrum access and launch and operation of satellites) are granted by the FCC for a period of 15 years and also, generally, are subject to a renewal expectancy.

The transfer of the foregoing authorisations is generally permitted upon the prior approval of the FCC and/or the relevant state PUC, and the process for securing these approvals varies significantly depending on the type of licence and the type of transfer. (See question 3.5.) Certain transfers of simple wireless licences are subject to immediate approval, while approval of large wireless transactions can take six months or considerably longer if opposed. For wireless licences, the FCC permits carriers to engage in the secondary market, with opportunities to sublease, partition, or disaggregate spectrum.

Intrastate wireline services generally are licensed by individual state PUCs, and the rules for obtaining such licences, as well as the rules to which the licensees are subject, vary widely among the states. Interstate wireline services generally fall under a blanket licence issued by the FCC that does not expire. Individual Section 214 licences are issued by the FCC to providers of international services and also do not expire.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

The ability to site telecommunications facilities historically has been governed primarily by state and local land use law. Today, the Communications Act largely preserves state and local authority over the siting of telecommunications facilities, but sets limitations on that authority. Specifically, state and local governments may not unreasonably discriminate among providers of functionally equivalent services, or adopt regulations that have the effect of prohibiting the provision of service. They must also act on siting requests within a reasonable period of time.

Pursuant to the Communications Act, the FCC has undertaken several efforts aimed at expediting siting timeframes and streamlining the deployment of services. It has initiated several recent rulemakings, and its efforts to streamline the siting processes are ongoing. Congress and inter-agency working groups also have ongoing efforts to streamline the siting of infrastructure, including such siting on federal lands.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

All telecommunications carriers are required to interconnect with each other, either directly or through other carriers' facilities. The Communications Act places more stringent requirements on ILECs, which must provide interconnection to other carriers at any technically feasible point on their network and at regulated rates. ILECs also are required to offer other carriers access to network elements on an unbundled basis at cost-based rates, although the FCC has discretion to refrain from applying this requirement in markets deemed to be competitive. Disputes regarding interconnection are resolved at the state level by the PUC, whose decision is then reviewable in the relevant federal district court.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

State PUCs must approve interconnection agreements entered into by ILECs and certain other carriers. These agreements must be made publicly available, and other similarly situated carriers have the right to "opt in" to any current interconnection agreement.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Historically, charges for the exchange of telecommunications traffic have varied based on the type of traffic (*e.g.*, local or long-distance, intrastate or interstate) and the types of carriers involved (*e.g.*, wireline or wireless). LECs are permitted to charge certain carriers regulated rates for traffic originated and terminated on local exchange networks. State PUCs establish the rates associated with the origination and termination of local and intrastate traffic, and the

FCC establishes the rates associated with interstate traffic. Wireless carriers lack the ability to require long-distance carriers to pay them for the origination and termination of traffic on their networks, and thus most such traffic is settled pursuant to privately negotiated agreements.

The FCC is transitioning, on a phased-in basis ending in 2020, to a "bill and keep" framework, pursuant to which all carriers will recover their costs directly from their customers rather than from other carriers.

In addition, ILECs are required to provide interconnection and network access to other carriers at rates, terms, and conditions that are just, reasonable, and non-discriminatory. ILECs are also required to offer other carriers access to network elements on an unbundled basis at cost-based rates, although the FCC has discretion to refrain from applying this requirement in markets deemed to be competitive.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Due at least in part to existing and expired regulatory requirements, the Bell Operating Companies (BOCs) often utilise separate business entities for the provision of different services, with such separations maintained through a combination of structural, transactional, and accounting safeguards. In addition, other ILECs subject to rate regulation are also subject to accounting rules to allocate costs between local, intrastate, and interstate services, and thereby enable the relevant regulatory authorities to establish just, reasonable, and non-discriminatory rates.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

Broadband facilities generally are not required to be unbundled. Although the FCC in 2015 ruled that broadband providers would be regulated like public utilities, the agency more recently reversed itself and eliminated most of the rules, except for requirements governing the disclosure of ISPs' network management practices. (See question 6.3.) The FCC also has established notice and other requirements relating to copper retirement, in order to facilitate carriers' transition from legacy technologies to next-generation networks that use Internet Protocol-based technologies.

One of the FCC's primary objectives has been to spur the deployment of additional broadband facilities, using a variety of methods that include regulatory streamlining and the provision of grants and financing. The FCC is currently pursuing a series of initiatives to promote the deployment of broadband infrastructure, including by launching separate rulemaking proceedings governing wireline and wireless infrastructure. Thus far, the FCC has taken various steps in those proceedings that are intended to promote broadband deployment, such as the adoption of new rules to facilitate and expedite pole attachments. The FCC's pole attachment rules govern in approximately 30 states; the remaining states have exercised their right under the Communications Act to regulate pole attachments themselves.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

Wireline ILECs generally are subject to retail rate regulation. Rates charged by competitive wireline and wireless carriers are not regulated, but are subject to requirements that they be just, reasonable, and non-discriminatory. ISPs' rates are not regulated. The FCC recently eliminated pricing regulation for certain high-capacity offerings that are generally targeted to business customers and government institutions, known as business data services (BDS), although such services may still be subject to regulation in areas deemed non-competitive.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

In addition to widely applicable federal and state consumer protection laws, communications services are subject to substantial state and federal regulation. As an initial matter, common carriers must provide telecommunications services on a non-discriminatory basis at just and reasonable rates and terms. In addition, wireline and wireless common carriers are subject to the FCC's truth-in-billing requirements that loosely govern the presentation and the level of disclosure required in invoices. Further, wireline, wireless, and VoIP providers are required to establish sophisticated protections of customer information known as customer proprietary network information (CPNI). They are restricted with respect to the purposes for which they can use such information without customer consent. The FCC and FTC also administer a variety of marketing regulations, such as the Do Not Call list, which limit the use of certain telecommunications for solicitations without prior consumer consent. The FCC reached a voluntary accord with wireless providers, pursuant to which they agreed to provide certain billing and usage alerts. Many state PUCs also apply similar state consumer telecommunications protections to intrastate telecommunications providers.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

The FCC has plenary jurisdiction over U.S. telephone numbers in Country Code 1, and has delegated day-to-day administrative duties to neutral third-party administrators pursuant to four contracts (two for the assignment of standard telephone numbers, one for the administration of toll-free telephone numbers, and one for the administration of number portability), subject to the FCC's extensive numbering rules and oversight. In 2015, the FCC reassigned the number portability contract from Neustar, Inc. (which had held that position since 1997) to Telcordia Technologies Inc. In 2018, the FCC announced that the two standard telephone number administration contracts, which had also been held by Neustar, Inc. since the late 1990s, would be re-bid, and awarded one-year bridge contracts to Somos, Inc., which also holds the toll-free number administration contract.

2.17 Are there any special rules which govern the use of telephone numbers?

Only regulated telecommunications carriers and interconnected VoIP providers are allowed to obtain telephone numbers from the numbering administrator, and only based on needs showings. Providers holding numbers must report semi-annually on their use. Unused numbers in provider inventories are subject to reclamation.

2.18 Are there any obligations requiring number portability?

All wireline carriers, mobile carriers, and interconnected VoIP providers that hold telephone numbers are required to allow customers to port their numbers to another provider. This includes porting between and among the three types of providers. There are currently geographic restrictions on porting, based on the physical limitations of providers' network infrastructure.

The FCC has developed specific processes and timelines for various types of intramodal and intermodal porting.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

Radio spectrum licensed to private/commercial entities and to state and local governments is regulated by the FCC, and the use of radio spectrum by the federal government, including all federal agencies, is coordinated by the NTIA.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Congress first authorised the award of commercial spectrum licences through a competitive bidding (*i.e.*, auction) process in 1993, based on the concept that awarding licences to the bidders who value them most highly will result in spectrum being put to its most efficient use in the marketplace. Since that time, the FCC has used auctions to assign most such licences.

As an initial matter, the FCC must determine the type of use for which it is allocating a particular band of spectrum. For instance, in the broadcast incentive auction, the FCC sought to reallocate portions of the current TV band for use by commercial wireless services.

Once a particular frequency band is allocated for a particular use, the FCC adopts technical and service rules to govern the use of that band, including a "band plan", that sets forth the bandwidth of each licence and the geographic area it will cover, which, in turn, determines how many licences will be awarded. The FCC then schedules an auction and settles on the auction procedures to be employed, which can vary among auctions. The FCC may apply certain bidding or eligibility restrictions on potential auction participants.

FCC spectrum auctions usually involve multiple rounds of bidding and can take weeks (and sometimes months) to complete. In order to encourage entry by smaller businesses, the FCC typically enables bidders below a certain size to take advantage of bidding credits, making it easier for them to outbid larger entities. Relatedly, the FCC has adopted a new rural business bidding credit for that purpose.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

The FCC reserves certain spectrum bands for unlicensed uses, such as WiFi. Any entity may utilise unlicensed spectrum, provided that the user's equipment is certified by the FCC and operated in conformity with the FCC's rules. Users of unlicensed spectrum are not afforded the types of interference protections available to holders of licensed spectrum, although the FCC's rules are designed to minimise the potential for interference.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The FCC awards most commercial spectrum licences through competitive bidding. Once a licence is awarded, it is not subject to ongoing spectrum user fees, though federal legislation has been considered for this purpose. Licencees in many FCC radio services are required to pay annual regulatory fees, which typically are calculated based on the number of licences held, or the number of end users being served.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

Transfers of control of spectrum licensees generally are treated the same as assignments of spectrum licences, and both are permitted with prior FCC approval (in some cases, *pro forma* transactions require a post-closing notification only). The FCC has established procedures that provide for immediate processing of most non-controversial transactions – those that involve insignificant foreign ownership, require no rule waivers, and raise no competitive or other public policy concerns. Conversely, applications that do not meet these streamlining criteria are subject to the FCC's general approval procedures, which include a public comment period and greater scrutiny by the FCC.

The FCC uses a "spectrum screen", or aggregate per-market threshold, to trigger its review of potential competitive harm from transfers of most bands of commercial wireless spectrum. The screen is set at approximately one-third of spectrum that is suitable and available for mobile telephony/mobile broadband services, and is periodically updated when the FCC allocates additional spectrum for these services.

The FCC does not consider the screen to be a cap on spectrum acquisitions, and has approved transactions which result in granting one licensee control of more than one-third of the available spectrum in a market. Conversely, the FCC may find that competitive harm from a transaction is likely even though the spectrum screen would not be exceeded, and may in that case impose licence divestiture requirements or other conditions on its approval, which are intended to prevent such competitive harm.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

In general, the FCC has encouraged the development of a robust secondary market for spectrum leasing, including for "partitioned" and "disaggregated" portions of spectrum licences. In addition, spectrum licence transfers and assignments are permitted with prior FCC approval, and subject to a spectrum screen, as discussed in question 3.5 above.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Currently, the U.S. has no baseline federal cybersecurity law that imposes specific requirements on companies. There are narrower laws focused on enhancing security and sharing information about cyber threats, and presidential-level Executive Orders have dictated the direction of some cybersecurity policy initiatives.

Enforcement agencies such as the FTC and state attorneys general can bring actions against companies that deceive consumers about their security practices, or cause harm to consumers through security practices that rise to the level of being unfair. Separately, the FCC imposes information security and breach notification requirements on telecommunications carriers with respect to certain proprietary information they obtain about their customers. Finally, the U.S. Securities and Exchange Commission increasingly has sought to hold public companies accountable for cybersecurity practices through disclosure requirements. Meanwhile, numerous states have adopted information security laws, and every state now has a data breach law.

To date, much of the framework for cybersecurity has been driven by the development of best practices and guidance by industry, often in collaboration with agencies such as the NTIA and the National Institute of Standards and Technology (NIST), both under the Department of Commerce. The voluntary Cybersecurity Framework, developed by NIST in conjunction with the private sector, supplies the preeminent framework for the development of standards, guidelines, and best practices to manage cybersecurity-related risk. Industry also is active in publishing its own cybersecurity best practices, including through the Communications Security, Reliability and Interoperability Council (an advisory committee to the FCC that includes public and private sector representatives), and in response to a recent Administration initiative to promote action against botnets and other automated threats.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Compelled governmental access to private communications, whether in the course of transmission of those communications or from electronic storage, is governed at the federal level by the Electronic Communications Privacy Act (ECPA) and the Foreign Intelligence Surveillance Act (FISA). Those statutes also define the circumstances and means by which federal law enforcement agencies may compel access to subscriber information and information concerning the time, place, and addressing and routing of communications. In 2018, the United States enacted the Clarifying Lawful Overseas Use of Data Act (or CLOUD Act), which primarily amended ECPA to allow law enforcement to compel U.S.-based companies to provide data stored even if on foreign servers. Separately, constitutional protections under the Fourth Amendment apply, and the Supreme Court recently held that a warrant is required for cell-site location records. Most states also have laws that define the circumstances under which state law enforcement agencies may require access to private communications.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

Under ECPA and FISA (defined above in question 4.2), telecommunications carriers, providers of wire and electronic communication services, and remote computing services are required to cooperate with wiretap requests and requests for access to stored call data and subscriber information. In order to facilitate cooperation with such requests, the Communications Assistance for Law Enforcement Act (CALEA) requires telecommunications carriers to ensure that their equipment, facilities, or services are capable of expeditiously isolating and delivering wire and electronic communications and call-identifying information to the government, pursuant to lawful authorisation. CALEA requirements do not apply to information services or to private networks and interconnection services and facilities. However, the FCC has found that interconnected VoIP services, and the underlying switching and transport components of facilities-based broadband Internet access services, are not information services for purposes of CALEA, and therefore are subject to CALEA requirements.

Email and other over-the-top messaging services continue to be classified as information services not subject to CALEA assistance capability requirements, but providers of such services generally are electronic communication service providers, and are required to comply with subpoenas and other processes requesting access to their customers' email messages under ECPA.

4.4 How does the state intercept communications for a particular individual?

Law enforcement agencies obtain compelled, real-time access to individuals' communications by serving wiretap orders or other legal process on their service providers. The technical methods by which interception is accomplished vary: for a wiretap on a voice telephone line, the law enforcement agency may arrange with the service provider for a physical access line, attached to the individual subscriber's telephone line, that effectively makes the law enforcement agency a party to the individual's telephone conversations. For emails and other non-voice electronic communications, interception capabilities may be implemented by routing an individual's communications to a server that is controlled by or accessible to the law enforcement agency.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

Individuals are permitted to encrypt their communications, and service providers are permitted to make encryption available to their customers. CALEA does not require telecommunications carriers to facilitate decryption of customers' communications for the benefit of law enforcement unless the telecommunications carrier provided the encryption capability. The legal obligation of non-telecommunications carriers to provide encryption keys to the government is currently a subject of some uncertainty and debate. Likewise, there is some debate about the ability of law enforcement, under the Fifth Amendment to the United States Constitution and its prohibition against compelled self-incrimination, to require individuals to decrypt their communications or provide law enforcement with the means to do so.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Obligations to retain call data and other subscriber information apply to telecommunications carriers, providers of wire or electronic communication services, and providers of remote computing services. These categories encompass wireline and wireless telephone companies, ISPs, and providers of email and other Internet-based services. Carriers that provide toll services are required to retain certain billing-related records for 18 months. In addition, various state PUCs require carriers to retain certain call records for up to three years.

Under ECPA, a governmental entity may require a provider of wire or electronic communication service to preserve records and other evidence in its possession for up to 180 days, pending the issuance of a court order or other process requiring disclosure to the governmental entity. Also, pursuant to a court order or subpoena obtained in accordance with ECPA, a service provider may be required to retain a back-up copy of the contents of electronic communications in order to preserve those communications.

Finally, under the FCC's CPNI rules, telecommunications carriers must maintain records of certain disclosures of customer information, and of customers' permissions for such disclosures, for a minimum of one year.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

The basic regulatory framework rests on the identity of the programming provider's technology, rather than on the content itself. Television broadcasters operate under licences issued by the FCC pursuant to Title III of the Communications Act, and are subject to fairly extensive regulatory obligations at the federal level. Cable operators are regulated under Title VI of the Communications Act, and face a different array of FCC obligations. Cable operators also are regulated by local community or state regulators via franchises (*i.e.*, agreements setting forth certain rights and obligations). Like broadcasters, satellite TV providers, also called direct broadcast satellite (DBS) providers, operate pursuant to FCC licences under Title III of the Act, but DBS licences differ from broadcast licences in that they are subject to certain obligations applicable to all "multichannel video programming distributors" (MVPDs), including cable providers, as well as a few mandates unique to DBS. Wireline telephony providers that provide a subscription multichannel video service via fibre or hybrid fibre/copper networks are generally subject to most Title VI regulations applicable to cable operators. Finally, although the FCC has sought public comment on whether online video providers (including facilities-based providers that seek to offer separate online offerings) should be treated as MVPDs, it has taken no further action, leaving these providers generally unregulated.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Content regulation can differ depending on the type of distribution technology and the type of content at issue. As a general matter, broadcasters are subject to greater content regulation than other platforms (*e.g.*, cable operators and DBS operators). For instance, only broadcasters are subject to FCC guidelines concerning educational/informational children's programming. Similarly, the FCC's sponsorship identification rules apply to broadcasters and cable operators (at least to a limited extent) but not to DBS operators and online video providers. However, the FTC has guidelines for endorsements and testimonials that apply to any service. Broadcasters, cable operators, and DBS operators are all subject to the same commercial limits in children's programming. Online video providers generally are not subject to content regulation (or other rules), although the FCC is currently examining the extent to which such providers should be regulated.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

There are three different sets of regulatory and licensing requirements imposed on providers of video programming. First, TV broadcasters are licensed by the FCC with the right to use a particular frequency in a specific community to transmit a free, over-the-air video service, subject to various technical requirements. TV broadcasters face the most regulatory obligations of any type of FCC licensee, including requirements to air political candidate advertising, educational programming for children, emergency alerts, and programming that serves the "needs and interests" of the broadcasters' community. The FCC also has adopted a variety of restrictions on the ability of TV licensees to own multiple media outlets (*i.e.*, TV and radio stations and daily local newspapers) in a market.

Second, although cable operators hold some FCC licences and are subject to FCC regulations, their authorisations come from state and local cable franchising authorities. These franchising authorities generally impose certain territorial coverage obligations, as well as require the cable operators to reserve certain channels for public, educational or governmental programming and/or local programmers. The FCC requires cable operators to carry every local TV station's main programming signal if the station has opted for guaranteed carriage. In addition, federal regulations require cable operators that also own cable programming networks to sell their programming to rival MVPDs on non-discriminatory terms, and to avoid favouring their own programme networks over unaffiliated networks seeking carriage.

Third, DBS operators are licensed by the FCC with the rights to use particular satellite frequencies to transmit video programming on a nationwide basis. DBS licensees must devote 4% of their capacity to non-commercial "educational or informational" programming. They also are required to use their spot-beam capabilities to retransmit local TV signals into the broadcasters' local markets.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

Transfers of control of spectrum licensees, as well as assignment of spectrum licences, are permitted with prior FCC approval. This includes over-the-air broadcast licences, satellite licences, and wireless licences utilised by cable providers and other MVPDs. The FCC has established procedures that provide for immediate processing of most non-controversial transactions – those that involve insignificant foreign ownership, require no rule waivers, and raise no competitive or other public policy concerns. Conversely, applications that do not meet these streamlining criteria are subject to the FCC's general approval procedures, which include a public comment period and greater scrutiny by the FCC.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

Telecommunications common carriers and ISPs are generally immune from liability arising from the content of the communications that they transport on behalf of their customers. However, ISPs may be required to comply with certain safe harbour provisions set forth in the Digital Millennium Copyright Act (DMCA) to ensure such immunity against copyright infringement by their customers.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

Telecommunications operators and/or ISPs are not under any general obligation to assist content owners in prosecuting copyright or other intellectual property claims. However, content owners may seek a court order under the DMCA for the identity of an alleged infringer. If the court grants such an order, the alleged infringer's ISP must disclose the requested information to the copyright owner or person authorised by the copyright owner. This process may only be used to obtain the identity of alleged infringers who post content on an ISP-hosted server for access by others.

The DMCA also provides several safe harbours for ISPs, which insulate ISPs from liability for the infringing activities of their subscribers. Under the DMCA, ISPs must implement reasonable policies to terminate the accounts of repeat copyright infringers and must inform all users of this policy. Failure to execute and enforce such policies could remove safe harbour protections and expose an ISP to secondary liability for copyright infringement. ISPs are not liable for the automatic transmission, routing, connecting, or for temporarily storing infringing content at the direction of users.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

The adoption of "net neutrality" or "open Internet" rules has been a highly controversial topic in the United States. In late 2017, the FCC adopted an order reversing its 2015 decision to reclassify ISPs as common carriers under Title II of the Communications Act. Because the FCC's 2015 rules were grounded in authority conferred by that particular regulatory classification, the new 2017 rules undid and/or replaced certain parts of the 2015 regime. The 2017 *Restoring Internet Freedom Order* specifically undid the 2015 *Open Internet Order*'s: (i) bright-line prohibitions on blocking or throttling (*i.e.*, impairing or degrading) lawful online traffic; (ii) ban on "paid prioritisation" arrangements (*i.e.*, those favouring certain traffic in exchange for compensation or some other benefit); and (iii) general "internet conduct standard" (under which the FCC investigated, on a case-by-case basis, certain ISP practices for unreasonable interference and/or the disadvantaging of consumers/edge providers). The FCC's new 2017 rules affirmatively impose a transparency requirement on ISPs, mandating public disclosure of practices including blocking, throttling, affiliate prioritisation, paid prioritisation, congestion management, application-specific behaviour, device attachment rules, security practices, performance characteristics, and commercial terms. The 2017 *Restoring Internet Freedom Order* is currently pending review by a federal appeals court. Meanwhile, the U.S. Supreme Court has been asked to vacate a prior judicial decision that affirmed the now-superseded 2015 *Open Internet Order*. In addition, the state of California has now enacted net neutrality rules that are considered to be more strict than those previously issued by the FCC. Those rules are also being appealed in court.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

No. However, given the repeal of the FCC's 2015 rules, as discussed above, telecommunications carriers are no longer *prohibited* from blocking lawful traffic in most instances.

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Chapter 34

Vietnam

Tu Ngoc Trinh

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1 Overview

1.1 Please describe the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction, in particular by reference to each sector's: (i) annual revenue; and (ii) 3–5 most significant market participants.

Telecoms and internet

Vietnam's telecoms sector continues to have significant growth potential and is still one of the country's key economic sectors. However, in the first quarter of 2018, the revenue of the telecoms industry, in general, did not grow as planned. One of the reasons was likely the issuance of the new Circular No. 47/2017/TT-BTTTT, dated 29 December 2017, by the Ministry of Information and Communications ("**MIC**") regarding promotion rates for mobile information services. The new Circular reduced the maximum for top-up promotions for pre-paid subscribers from 50% to 20%, which caused a significant decline in voice and texting revenues.

The key players in the telecoms sector are still VNPT, Viettel, and MobiFone. In 2017, Viettel generated VND 250.8 trillion (approx. USD 11.08 billion) in revenue, and VND 44 trillion (approx. USD 1.89 billion) in profit, signifying increases of 9.4% and 12%, respectively. Revenue from the domestic telecoms market contributed 65.5% of Viettel's total revenue, while the rest came from foreign markets. (The company has operations around the globe, from Southeast Asia to as far away as Peru and Burundi.)

As for VNPT Group, their total consolidated profit in 2017 reached VND 5 trillion (approx. USD 215 million), an increase of 21% compared to the year 2016. Through the first quarter of 2018, VNPT's consolidated revenues were equivalent to the same period of 2017, while its profit increased by 5.6%.

Meanwhile, the MobiFone Corporation reported an increase of 6.3% in revenue in the first quarter of 2018. However, like other mobile operators, MobiFone's voice and texting revenues were reduced.

Audio-visual media distribution

Vietnam has three main nationwide broadcasters under state management at the central level, namely the Voice of Vietnam ("**VOV**") radio station, Vietnam Television ("**VTV**") and Digital Television ("**VTC**"), and 67 local radio and television stations.

For the pay TV market, a report from the Ministry of Information and Communications shows that with 14 million TV subscribers in 2017, the total revenue of the pay TV market was VND 7.5 trillion (approx. USD 324 million), a sharp decrease from the VND 12 trillion (approx. USD 518 million) in 2016, even though there were only 12.5 million subscribers in 2016. The decrease was blamed on a price war among television channel providers, which began in 2014.

SCTV, VTVcab and K+ are still the three biggest players in the pay TV market, with high revenues and many subscribers, and great advantages in content production. However, like other television service providers, they also faced a decline in revenue. For example, in 2014, SCTV had 2.8 million subscribers and generated VND 3.6 trillion (approx. USD 155 million) in revenue. However, in 2017, though the number of SCTV's subscribers increased to 4.5 million, its revenue decreased to VND 3.42 trillion (approx. USD 148 million).

1.2 List the most important legislation which applies to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The most important legislation which applies to the telecoms, audio-visual media distribution, and internet sectors includes:

- Law on Telecommunications No. 41/2009/QH12 adopted by the National Assembly of Vietnam on 23 November 2009 ("**Law on Telecommunications**");
- Law on Radio Frequency No. 42/2009/QH12 adopted by the National Assembly of Vietnam on 23 November 2009 ("**Law on Radio Frequency**");
- Law on Information Technology No. 67/2006/QH11 adopted by the National Assembly of Vietnam on 29 June 2006 ("**IT Law**");
- Law on Press No. 103/2016/QH13 adopted by the National Assembly of Vietnam on 5 April 2016 ("**Law on Press**");
- Law on Cinematography No. 62/2006/QH11 adopted by the National Assembly of Vietnam on 29 June 2006 as amended by Law No. 31/2009/QH12 on 18 June 2009 ("**Law on Cinematography**");
- Law on Cybersecurity No. 24/2018/QH14 adopted by the National Assembly of Vietnam on 12 June 2018 ("**Law on Cybersecurity**");
- Decree No. 25/2011/ND-CP of the Government dated 6 April 2011 on the implementation of the Law on Telecommunications, which was further amended by Decree No. 81/2016/ND-CP dated 1 July 2016, and Decree No. 49/2017/ND-CP dated 24 April 2017 ("**Decree 25**");
- Decree No. 06/2016/ND-CP of the Government dated 18 January 2016 on the management, provision and use of radio and television services ("**Decree 06**");
- Decree No. 72/2013/ND-CP of the Government dated 15 July 2013 on the management, provision and use of internet services and online information, as amended by Decree No. 27/2018/ND-CP ("**Decree 72**"); and

- Decree No. 174/2013/ND-CP of the Government dated 13 November 2013 on penalties for administrative violations against regulations on post and telecommunications, information technology and radio frequency, which was further amended by Decree No. 49/2017/ND-CP dated 24 April 2017 ("**Decree 174**").

There are also a considerable number of decrees and circulars to implement the key legislation mentioned above.

1.3 List the government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors in your jurisdiction.

The Government ministries, regulators, other agencies and major industry self-regulatory bodies which have a role in the regulation of the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors, include:

- the MIC;
- Vietnam Telecom Authority ("**VNTA**") under the MIC;
- Authority of Radio Frequency Management ("**ARFM**") under the MIC;
- Authority for Broadcasting and Electronic Information ("**ABEI**") under the MIC; and
- Vietnam E-Commerce and Information Technology Agency ("**VECITA**") under the Ministry of Industry and Trade ("**MOIT**").

1.4 In relation to the: (a) telecoms, including internet; and (b) audio-visual media distribution sectors: (i) have they been liberalised?; and (ii) are they open to foreign investment?

Telecoms and internet (internet services are considered a type of telecoms service)

There are two types of investment in telecoms, namely facilities-based services or non-facilities-based services. In the telecommunications sector, foreign investors in business cooperation contracts will have the possibility to renew current arrangements or to convert them into another form of establishment, with conditions no less favourable than those they currently enjoy.

Investment in facilities-based basic telecom services is allowed through joint ventures with licensed telecom service providers. Foreign capital contribution may not exceed 49% of legal capital of the joint ventures.

For investment in non-facilities-based basic telecom services, joint ventures are allowed without limitation on the choice of partner. Foreign capital contribution may not exceed 65% of the legal capital of the joint ventures. For virtual private network (VPN) services, foreign capital contribution may not exceed 70% of the legal capital.

Investment in facilities-based value-added telecom services is allowed through business cooperation contracts or joint ventures with licensed telecom service providers in Vietnam. Foreign capital contribution may not exceed 50% of the legal capital of the joint ventures.

For investment in non-facilities-based value-added telecom services (except internet access services), business cooperation contracts or joint ventures are allowed without limitation on the choice of partner. Foreign capital contribution may not exceed 65% of the legal capital of the joint ventures.

Audio-visual media distribution

In respect of motion picture production, distribution, and projection services, all films must have their content censored by the Vietnamese authorities.

For motion picture distribution (with certain exceptions), investment is allowed through business cooperation contracts or joint ventures with Vietnamese partners who are authorised to provide these services in Vietnam. Foreign capital contribution may not exceed 51% of the legal capital of the joint venture.

In respect of pay TV service provision, foreign investment is subject to approval in principle by the Prime Minister.

2 Telecoms

General

2.1 Is your jurisdiction a member of the World Trade Organisation? Has your jurisdiction made commitments under the GATS regarding telecommunications and has your jurisdiction adopted and implemented the telecoms reference paper?

Yes, Vietnam has been a member of the World Trade Organization since 11 January 2007 and has made commitments under the GATS regarding telecommunications, and has also made commitments to comply with the telecoms reference paper.

2.2 How is the provision of telecoms (or electronic communications) networks and services regulated?

Under telecoms legislation, the provision of public telecom networks and services requires a licence. There are two types of licences, namely: (i) a licence for the establishment of a public telecom network issued to enterprises with network infrastructure providing telecom services, valid for a maximum of 15 years; and (ii) a licence for the provision of telecom services issued to enterprises without network infrastructure providing telecom services, valid for a maximum of 10 years.

After the maximum terms set out above, both licences can be re-applied for.

2.3 Who are the regulatory and competition law authorities in your jurisdiction? How are their roles differentiated? Are they independent from the government?

The main competition law authority is the Vietnam Competition Authority ("**VCA**") under the MOIT. The VCA is established by the Government within the organisational system of the MOIT and has legal status, as well as a separate seal and account.

The main functions of the VCA are to: monitor acts which may be deemed anti-competitive or which may promote unfair competition; protect the interests of businesses and consumers from antitrust behaviour; protect consumer rights; create a healthier competitive environment for the domestic manufacturing industry; and support domestic industries to prevent lawsuits related to dumping, subsidies and safeguarding measures. The VCA is the general competition regulator in Vietnam and has authority to enforce anti-competition regulations across different industries, including the telecoms sector.

However, the VCA would coordinate with a specialised telecoms regulator (for example, the VNTA) for opinions when dealing with anti-competitive practices in the telecoms sector.

The VNTA and the VCA could be considered as quasi-independent regulators.

From 1 July 2019, the body in charge of competition issues will be the National Competition Commission, a sub-unit of the Ministry of Industry and Trade formed by the consolidation of the existing Vietnam Competition Council and the VCA.

2.4 Are decisions of the national regulatory authority able to be appealed? If so, to which court or body, and on what basis?

Yes, decisions of a national regulatory authority (for example, the VNTA or the VCA) can be appealed. The complainant could appeal within the organisation (i.e., first appeal to the Director of the VNTA, then appeal to the Minister of the MIC) in accordance with the Law on Complaints, or institute an administrative claim in court in accordance with the Law on Administrative Procedures.

Licences and Authorisations

2.5 What types of general and individual authorisations are used in your jurisdiction?

Individual licences are used in Vietnam for the provision of public telecom services. As discussed under question 2.2, there are two types of public telecom licences: (i) a licence for the establishment of public telecom networks; and (ii) a licence for the provision of telecom services.

2.6 Please summarise the main requirements of your jurisdiction's general authorisation.

The main requirements for a licence for the establishment of public telecom networks include:

Legal capital and commitment to investment: depending on the type of network (e.g., terrestrial fixed network or terrestrial mobile network); network coverage (i.e., how many provinces the network covers); and whether there is a need to use the frequency spectrum, the required legal capital varies from VND 5 billion to VND 500 billion (USD 224,000 to USD 22.4 million). The investors' commitment to investment also varies from VND 15 billion (USD 673,000) for the first three years, to VND 7,500 billion (USD 340 million) for 15 years.

The main requirements for a licence for the provision of telecom services include:

An enterprise that applies for a licence to provide terrestrial mobile services, if it owns more than 20% of charter capital or shares in a telecommunications enterprise, is not allowed to possess more than 20% of the charter capital or shares of other telecommunications enterprises doing business in the same market.

Other key requirements applicable to both licences discussed above include:

- Business lines: must have telecom business lines.
- Financial conditions: financially capable of implementing the licence in accordance with business and technical plans.
- Organisational structure and personnel conditions: must be suitable for the business plan, technical plan, and the plan for ensuring the safety of telecom infrastructure and information security.
- Business and technical conditions: must have technical and business plans.
- Telecom infrastructure safety and information security conditions: must provide a plan for ensuring the safety of the telecom infrastructure and information security in conformity with the business and technical plans.

2.7 In relation to individual authorisations, please identify their subject matter, duration and ability to be transferred or traded. Are there restrictions on the change of control of the licensee?

More details of different types of individual telecom licences in Vietnam are as follows:

- Licence for establishment of public telecom networks: valid for a maximum of 15 years.
- Licence for provision of telecom services: valid for a maximum of 10 years.
- Licence for telecom-specialised operations:
  - Licence for installation of undersea telecom cable lines: valid for a maximum of 25 years.
  - Licence for establishment of a private telecom network: valid for a maximum of 10 years.
  - Licence for trial of telecom networks and services: valid for a maximum of one year.

Under telecoms legislation, telecom numbering or internet resources can be transferred or assigned subject to certain conditions.

The telecoms law does not expressly prohibit the transfer or assignment of telecom licences. A transfer or assignment of a mobile network must be conducted via specific auction and bidding procedures. The transferor or assignor must return the licence, negotiate with all partners, and, most importantly, ensure the rights of their users. There are also specific qualifications a transferee or assignee must meet.

In general, there is no express requirement on the change of control of the licensee, except the case where the licensee is listed as an enterprise in which the State is the controlling shareholder. Currently, there are five such telecom enterprises listed, which include: i) Vietnam Post and Telecommunications Group ("**VNPT**"); ii) Viettel Group; iii) Vietnam Maritime Communication and Electronics Company ("**VISHIPEL**"); iv) Global Telecommunications Corporation ("**GTEL**"); and v) Indochina Telecom Joint Stock Company.

This means, in general, the licensee may liberally change its control. However, the change must be compliant with the requirements on foreign ownership restriction, as briefly discussed in question 1.4 above.

Public and Private Works

2.8 Are there specific legal or administrative provisions dealing with access and/or securing or enforcing rights to public and private land in order to install telecommunications infrastructure?

Land ownership and use in Vietnam differs from many jurisdictions. Generally, land is owned collectively by the people and managed by the State.

Under the telecoms law, public telecom works are granted priority use of space, land surfaces, underground areas, riverbeds and sea floors. Locations for providing public telecom services will be granted priority at railway stations, car parks, seaports, airports, border gates and other public places serving the needs of telecom service users.

The master planning for the construction of traffic works, urban zones, residential zones, industrial zones, economic zones and high-tech zones must contain master planning on passive telecom technical infrastructure to ensure uniformity and completeness during investment and construction, and must facilitate the establishment of telecom infrastructure and provision and use of telecom services.

The master planning on passive telecom technical infrastructure in localities must comply with the national master plan for the development of telecoms and with local master plans on socio-economic development, and is a compulsory item of regional construction master planning, of urban construction master planning and of rural residential construction master planning.

Based on master planning on passive telecom technical infrastructure and plans on land use as approved by the authorities, the relevant-level people's committee is responsible for allocating land for the construction of important telecom works related to national security, or for using locations for the provision of public telecom services within the locality. Any investor preparing an investment project for important telecom works related to national security, or using a location to provide public telecom services, must specifically determine the area of land required to be used, prepare a plan for land compensation and site clearance, and implement the project after the relevant authority has approved the project and allocated land.

Access and Interconnection

2.9 How is wholesale interconnection and access mandated? How are wholesale interconnection or access disputes resolved?

Interconnection is a right as well as an obligation of telecom enterprises. Under the telecoms law, telecom enterprises have the right to interconnect their telecom networks with the telecom networks or services of other telecom enterprises, and are obligated to permit other telecom enterprises to interconnect with their own telecom networks or services.

The key principles for interconnecting telecom networks and services include:

- negotiations on the basis of ensuring fairness, reasonableness and compliance with the rights and interests of the participating parties;
- the effective use of telecom resources and telecom infrastructure;
- ensuring technical requirements on interconnection, and safety and integrity of telecom networks; and
- ensuring the lawful rights and interests of telecom service users and of related organisations and individuals.

Parties to a dispute may submit their dispute to the VNTA under the MIC for resolving their dispute in accordance with certain enumerated procedures.

The VNTA will facilitate negotiations between the relevant parties with a view to mediation. If, after the negotiation process, the parties are able to reach an agreement on the disputed content, the dispute will be settled according to their agreement. If the parties cannot reach an agreement, the VNTA will issue a decision on resolving the dispute. The parties have the right to lodge complaints or initiate claims against the VNTA resolution, but would in the meantime still need to implement the VNTA resolution.

2.10 Which operators are required to publish their standard interconnection contracts and/or prices?

Telecom enterprises holding "essential facilities" must prepare a standard-form interconnection agreement, register it with the specialised branch administrative body for telecoms, and publicly announce it.

An essential facility is understood as an important component of telecom infrastructure wholly or largely under the monopolised possession of one or more telecom enterprises, for which the formation of a new replacement would not be economically and technically feasible.

2.11 Looking at fixed, mobile and other services, are charges for interconnection (e.g. switched services) and/or network access (e.g. wholesale leased lines) subject to price or cost regulation and, if so, how?

Yes, interconnection charges are subject to price and cost regulation. Telecom legislation requires that tariffs for telecom interconnection be formulated on the basis of cost price and divided in a reasonable way between segments making up the network or service stages without discrimination between the different types of services.

2.12 Are any operators subject to: (a) accounting separation; (b) functional separation; and/or (c) legal separation?

Yes, telecom enterprises or groups of telecom enterprises in a dominant market position, and telecom enterprises holding essential facilities, must implement a separate statistics and accounting regime for the telecom services in which they hold a dominant market share, in order to fix the prime cost of such dominant market share telecom services; they cannot cross-subsidise telecom services for the purpose of unfair competition.

2.13 Describe the regulation applicable to high-speed broadband networks. On what terms are passive infrastructure (ducts and poles), copper networks, cable TV and/or fibre networks required to be made available? Are there any incentives or 'regulatory holidays'?

High-speed broadband networks are subject to regulation in the same way as other telecommunications services. Under the telecoms law, there are requirements to share passive infrastructure such as ducts or poles. The telecom authority will issue a decision on the common use of passive telecom infrastructure, in order to ensure the requirements on competition, environment and urban planning.

In terms of investment incentives, high-speed broadband networks could qualify as "high-tech activities" or "investment in development and operation, and management of infrastructure facilities"; thus, in theory, they could apply for investment incentives in the following forms: (i) a lower rate of corporate income tax for a definite period or for the whole duration of implementation of the investment project; and exemption from or reduction of corporate income tax; (ii) exemption from import duty in respect of goods imported to form fixed assets, or raw materials, supplies and components for implementation of an investment project; and (iii) exemption from or reduction of land rent, land use fees and land use tax.

Price and Consumer Regulation

2.14 Are retail price controls imposed on any operator in relation to fixed, mobile, or other services?

The MIC determines telecom charges and tariffs of public-utility telecom services and interconnection.

Telecom enterprises in a dominant market position, prior to their issuance and application of telecom charges for market-dominant telecom services, must register their telecom charges with the telecom authority.

Telecom enterprises can determine charges for other telecom services outside of the above-mentioned services, but must notify the telecom authority.

Telecom enterprises are not allowed to provide telecom services at a rate which is much lower than average rates in the telecom market, as set out by the MIC.

Telecom enterprises holding essential facilities are not allowed to apply telecom service rates lower than their costs.

The MIC may intervene in determining and managing telecom charges and tariffs when telecom service charges increase or decrease unreasonably compared with costs, or increase or decrease abnormally compared with average rates, resulting in instability in the telecom market, or causing harm to the legal rights and interests of telecom service users, other telecommunications enterprises, and the State.

2.15 Is the provision of electronic communications services to consumers subject to any special rules (such as universal service) and if so, in what principal respects?

The provision of electronic communication services to consumers is subject to mandatory quality control for certain types of services (for example, telephone services via terrestrial fixed telecom networks, telephone services via terrestrial mobile telecom networks, and terrestrial fixed broadband internet access services using xDSL, among others).

In addition, the confidentiality of personal information transmitted via a public telecom network must be protected. Telecom enterprises may not disclose personal information about a telecom service user (including the user's name and address, the number and location of the transmitting or receiving server, times of calls and other personal information supplied by the user when contracting with such enterprise).

There are certain exceptions to the above, such as: (i) where the telecom service user consents to the provision of the information; (ii) the provision of information is for the purpose of calculation of tariff charges, preparation of invoices or preventing the evasion of contractual obligations; or (iii) where there is a request from a competent authority made in accordance with the law.

Universal telecom services (i.e., public telecom services provided to all citizens in accordance with the list announced by the State) must be provided according to the conditions, with the quality and at the tariffs stipulated by the State.

Numbering

2.16 How are telephone numbers and network identifying codes allocated and by whom?

Telephone numbers and network identifying codes can be allocated via auction or a "beauty contest" (a competition to win the right to use telecom numbers) for numbers with high commercial value (such as numbers that can be easily remembered), and for which the number of applicants exceeds the allocating capacity, or can be directly allocated according to a plan on the principle that the first registered applicant will be considered for the first issuance or right to use, or other methods of allocation as may be set out by law. Telephone numbers and network identifying codes are allocated by the MIC.

2.17 Are there any special rules which govern the use of telephone numbers?

The use of telephone numbers is regulated under the telecoms law, and in detail under Circular No. 25/2015/TT-BTTTT dated 9 September 2015 on the management and use of telecom numbering, which was further amended by Circular No. 40/2017/TT-BTTTT dated 15 December 2017.

2.18 Are there any obligations requiring number portability?

Following international practices, Vietnam promulgated Decision No. 1178/QD-BTTTT dated 23 September 2013 on number portability, as amended by Decision No. 2447/QD-BTTTT dated 29 December 2017 providing a roadmap to implement number portability.

3 Radio Spectrum

3.1 What authority regulates spectrum use?

The MIC is the authority regulating spectrum use.

3.2 How is the use of radio spectrum authorised in your jurisdiction? What procedures are used to allocate spectrum between candidates – i.e. spectrum auctions, comparative 'beauty parades', etc.?

Organisations and individuals that wish to use radio frequencies must obtain the relevant radio frequency use licences.

Radio frequency use licences include radio frequency and equipment use licences, frequency band use licences and frequency and satellite orbit use licences.

Licences can be issued through the following methods: (i) direct licensing; (ii) licensing through examinations to select entities eligible for the right to use a radio frequency; and (iii) licensing through an auction of the right to use a radio frequency.

Licensing through auction or examination to select entities eligible for the right to use a radio frequency will be applied to frequency bands or channels of high commercial value, for which the demands for use exceed the allocation capacity indicated in the radio frequency master plan. The radio frequency master plans are approved by the Prime Minister or the Minister of the MIC. In addition, participants in auctions or examinations must be eligible organisations for telecom network establishment licences.

3.3 Can the use of spectrum be made licence-exempt? If so, under what conditions?

The current Law on Radio Frequency has some licensing exemptions for radio equipment. Accordingly, the following radio equipment is exempted from the radio frequency use licensing:

(i) short-range radio equipment being used in short-range, limited capacity and unlikely to cause harmful interference, which is on the list of radio equipment exempt from radio frequency use licensing; and (ii) radio equipment installed onboard foreign seagoing ships or airplanes travelling through Vietnamese territory, which are exempt from licensing under international agreements or treaties to which Vietnam is a contracting party.

3.4 If licence or other authorisation fees are payable for the use of radio frequency spectrum, how are these applied and calculated?

The fees for granting licences depend on the type of radio frequency use licenses and must be in Vietnamese dong. Under current regulations, the fees range from VND 50,000 to VND 10 million (approx. USD 2 to USD 440, at the time of this writing).

In addition, fees for radio frequency use are charged annually. These charges are determined by several factors, including: (i) the basis of the economic value of the radio frequency used; (ii) the purpose of use; (iii) the level of radio frequency spectrum occupancy; (iv) the service coverage; (v) the demand for and level of use of frequency channels in the frequency band; (vi) the geographic area in which the radio frequency is used; (vii) expenses for the management of radio frequencies; and (viii) the realisation of relevant state policies in each period. There are multiple types of applicable fees for radio frequency use and such fees will depend on the frequency or equipment used.

3.5 What happens to spectrum licences if there is a change of control of the licensee?

In most cases, there are no changes to spectrum licences if there is a change of control of the licensee.

In Vietnam, a local company will have an Enterprise Registration Certificate ("**ERC**") for business registration, which is issued by the company registration authority (i.e., the Department of Planning and Investment). An ERC is very roughly akin to a certificate of incorporation in certain other jurisdictions.

After obtaining the ERC, to have the radio frequency, the company must obtain a sub-licence which is the radio frequency use licence. The company would need to notify the radio frequency management licensing authority of any changes to the content of the radio frequency use licence. However, the radio frequency use licences do not contain information on the founding shareholders or the equity members of the licensees. Thus, a change of control of the licensee typically would have no effect on that licence.

3.6 Are spectrum licences able to be assigned, traded or sub-licensed and, if so, on what conditions?

Under the Law on Radio Frequency, radio frequency use licences can be assigned to other entities under specific conditions, such as:

- only organisations licensed to use a frequency band or channel through auction, and also having exploited and used such bands or frequency channels for at least three years, may transfer the right of use of a radio frequency to other organisations;
- the licence for transfer must be a valid licence;
- organisations receiving the right to use a radio frequency must meet the conditions for participants in an auction or examination to select entities eligible for the right to use radio frequencies specified by the law;
- the transfer must be approved in writing by the MIC; and
- the parties involved in the transfer must fulfil tax obligations under tax laws.

Under very limited instances, leasing or lending radio frequencies may be possible.

4 Cyber-security, Interception, Encryption and Data Retention

4.1 Describe the legal framework for cybersecurity.

Vietnam's Law on Cyber-Information Security ("**LCIS**") was passed on 19 November 2015, and took effect on 1 July 2016. The LCIS is the first comprehensive law ever issued in Vietnam on the security of "cyber-information", which is information exchanged in a telecommunications or computer network environment. Previous regulations on the subject had been scattered throughout different pieces of legislation, such as: the Law on Information Technology; the Law on Telecommunications; the Law on E-Transactions; Decree 72 on the management, provision, and use of internet services and online information; the Penal Code; and information security regulations for specific sectors such as banking and finance.

The key aspects of the LCIS include: assurances for the safety and security of cyber-information; protection of personal information in the network environment; protection of information systems and infrastructure; production, trading, and use of civil ciphers; standards and technical regulations on information security; provision of information security services; prevention of spam, computer viruses, and harmful software; and emergency responses.

A new Cybersecurity Law, separate from the LCIS, was adopted by the National Assembly on 12 June 2018, and will come into effect on 1 January 2019. The companies subject to this Cybersecurity Law are domestic and foreign companies providing services to customers in Vietnam over telecom networks or the internet, such as social networks, search engines, online advertising, online streaming/broadcasting, e-commerce websites/marketplaces, internet-based voice/text services (OTT services), cloud services, online games, and online applications.

In particular, the new Law sets out the following requirements:

- Owners of websites, portals, and social networks must not provide, post or transmit information against the Vietnamese Government or inciting/prejudicing riots, security, public order, humiliation, slander, or untruthful information.

  This means websites and social network operators must not post or allow their users to post "anti-state", "offensive" or "inciting" content on their websites/social networks, and must develop mechanisms for monitoring, verifying, and taking down prohibited content posted by their users. This requirement may diminish the website/social network operators' "safe harbor" under other valid legislation that protects them from the responsibility to monitor or supervise digital information of their users, or investigate breaches of the law arising from the process of transmitting or storing digital information of their users.
- Domestic and foreign companies providing services over telecom networks or the internet, or value-added services in cyberspace in Vietnam must:
  (i) authenticate users' information upon registration;
  (ii) keep user information confidential;
  (iii) cooperate with Vietnamese authorities to provide information on their users when such users are investigated or deemed to have breached laws on cybersecurity;

(iv) prevent and delete "anti-state", "offensive" or "inciting" contents from their platforms within 24 hours of receiving a request from competent authorities;

(v) store in Vietnam for certain periods of time (which are to be further prescribed in detail by the Government) users' personal information, data on service users' relationships, and data generated by service users in Vietnam (definitions and scopes of all such user-related data are not clearly provided under the law); and

(vi) for foreign service providers in particular, establish branches or representative offices in Vietnam.

Currently, there are various issues that are unclear under the Cybersecurity Law, such as the penalties for non-compliance with these requirements, and measures for the Vietnamese authorities to enforce offshore service providers. Time will be needed for the Vietnamese Government to prepare to implement the Cybersecurity Law. The expectation is that subordinate legislation will soon be issued to clarify the details on the implementation of the Cybersecurity Law.

4.2 Describe the legal framework (including listing relevant legislation) which governs the ability of the state (police, security services, etc.) to obtain access to private communications.

Vietnamese laws empower certain Government authorities in inspections and investigations which would allow them to obtain access to private communication. The authorities in Vietnam, such as the Inspectorate of the Ministry of Information and Communications and the investigation agencies of the People's Police, are empowered with wide authority to request the supply of information from organisations and individuals. In particular, the Government authorities may have the power to access and examine information, equipment or systems of the relevant parties if there is a suspected violation of relevant laws and regulations.

These powers are set out in various laws and regulations, including:

(i) Law on Information Technology No. 67/2006/QH11 adopted by the National Assembly of Vietnam on 29 June 2006;

(ii) Law on Telecommunications No. 41/2009/QH12 adopted by the National Assembly of Vietnam on 23 November 2009;

(iii) LCIS No. 86/2015/QH13 adopted by the National Assembly of Vietnam on 19 November 2015;

(iv) Law on Inspection No. 56/2010/QH12 adopted by the National Assembly of Vietnam on 15 November 2010 ("**Inspection Law**");

(v) Law on National Security No. 32/2004/QH11 adopted by the National Assembly of Vietnam on 3 December 2004 ("**Law on National Security**"); and

(vi) Law on Cybersecurity No. 24/2018/QH14 adopted by the National Assembly of Vietnam on 12 June 2018.

4.3 Summarise the rules which require market participants to maintain call interception (wire-tap) capabilities. Does this cover: (i) traditional telephone calls; (ii) VoIP calls; (iii) emails; and (iv) any other forms of communications?

There is no provision under Vietnamese laws requiring market participants to maintain call intercept capacities.

4.4 How does the state intercept communications for a particular individual?

With their statutorily provided powers in inspections and investigations as discussed in question 4.2 above, the inspectorate and the investigation agencies, with proper search warrants, may access systems of telecom enterprises to intercept communications for a particular individual.

4.5 Describe the rules governing the use of encryption and the circumstances when encryption keys need to be provided to the state.

The use of encryption products and services in the private sector is regulated under the LCIS. The LCIS provides, among other matters, that individuals/organisations using encryption are under the obligations of:

(i) complying with provisions as agreed with the enterprise providing encryption products, regarding the use of encryption keys, transfer, repair, maintenance, cancellation or destroying of encryption products and other relevant contents;

(ii) providing necessary information relating to encryption keys for the authorities if requested;

(iii) coordinating with and facilitating the authorities to carry out actions to prevent criminals from stealing information or encryption and using encryption products for illegal purposes; and

(iv) reporting to the Government Cipher Committee if they are using encryption products which are not provided by permitted enterprises, except for foreign diplomatic and consulate organisations and international organisation representative offices in Vietnam.

Under item (ii) above, the Government authorities can request individuals or organisations using encryption to provide encryption keys. However, the LCIS and its guiding decree do not further clarify in which circumstances a Government request can be made.

However, under the legislation cited in question 4.1 above, especially under the Inspection Law and the Law on National Security, the authorities might be able to base their request to provide encryption keys on other legislation, depending on the matter at hand.

4.6 What data are telecoms or internet infrastructure operators obliged to retain and for how long?

Internet service providers are to retain posted and transmitted information for 15 days, and internet agents are to store posted and transmitted information for at least 30 days on their servers.

5 Distribution of Audio-Visual Media

5.1 How is the distribution of audio-visual media regulated in your jurisdiction?

Audio-visual media distribution activities are "conditional" businesses which require organisations to be licensed in order to engage in these activities.

For our discussion, we classify audio-visual media into two categories: **(i) radio and television broadcasting**; and **(ii) motion pictures**.

(i) Radio and television broadcasting

Under Vietnamese law, the provision of radio and television services can be offered as both free broadcasting services ("free TV") and fee-based broadcasting services ("pay TV"). An organisation wishing to provide radio and television services would need to obtain a licence to operate in the broadcasting industry.

- Free TV may only broadcast Vietnamese channels (defined as radio or television channels lawfully produced or co-produced by Vietnamese news agencies licensed to operate in the broadcasting industry).
- Pay TV may broadcast both Vietnamese and foreign channels (defined as radio or television channels lawfully produced by foreign broadcasters and made in foreign languages). The number of foreign channels broadcasting on pay TV is limited to 30% of the total number of channels. A pay TV provider must register a list of programmes to be broadcast in all of its Vietnamese and foreign channels.
- A foreign channel must obtain a certificate of registration for the provision of subscription services in Vietnam. A foreign channel provider must also have a Vietnamese agent (who is authorised to provide foreign channels on pay TV) apply for such certificate and fulfil its financial obligations to the State of Vietnam. The broadcast contents of foreign channels must comply with Vietnamese laws, and need to be edited and translated by an agency that is licensed to edit foreign channels. The editing agency is responsible for the content of their translations and editing.

The conditions for operating in radio and television services are mainly governed by the Law on Press No. 103/2016/QH13 adopted by the National Assembly on 5 April 2016 ("**Law on Press**"), and Decree 06 (No. 06/2016/ND-CP of the Government dated 18 January 2016 on management provision and use of radio and television services).

(ii) Motion pictures

Motion picture distribution is regulated under the Law on Cinematography (No. 62/2006/QH11, passed by the National Assembly on 29 June 2006, as amended by Law No. 31/2009/QH12 on 18 June 2009) and its guiding legislation.

All motion pictures produced, distributed and projected in Vietnam need to have their content censored by Vietnam's competent authorities. Motion pictures may only be distributed (i.e., the process of circulating films in the forms of sale, rental, export and import) and disseminated (i.e., the introduction of films to the public by means of projection, broadcasting on television, or posting on the internet and other audio-visual media) when they have the proper permits granted by the relevant cinematography state management agency.

5.2 Is content regulation (including advertising, as well as editorial) different for content broadcast via traditional distribution platforms as opposed to content delivered over the internet or other platforms? Please describe the main differences.

Generally, no. Vietnamese laws do not distinguish between content broadcast via traditional distribution platforms and content delivered over the internet or other platforms for content regulation purposes.

The laws generally prohibit the provision and spreading of content which is considered to constitute "social evils", such as, among others: content related to pornography; inciting violence, obscenity, depravity, or crime; undermining national security, social order, safety and fine traditions and customs; violating requirements of protecting children against negative impacts; defamation; IP infringement of trademarks or copyrights; and spreading viruses and harmful software.

5.3 Describe the different types of licences for the distribution of audio-visual media and their key obligations.

Please see the response to question 5.1.

5.4 Are licences assignable? If not, what rules apply? Are there restrictions on change of control of the licensee?

The law is silent on whether the licences are assignable. There are no rules or restrictions on the change of control of the licensee.

6 Internet Infrastructure

6.1 How have the courts interpreted and applied any defences (e.g. 'mere conduit' or 'common carrier') available to protect telecommunications operators and/or internet service providers from liability for content carried over their networks?

We are not aware of any court's interpretation or application of any defences (e.g., "mere conduit" or "common carrier") available to protect telecommunications operators or internet service providers from liability for content carried over their networks.

Under the IT Law, in general, intermediaries or service providers for hosting, storing or transmitting content of third parties have a "safe harbour", in that they will not be liable for the content of third parties if they are only intermediaries. However, they will need to take down the content in certain instances.

6.2 Are telecommunications operators and/or internet service providers under any obligations (i.e. to provide information, inform customers, disconnect customers) to assist content owners whose rights may be infringed by means of file-sharing or other activities?

There is no provision under the laws requiring telecommunications operators or internet service providers to assist content owners whose rights may be infringed by means of file sharing or other activities.

That said, telecommunications operators or internet service providers would need to comply with court orders or administrative decisions in, for example, the intellectual property space, if such orders or decisions mandate take-down actions where intellectual property owners have successfully contended that their intellectual property rights have been infringed by, for example, a hosted website.

6.3 Are there any 'net neutrality' requirements? Are telecommunications operators and/or internet service providers able to differentially charge and/or block different types of traffic over their networks?

Under the Law on Telecommunications, the key principles for determining telecommunications charge rates are keeping the management and stipulation of telecommunications charge rates non-discriminatory (except where necessary to encourage new businesses to participate in the market) and ensuring a fair competition environment.

The Law on Telecommunications generally prohibits: (i) the disclosure of state secrets, military, security, economic or other confidential information specified by law; (ii) undermining national security, social order, safety and fine traditions and customs; (iii) stealthily retrieving, eavesdropping on or accessing without permission information on telecommunications networks; (iv) hacking and using without permission telecommunications resources, passwords, keywords and private information of other organisations and individuals; (v) spreading information to distort, slander or bring down the prestige of organisations or honour and dignity of individuals; (vi) advertising, propagating or trading in illegal goods or services; and (vii) illegally obstructing, disrupting or undermining the establishment of the telecommunications infrastructure or the lawful provision and use of telecommunications services.

Telecom service agents have the right to refuse to provide telecommunications services to users who are in violation of the above.

6.4 Are telecommunications operators and/or internet service providers under any obligations to block access to certain sites or content? Are consumer VPN services regulated or blocked?

Telecommunications operators and internet service providers may be under obligations to block access to certain sites or content if the authorities properly request them to do so.

The Law on Telecommunications provides that the Government authorities can request telecommunications enterprises to take emergency preventive action and suspend the provision of telecommunications services in cases of riot, violence or use of telecom services to infringe upon national security or oppose the Socialist Republic of Vietnam.

Moreover, under the IT Law, individuals or organisations transmitting or storing digital information are liable for taking necessary actions to prevent access to digital information that they themselves discover is illegal, or as may be properly requested by the authorities.

VPN services are classified as telecommunications services under Vietnam's WTO commitments on services. Thus, they are regulated or blocked in the same way as other telecommunications services, as described above.

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