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## How Standard-Setting Orgs Can Curb Patent Litigation

By **Michael Carrier and Brian Scarpelli** (June 15, 2021, 6:17 PM EDT)

At least since 4G LTE rolled out a decade ago and the smartphone patent wars were raging,[1] rampant standards litigation has swept the globe.

But what if the prevalence of this litigation varied dramatically based on the standard-setting organization, or SSO, at issue? What if an SSO with a vague patent licensing policy was subject to frequent litigation while one with a clear policy was met with crickets? That is the finding of a new study, which sheds critical light on the role that patent licensing policies can play in avoiding litigation.

### Standards and FRAND

At first glance, standard setting presents antitrust issues. Standards organizations tend to be composed of industry rivals discussing sensitive information such as price.

As Adam Smith worried: "People of the same trade seldom meet together even for merriment or diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices." [2]

At the same time, however, standard setting can be highly procompetitive. Just as there is value in our computers' electrical cords working with the outlets in our homes, our offices and the local coffee shop, markets and consumers benefit when high-tech standardized products from different companies work together by using common protocols.

But to achieve this pro-competitive outcome, SSOs must be able to prevent participants from hijacking the standard by seeking excessive royalty demands or patent injunctions. Such after-the-fact efforts to capture the value not of the patented technology but of adoption into the standard are widely known as patent holdup.[3]

SSOs have addressed patent holdup by allowing their members to contribute patents to the standards process in return for a promise to license those standard-essential patents, or SEPs, on fair, reasonable and nondiscriminatory, or FRAND, terms.

In fact, the idea of FRAND itself was borrowed by SSOs — such as the American National Standards Institute — from U.S. competition law decisions requiring, as an antitrust remedy, that licenses be available to all applicants on FRAND terms.[4]

As the U.S. Court of Appeals for the Third Circuit noted in *Broadcom Corp. v. Qualcomm Inc.* in 2007, FRAND serves as the standardization system's bulwark against illegal monopoly.[5]

And as the U.S. Court of Appeals for the Ninth Circuit explained in *Microsoft Corp. v. Motorola Inc.* in 2015, FRAND obligations are a matter of protecting the public interest and must be understood and interpreted to serve that function.[6]



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It thus is clear that FRAND is important. But what does the term actually mean, and what does it require in practice?

Courts have long applied concepts of reasonableness in various business, criminal and civil contexts. In assessing patent licensing behaviors, in contrast, the guidance provided by SSOs has been sparse, leading to varying decisions from courts in the U.S. and overseas.

To be sure, part of the difficulty stems from the presence in many SSOs of both licensors and licensees. But some have voiced concerns that FRAND might be too vague to effectively serve its intended purpose as the bulwark against monopoly and SEP holdup.[7]

That is, FRAND might leave too much room for SEP owners to renege on their commitments to achieve higher-than-FRAND royalties, seek to exclude market participants or otherwise distort competition. Given these challenges, can anything be done?

### **The DOJ's Proposed Solution**

Enter the U.S. Department of Justice's Antitrust Division. The DOJ, along with the Federal Trade Commission, has had a long and consistent history of viewing FRAND abuse as a competition law problem.[8] This approach has been bipartisan, spanning Republican and Democratic administrations. And the approach has been echoed in Europe[9] and Asia.[10]

In a famous 2012 speech, Renata Hesse, the then-deputy assistant attorney general, proposed a solution to industry problems regarding FRAND licensing in a speech titled "Six 'Small' Proposals for SSOs Before Lunch." [11]

Speaking on behalf of the DOJ, Hesse explained that "[t]he world ... is awash in lawsuits related to patented technologies used to make mobile devices which have raised competition concerns around the globe." [12]

In such a context, the DOJ "has identified ... potential changes to the patent policies of standards bodies that could benefit competition by decreasing opportunities to exploit the ambiguities" of a FRAND promise.[13]

Hesse suggested that SSOs might consider incorporating more detail and clarity into their FRAND policies and offered six specific suggestions regarding issues for which clarity could be especially desirable.

Hesse noted that "[s]tandards bodies whose members choose to take steps" like those mentioned "will help the market for the standardized product to work efficiently by lowering costs, increasing transparency and reducing uncertainty — all of which benefit innovation and competition." [14]

Hesse reasonably explained that "[i]t would seem to be in the interests of all for firms that benefit from standards to seize the opportunity to eliminate some of the ambiguity that requires difficult ex post deciphering of the scope of a [F]RAND commitment." [15]

### **The Successful IEEE Experience**

One of the SSOs discussed in Hesse's speech was the U.S.-based Institute of Electrical and Electronics Engineers. With more than 400,000 members, the IEEE is the world's largest technical professional organization.

The IEEE Standards Association is the standards development arm for the IEEE, developing — among many other technologies — ubiquitous wireless and wired communications standards such as 802.11 (Wi-Fi) and 802.3 (Ethernet).[16]

The IEEE has long been a success story for interoperability and innovation. For a number of years leading up to 2015 and before Hesse's speech, the IEEE's members had been working on changes to the IEEE bylaws to provide greater clarity for its community and affected stakeholders through

its open governance process.[17]

Shortly after the Hesse speech, the IEEE SA's patent committee proposed a slate of updates and clarifications to the IEEE FRAND policy's text.[18] After many rounds of negotiations, a draft was compiled that achieved widespread industry support.[19]

Over the course of about two years, the IEEE policy was approved by the patent committee, and then by supermajority approvals from the IEEE SA standards board and the IEEE SA board of governors.[20] The IEEE board of directors also reviewed and approved the updates, and the updated IEEE policy text became effective in 2015.[21]

The DOJ reviewed and approved the policy as not likely to harm competition,[22] as it instead "furthers the procompetitive goal of providing greater clarity." [23]

At the time, a small group of companies — led by Nokia Corp., Ericsson Inc., InterDigital Inc. and Qualcomm Inc., some of the most aggressive SEP licensors — had sought to block the IEEE's updates.[24] Things went so far that, at the IEEE meeting where the updates were finally approved, someone reportedly "tried to directly influence IEEE directors by slipping content under hotel room doors." [25]

After the approval of the updates, these companies and their proxies offered dire predictions that the IEEE's standards development would be adversely affected.[26]

Those predictions have not come true. Rather, according to empirical research and analysis, after the updates became effective, the IEEE's standardization work — as measured by approval, technical influence, membership and the initiation of new projects — has been more successful than ever.[27]

Moreover, the handful of companies that opposed the IP policy updates and thereafter chose not to provide FRAND commitments to the IEEE "are not now, and never have been, among the more active contributors to 802.11," with "the data indicat[ing] that they are each relatively minor players in development of the standard," with "some ... not contributors at all," according to a 2018 IPLytics report.[28]

This same handful of companies has since funded studies attempting to portray IEEE standards activity as declining by, for example, subjectively ranking contributions by their apparent significant IP value,[29] with other studies justifying their condemnation of the IEEE 2015 patent policy change based solely on the contribution of letters of assurance, or LOA, without considering numerous other metrics that reflect the IEEE's continued vibrancy.[30]

It also bears mention that trying to divine trends by relying on LOA does not make sense given the prevalence at the IEEE of blanket LOA that do not specify particular patents and "often are not updated when new patents are filed that become standard essential," according to the IPLytics report.[31]

In fact, as the report notes "court estimates that about 90% of all patents essential for IEEE standards are declared in 'blanket' declarations," LOA-counting exercises are largely meaningless.[32]

More recent evidence is even more compelling. One metric for a successful FRAND policy is the ability to provide clarity to the market. Such clarity allows businesses to invest in the standard and develop and sell standardized devices with some level of certainty that they will not become subject to after-the-fact licensing abuses.

The flip side of such success is a failed FRAND policy, which can manifest itself in an excessive level of disputes, which suggests that the policy is so unclear that market participants cannot agree on a baseline for its application.

Negotiations happen in the shadow of the law, so if some SSOs leave interpretation of their FRAND policies so unclear that there is only a very thin shadow, disputes and market uncertainty

are the natural consequence.

The data is revealing. According to a newly released study, cellular standards, which are governed by more ambiguous FRAND rules, such as those of the intellectual property rights policy of the European Telecommunication Standards Institute, or ETSI, are responsible for roughly 75% of all SEP litigation.[33] IEEE standards, on the other hand, are responsible for approximately only 2% of SEP litigation.[34]

Providing clarity, and in turn substantially reducing litigation, would appear to be a marked success for the IEEE FRAND policy. On the other hand, a lack of clarity and the associated encouragement of disputes would appear to be a key failure of the ETSI FRAND policy. ETSI has considered updating its patent policy but has run into intense opposition from SEP licensors.[35]

Although we do not claim that the difference in SSO rules is the only reason for the markedly different rates of litigation, it would seem to play an important role in the disparity, especially given the lack of readily apparent alternative explanations.

One final point is telling: The companies that led the opposition to the IEEE updates, and that have predicted the IEEE's demise, are the same companies that historically are responsible for filing the greatest number of SEP lawsuits.[36] In other words, the IEEE's efforts to provide more market clarity were opposed by those companies that have most often sought to exploit the lack of clarity.

## Conclusion

Those who ignore history are doomed to repeat it. SSOs, stakeholders and policymakers must pay heed to history as we move to a world where 5G and Internet of Things technologies become more ubiquitous for cellular standards and expand into new industry sectors, such as automotive, smart energy, health, warehousing and appliances.

SEP litigation that has plagued the smartphone industry for the past decade is now taking aim at the automotive industry, and threatens to become a full-blown pandemic that engulfs the entire Internet of Things.

The safest and fairest solution today is the same as it was in 2012: SSOs should consider introducing greater clarity into their FRAND policies to reduce uncertainty and disputes. The success of the IEEE model is worthy of replication by other SSOs.

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[1] See generally Alison Jones, Standard-essential patents: FRAND commitments, injunctions and the smartphone wars (2014), <https://kclpure.kcl.ac.uk/portal/files/44560567/SEPSFRANDINJUNCTIONSMARTPHONEWARS.pdf>.

[2] Adam Smith, An Inquiry into the Nature and Causes of the Wealth of the Nations 145 (1776).

[3] *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1209 (Fed. Cir. 2014).

[4] See generally Jorge L. Contreras, A Brief History of FRAND: Analyzing Current Debates in Standard-Setting and Antitrust through a Historical Lens, 80 Antitrust L.J. 39 (2015) (documenting history of FRAND licensing as a U.S. competition law remedy, and its migration and

ultimate adoption as a prospective obligation to address and reduce competition law scrutiny of SSOs); see also, e.g., *Hartford-Empire Co. v. United States* , 323 U.S. 386 (1945), modified by 324 U.S. 570, 574 (1945) (imposing competition law requirement to license "all applicants to make, use, or sell the patented machines at reasonable royalties").

[5] *Broadcom Corp. v. Qualcomm Inc.* , 501 F.3d 297, 305 (3d Cir. 2007).

[6] *Microsoft Corp.*, 795 F.3d 1024, 1052 (9th Cir. 2015).

[7] A. Douglas Melamed & Carl Shapiro, *How Antitrust Law Can Make FRAND Commitments More Effective*, 127 *Yale L.J.* 2110, 2133 (2018).

[8] See, e.g., U.S. Dep't of Justice and Fed. Trade Comm'n, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition* (Apr. 2007), <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/222655.pdf>. Between 2017 and 2020, the head of the DOJ Antitrust Division, Makan Delrahim, experimented with a new, heavily-criticized "New Madison" approach to antitrust issues relating to SEPs. See Letter from Michael A. Carrier and Timothy J. Muris on behalf of 77 former government enforcement officials and professors to Assistant Attorney General Makan Delrahim, May 17, 2018, <https://law.rutgers.edu/f/mc-05-18-2018.pdf> (offering eight fundamental critiques). It is unlikely that this approach will continue under the new administration. Our prediction is that the DOJ will return to longstanding bipartisan U.S. policies.

[9] See, e.g., European Commission, *Communication from the Commission: Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements*, 2011/C Off. J. E.U., Jan. 14, 2011, [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011XC0114\(04\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011XC0114(04)&from=EN).

[10] See, e.g., Japan Fair Trade Commission, *Guidelines for the Use of Intellectual Property under the Antimonopoly Act, Part 3, Section 1(i)(e)* (Jan. 21, 2016); [https://www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines\\_files/IPGL\\_Frand.pdf](https://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/IPGL_Frand.pdf).

[11] Renata Hesse, U.S. Department of Justice, *Six "Small" Proposals Before Lunch, Remarks prepared for the ITU-T Patent Roundtable* (Oct. 10, 2012), <https://www.justice.gov/atr/file/518951/download>.

[12] *Id.* at 9.

[13] *Id.*

[14] *Id.* at 10.

[15] *Id.* at 11.

[16] IEEE SA's standardization spans a wide array of industries and technologies. See generally <https://standards.ieee.org/standard/index.html>.

[17] The IEEE Tutorial for 802 on 2015 IEEE SA Patent Policy Update outlines the update process that began in March 2013. See Slides 12-13 ("Chronology for IEEE-SA Policy Update"), [https://grouper.ieee.org/groups/802/802\\_tutorials/2015-07/802\\_Patent\\_Policy\\_Tutorial\\_Slides\\_13\\_July\\_2014.pdf](https://grouper.ieee.org/groups/802/802_tutorials/2015-07/802_Patent_Policy_Tutorial_Slides_13_July_2014.pdf).

[18] Letter from Michael A. Lindsay, Esq. to The Hon. William J. Baer, Assistant Att'y Gen., U.S. Dep't of Justice (Sept. 30, 2014), <https://www.justice.gov/archive/atr/public/busreview/request-letters/311483.pdf> ("IEEE BRL Request").

[19] Letters of support for the policy updates were submitted to IEEE by, among other companies, Apple, Aruba Networks, Broadcom, CableLabs, Cisco, Dell, Hewlett-Packard, Intel, Marvell, Microsoft, Ruckus Wireless, Samsung, Verizon, and Vizio. These companies represent a large portion of the most active contributors to IEEE standards. Additional letters of support were sent by consumer and industry focused groups such as the National Retail Federation (the world's

largest retail trade association, representing 42 million U.S. jobs). See Email from Gil Ohana to PP-DIALOG@xxxxxxxxxxxxxxxxxxxx, Jan. 28, 2015, <https://grouper.ieee.org/groups/pp-dialog/email/msg00321.html>.

[20] IEEE BRL Request, at 13-15; U.S. Dep't of Justice, Response to IEEE Request for Business Review Letter (Feb. 2, 2015), at 5, <https://www.justice.gov/sites/default/files/atr/legacy/2015/02/02/311470.pdf> ("DOJ IEEE letter").

[21] IEEE Tutorial, at 13.

[22] DOJ IEEE letter, at 16.

[23] *Id.* at 11.

[24] See, e.g., Susan Decker & Ian King, Qualcomm Says It Won't Follow New Wi-Fi Rules on Patents, Bloomberg (Feb. 11, 2015, 11:23 AM), <http://www.bloomberg.com/news/articles/2015-02-11/qualcomm-says-new-wi-fi-standard-rules-unfair-may-not-take-part>; Richard Lloyd, Ericsson and Nokia the Latest To Confirm That They Will Not License Under the New IEEE Patent Policy, IAM (Apr. 10, 2015), <https://www.iam-media.com/frandseps/ericsson-and-nokia-latest-confirm-they-will-not-license-under-new-ieee-patent-policy>; Letter from Lawrence F. Shay, Exec. Vice President of Intellectual Prop., InterDigital to David Law, Patent Comm. Chair, IEEE-SA Standards Bd. (Mar. 24, 2015), <http://wpuploads.interdigital.com.s3.amazonaws.com/uploads/2015/03/Letter-to-IEEE-SA-PatCom.pdf>.

[25] Email from Gil Ohana to PP-DIALOG@xxxxxxxxxxxxxxxxxxxx, Dec. 3, 2018, <https://grouper.ieee.org/groups/pp-dialog/email/msg00523.html>.

[26] See, e.g., Brian Pomper, DOJ should not approve IEEE patent policy weakening WiFi patents, IPWatchdog, <https://www.ipwatchdog.com/2015/02/02/doj-ieee-policy-wifi-patents/id=54419/>; Innovation Alliance, Statement on the DOJ Decision and IEEE Vote on new IEEE patent policy (Feb. 9, 2015), <https://innovationalliance.net/from-the-alliance/innovation-alliance-statement-doj-decision-ieee-vote-new-ieee-patent-policy/> (last visited May 20, 2021) ("the primary effect of this change will be to encourage companies to refocus research to other wireless standards bodies, which will harm the IEEE's ability to compete with other standards organizations in the development of technologies beyond Wi-Fi").

[27] See, e.g., IPLytics, Empirical study on patenting and standardization activities at IEEE 13-15 (2017), [https://www.iplytics.com/wp-content/uploads/2018/01/IPLYtics\\_2017\\_Patenting-and-standardization-activities-at-IEEE.pdf](https://www.iplytics.com/wp-content/uploads/2018/01/IPLYtics_2017_Patenting-and-standardization-activities-at-IEEE.pdf); IPLytics, IEEE's Empirical Record of Success and Innovation Following Patent Policy Updates 1-2 (2018), [https://www.iplytics.com/wp-content/uploads/2018/04/IPLYtics\\_Report-on-IEEE-activities\\_2018.pdf](https://www.iplytics.com/wp-content/uploads/2018/04/IPLYtics_Report-on-IEEE-activities_2018.pdf); IPLytics, Empirical Analysis of Technical Contributions to IEEE 802 Standards 1-3 (2019), [https://www.iplytics.com/wp-content/uploads/2019/01/IEEE-contribution-analysis\\_IPLYtics-2019.pdf](https://www.iplytics.com/wp-content/uploads/2019/01/IEEE-contribution-analysis_IPLYtics-2019.pdf).

[28] IPLytics, 2018 Report, at 2.

[29] Kirti Gupta & Georgios Effraimidis, IEEE Patent Policy Revisions: An Empirical Examination of Impact 26 (Mar. 1, 2018), <https://ssrn.com/abstract=3173799>.

[30] Ron D. Katznelson, The 2015 IEEE Policy on Standard Essential Patents—The Empirical Record (Sept. 2018), <http://bit.ly/IEEE-LOAs>.

[31] IPLytics, 2018 Report, at 15.

[32] *Id.* at 15-16.

[33] IPLytics, SEP Litigation Trends and Licensing Realities 7 (2021), <https://actonline.org/sep-litigation-trends-and-licensing-realities-ipwatchdog-and-iplytics-march-2021/>. Qualcomm—unlike Nokia and Ericsson and the other few companies that have opposed the IEEE updates—is a meaningful contributor to IEEE. Notably, Qualcomm "committed its patents pursuant to the IEEE

Patent Policy update, based on a blanket commitment submitted by its subsidiary CSR Technologies that is applicable to all 802.11 projects, including those undertaken after 2015." IPLytics, 2018 Report, at 13 n.8.

[34] Because the data cited relates to periods before and after the IEEE's policy updates, the results cannot be attributed exclusively to those updates. But even before the 2015 updates, the IEEE policy provided significantly more detail than ETSI's "basic FRAND" policies. For example, before 2015, the IEEE policy already provided that licenses must be available to "all applicants," whereas the ETSI policy has spawned a number of disputes and lawsuits regarding whether certain parties (e.g., component suppliers) are entitled to a FRAND license.

[35] Roger G. Brooks & Damien Geradin, *Interpreting and Enforcing the Voluntary FRAND Commitment* (July 20, 2010), at 17-21, <https://ssrn.com/abstract=1645878>; Eric J. Iversen, *Standardization and Intellectual Property Rights: ETSI's controversial search for new IPR-procedures*, at 4 (1999), [https://eprints.utas.edu.au/1297/1/Iversen\\_ETSI\\_2002.pdf](https://eprints.utas.edu.au/1297/1/Iversen_ETSI_2002.pdf) ("minority alliance" making up "12% of ETSI" urged "IPR procedures [to] be minimal" and "uncompromisingly championed the individual holder's rights to exercise its IPRs without restriction"); see also *id.* at 6 (noting "phenomenal" intensity of lobbying "to hinder the '93 policy from being implemented").

[36] IPLytics, *SEP Litigation Trends and Licensing Realities 6* (2021), <https://actonline.org/sep-litigation-trends-and-licensing-realities-ipwatchdog-and-iplytics-march-2021/>.

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