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Technology and IP Forum: Current global issues in SEP licensing, enforcement, and disputes

December 4, 2018



Agenda

- Introduction to Standards, SEPs, and FRAND licensing
- Regional consideration and opportunities
- Getting out in front of SEP issues
- IP key takeaways
- Antitrust analysis of SEPs
- Fundamentals: Introduction to antitrust law and IP analysis
- Specific application to SEPs
- Recent U.S. developments
- Antitrust key takeaways



Introduction to
Standards, SEPs,
and FRAND licensing

What are Standard Essential Patents?

- Standard Essential Patents (SEPs) cover inventions that must be used to comply with one or more interoperability standards (e.g., 802.11 WiFi, WBCDMA, and LTE standards)
- Standards (and SEPs) play a key role in many industries

(12) **United States Patent**
Jäverbring et al.

(10) Patent No.: **US 6,604,216 B1**
(45) Date of Patent: **Aug. 5, 2003**

(54) **TELECOMMUNICATIONS SYSTEM AND METHOD FOR SUPPORTING AN INCREMENTAL REDUNDANCY ERROR HANDLING SCHEME USING AVAILABLE GROSS RATE CHANNELS**

(75) Inventors: **Stefan Jäverbring, Haning Anders Furuskär, Stockholm Stefan Eriksson, Stockholm Magnus Frödigh, Sollentuna**

(73) Assignee: **Telefonaktiebolaget LM Ericsson, Stockholm (SE)**

(* Notice: Subject to any disclaimer, the patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/505,792**
(22) Filed: **Feb. 17, 2000**

Related U.S. Application Data
(60) Provisional application No. 60/170,209, filed 1999.

(51) Int. Cl.⁷
(52) U.S. Cl.
(58) Field of Search
714/786, 748-749

(56) **References Cited**
U.S. PATENT DOCUMENTS
5,657,325 A 8/1997 Lou et al.
5,940,439 A * 8/1999 Kleider et al.
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DE 196 30 343 A1 2/1998
EP 104703 10/2000
OTHER PUBLICATIONS
Li et al., Variable Rate trellis Coded Modulation with Punctured Codes, IEEE, p. 624-627, 1997.*
Eroz et al., A Multiple Trellis-Coded Hybrid Scheme for Land Mobile Communication Channels, IEEE, pp. 496-500, 1995.*

Comparison of Link Quality Control Strategies for Packet Data Services in EDGE by Stefan Eriksson, Anders Furuskär, Magnus Frödigh, Stefan Jäverbring, Håkan Olofsson and Johan Skold, Ericsson, (June Systems, XVI, 2000, pp. 1-10)

What is claimed is:
1. A transmitter for transmitting a digital data block to a receiver, said transmitter comprising:
a coding circuit for coding the digital data block and generating a mother code word;
a reordering circuit for reordering the mother code word and generating a reordered mother code word, wherein the reordered mother code word is generated based on an ordering vector, the ordering vector defining an order in which bits forming the reordered mother code word are to be modulated and forwarded to a receiver; and
a modulating circuit for modulating at least one subsequence and for forwarding, to the receiver, the at least one modulated subsequence, each of the at least one modulated subsequence having a desired number of bits taken from the reordered mother code word to fill the available bandwidth of at least one available gross rate channel.

Examples of products that use standards

- Mobile devices
- Connected cars
- Smart home application
- Smart retail
- Connected healthcare
- Gaming technologies



Source <https://www.digitalsme.eu/standards-essential-patents-new-eu-approach-stake-smes/>

Example: Telecom technology

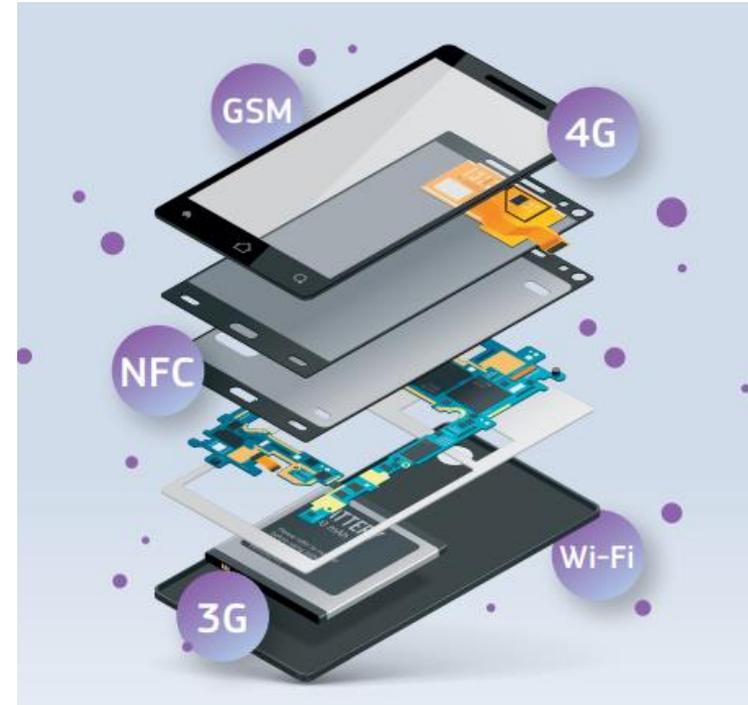
Telecoms systems involve communication standards

- Sending and receiving units, as well as infrastructure stations, can only communicate if they use the same protocols, procedures, and data formats
- Members are telecom companies (manufacturers, network operators, service, and content providers), national administrations, universities, and research groups and user organizations
- Development of telecoms standards involves patentable inventions
- Many patents protect protocol elements or data formats of the standard
- Nowadays telecoms standards consist of several thousand SEPs

Example: Telecoms standards and SEPs

Important telecoms standards

- LTE (Long Term Evolution) – 10,200 declared SEPs
- UMTS (Universal Mobile Telecommunications System) – 10,828 declared SEPs
- GSM (Global System for Mobile Communications) – 13,689 declared SEPs
- GPRS (General Packet Radio Service) – 3,444 declared SEPs
- WLAN (Wireless Local Area Network) – 2,201 declared SEPs



Source:

https://www.eesc.europa.eu/sites/default/files/file_s/factsheet - standard essential patents 1.pdf

Vehicle connectivity requires the world of telecom SEPs



Example: Connected cars

Examples of connected cars technologies

- Internet access and WLAN
- Communication with other devices
- Traffic information
- Comfort for the customer (voice commands, navigation, calendar)
- Entertainment (audio, video, apps)
- Remote control of car via smartphone (e.g. switch on seat heaters, close convertible roof)

How standards are set

- Standards are set and developed by Standard Setting Organizations (SSOs) in cooperation with their members
 - The European Telecommunications Standard Institute (ETSI) represents 70% of worldwide SEPs
- Members of SSOs vie to have their patented technology adopted as a standard
- SSOs require by contract that patent holders declare any patents they believe are essential to the adopted standard
 - Done without SSO review of the accuracy of essentiality declarations, giving rise to over-declaration

How standards are set (*continued*)

- In exchange for adoption of member technology relevant to a standard, SSOs also require by contract that their members license their declared patents allegedly essential to the technical standard adopted on Fair, Reasonable, and Non-Discriminatory (FRAND) terms
- Why this FRAND requirement?
 - Although an entity can invent an alternative solution that does not infringe a non-essential standard patent, that same entity cannot design around a patented technology that is truly essential to an adopted standard (a SEP)

Implications of an “essential” nature

- Tens of thousands of patents cover technologies utilizing 2G, 3G, and 4G/LTE standards
 - **Example:** More than **23,500** patents have been declared essential to the GSM and the 3G standards
- Often, the patent claims are worded such that the claim language is inevitably met when practicing the standard
 - **A device may be covered by thousands of SEPs**
- The “essential” nature of these technologies present special challenges to, and debates among, policy makers, regulatory bodies, courts, and negotiating parties alike.

Big picture points on FRAND licensing

- In theory, SEPs could be used by patent holders to exclude competitors from the marketplace
- To balance the bargaining power, SSOs require SEP patent holders to grant licenses on FRAND terms
- However, valuing and licensing SEPs, particularly when part of large patent portfolios, can get complicated
- SEP owners may create patent pools to license groups of patents that are essential for a particular standard under a single license agreement
 - However much of the worldwide declared SEPs are licensed individually rather than in a patent pool

Big picture points on FRAND licensing (*continued*)

- What is FRAND?
- Fair and Reasonable **AND**
- Non-discriminatory (similar terms to similar parties)
 - As to royalty rate, fees
 - As to geographical scope
 - As to exclusivity
 - Other terms like MFN (?)

What Is FRAND (Royalty Base)?

License Price = Royalty **Rate** x Royalty **Base**

But what is the Royalty Base?



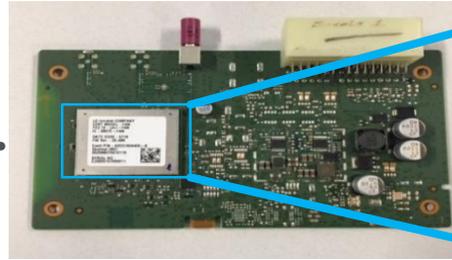
Car

VS.



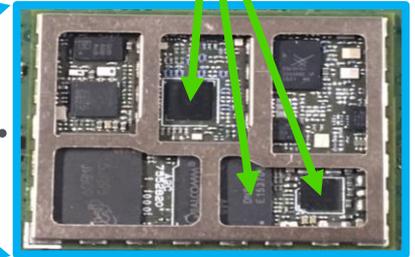
Connectivity
feature

VS.



Telecommunication
module

VS.



Embedded modem

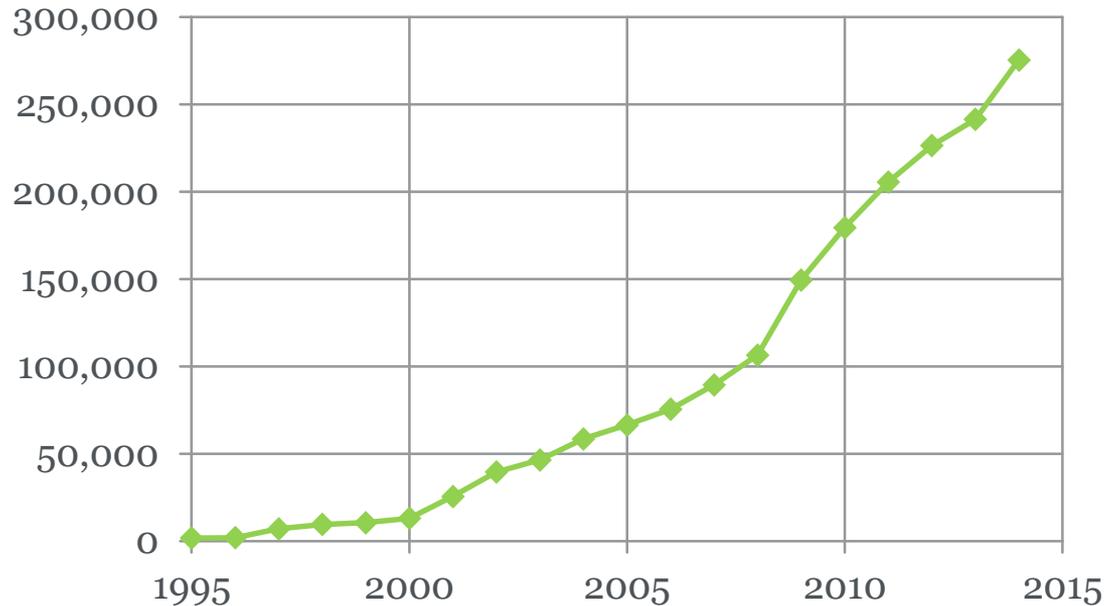
Modem
chipset

History of SEPs and FRAND in the U.S.

The number of SEPs is increasing

- The number of SEPs is growing dramatically
- SSOs require members to offer SEPs on FRAND terms
- Thus, as the number of SEPs has grown, so too has the number of patents subject to FRAND

Cumulative declared SEPs



Potential future disputes

SEP owners seek monetization

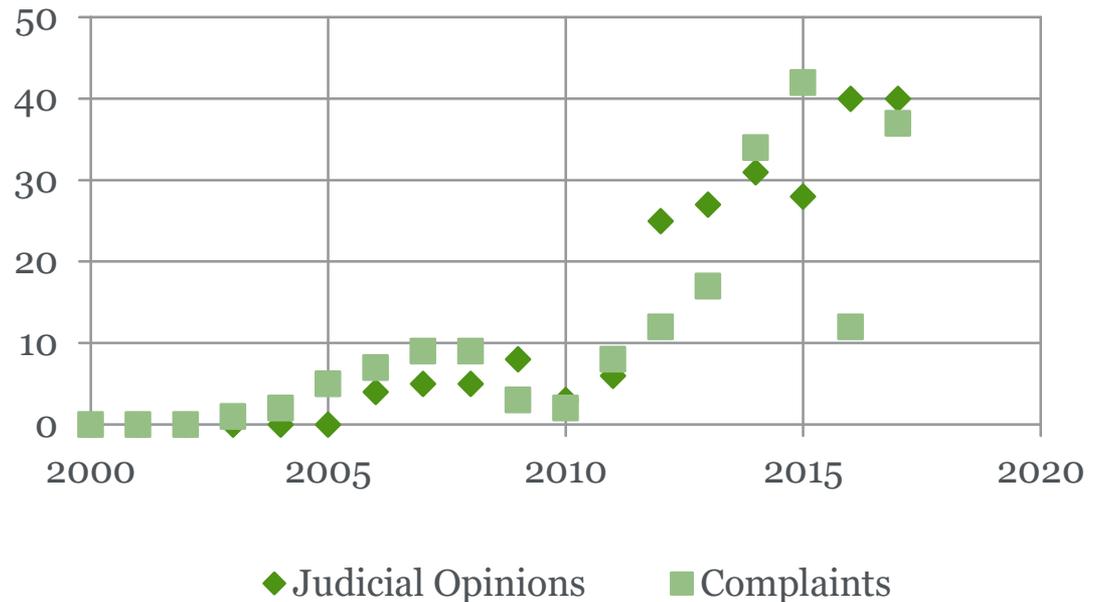
- Patent owners of the SEPs know that there is a lot of money in connected devices, such as connected cars, speakers, appliances, etc.
- They may try to get their piece of the pie
- For many of them, starting licensing campaigns and even litigations may be low risk
- Non-practicing entities (so-called patent trolls) run particularly aggressive licensing and litigation strategies

History of SEPs and FRAND in the U.S.

Corresponding increase in FRAND litigation

- This increase in SEPs coincides with an increase in SEP/FRAND litigation
- In 2000, these cases were not that common. Now, there are many each year.
- This trend is likely to continue as use of standards proliferates, *e.g.*, Internet of Things, 5G, connected cars.

U.S. cases involving SEPs or FRAND



Potential future disputes

Owners of telecoms SEPs

- The most important players in the field are the developing companies
- But other players (especially Non Practicing Entities or NPEs) hold almost 20 % of all SEPs
- Patent pools like Avanci claim to hold large percentage of wireless SEPs

Assignee Category	Assignees	Devices		Network & Infrastructure	
		# of Patents	# of Seminal Patents	# of Patents	# of Seminal Patents
Major Players	Samsung	1179	77	243	0
	Qualcomm	729	80	180	1
	InterDigital	345	22	85	0
	Nokia Corporation	275	27	80	0
	Ericsson	217	24	75	0
	LG Corp.	226	25	60	1
	Motorola Solutions, Inc.	188	11	34	0
	Motorola Mobility Holdings, Inc.	30	12	5	0
	Panasonic	379	13	80	0
Sony	181	12	20	0	
Others (SMEs/NPEs)	Electronics and Telecommunications Research Institute	197	8	52	0
	Industrial Technology Research Institute	70	4	11	0
	Korea Advanced Institute of Science and Technology (KAIST)	27	0	3	0
	Hong Kong Applied Science & Technology Research Institute	20	3	9	0
	Seoul National University Industry Foundation	15	0	6	0
	Massachusetts Institute of Technology	8	0	2	0
	California Institute of Technology	4	1	0	0
	Adaptix Inc.	47	1	5	0
	Digcom Inc.	93	18	6	2
Innovative Sonic	21	1	0	0	

Table 5: Patent distribution of key players across Devices and Network & Infrastructure

LTE SEP patents, 2012

Source: www.i-runway.com/images/pdf/

Regional considerations and opportunities

U.S.: What the courts have made of SEPs

- Risk of injunction in ITC, less risk in District Court if NPE
- ITC/Courts will question whether patents are actually SEPs
- Analyze FRAND rate under traditional reasonable royalty approach
 - Focus on smallest saleable unit or comparable licenses?
 - Worldwide rate
- Strategies to consider:
 - Breach of FRAND suit in ND Cal. and argue smallest saleable unit approach to rate
 - Possible injunction regarding lawsuits outside the U.S.

Key U.S. SEP cases

Timeline of cotable SEP decisions



SEPs in Europe: Overview

- European Commission Position Paper on SEPs
 - Preference for transparency, certification of essentiality and patent pools
 - Considers worldwide portfolio license to be FRAND
- SEP holder/licensor friendly and fast courts in Germany with risk of injunction
- German and UK courts forcing licenses that are global in scope (extra-territorial effect of European patents)
- Obligation to participate in licensing negotiations (*Huawei v. ZTE* ping pong match) to avoid injunction

Germany: What the courts have made out of SEPs

- Injunction will likely apply if *Huawei v. ZTE* ping pong match not complied with
 - Limited obligation for licensors to provide infringement analysis / claim charts
 - Parties must be timely in their replies to one another
 - FRAND opening offer and, if so, Counter Offer required
- German case law becoming more balanced and less SEP owner friendly
- Some strategies to consider:
 - **Negotiate a favorable NDA** that permits disclosure to suppliers and reliance on communications to show willingness to license
 - Insist that licensor **disclose licenses granted to others**
 - Consider **patent challenges** in the UK

UK: What the courts have made out of SEPs

- Case law developed based on FRAND undertaking (not based on statutory competition law as in Germany)
- More liberal approach on non-discrimination
 - At least based on FRAND undertaking
 - Competition law may require stricter approach (depending on evidence submitted regarding effect of discrimination on competition)
- Court determines FRAND rate (unlike in Germany)
 - *Unwired Planet v. Huawei*: comparative license approach (as opposed to top-down approach)
 - Worldwide license rate
- Injunction and damages only for the UK (not on a worldwide basis)

China: What the courts have made out of SEPs

- Chinese government SEP reforms (2017) include factors to be considered as to whether SEP-related injunctions restrict competition:
 - Negotiation behavior
 - Nature of SEP declarations
 - License terms proposed
 - Effect on downstream market competition
- SIPO has become Chinese National IP Admin (CNIPA) which now sits under SAMR
 - SAMR is tasked with **enforcement of Anti-Monopoly Law**

Getting out in front of SEP issues

Strategy options – All with challenges and opportunities

- Negotiate aggressively for favorable licensing deals
- Attack SEPs with IPRs and oppositions
- Pursue strategic litigation opportunities
- Participate in fair licensing organizations and lobbying efforts
- Approach competition authorities in the U.S. and EU

More strategy options

- Use patent licensing pools to generate income
- Offset license cost by purchasing SEPs to license
- Leverage commercial relationships with SEP holders
- Technology work-arounds

More strategy options (*continued*)

- Increase participation in standard setting organizations and in SSO rule-making to influence licensing rules and IPR policies
- Start new standards (e.g., AVs, charging)
- Increase standard-essential inventions
- Encourage open-source and royalty-free solutions
 - Smart Device Link
 - Bluetooth

Expand SSO participation

- Engage in areas where participation can be leveraged into favorable licensing rules or an advantageous patent position
- Some entities have a dedicated standards position/group
- Requires significant support by engineering/technical groups
- Identify key technology areas
- Advocate for open standards where appropriate

More strategy options – Involve suppliers

- Encourage suppliers to get active in licensing negotiations with SEP owners
 - Will make it harder for SEP owners to request high rates on OEM value
 - Suppliers may have information on existing license agreements with SEP owners
- Litigation by suppliers to get license may be an option
 - SEP owner refusal to grant licenses to suppliers likely not FRAND
 - Successful litigation would significantly complicate current licensing strategy of SEP owners

Supplier issues

- OEMs have different views on supplier responsibility
- Suppliers have contractual responsibility but can't obtain all necessary licenses
- License costs haven't been fully priced into components and need to allocate financial responsibility

Pave the way for new Legislation/Regulation

- Automatic injunctions in Germany
 - Challenging task to change the law
 - Possible platform, e.g., IP2I
- IPR policies of standardization organizations
 - Stricter IPR undertakings regarding licensing obligations
 - Improved transparency regarding essentiality, validity, litigation, etc.
 - Definition of “price” of standard at early stage while standard is developed
- Alternative dispute resolution
- Fair Standards Alliance

Consider approaching government antitrust authorities

- Position of European Commission regarding SEPs/FRAND
 - Encourages licensing platforms (within bounds of EU competition law)
 - Substantiation of essentiality of portfolio patents
 - No license to unused patents
 - Transparency regarding previous license agreements (non-discrimination)
- Position of FTC regarding SEPs/FRAND
- Does Avanci model fulfill these requirements?
 - Essentiality?
 - Scope of license?
 - Transparency regarding non-discrimination?

IP key takeaways

IP key takeaways

- The use of standards will continue to increase across a wide variety of product and industries
- The numbers of SEPs is also rising and trending towards pooling
- Strategy options:
 - Become educated internally and consider licensing approach for your business
 - Increase participation in SSOs
 - Consider strategic litigation, including patent challenges at the PTO
 - Consider getting involved in regulatory and legislative policy: fair licensing, patent pooling
 - Pursue beneficial coordination between suppliers and OEMs, where possible



Antitrust analysis
of SEPs

Overview

- Fundamentals: Introduction to antitrust laws and IP analysis
- Specific conduct involving SEPs (refusals to license, injunctive relief, tying and bundling, and excessive pricing)
- Recent U.S. developments (enforcement decisions and policy statements from the DOJ and FTC)

Fundamentals: Introduction to antitrust law and IP analysis

U.S. antitrust law

- Sherman Antitrust Act
 - Section 1 – under common law interpretation, outlaws all contracts, combinations, or conspiracies that unreasonably restrain interstate and foreign trade (i.e., concerted action)
 - Section 2 – outlaws unlawful monopolization
- Clayton Act Section 7 – prohibits mergers or acquisitions that are likely to lessen competition
- FTC Act Section 5 “unfair methods of competition”

Analysis

- Per se approach (e.g., price fixing)
- Rule of reason (*most licensing restraints)
- Truncated rule of reason (rebuttable presumption)

Foreign comparison

- EU and others: “Exploitative abuses” (e.g., excessive pricing)
- Common law v. civil law
 - Detailed rules and regulations v. common law development

Foreign competition laws and agencies

- European Union (DG Comp.)
 - Article 101 and 102 of the Treaty on the Functioning of the European Union (TFEU)
- China
 - Anti-Monopoly Law (AML) and rules and regulations
 - 3 AML agencies: MOFCOM, NDRC, and SAIC
 - Korea (KFTC)
 - Monopoly Regulation and Fair Trade Act (MRFA)
 - India (CCI)
 - The Competition Act

1995 DOJ-FTC IP guidelines

Three general principles

- For the purpose of antitrust analysis, the Agencies regard IP as being essentially comparable to any other form of property;
- The Agencies do not presume that IP, including SEPs, create market power in the antitrust context as there will often be sufficient actual or potential close substitutes to prevent the exercise of market power; and
- The vast majority of licensing restraints have procompetitive effects, in part because they allow firms to combine complementary factors of production, and therefore are analyzed under the rule of reason.

IP as any other inputs

- Generally speaking, we view IP as any other resources and inputs, and should be very wary of special antitrust rules for IP that we do not apply to other areas.
- That's not to say, however, that there are not important distinguishing characteristics with IP
 - For example, IP is non-rivalrous
 - Another distinguishing characteristic is that the boundaries of IP often lack the clarity of physical property. Often it takes a court or arbitrator to clarify the precise bounds of a given IP.

IP as any other inputs (*continued*)

- While these distinguishing characteristics are important, at the end of the day, IP is another input into the production process
- This is important because there's a temptation to treat IP and market power as some type of toxic combination
- We would not consider a monopolist using specialized labor or proprietary capital to maintain or exercise its market power as somehow doing something improper. Yet, if that same monopolist uses IP in order to achieve these same ends, you will have some competitor or antitrust commentator suggesting some type of enforcement action.

Effects-based approach

- Except for naked restraints such as price fixing, the U.S. Antitrust Agencies apply a rule of reason or effects-based analysis under which licensing restraints will only be condemned if the anticompetitive effects outweigh any procompetitive benefits.
- The Agencies recognize an IPR holder's core right to exclude and thus measure any potential concerns against the “but for” world; that is, what would have occurred in the absence of a license.

Potential antitrust concerns

- The U.S. antitrust agencies recognize that IP licensing arrangements are typically welfare-enhancing and procompetitive, and will not require the owner of IP to create competition in its own technology
- Antitrust concerns may arise:
 - When a licensing arrangement harms competition among entities that would have been actual or likely potential competitors in a relevant market (i.e., entities in a horizontal relationship) by, for example, facilitating market division or price-fixing; or
 - When license restrictions with respect to one market harm competition in another by anticompetitively foreclosing access to, or significantly raising the price of, an important input.

Efficiencies and justifications

- If the agencies conclude that a restraint has, or is likely to have, an anticompetitive effect, they will consider whether the restraint is reasonably necessary to achieve procompetitive efficiencies
- If so, the agencies will then balance the procompetitive efficiencies and the anticompetitive effects to determine the probable net effect on competition
- The existence of practical and significantly less restrictive alternatives is relevant, but the agencies will not search for a theoretically least restrictive alternative that it not realistic in the practical prospective business situation faced by the parties

Specific application to SEPs

Refusals to license

- The U.S. antitrust agencies have stated that “[a]ntitrust liability for mere unilateral, unconditional refusals to license will not play a meaningful part” in their enforcement efforts (2007 IP Report)
- This approach recognizes that antitrust liability for refusals to license would impair an IPR holder’s core right to exclude, which is likely to lessen the incentive to innovate
- The U.S. Supreme Court has explained that “liability for refusals to license competitors would compel firms to reach out and affirmatively assist their rival, a result that is ‘in some tension with the underlying purpose of antitrust law.’” *Trinko*

Refusals to license (*continued*)

- Remedies for refusals to license, including compulsory licensing, also raise administrability issues, as well as threaten to harm incentives to innovate
- At the very least, antitrust liability for refusals to license should require a showing of anticompetitive harm that outweighs any procompetitive benefits
- E.g., refusing to license a FRAND-assured SEP at the component level such as the chipset
- Because SEP holders typically do not assert their patents against component manufacturers and offer to license to end-user manufacturers, there is no foreclosure or harm to competition

Patent holdup

- Economists have long understood that a contractual relationship involving an asset-specific investment creates the potential for opportunism by one or both of the parties
- Similarly, once a patent is adopted by an SSO, the patentee may try to holdup potential licensees with asset-specific investments by demanding a higher royalty rate than would have prevailed in a competitive setting
- On the other hand, innovators that are contributing to an SSO can also be locked-in if their technologies have a market only within the standard. Thus, incentives to engage in holdup run in both directions and are equally as possible to occur.

Patent holdout

- In addition to patent holdup, there is also the possibility of holdout
- While reverse holdup refers to the situation when licensees use their leverage to obtain rates and terms below FRAND, holdout refers to licensees either refusing to take a FRAND license or delaying doing so

Injunctive relief

- As the U.S. antitrust agencies have explained:
 - “Without the availability of prompt and effective civil remedies, including injunctive relief in appropriate circumstances, patent holders may not be properly compensated for their innovations, which may deter participation in standard-setting and future innovation.” USG OECD Paper (Dec. 2014)

Requirements for injunctive relief

- In the United States, whether to grant injunctive relief on a FRAND-assured SEP is governed by the U.S. Supreme Court's 2006 decision in *eBay v. MercExchange*
- Under *eBay*, to obtain an injunction, a patent holder must show:
 - “that it has suffered an irreparable injury;
 - that remedies available at law, such as monetary damages, are inadequate to compensate for that injury;
 - that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and
 - that the public interest would not be disserved by a permanent injunction.”

Courts as gatekeepers

- Injunctions issued only upon a court order
- This critical gatekeeper minimizes the risk of any potential harm
- As such, the mere seeking of injunctive relief alone does not monopolize the market because courts independently assess whether an injunction is warranted, taking into consideration whether the public interest would be disserved by an injunction
- The *in terrorem* (or fear from threat) effect of filing for an injunction depends on the likelihood of it being granted

Injunctive relief and antitrust law

- No U.S. court has held that seeking injunctive relief on a FRAND-assured SEP violates the antitrust laws
- Instead, every U.S. court that has addressed the issue has done so under contract law principles
- The heads of the U.S. DOJ and FTC have stated that injunctive relief is properly a contract (or fraud) issue, and not antitrust
- The U.S. FTC has entered into voluntary settlements in two matters, Bosch and MMI/Google, regarding injunctive relief. Both investigations were brought under the FTC's standalone "unfair methods of competition" authority.

Recent U.S developments

FTC's settlement in MMI/Google

- The settlement protects against concerns of holdup in both directions as well as concerns about holdout.
- Under the settlement agreement, MMI/Google agreed not to seek injunctive relief unless it takes a series of steps including:
 - providing a potential licensee with a written offer containing all of the material license terms necessary to license its SEPs; and
 - providing the potential licensee with an offer of binding arbitration to determine the terms of a license.

MMI/Google *(continued)*

- The settlement also provided potential licensees with a voluntary negotiation framework that they could opt into to negotiate license terms
- The settlement identified circumstances when Google would be allowed to seek injunctive relief, such as when the potential licensee:
 - is not subject to jurisdiction in the United States, or
 - refuses to agree to terms set by a court or in binding arbitration.

ECJ safe harbor approach

- In *Huawei v. ZTE*, the European Court of Justice (ECJ) created a safe harbor from antitrust liability for an SEP holder that:
 - prior to initiating an infringement action, alerts the alleged infringer of the claimed infringement and specifies the way in which the patent has been infringed; and
 - after the alleged infringer has expressed its willingness to conclude a license agreement on FRAND terms, presents to the alleged infringer a specific, written offer for a license, specifying the royalty and calculation methodology.

ECJ safe harbor approach (*continued*)

- The ECJ put the burden on the alleged infringer to “diligently respond” to the SEP holder’s offer, “in accordance with recognized commercial practices in the field and in good faith,” by promptly providing a specific written counter-offer that corresponds to FRAND terms, and by providing appropriate security (e.g., a bond or funds in escrow) from the time at which the counter-offer is rejected and prior to using the teachings of the SEP.

Huawei v. ZTE

- The ECJ recognized that SEP holders have “the right to bring an action for prohibitory injunction or for the recall of products,” and made clear that the SEP holder’s right can be limited only in particular and exceptional circumstances
- The decision recognizes concerns about reverse holdup and holdout, stating that the Court will not tolerate infringers’ “delaying tactics”
- The ECJ reiterates, in multiple places throughout the decision, that its competition analysis involves a situation involving two competitors, which suggests that the Court’s holding and analysis is limited to matters involving competitors

Tying and bundling

- Many economists believe that, in general, tying and bundling are much more likely to be procompetitive than anticompetitive
- Tying and bundling have the potential to harm competition and generate anticompetitive effects under certain conditions which may be difficult to identify in practice
- Both are prevalent in markets without significant antitrust market power and have a number of procompetitive uses

Procompetitive efficiencies

- Tying and bundling can enhance consumer welfare through a variety of means, such as economies of joint sales, quality assurance and protection of goodwill, and cheating on a cartel price
- Economies of joint sales, for example, are present throughout the economy, as in the case of shoes and shoelaces and indeed virtually every manufactured product
- Quality assurance may be achieved by tying sales of products to sales of services (warranty repair) or consumables (fast-food franchisees may be required to buy critical ingredients from the franchisor)

“One monopoly profits” theory

- A firm with a monopoly in the tying product may be unable to increase its profits by seeking to collect rents from a complementary product
- Under the “one monopoly profit argument,” if the same consumers are buying both products in fixed proportions, it is the total price that determines consumer sales and the monopolist’s pricing decisions
- Thus, a monopolist would have to lower the price on the tying product to keep the total price unchanged at the profit-maximizing level

Restrictive assumptions

- That the same consumers are buying both products in fixed proportions; and
- That the tied good market has a competitive, constant returns-to-scale structure.

*By relaxing those assumptions, some economists have identified exclusionary motives for tying and bundling.

Theories of harm

- The potential harm in high-tech markets is that firms may be deterred from investing in innovation in potential complement markets because there is a substantial risk of foreclosure through tying later on
- Tying may also require a potential entrant to enter two markets at once, thereby reducing the constraint from potential entrants

U.S. antitrust agency approach

- In the exercise of their prosecutorial discretion, the U.S. agencies consider both the anticompetitive effects and the efficiencies attributable to a tie-in or bundle
- The agencies would be likely to challenge a tying arrangement if: (1) the seller has market power in the tying product, (2) the arrangement has an adverse effect on competition in the relevant market for the tied product, and (3) efficiency justifications for the arrangement do not outweigh the anticompetitive effects.
- The agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner

Excessive pricing

- U.S. antitrust law protects the right of firms to set the prices of their products. The decision to set prices itself cannot trigger antitrust liability. Thus, U.S. antitrust agencies enforcing the law also do not regulate price.
- Rather, in the United States, firms are free unilaterally to set or privately negotiate their prices; it follows that a monopolist is free to charge a monopoly price, which rewards the risk-taking and entrepreneurial behavior by firms that lead to innovation and economic growth.

Recent antitrust enforcement developments

- Previous administration did not bring any antitrust actions against FRAND violators, but leaders stated that exploiting the value added by inclusion in a standard could be an antitrust violation
- Current Assistant Attorney General Makan Delrahim has espoused a very different perspective:
 - “First, hold-up is fundamentally not an antitrust problem, and therefore antitrust law should not be used as a tool to police FRAND commitments that patent-holders make to standard setting organizations.
 - Second, standard setting organizations should not become vehicles for concerted actions by market participants to skew conditions for patented technologies’ incorporation into a standard in favor of implementers because this can reduce incentives to innovate and encourage patent hold-out.
 - Third, because a key feature of patent rights is the right to exclude, standard setting organizations and courts should have a very high burden before they adopt rules that severely restrict that right or—even worse—amount to a de facto compulsory licensing scheme.
 - Fourth, consistent with the fundamental right to exclude, from the perspective of the antitrust laws, a unilateral and unconditional refusal to license a patent should be considered per se legal.”
<https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-keynote-address-university>

Antitrust key takeaways

Antitrust key takeaways

- In general, no special rules or truncated analysis for SEPs; general antitrust-IP analysis applies
- No presumption that IP—including SEPs—confer monopoly power (at least in the US. But see China, Korea, and India decisions)

Today's presenters



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A leading woman in technology law, Celine Crowson is on the forefront of patent litigation, protection, and commercialization for the world's most valuable technology companies. Celine uses her technical background in electrical engineering and her deep experience in intellectual property law to provide her clients with practical, winning solutions to their most complex and important problems. She leads the Intellectual Property, Media, and Technology (IPMT) Americas offices at Hogan Lovells.



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Dr. Keith O'Doherty combines extensive district court and Federal Circuit litigation experience with a broad technical knowledge. A member of our Intellectual Property Group, Keith litigates both patent and trademark cases, and has worked on a number of appeals before the Federal Circuit, where he clerked for the Honorable Judge Jimmie V. Reyna. Keith has also worked on Intellectual Property Rights (IPR) and Post Grant Review (PGR) proceedings before the U.S. Patent and Trademark Office. In non-litigation work, Keith counsels clients regarding patent issues, including non-infringement, invalidity, and patent prosecution strategies.

Practices

Intellectual Property

Areas of focus

IP Litigation, Arbitration, and
ADR
Connected Cars

Practices

Intellectual Property
Litigation
Patents

Areas of focus

IP Litigation, Arbitration, and
ADR
International Trade Commission

Presenters



Koren Wong-Ervin

Director of IP and Competition Policy, Qualcomm Incorporated

Koren W. Wong-Ervin is the Director of Intellectual Property and Competition Policy at Qualcomm Incorporated. She is also a Senior Expert and Researcher at the Competition Law Center of China's University of International Business and Economics.

Prior to joining Qualcomm, Professor Wong-Ervin was the Director of the Global Antitrust Institute (GAI) and an Adjunct Professor of Law at Antonin Scalia Law School at George Mason University. While leading the GAI, Ms. Wong-Ervin trained over 300 foreign judges and competition enforcers in antitrust economics, and submitted over twenty comments to foreign countries on their draft laws and regulations.

Prior to that, she served as Counsel for Intellectual Property and International Antitrust in the Office of International Affairs at the U.S. Federal Trade Commission, where she focused on issues at the intersection of antitrust and intellectual property. She also served as an Attorney Advisor to Federal Trade Commissioner Joshua D. Wright. Prior to working at the Commission, Ms. Wong-Ervin spent almost a decade in private practice, focusing on antitrust litigation and government investigations with a particular focus on issues affecting clients in the technology and financial industries.

Koren is a frequent author and speaker on issues at the intersection of antitrust and intellectual property. She currently serves on the American Bar Association (ABA) Section of Antitrust Law's International Task Force and Due Process Task Force, and was previously co-chair of the ABA's 2016 Antitrust in Asia Conference. From 2012 to 2015, she served as a vice chair of the Intellectual Property Committee within the Section of Antitrust Law. Prior to that, she served on the editorial boards of *Antitrust Law Developments* (7th edition), the leading two-volume antitrust treatise, and the 2003 *Annual Review of Antitrust Law Developments*, an annual supplement to the fifth edition of the treatise. Ms. Wong-Ervin is also co-editor of *Competition Policy International's* North America Column. She also serves as co-chair for the Federalist Society's Antitrust and Consumer Protection working group for the Law and Innovation Project.

Additional resources

Articles of interest

- [How Antitrust Law Can Make FRAND Commitments More Effective](#)
- [Bipartisan Patent Reform and Competition Policy](#)
- [Taking it to the Limit: Shifting U.S. Antitrust Policy Toward Standards Development](#)
- [Antitrust Analysis Involving Intellectual Property and Standards](#)
- [Methodologies for Calculating FRAND Damages](#)
- [Tying and Bundling Involving Standard-Essential Patents](#)



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