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2 August 2021

Transparency Issues with Standard-Essential Patents

Synopsis

The Fair Standards Alliance (FSA) has long advocated for increased transparency in licensing negotiations with respect to standard-essential patents (SEPs) subject to a commitment to license on fair, reasonable, and non-discriminatory (FRAND) terms.[1] Transparency at all stages—from before a patent is selected to be included in a standard by a standard-setting organization (SSO), to when, whether, and how the patented technology is included in the adopted standard, to the eventual licensing of declared SEPs and accompanying negotiations—is important to ensuring a robust and vibrant SEP ecosystem.

The European Commission (EC) has increasingly drawn attention to SEP transparency issues in recent years. The EC's 2020 Action Plan on Intellectual Property announced the Commission's goal to "improve transparency and predictability in SEP licensing via encouraging industry-led initiatives . . . combined with possible reforms, . . . aiming to clarify and improve the SEPs framework and offer effective transparency tools."[2] The FSA welcomes this commitment to bringing more transparency to SEP licensing and agrees that any potential reforms should carefully consider and reflect input from industry stakeholders.[3]

This Position Paper explores three elements of transparency as it relates to FRAND-encumbered SEPs: (1) identification of patented technology that may encumber the draft standard, (2) essentiality assessments to determine whether a patent that has been declared essential truly is, and (3) the accessibility of necessary information during licensing negotiations between SEP-holders and potential licensees and beyond.

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[1] FSA Key Principles (#3) (June 2016), https://fair-standards.org/wp-content/uploads/2016/08/FSA-POSITION-PAPER-June2016.pdf.

[2] European Commission, "Making the most of the EU's innovative potential An intellectual property action plan to support the EU's recovery and resilience" (Nov. 25, 2020), p. 14, *available at* https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52020DC0760 (hereinafter "EC IP Action Plan").

[3] The FSA has concerns with other issues raised in the EC's 2020 IP Action Plan which are not addressed in this Position Paper. *See Reactions from the Fair Standards Alliance to the European Commission's Communication Regarding an Intellectual Property Action Plan* (Jan. 26, 2021), *available at* https://fair-standards.org/wp-content/uploads/2021/01/210126_FSA-Reactions-on-the-European-Commissions-Intellectual-Property-Action-Plan.pdf.

The FSA's position is that:

- SSOs should adequately document licensing commitments relevant to potential standards essential patents to facilitate technical decisions about the content of the standard and should encourage updating relevant information where appropriate.
- Third-party essentiality assessment could be helpful if carefully structured to be truly independent and avoid bias or any unintentional harm. Current industry driven efforts can be useful tools to learn more about the benefits, challenges, and potential of essentiality assessments before the Commission decides on a course of action.
- SEP-holders should provide key information to potential licensees during licensing negotiations without insisting on burdensome secrecy obligations.

I. Introduction

Industry standards fuel innovation in the economy by enabling seamless interoperability among different products made by different companies. Companies that create devices practicing standardizing technologies—such as current and next generation cellular standards and Internet of Things applications—are and will continue to be crucial to innovation in the connected economy.

Patents that are necessary to carry out a standard are typically referred to as essential. However, the term is a bit of a misnomer. During the standardization process, some SSOs require that companies participating in the development of a standard unilaterally disclose to the SSO that they have patents (or patent applications) that they believe, may be or may become, essential to the standard under consideration. Most SSOs make inclusion of technology that includes potentially essential patents contingent upon the patent-holder making a FRAND or RF (Royalty Free[4]), licensing commitment. Although SSOs do not discuss individual patents, some (e.g., ETSI) require identification of claimed SEPs while others (e.g., ISO, IEC, ITU, CEN, CENELEC, IEEE, OASIS, IETF, W3C) provide the option to document commitments at the standard level. Almost all SSOs require identification of claimed SEPs that will not be offered for license on FRAND terms.

SSOs do not independently corroborate whether declared SEPs are in fact essential to a final standard; instead, the patent holder self-declares its licensing commitment and many of the declared patents are eventually found non-essential. Many different factors can affect whether a declared SEP is truly essential. Such factors include unknowns about how the standard will evolve before finalization, since patents must be declared while the standard is being developed. Other factors include changes during the patent prosecution process, whether the patent is valid, the introduction of newer patented and unpatented technology, and how these factors change over the life of the standard and its subsequent revisions. A patent holder may over-declare based on its interpretation of the SSO rules or maybe even out of a desire to inflate the importance of their patent portfolio in licensing negotiations. Thus, a declared "SEP" may not actually be essential to a standard. Such a determination can only be made definitively by a court.

The net impact of these circumstances underscores the need for transparency – the availability of sufficient quality information at all stages of standardization to ultimately

[4] RF is a subset of FRAND.

enable fair negotiation and licensing of SEPs on truly FRAND terms and conditions. Recent discussions about transparency have included three components: (1) identification to the SSO, (2) essentiality assessments, and (3) accessibility of key information during licensing negotiations.

To be clear, enhanced transparency does not solve all issues faced by companies on the receiving end of abusive SEP practices. In particular, transparency does not address the continued problem of SEP-holders seeking injunctions to exclude those who may use SEPs in their products, discriminatorily refusing to license certain willing licensees based on their position within the supply chain and using the market power created by the standard to demand licensing terms that do not reflect the value of the patented invention.[5] But transparency is an area where improvements can and should be made.

II. Disclosure of Patents During Standardization at the SSO

The standardization process at the SSO-level is the starting point for transparency in SEP licensing. As described above, for technology to be included in a standard, some SSOs require or encourage patent-holders to (1) disclose the existence of any patents (or patent applications) that are or may become essential, and (2) commit to licensing those patents on FRAND terms.[6] The mechanics of these undertakings, what the disclosure specifically entails, and the language of the FRAND commitment vary according to the applicable intellectual property rights policy of each SSO. Collectively, these processes are designed to encourage transparency by enabling SSO participants to assess and select technologies during a standard's development with an understanding that licenses to any essential patented technologies will be available on FRAND terms.[7]

For example, SSOs may allow patent holders to submit (1) specific disclosures that identify particular patents (and patent applications), and/or (2) general or "blanket" disclosures that do not identify patents but instead require a patent holder to license any patent it owns that turns out to be essential to support the relevant standard.[8] Another permutation is a "negative" or "opt-out declaration" that allows participants to exclude from licensing

[5] Fair Standards Alliance, *Position Paper - SEP Licenses Available to All* (June 24, 2016), *available at* https://fair-standards.org/wp-content/uploads/2016/09/160624_FSA_Position_Paper_-_SEP_licenses_available_to_all.pdf

[6] If the patent-holder discloses patents but is unwilling to make a FRAND commitment, generally the SSO will attempt to work around the patent or withdraw the standard. *See* Timothy S. Simcoe & Allan L. Shampine, *Economics of Patents and Standardization: Network Effects, Hold-up, Hold-out, Stacking*, in THE CAMBRIDGE HANDBOOK OF TECHNICAL STANDARDIZATION LAW (Jorge L. Contreras, ed.) (2018), p. 112 (hereinafter "Simcoe & Shampine").

[7] *See* Core Principles and Approaches for Licensing of SEPs, CEN-CENELEC CWA 95000, *available at* https://2020.standict.eu/sites/default/files/CWA95000.pdf (hereinafter "CWA 95000")

[8] For an overview with further detailed information for several SSOs, *see e.g.*, Rudi Bekkers, Christian Catalini, Arianna Martinelli, Cesare Righi, & Timothy Simcoe, *Disclosure Rules and Declared Essential Patents* (Mar. 16, 2017), Table 1, *available at* http://people.bu.edu/tsimcoe/documents/working/dSEP7.pdf (hereinafter "Bekkers at al.").

particular, identified patents or applications.[9] Additionally (and where specific disclosures are required or allowed), most SSOs encourage early disclosure, although a few SSOs impose explicit deadlines.[10] There is no one-size fits all model when it comes to disclosure. But different disclosure rules have different impacts on transparency, both during the standardization process and potentially later during licensing negotiations.

Licensing disclosures in most cases (with the exception of CEN and CENELEC) do not shed light on which parts of a standard might be covered by particular patents.[11] Further, the information available in SSO declaration databases may be outdated—especially as patent ownership changes—as the EC correctly observed in its 2017 Communication on SEPs.[12] For example, patent holders may disclose patents that relate to portions of a draft standard that are ultimately removed from the final or are altered to a degree that makes "the contribution as to which a declaration was made irrelevant."[13] This outcome is exacerbated when the process for agreeing to a final standard takes years, and there is no review of declarations from early in the standardization process.[14]

To further improve transparency and information quality where individual SEPs are declared, SSOs could consider whether to:

- Require SEP owners to identify the part of the standard on which the patent reads as part of its declaration;[15]
- Structure their databases to work with national and EPO patent databases to pull and record information on changes in patent ownership; and
- Allow declarants to update declarations after the standard is set and periodically during the life cycle of the standard.

[9] Gil Ohana & C. Bradford Biddle, *The Disclosure of Patents and Licensing Terms in Standards Development*, in THE CAMBRIDGE HANDBOOK OF TECHNICAL STANDARDIZATION LAW (Jorge L. Contreras, ed.) (2018), p. 254 (hereinafter "Ohana & Biddle").

[10] Bekkers et al., p. 7.

[11] Simcoe & Shampine, p. 112.

[12] EC 2017 SEP Communication, p. 3.

[13] Ohana & Biddle p. 248.

[14] European Commission, "Setting out the EU approach to Standard Essential Patents," COM (2017) 712 final (Nov. 29, 2017), p. 4. *available at* https://ec.europa.eu/docsroom/documents/26583 (hereinafter "EC 2017 SEP Communication").

[15] *See, e.g.,* CEN-CENELEC Guide 8, Annex 2- Statement and Licensing Declaration for CEN and CENELEC Deliverable at 13 (requiring identification of the relevant clause(s) of the standard), ftp://ftp.cencenelec.eu/EN/EuropeanStandardization/Guides/8_CENCLCGuide8.pdf; ETSI Rules of Procedures, IPR Information Statement Annex, at 48 (Sept. 3, 2020) (apparently permitting, but not requiring identification of relevant parts of the standard in column labeled "Illustrative Specific part of the standard (e.g. section)"), https://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf.

III. Essentiality Assessments

Another element of SEP transparency relates to clarity over whether a declared SEP is actually essential to a standard. As discussed above, SSOs do not independently perform essentiality assessments and instead simply take the patent holder at its word in its licensing disclosure. As noted above, over-disclosure can occur for various reasons. In response to this issue, the EC in its 2020 IP Action Plan announced that it would "explore the creation of an independent system of third-party essentiality assessments in view of improving legal certainty and reducing litigation costs."[16] Additionally, in 2020, the EC also published a pilot study for essentiality assessment of SEPs, which recommended that policymakers "pursue the development and implementation of a system for essentiality assessments" based on the study's conclusion that such a system "seems both technically and institutionally feasible."[17]

At a high level, the objectives of essentiality assessments are to provide information that may not otherwise be accessible to potential licensees due to information asymmetries that benefit the patent holder. In addition to assessing the essentiality of a declared SEP, essentiality assessments may help to estimate the share of a specific patent owner's SEP portfolio relative to the total number of SEPs in a standard, which is useful to value the specific SEP and portfolio. Further, essentiality assessments may assist in estimating the overall number of SEPs that are truly essential to a standard—as opposed to simply declared SEPs—for purposes of determining the total aggregate royalty stack.

Although these are constructive aims, the usefulness and success of any such system will ultimately depend on how it is structured in practice. If such a system were to be implemented, at minimum it would need to: ensure independence and knowledge of the reviewers, ensure consistency of the results, eliminate the potential for bias from the funding of the process, be ongoing as new patents are issued or the standard evolves, not impute the results of an assessment across a portfolio of SEPs, be clear in scope, and reserve the ultimate determination on essentiality to the courts.

First, it is imperative that any such assessments be performed by technical experts that are truly independent. Experts should have no interest in the outcome of the assessment and any entity orchestrating essentiality assessments should be free from influence by entities with different business models and interests in the standards ecosystem. One safeguard is to employ multiple levels of review by different parties to prevent bias in the review process. For example, a first level reviewer and then a quality control level of review could be used, where the two levels are not provided by the same service provider.

Second, it is critical that the reviewers have an extensive knowledge of the standards involved. Complex standards, such as cellular communication standards, span dozens of

[16] EC IP Action Plan, p. 13.

[17] Rudi Bekkers, Joachim Henkel, Elena M. Tur, Tommy van der Vorst, Menno Driesse, Byeongwoo Kang, Arianna Martinelli, Wim Maas, Bram Nijhof, Emilio Raiteri, & Lisa Teubner, "Pilot Study for Essentiality Assessment of Standard Essential Patents" (2020) p. 11 (Nikolaus Thumm, ed.), *available at* https://publications.jrc.ec.europa.eu/repository/handle/JRC119894 (hereinafter "SEP Pilot Study").

documents and thousands of pages. The reviewers need to understand the language used in the standards to be able to evaluate if a patent may be relevant.

Third, any process for evaluating essentiality must ensure consistency of the results. One way to do so is to create an evaluation rubric that is used to train all reviewers and is applied to each patent that is reviewed. Such a rubric, regularly reviewed and updated and coupled with quality control review, would be designed to foster consistency as well as allow for transparency into the review process itself.

Fourth, eliminating the potential for bias due to the source of funding is an important goal, both with respect to quality of results and ensuring their neutrality. If such a project is funded by only one part of the ecosystem, there will inevitably be a question of bias or influence. Therefore, ideally, representatives from across the ecosystem representing world-wide participants would come together to fund such an effort.

Fifth, an essentiality review must be on-going. Standards evolve, as does the patent landscape. One way to allow for maintenance of essentiality results, while also being sensitive to cost, may be to incorporate machine learning into the process. The data obtained from human review could be used to train a machine learning algorithm. The algorithm could be used to provide human reviewers with a starting point for their work, reducing the amount of time the process could take. Reliability would be critical and would need to be proved. Training an algorithm would therefore require ample, reliable training data. It could be implemented only after a patent review process has already provided thousands of results.[18]

Sixth, it should be abundantly clear in every document produced by the essentiality process that the essentiality process has limitations, including but not limited to that any findings of essentiality with respect to one patent should not be imputed across a broader portfolio. This safeguard is necessary to avoid the possibility that a patent holder might cherry pick a handful of high quality SEPs to hide an otherwise weak portfolio.

Seventh, the scope of the procedure should be clear and clearly stated in any decision or opinion that might be generated during an essentiality assessment. For example, if the procedure is an abbreviated one akin to patent prosecution that is *ex parte* and does not include claim construction or a review of the file history, the limits of that process should be clearly stated in the assessment so that they are apparent to a subsequent fact finder.

Eighth, the system should reserve the ultimate determination of whether a patent is essential to the courts. The vast majority of declared SEPs, when tested in court, fail on grounds that they are one or more of the following: (1) not essential, (2) invalid, or (3) not infringed.[19] For example, a study analysing SEP litigation outcomes from 2013 to 2017 found that just eleven

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[18] *Id.* at 15 (noting that artificial intelligence and other automated solutions are promising for the future but are not presently a comparable substitute for human efforts).

[19] *See, e.g.*, Lemley & Simcoe; John "Jay" Jurata, Jr., Matthew G. Rose, & Emily Luken, "Between a Rock and a Hard Place": Unwired Planet v. Huawei and the Dangerous Implications of Worldwide FRAND Licenses, E-COMPETITIONS, NO. 84684 (Aug. 2017), *available at* http://s3.amazonaws.com/cdn.orrick.com/files/eCompetitionsAugust2017.pdf (hereinafter "Rose et al."); John "Jay" Jurata, Jr. and David B. Smith, Turning the Page: The Next Chapter of Disputes Involving Standard-Essential Patents, CPI ANTITRUST CHRONICLE (Oct. 2013), *available at* http://s3.amazonaws.com/cdn.orrick.com/files/CPI.October2013JurataSmith.pdf.

percent of SEPs originally asserted during that period were found valid and infringed.[20] Courts must remain the final arbiters of essentiality in light of these poor success rates. Additionally, courts must have the final say to preserve sovereignty and rights to access the courts (unless the parties voluntarily agree to limit such rights through arbitration or some other arms' length agreement). SEP licensees should not be required to seek an administrative essentiality determination as a prerequisite for a SEP license, nor should such a decision shift burdens or create presumptions or penalties for potential SEP licensees in subsequent patent litigation. An essentiality assessment should not relieve a patent holder from its obligation to prove that an alleged SEP is essential and infringed under traditional patent law principles and burdens of proof.[21] Absent these protections, the system could cause more harm than good by generating a significant number of false positives that would further embolden patent-holders to pursue even more aggressive royalty demands based on the purported size of their portfolio.

The EC's 2020 SEP Pilot Study's recommendation that the EC develop and implement a large-scale system for essentiality assessments[22] recognized that creating such a system involves a series of complicated design choices: the study developed nine scenarios, each consisting of a set of mutually consistent design choices over nineteen discrete dimensions related to institutional feasibility identified in the study.[23] The large number of factors included in the SEP Pilot Study demonstrates the extremely complicated nature of establishing a large-scale system for essentiality assessments.

Indeed, rather than attempting to engage in a process that will accurately assess whether every declared patent is essential to a particular standard when there are many thousands of worldwide patents that are potentially relevant to a standard, such as is the case of cellular communications standards, it could be feasible to craft a process to exclude patents from the standard as non-essential. The expectation of such a process would be to have a better understanding of the overall landscape of patents essential to a standard, limited to certain jurisdictions.

Currently, an industry-driven essentiality assessment project is underway for the 5G standard, called the 5G Transparency Project, which may be relevant to the Commission's assessment of this issue.[24] Although the 5G Transparency Project has just begun, its scale and approach will result in lessons useful for any future work in this area. FSA recommends allowing this industry-driven effort to run its course and using it as a tool to learn more about the benefits,

[20] *See* Rose et al.

[21] Courts in multiple jurisdictions have emphasized that it is within the rights of a potential licensee to hold a SEP-owner to its burden of proof on these issues. *See, e.g.*, Case C-170/13, *Huawei Techs. Co. v. ZTE Corp*., ECLI:EU:C:2015:477; *Apple Inc. v. Motorola, Inc*., 757 F.3d 1286 (Fed. Cir. 2014).

[22] SEP Pilot Study p. 15.

[23] *Id.* p. 18.

[24] *See* 5G SEP Transparency Project (5GTP): Making Informed Decisions About 5G SEPs, https://lotnet.com/5g-sep/ ("By facilitating a non-partisan, collaborative, comprehensive perspective on 5G declared SEPs, we create visibility into the landscape of patents relevant for IP executives making SEP licensing, IP strategy, and other high-stakes decisions.").

challenges, and potential of essentiality assessments in a real-world context to help refine and guide future work.

If the EC moves forward with the study's recommendation for further developing an essentiality assessment system, it should continue to seek input from a broad set of affected industry players and reflect the recommendations in this FSA position paper.

IV. Availability of Information During Licensing

Another key component of transparency is the exchange of information between SEP-holders and potential licensees during licensing negotiations. Those negotiations are characterized by an information asymmetry that SEP-holders can exploit to their own advantage, particularly when it comes to large portfolios: SEP-holders possess information potential licensees need to assess (1) whether a license is needed from a technical perspective, and (2) whether the terms offered comply with the SEP-holder's FRAND obligation. It includes, among other things, information about the size and strength of their portfolio, the number of other licensees for the same standard and/or portfolio (if any), and the terms and conditions of those other licenses.

But rather than openly sharing that information with potential licensees, some patent holders routinely impose excessive secrecy obligations to obscure information about their portfolio strength and licensing practices, requiring potential licensees to enter into restrictive non-disclosure agreements (NDAs) to access basic information necessary to facilitate FRAND licensing. At the same time, SEP-holders often represent to potential licensees that other companies have accepted the terms of the proposed license; but the potential licensee has no way of verifying if that is true precisely because of the NDA imposed by the SEP-holder.[25]

To be clear, there is nothing objectionable about parties in licensing negotiations *voluntarily* agreeing to appropriate confidentiality limitations in an NDA. However, due to the information asymmetries inherent in SEP licensing, any such NDAs must not be the product of coercion and instead truly reflect the mutual desire of both parties to maintain confidentiality. Monetizing SEP-holders should not effectively force potential licensees to accept secrecy as a condition of obtaining a license on FRAND terms.[26]

Instead of demanding that potential licensees enter into restrictive NDAs, monetizing SEP-holders should be open and transparent about what patents are being licensed, their basis for representing the patents as valid SEPs, the royalty rates sought, and whether other licensees have entered into licenses for the same portfolio[27].

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[25] *See Fair Standards Alliance Key Principles for FRAND Licensing* (Nov. 12, 2015), *available at* https://fair-standards.org/wp-content/uploads/2016/08/FSA-POSITION-PAPER-June2016.pdf.

[26] *See* Fair Standards Alliance, *Transparently FRAND: The Use (and Misuse) of Confidentiality Obligations in FRAND Licensing Negotiations* (Nov. 13, 2017), *available at* https://fair-standards.org/wp-content/uploads/2020/07/170213_FSA-Position-PaperTransparency-FRAND-1.pdf.

[27] *See* Fair Standards Alliance, *Timely licensing for SEPs – how to avoid opportunities for hold-up and royalty stacking* (June 24, 2021), available *at* https://fair-standards.org/wp-content/uploads/2021/06/FSA_Position_Paper_on_Timely_Licensing_for_SEPs.pdf

Specifically, SEP-holders should provide the information identified in *Core Principles and Approaches for Licensing of Standard Essential Patents*, which was developed under the auspices of CEN-CENELEC and supported by over 50 organizations.[28] Such information includes:

- A listing of patents;
- Identification of sections of the standard where each alleged SEP is practiced;
- Claim charts;
- The basis and methodology upon which the offer was calculated;
- Historical rate and licensing information;
- Details of litigation; and
- Information regarding prior licenses to suppliers or customers.[29]

Patent pools acting as an agent for multiple SEP-holders should also disclose the same information on both the pool-level and the level of the individual members.

Conclusion

For the benefits of standardization to accrue to the broader public, it is important that SEP licensing occurs in a fair, balanced, and rational manner. Transparency is important at all stages to achieving this goal, beginning at the standard-setting process at the SSO and culminating in licensing negotiations. The FSA appreciates the European Commission's increased interest in transparency issues in SEP licensing and encourages the Commission to continue to carefully consult with industry in addressing potential solutions.

[28] CWA 95000 (June 2019), *available at* https://2020.standict.eu/sites/default/files/CWA95000.pdf.

[29] Unless any of this information is made publicly available through an SSO's adoption of the transparent disclosures and essentiality analyses recommended in this submission.