

IEEE Patent Licensing Policy Updates Need Clarity

By **Michael Carrier and Brian Scarpelli** (March 27, 2023, 4:22 PM EDT)

In established and emerging technology markets, standards development organizations, or SDOs, play a crucial role in ensuring access to standard essential patents, or SEPs.

In this piece, we assess the Institute of Electrical and Electronics Engineers Standards Association's recent updates to its patent policy.

While the policy continues to provide important protections for users of IEEE-SA standards, the changes have introduced ambiguities that likely will create new uncertainties and increase litigation. IEEE-SA will meet March 28 to consider additional clarifications to this policy.

Additional guidance from IEEE-SA could help mitigate these risks.

Standards, SDOs, FRAND and Abuse

Standards are critical for markets, as they ensure interoperability, increase reliability and safety, and foster efficiencies. Because of the importance of standards, the bodies responsible for their development, SDOs, are critical — as are their policies.

The exclusion of technologies that could arise from competitors collaborating in the process of setting standards poses risks to competition. By compelling the use of a particular solution, standards can eliminate competing technologies from the marketplace.

Once an industry is locked into a standardized technology, holders of SEPs can employ anti-competitive practices to exclude competitors and attain royalties for the patents at issue that exceed those they could have received absent the removal of alternative technologies. These behaviors have long been recognized as "patent holdup."^[1]

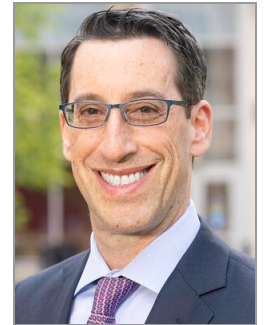
Despite these concerns, the collaboration among stakeholders, even competitors, that SDOs facilitate can advance competition when there are mechanisms that prevent participants from blocking access to the standard.

As a result, SDOs, courts and competition regulators widely recognize the need to check SEP holders in order to advance competition and ensure that the standards they develop are usable.

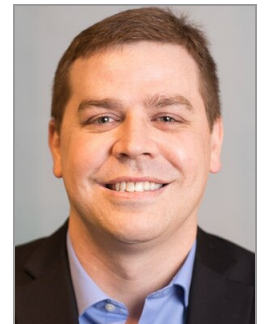
Most important, SDOs typically adopt intellectual property rights policies requiring patent holders to license their patents on fair, reasonable and nondiscriminatory, or FRAND, terms. These promises are vital in preventing standard setting's anti-competitive dangers.

With a FRAND licensing construct in place and followed, the users of standards can be certain they will be able to obtain a license to use the standard on reasonable and nondiscriminatory terms, mitigating holdup, and supporting interoperability and reduced costs.

At the same time, SEP licensors are assured needed protection and fair compensation for their patented technologies. Clarity on what is and is not FRAND behavior is therefore critical to the success of standards and the countless markets they support, and SDOs play a critical role in



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providing that clarity.

How IEEE Got Here

One of the most well-known SDOs is IEEE-SA, whose standardization activities span a wide range of technology areas, from communications standards like 802.11, known as Wi-Fi, and 802.3, known as Ethernet, to emerging technologies like artificial intelligence.[2] IEEE has long been a success story for interoperability and innovation.

Within IEEE-SA, discussions began in the early 2000s about the need for improvements to SEP licensing policies. The reason was simple: Many companies using IEEE-SA standards were being subjected to opportunistic and abusive SEP licensor tactics.

As a result, IEEE-SA updated its policies in 2015 to make clear the conditions that SEP holders needed to satisfy before seeking and enforcing prohibitive orders — such as an injunction from a federal court or an exclusion order from the International Trade Commission — against a party using a standard.

The updated policy text confirmed that the FRAND commitment requires SEP holders to license to all willing licensees by specifying that the patent holder must make licenses available to an unrestricted number of applicants for any compliant implementation, meaning "any product (e.g., component, sub-assembly, or end-product) or service that conforms to any mandatory or optional portion of a normative clause of an IEEE Standard." [3]

In addition, based on the commonsense proposition that patent holders should not be compensated for value conferred by inclusion in the standard, IEEE-SA offered specific guidance on what a FRAND SEP royalty analysis should entail, recommending that the following be considered:

- The contribution "to the value of the relevant functionality of the smallest saleable Compliant Implementation that practices the Essential Patent Claim";
- The contribution "in light of the value contributed by all Essential Patent Claims for the same IEEE Standard practiced in that [smallest saleable] Compliant Implementation"; and
- Existing licenses that "were not obtained under the explicit or implicit threat of a Prohibitive Order" and are "otherwise sufficiently comparable." [4]

After IEEE-SA implemented these updates, a vocal minority of companies — most of which were not major contributors to IEEE standards — predicted that IEEE-SA's standards development would be negatively affected.[5] In addition, many of these companies refused to provide FRAND commitments to IEEE-SA under its new policy.[6]

Despite this scaremongering, studies since 2015 have demonstrated that IEEE-SA grew even more successful.[7] For example, a 2021 study by Timothy Simcoe and Qing Zhang concluded that after the 2015 changes, standardization efforts at IEEE-SA increased and there was no meaningful decline in participation or innovation.[8]

In addition to analyzing IEEE-SA's activity and effects, it is also worth considering litigation, which can provide guidance on whether there is enough certainty for a business to invest in bringing products using the standard to market.

This evidence is telling. IEEE-SA standards are only responsible for roughly 2% of SEP litigation.[9]

By contrast, the European Telecommunications Standards Institute, which focuses on cellular standards but has had more ambiguous FRAND rules, has been responsible for approximately 75% of all SEP litigation.[10]

In 2021, the IEEE-SA's board of governors instituted a review of its 2015 Patent Policy Update for SEP licensing and called for public comments.

More than 100 organizations and individuals from around the world responded to this call for public comment, with an overwhelming majority, 85%, urging the IEEE to retain the 2015 Patent Policy Update without modification.[11]

These organizations reflected a wide and diverse pool of stakeholders that supported maintaining IEEE-SA's patent policy with no changes.[12]

Even though the status quo enjoyed clear support, IEEE-SA altered its patent policy in 2022.[13] The organization changed the standard for seeking prohibitive orders on FRAND-committed SEPs from an objective one based on specific facts to a more subjective one based on the willingness of a licensee to negotiate in good faith.[14][15]

IEEE-SA also added language stating that the use of the smallest saleable patent practicing unit, or SSPPU, as the royalty base is optional under the patent policy, and that other royalty bases may be appropriate in certain circumstances.[16]

In addition, IEEE-SA removed language that had expressly clarified that SEP licenses attained under the threat of a prohibitive order should not be used in determining reasonable royalties.[17]

Corresponding updates were also made to IEEE-SA's Letter of Assurance for Essential Patent Claims and FAQs.[18][19] These changes all took effect on Jan. 1.

What IEEE's Changes Mean

The SEP litigation that has plagued the smartphone industry is now expanding to the automotive industry, and threatens to become a full-blown pandemic that engulfs the entirety of the Internet of Things.

Accordingly, SDOs should introduce greater — not less — clarity into their FRAND policies.[20] In fact, IEEE's clear 2015 policies should be replicated by other SDOs.[21]

In light of the ecosystem's experiences with IEEE-SA's policy since 2015 — and comparing this to the experiences of other SDO policies, like the European Telecommunications Standards Institute's — the introduction of ambiguities into the policy is disappointing and appears to be an attempt to fix something that is not broken.

Even though IEEE-SA's recent changes increased ambiguity, the patent policy still retains key limits. For example, it continues to make clear that SEP holders "shall neither seek nor seek to enforce a Prohibitive Order ... against an implementer who is willing to negotiate in good faith for a license." [22]

In addition, under the revised policy, implementers need not simply accept licensing terms dictated by SEP holders in order to be deemed willing.

In particular, the policy provides that seeking additional information from a SEP holder about a licensing offer "does not by itself" mean that the implementer is "unwilling to negotiate in good faith," nor does challenging the "validity, enforceability, essentiality ... infringement" of patents, the reasonableness of the SEP holder's licensing offer, or "any defenses ... counterclaims, or any other related issues." [23]

This is the case even if the parties are unable to reach an agreement on their own and resort to litigation or arbitration to resolve these issues.

IEEE-SA also continues to affirm that the SSPPU is often an appropriate royalty base in determining a reasonable royalty.

While the revised policy now states that the SSPPU is an optional consideration and that other value levels may be appropriate in certain circumstances, this was always the case.[24]

The previous versions of the FAQs made clear that consideration of the SSPPU was not mandatory

and that the "policy [did] not prevent parties, courts, or other adjudicators from using other considerations." [25]

The SSPPU-related changes in the revised policy simply confirm the intended meaning and appropriate interpretation of the 2015 policy.

In any event, U.S. law still provides assurances to the ecosystem.

Federal district courts apply the test the U.S. Supreme Court developed in *eBay Inc. v. MercExchange LLC* in 2006 to determine the appropriateness of injunctive relief, and administrative law judges at the International Trade Commission are required to consider the statutory public interest factors in Section 337 in deciding whether to grant an exclusion order. [26]

In both analyses, a SEP holder's voluntary FRAND commitment will continue to be a factor. In fact, the U.S. Court of Appeals for the Federal Circuit, not historically associated with insufficient protection of patent rights, made clear in *Apple Inc. v. Motorola Inc.* in 2014 that the framework the Supreme Court set forth in *eBay* "provides ample strength and flexibility for addressing the unique aspect of FRAND committed patents and industry standards in general." [27]

The law continues to support SEP holders being compensated only for the incremental benefit derived from their invention, "not any value added by the standard's adoption of the patented technology," [28] and courts have endorsed SSPPU-based royalties as an appropriate starting point for analysis. [29]

Taking Stock of IEEE-SA's Updates to its Patent Policy

The changes that IEEE-SA made to its policy are unfortunate because they have reintroduced ambiguities into the SEP licensing ecosystem that are likely to lead to exploitation. Such a development reduces confidence in the standards ecosystem.

With increased uncertainty now seeping into IEEE-SA's policy, we may see more litigation that benefits the interests of a small and outlier minority of SEP owners.

If the policy in effect from 2015 to 2022 resulted in IEEE-SA's standards being the subject of only 2% of SEP litigation, what will that percentage be under the new policy?

At the same time, however, SEP licensees can continue to rely on IEEE-SA's continued assurances on the general unavailability of prohibitive orders, as well as the role that U.S. courts have played on these issues.

In the short term, an important step IEEE-SA could take would be to provide additional guidance to its updated policy to increase clarity and reduce litigation risks.

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[1] FTC, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition* 234 (2011), <https://www.ftc.gov/sites/default/files/documents/reports/evolving-ip-marketplace-aligning-patent-notice-and-remedies-competition-report-federal-trade/110307patentreport.pdf>; Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 *TEX. L. REV.* 1991, 2035–39 (2007).

[2] IEEE SA, Search Standards, <https://standards.ieee.org/standard/index.html> (last visited Feb. 26, 2023).

[3] IEEE-SA Standards Board Bylaws § 6.1 (2022 updates redlining 2015 policy), <https://standards.ieee.org/wp-content/uploads/import/governance/bog/resolutions/september2022-updates-sasb-bylaws.pdf>.

[4] Id.

[5] IP Europe, Will IEEE finally admit the errors of its 2015 patent policy changes? (2021), <https://ipeurope.org/blog/will-ieee-finally-admit-the-errors-of-its-2015-patent-policy-changes/>.

[6] IEEE's Empirical Record of Success and Innovation Following Patent Policy Updates: Further Empirical Analysis of Patent and Standardization Activities at IEEE (2018), https://www.iplytics.com/wp-content/uploads/2018/04/IPLYtics_Report-on-IEEE-activities_2018.pdf.

[7] 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; 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; IPLYtics, Empirical Analysis of Technical Contributions to IEEE 802 Standards 1-3 (2019), https://www.iplytics.com/wp-content/uploads/2019/01/IEEE-contribution-anaylsis_IPLYtics-2019.pdf.

[8] Timothy S. Simcoe & Qing Zhang, Does Patent Monetization Promote SDO Participation? (Nov. 29, 2021), <https://ssrn.com/abstract=3973585>.

[9] Michael A. Carrier & Brian Scarpelli, How Standard-Setting Orgs Can Curb Patent Litigation, Law360 (June 15, 2021), <https://ssrn.com/abstract=3934899>.

[10] Carrier & Scarpelli, How Standard-Setting Orgs Can Curb Patent Litigation; IPLYtics, SEP Litigation Trends and Licensing Realities 7 (2021), <https://actonline.org/sep-litigation-trends-and-licensing-realities-ipwatchdog-and-iplytics-march-2021/>.

[11] Report to IEEE Board of Governors, Nov. 15, 2021, https://grouper.ieee.org/groups/pp-dialog/call_for_comments/PatCom_report_to_IEEE_SA_BoG_151121_1350.pdf. 105 responses urged retaining the 2015 patent policy, while only 18 responses suggested revisions to the policy.

[12] Respondents to the IEEE-SA consultation supporting the 2015 updates without modification ranged from large to small, in industries including automotive, broadcast, and technology. Id.

[13] IEEE Announces Decision on its Standards-related Patent Policy, Sept. 30, 2022, <https://standards.ieee.org/news/archive-2022/ieee-announces-decision-on-its-standards-related-patent-policy/>. See IEEE-SA Standards Board Bylaws, Dec. 2022, https://standards.ieee.org/wp-content/uploads/import/documents/other/sb_bylaws.pdf.

[14] Bylaws § 6.2 (licensee unwilling if it "fails to participate in, or to comply with the outcome of, an adjudication, including an affirming first-level appellate review, if sought by any party within applicable deadlines, in that jurisdiction by one or more courts that have the authority to: determine Reasonable Rates and other reasonable terms and conditions; adjudicate patent validity, enforceability, essentiality, and infringement; award monetary damages; and resolve any defenses and counterclaims").

[15] Id. Notably, the policy now states that "[s]eeking further information upon initial notice of infringement or choosing to litigate or arbitrate over any of the foregoing issues [regarding the patent or licensing terms] . . . does not by itself mean that a party so choosing is unwilling to negotiate in good faith."

[16] Id. § 6.1.

[17] Id. § 6.2.

[18] IEEE-SA, Letter of Assurance for Essential Patent Claims, <https://standards.ieee.org/wp-content/uploads/import/governance/bog/resolutions/september2022-updates-loa.pdf>.

[19] IEEE-SA, Understanding Patent Issues During IEEE Standards Development, Sept. 2022, <https://standards.ieee.org/wp-content/uploads/import/governance/bog/resolutions/september2022-updates-faqs.pdf>.

[20] Carrier & Scarpelli, How Standard-Setting Orgs Can Curb Patent Litigation.

[21] Id.

[22] Bylaws § 6.2. To be clear, the IEEE-SA patent policy does not purport to override national laws governing when courts may grant injunctions. Rather, it prohibits SEP holders from seeking injunctions in courts.

[23] Id.

[24] Id. § 6.1.

[25] IEEE-SA, Understanding Patent Issues During IEEE Standards Development, at 16-17.

[26] 547 U.S. 388 (2006).

[27] *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1332 (Fed. Cir. 2014), overruled on other grounds by *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015).

[28] *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1232-33 (Fed. Cir. 2014).

[29] E.g., *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014).