

Lack of Transparency In Licensing Standard Essential Patents

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I. Introduction

A. Relevance of Standards and SEPs

Technical standards developed collaboratively by industry participants have become an important part of the innovation cycle in today's globalized economy. From mobile communications and audio/video compression to the Internet of Things (IoT) and more, standards are implemented in products to enable interoperability and compatibility across devices and systems, contributing to the development of innovative products and services for the consumer. Standard Essential Patents (SEPs) are patents that claim inventions necessary to implement a technical standard. Standards development bodies like the European Telecommunications Standards Institute (ETSI) or the Institute of Electrical and Electronics Engineers (IEEE) are organizations under which these standards are developed, through collaborative processes involving many stakeholders. Once the standard is adopted, implementing the technology in products and services necessitates the use of SEPs covering the standard. The SEPs on a standard are typically owned by dozens of companies, if not more, depending, among other things, on how many participated in the standard-setting process and whether patents have been divested by the original owners.

B. Framework Conditions of SEP Licensing: IP Rights, Competition Law, FRAND

The intersection of intellectual property rights and standardization raises unique challenges due to the market power of SEP holders on the one hand and the need for those using a standard to take a license to SEPs covering it, on the other hand. The issue is that once a standard dominates the market, implementers who seek to be active in this market have no choice but to adopt it. And even if two standards coexist, device makers may be forced to adopt both if buyers demand flexibility. Thus, there is a risk that SEP holders could abuse their monopoly power to exclude or extract unfair terms from those who implement the standard.

To balance the interests of SEP holders and implementers, and to ensure fair access to standards, SEP holders commit to licensing their SEPs on Fair, Reasonable, And Non-Discriminatory (RAND or FRAND) terms.¹ This FRAND commitment shall allow licensors

to be fairly compensated for their investment in helping develop the standard and implementers to have access to essential technologies without undue hindrance. SEPs are typically licensed on a portfolio basis to obtain access to all such patents held by the licensor. As such, FRAND terms and conditions, including rates, in most cases apply to the SEP portfolio of a licensor and not to individual patents. The FRAND commitment is core to a functioning SEP licensing system.

C. The Role of Transparency

A key precondition for the success of this licensing framework is transparency. Transparency is needed to promote a fair, efficient and predictable licensing system. It is important in at least three key areas: i) scope and essentiality of SEP portfolios; ii) royalty rates; and iii) dispute resolution outcomes. It is widely recognized that the current level of transparency in SEP licensing is woefully inadequate in all these areas, with much of the information needed to engage in a fair and balanced licensing negotiation being protected by confidentiality agreements and no reasonable mechanisms available for a reliable assessment of SEP portfolios.

II. Key Transparency Issues in SEP Licensing

A. SEP Assessment

To make a fair assessment of what FRAND terms and conditions (including royalty rates) should be for licensing a particular SEP portfolio, there needs to be a reliable and consistent approach to assess the SEP landscape, both in its entirety for a standard and for specific SEP portfolios. However, there is currently not nearly enough information available regarding the SEP landscape for a given standard as a whole (such as 4G, 5G, Wi-Fi 6, HEVC, etc.), and even less regarding the scope of individual SEP portfolios. SEP holders are not required to disclose their patents individually in most

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1. SEP holders may also commit to licensing their patents under RAND-Z terms, which means they will not be seeking a royalty for licensing such patents but will abide by the reasonable and non-discriminatory requirement.

standard development organizations (SDOs) (other than ETSI requiring a FRAND declaration and disclosure of patents that “may be or may become essential” to a standard), and there is no incentive or requirement for them to perform essentiality checks unless they are joining a patent pool.²

In short, there is insufficient information available, particularly to potential licensees, regarding i) what is the total landscape of SEPs applicable to a standard and who owns those SEPs; ii) what portion of the total landscape a particular SEP portfolio represents; and iii) what is the essentiality rate³ and quality of SEPs⁴ in a portfolio sought to be licensed.

B. Royalty Rates

There exists inconsistency and a lack of transparency in royalty rates. Licensors typically do not disclose royalty rates or other terms of licenses they have already concluded. Thus, rates paid to license a portfolio are not known to a future potential licensee. Information about terms under which a portfolio was licensed to other parties may only be made available once litigation is filed, or through certain pre-litigation mechanisms used by courts (*e.g.*, the UK). Equally problematic is the fact that there is no clarity regarding the aggregate rate for all SEPs covering a standard (*i.e.*, the total royalty to be paid if all SEPs covering a standard were to be licensed by an implementer) so a licensee has no idea what the total royalty cost of using a standard would be.

It is also a problem that there currently exists no

2. Even if a SEP holder is a member of a patent pool, it is not required to submit all of its purported SEPs to be checked for essentiality; the selection of the patents to be submitted, and the number of patents checked for essentiality, are entirely up to the SEP holder and in most instances, driven by the pool's revenue distribution formula.

3. Essentiality rate refers to the portion of the portfolio of purported SEPs that is actually essential to the standard; third parties have attempted to assess essentiality rates and concluded that these rates are typically no more than 20 to 50 percent. For example, see a 2023 report by PA Consulting on 5G SEPs, although the freely available version does not mention assessed essentiality rates. https://www.paconsulting.com/newsroom/pa-consultings-2023-report-identifies-significant-increase-in-5g-essential-patent-declaration-and-shift-in-ownership-ranking-19-february-2024?utm_source=chatgpt.com. Another such example is a 2022 report by Charles River Associates, which compared studies on the essentiality rates of declared 5G SEPs, finding overall essentiality rates between 8 and 33%. https://media.crai.com/wp-content/uploads/2022/11/09132755/Critical-Review-of-5G-SEP-Studies_Nov-2022.pdf?utm_source=chatgpt.com.

4. The quality of a SEP can be defined in part by how significant a contribution the patented technology makes to the standard and how likely is it that the patent will be upheld as valid if challenged. Another relevant factor is whether the patent is essential to a mandatory or optional part of the standard.

transparency or any consistency with regard to methods for determining royalty rates for SEPs, despite the fact that a key requirement for SEP licensing is “non-discrimination,” which means that parties should pay a rate that is in line with what their competitors were asked to pay (*i.e.*, they are not being treated in a discriminatory manner).

C. Licensing Situation

Compounding the problems with lack of transparency and discrimination in licensing is that there is often little, if any, information available to a potential licensee regarding which other implementers are licensed. This is important information for competitors in the market considering those that are not paying royalties have a cost advantage over those who are.

III. How Lack of Transparency Affects SEP Licensing

A. Unfair Negotiations

A lack of transparency in SEP licensing creates an imbalance in negotiations, allowing abuse of the licensing process which often leads to implementers agreeing to terms that are not FRAND. Currently, a prospective licensee has no way to confirm that it is being offered a non-discriminatory rate, or that its competitors are even paying the royalty sought by the licensor. This is particularly true for smaller or less sophisticated implementers who are in a weak bargaining position due to, among other things, a lack of expertise and resources. Without significantly more information and clarity regarding the scope of the SEP portfolio, the licensing terms offered to other licensees, and the overall royalty burden of implementing a standard, the parties will not be equipped to fairly negotiate a license agreement based on FRAND principles.

B. Disputes and Litigation

Lack of transparency often leads to disagreements over whether licensing terms are in fact FRAND because parties are effectively operating in the dark. These disputes can escalate into costly and time-consuming litigation among major stakeholders and often have a ripple effect through the SEP licensing market for the standard at issue. Transparent practices help parties identify and address potential issues early in the negotiation process, reducing the likelihood of conflict.

C. Cost Uncertainty for Implementers

Royalty cost is one of the items considered by manufacturers and sellers of products and services in determining overall cost and pricing. Outside SEP licensing, such information is usually available to the market and allows for informed transactions. By contrast, when implementing standards in their products, business planners do not know what the royalty costs will be, and

sometimes will not for years after products are commercialized. Transparency regarding the royalty cost associated with a standard, especially early transparency, promotes wider adoption of standards in new products and creates a more efficient licensing regime. Despite the availability of information about certain SEP holders' "standard royalty rates," it is well known in the industry that not only are these rates almost never the negotiated rates that appear in license agreements, but courts have found such "standard" or "demanded" rates to be significantly higher than FRAND in a number of cases.⁵

D. An Uneven Playing Field

A lack of transparency regarding who in an industry is licensed to a particular SEP portfolio creates uncertainty in industries where margins are slim and SEP royalties account for a sizable share of the final product price. In this situation, whether or not SEP royalties are paid makes a notable difference, since it leads to an uneven playing field and thus penalizes willing licensees. Furthermore, licensing some implementers in the industry but not others can be seen as an extreme form of discrimination, which contradicts the non-discrimination requirement of FRAND. Improving transparency in this regard will help to create an even playing field.

E. Reduced Market Confidence

A lack of transparency implies a lack of trust and confidence in the SEP licensing framework. Implementers are less likely to invest in developing standardized products when they lack a clear understanding of their licensing obligations. Uncertainty about royalty costs, as well as demands for supra-FRAND royalty rates, can inhibit the adoption of valuable standards, as the delayed adoption of the HEVC video codec has clearly demonstrated.⁶ SMEs and startups in particular might refrain from entering promising markets in the first place due to this uncertainty. In turn, SEP holders

have lower incentives to develop standards when they cannot be sure to receive a fair return on their investments without legal action.

IV. Ways to Enhance Transparency

There are various ways to increase transparency in SEP licensing, for example through enhanced rules and actions taken by SDOs or regulatory intervention. Patent pooling may also be a solution if pools are structured properly with the appropriate level of analysis, consistency, and FRAND commitment. We discuss them in turn.

A. Possible SDO and SEP Holder Actions to Improve Transparency

SDOs have historically not been able to do much to improve transparency regarding the SEP landscape; their efforts in this regard have been limited to broad disclosures regarding ownership of essential or potentially essential patents. The requirement imposed by the IPR Policy of ETSI that participants in the standard development process explicitly identify potential SEPs is a step in the right direction that other SDOs could adopt. Second, SDOs could create a framework for determining aggregate royalties (*i.e.*, the total royalty burden if royalties are paid for all SEPs covering a standard) during the standard development process or at the time a standard is published. Third, they could provide guidance as to how that aggregate rate is distributed among patent holders. Apportioning the royalty for the overall standard to the individual patent portfolios in a fair manner requires information on the essentiality, and ideally also the validity and contribution of presumed SEPs. Arguably, SEP holders as contributors to the standard development are best positioned to have this information, far better than courts or even implementers in negotiations with licensors. Thus, the goal of fair apportionment could be achieved if the holders of SEPs on a standard agreed on their respective shares in the overall value of the standard-essential IP, as we presented in an article in *IAM Magazine* (2023). These "IP Shares" would depend on the relative size of the SEP holders' portfolios, but also on their quality; some additional information regarding the overall SEP landscape for the standard would also be required for this apportionment to be effective. Agreeing on IP Shares could achieve a similar goal as compared to establishing a public registry of tested SEPs but in a considerably less costly manner.

B. Improved Transparency Through Patent Pooling

Patent pools can be a useful mechanism for more efficient SEP licensing if properly structured. However, patent pooling does not always result in greater transparency or FRAND rates. If patent pools were to

5. For instance, in *Microsoft v. Motorola* (2012), *Unwired Planet v. Huawei* (2017), and *TCL v. Ericsson* (2017). More recently, in the *InterDigital v. Lenovo* litigation, the UK court found that the rates demanded by InterDigital were not FRAND and determined a FRAND rate that was significantly lower than the demanded rate (and much more in line with the rate Lenovo had been offering to pay InterDigital).

6. After the adoption of the HEVC standard by ITU and ISO in January 2013, MPEG LA published the royalties for its pool in March 2013, while the HEVC Advance pool published its rates in July 2015. A third pool, Velos Media, went public in 2017 and did not publish its royalty rates. The information website, Streaming Media, commented: "It's no secret that HEVC licensing has been confusing and expensive, and has hindered HEVC adoption." <https://www.streamingmedia.com/Articles/ReadArticle.aspx?ArticleId=128870>.

provide truly independent essentiality analysis of portfolios, using consistent and uniform approaches such as those that the proposed EU SEP Regulation sought to establish (discussed below), stakeholders would have a greater level of confidence in the resulting information. Furthermore, all such information must be made publicly available. Finally, because essentiality checks are optional, meaning that a SEP holder may submit as few or as many of its patents to be checked when joining the pool (the minimum is one SEP), current pools do not provide much-needed transparency regarding the size and scope of portfolios.

Because patent pools are licensing the SEPs of patent owners that have committed to license their portfolio under FRAND terms and conditions, patent pool rates should also abide by FRAND principles. Interestingly, certain pools have publicly taken the position that they are not bound by a FRAND commitment⁷—despite the FRAND commitments of their members. However, in order for pools to improve SEP licensing efficiency and fairness, they must embody the same FRAND principles that participating SEP holders have committed to.⁸ Further, pools are most useful when they offer a single license to a large portion of the total SEPs covering a standard, which many pools fail to achieve.⁹ So patent pooling can and should improve transparency, but many of today's patent pools do not achieve this goal.

C. Regulatory Reform

Recognizing the need for transparency and predictability in the licensing of SEPs, in April 2023, the European Commission published its proposed Regulation on Standard Essential Patents (“SEP Regulation”), which

7. Avanci took this position in the 2023/2024 UK litigation between Tesla as the plaintiff and InterDigital and Avanci as the defendants. The judgment states: “Avanci maintains that its terms for the Avanci Licence are in fact FRAND, but that it is not itself legally obliged to offer a license on FRAND terms.” [2024] EWHC 1815 (Ch), (12). <https://www.judiciary.uk/wp-content/uploads/2024/07/Tesla-v-InterDigital-15.07.24.pdf>.

8. Certain pools may address the FRAND issue by claiming that because they have many licensees, their rates must be FRAND. This is not the case. Market acceptance of a rate as FRAND is different from taking a pool license because of other factors, such as a threat of injunction by multiple pool members. The case for automotive licensing of cellular standards is a good example, where injunctions were imminent when certain licensees signed the Avanci pool license. Thus, the number of licensees a pool has may be one indication that the pool rate may be FRAND, but it is not determinative.

9. One of the key criticisms of patent pools for licensing cellular SEPs (particularly for mobile devices) has been that they do not include a number of major SEP holders. One patent pool that does offer a license to almost all known SEPs is Via LA's Advanced Audio Codec (AAC) pool, which is one of the most successful and widely accepted pools with over 1,000 licensees.

was passed by a large majority of the European Parliament in February 2024. The SEP Regulation has generated significant debate among stakeholders and is set to be considered by the EU Council, where Poland is currently in the Presidency. However, much to the surprise of many inside and outside the EU administration, the European Commission recently announced that the SEP Regulation was among many others that it intended to withdraw.¹⁰ Many believe this to be a mistake in part because the Regulation has as key goals greater transparency and predictability in the licensing of SEPs.

The Regulation intends to create transparency regarding the SEP landscape and SEP portfolios by establishing a SEP registry, which will include information about the essentiality of the disclosed SEPs, ultimately allowing parties to determine the “rate of essentiality” of a SEP portfolio. Random essentiality checks by independent experts using uniform methodologies should improve confidence in the assessment.

With regard to royalty rates, the SEP Regulation proposes two interrelated mechanisms—the aggregate royalty opinion and the FRAND royalty rate determination—both provided by designated conciliators from the Competence Center established to administer the functions of the SEP Regulation. Although nonbinding, these determinations would go a long way to provide independently assessed information for the parties to rely upon in their licensing negotiations. This added transparency should allow SEP holders and implementers to level the playing field and reach an agreement in many more situations, without resorting to court action. However, if the parties choose to litigate after these processes have been exhausted, the courts will have access to the resulting decisions of the conciliators thereby allowing them greater transparency and assistance in determining FRAND terms and conditions in a dispute.

D. SEP Regulation Would Create a Path to Transparency

The very contentious nature of SEP licensing has so far prevented meaningful advancement toward improving transparency. Despite the fact that some claim patent pools can provide a solution, these licensing entities must improve their approach and processes for SEP licensing to be a positive factor in achieving transparency.

10. In the “Commission Work Programme 2025,” published on February 11, 2025, the European Commission listed the proposed SEP Regulation under “Withdrawals.” At the time of writing of this article, it is unclear if the proposal will eventually be withdrawn completely, amended, upheld, or replaced with a different one.

Recognizing the need to help solve issues related to transparency in SEP licensing, and to make SEP licensing more predictable, fair, and efficient, the European Commission spent a significant amount of time and resources exploring this topic. This included years of consideration and analysis, including establishing expert groups, commissioning reports, and soliciting stakeholder input. Then, the Commission proposed a SEP Regulation that includes provisions that, if implemented, should greatly improve transparency and predictability in SEP licensing and level the playing field when it comes to the information needed to engage in a fair licensing negotiation and achieve FRAND results.

V. Challenges to Achieving Transparency

The measures suggested above come with challenges, none of which are insurmountable, particularly when one considers the benefit of the improvements to the SEP licensing regime. These challenges include:

A. Commercial Sensitivity

Licensing agreements often contain sensitive information, such as sales and pricing information and other business-specific information. Disclosing such information could adversely affect parties in competitive markets, creating resistance to greater transparency. However, this challenge should be mitigated if all players disclose the same type of information, thus creating a level playing field. Greater transparency would also imply that SEP holders lose an information advantage over prospective licensees, allowing negotiations to proceed in a more balanced and fair manner.

Furthermore, one may question the justification for confidentiality regarding license fees in the first place, in view of the non-discrimination obligation agreed to by SEP holders. If a SEP holder's licensing conditions were the same for all licensees, and if two licensors with SEP portfolios of comparable size and quality charged the same to a given licensee, there would be no need for secrecy¹¹—but in reality, discrimination between licensees exists. Even though certain courts have held that “non-discriminatory” refers to comparable licensees, the economic justification for such a distinction is unclear. Economies of scale are hardly a basis for one licensee to benefit from more favorable terms than another, as Justice Mellor pointed out in

11. One difficulty in this regard is the different licensing royalty structures which makes it challenging to compare licensing terms. For example, lump sum royalty payments are relatively common, requiring access to sales and/or pricing data to determine the effective per-unit royalty rates. Such data is usually not publicly available, so parties often rely on data provided by market analysts to perform this unpacking exercise.

the UK action between InterDigital and Lenovo.¹² On the other hand, one key factor could be the licensee's relative negotiating power—however, discriminatory treatment (and royalty differentiation) on the basis of negotiating power is hardly consistent with the licensor's FRAND requirements.

B. Difficulty in Determining Patent Essentiality, Validity, and Contribution

Determining the actual essentiality of a purported SEP with sufficient precision is a demanding and time-consuming task.¹³ It is even harder to predict the patent's likely legal robustness in case of a validity challenge and the value of its contribution to the standard. Still, these difficulties should not detract from the effort to achieve transparency at least with respect to essentiality. It seems appropriate to demand from a prospective licensor some proof that the patents offered for licensing are infringed; and estimating the essentiality share of a portfolio of presumed SEPs with reasonable precision may require some additional resources but is doable, as the European Commission's Pilot Study for Essentiality Assessment showed. The SEP Regulation has detailed provisions regarding establishing a SEP registry, implementing processes for essentiality checks, and determining a portfolio's essentiality rate, all of which should help achieve such transparency. An additional approach could entail licensors agreeing on their respective “IP shares,” as explained above.

C. Complexity of SEP Portfolios

SEP portfolios can be vast and encompass numerous patents across multiple jurisdictions. Providing complete transparency about the scope, validity, and essentiality of SEPs requires significant effort and resources, which may be burdensome for both SEP holders and implementers. On the other hand, licensors need to provide such information to varying degrees in individual licensing negotiations; on the flip side, each potential licensee must spend time and resources assessing the information, determining essentiality, etc., without the benefit of the same tasks having been performed by prior licensees negotiating terms for the same portfolio. This is a waste and can be avoided, at least in part, by providing access to independent essentiality assessments such as those proposed by the SEP Regulation. Furthermore, providing essential information on the

12. [2023] EWHC 539 (Pat), (496), <https://www.judiciary.uk/wp-content/uploads/2023/04/IDG-v-Lenovo-judgment-270423.pdf>.

13. Artificial intelligence tools are now being developed and used for this purpose, but the results are far from certain as they are in the early stages.

level of patent families rather than on the patent level would already go a long way in improving transparency. Thus, using more uniform approaches and dealing with portfolio assessments in a more collaborative fashion will help overcome some of these complexities.

VI. The Need for Transparency in SEP Licensing

Transparency is the backbone of a functional and equitable SEP licensing ecosystem. By fostering fair negotiations, reducing disputes, and ensuring non-discrimination, transparency benefits all stakeholders—from patent holders and implementers to consumers who rely on standardized technologies.

As technology continues to evolve, the role of SEPs will only grow. Emerging fields such as 5G, artificial intelligence, and autonomous vehicles will rely heavily on standardized technologies, making transparent and efficient SEP licensing frameworks more critical than ever.

While challenges remain, the adoption of best practices, supported by technological advancements and regulatory initiatives, can pave the way for a more transparent and efficient SEP landscape. In doing so, transparency will not only uphold the integrity of the FRAND framework but also drive innovation and collaboration in the global economy. ■