Licensing Standard-Essential Patents on FRAND Terms

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I. Introduction

A patent is a form of intangible asset. While it is often assumed that a patent creates value for its owner by allowing its owner to exclusively make and use the patented invention, this assumption is demonstrably false. For example, there may be other patents owned by third parties that cover similar subject matter and can potentially block the patent owner from making, using or otherwise practicing the subject matter described in the patent (or, at least, make it prohibitively expensive to do so). Instead, patents are simply a right exclude others from making, using or otherwise practicing the subject matter described in the patent (*e.g.*, a right to sue and receive an injunction and/or damages upon victory) but a patent does not confer a positive right to make, use or otherwise practice the invention described in the patent itself. Since the patent simply confers a right to exclude, the value of a patent to a potential licensee is tied to fiscal cost to the licensee of that exclusion. Stated another way, a patent's licensing value is virtually non-existent until such a time that the right to exclude *would* cause financial pain to the licensee. This is true even when licensing is conducted on the friendliest of terms. Simply, patent licenses from a licensee's perspective are all about mitigating risk.

Sophisticated licensing executives recognize three categories of patent licenses: (1) stick licenses, (2) carrot licenses, and (3) patent licenses combined with other things of value.[1] When examined carefully, most observers will agree that only stick licenses – *i.e.*, licenses entered through the threat of litigation, explicit or not, produce desirable results for a patent owner. By contrast, carrot licensing, or convincing a third party to take a license when they are under no compulsion to do so and are divorced from stick licensing, simply does not achieve sustainable financial results for the patent owner. Finally, patent licenses combined with other things of value are really business deals with a few patents added for flavor.[2] Under this framework, standards-essential patents ("SEP"s) are special case examples of stick licenses because SEPs must necessarily be infringed by a party implementing the standard, as adopted by one or more standards-setting organizations ("SSO"s). SEPs may also be declared by either a patent owner or an SSO as essential to standards promulgated by that SSO[3]. Moreover, certain SSOs publish detailed descriptions of their standards. Since publication of a standard makes it easy for the implementer to implement without a license, the only reason to license – all else being equal – is fear of enforcement. The accumulation of laws, regulations, economic analysis and polite lies licensing executives like to tell each other when negotiating over an SEP license (*i.e.*, the F/RAND framework) helps obscure the fact that if the threats are not credible, SEPs, like other patents, have little inherent value.

[1] *See generally* http://inventors.generalpatent.com/inventor-resources/patent-licensing (accessed March 2, 1017)

[2] Niklas Ostmann, *How to create the "pull" for Patent Licensing*, (Published on September 6, 2016, available at: https://www.linkedin.com/pulse/how-create-pull-patent-licensing-niklas-%C3%B6stman?trk=prof-post.)

[3] Note that this definition of SEPs is not uncontested and papers over many disputes. *compare* Sidak, J. Gregory. "The meaning of FRAND, Part II: injunctions." *Journal of Competition Law and Economics* 11, no. 1 (2015): 201-269 with Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 Cal. L. Rev. 1889 (2002) (Available at http://scholarship.law.berkeley.edu/californialawreview/ vol90/iss6/3).

To understand why the basic truths of licensing often get lost with SEPs, an understanding of F/RAND licensing is a critical first step.[4] SSOs, such as the European Telecommunications Standards Institute ("ETSI"), typically issue intellectual property rights policies ("IPR policies") which govern the declaration of SEPs. ETSI is significant because 70% of SEPs are declared using ETSI's IPR policies.[5] These policies typically try to balance public use of the standard and the rights of IP owners.[6] In other words, the SSO generally seeks to ensure that licenses to SEPs are available to companies seeking to implement its standards, while also ensuring that patent owners are adequately compensated for the use of their technology.

For example, under the ETSI IPR Policy, when a patent owner believes that it has a patent that may be or may become essential to an ETSI standard, ETSI requests that the patent holder make an "undertaking in writing that it is prepared to grant irrevocable licenses on fair, reasonable and non-discriminatory ("FRAND") terms and conditions under such IPR…" ETSI IPR Policy § 6.1.[7] The meaning of this commitment is hotly debated – and an even greater debate is whether companies that implement a standard ("Implementers") have any obligation on their part to take a license to relevant SEPs. As a result, more and more companies are now using that debate to simply manufacture products without taking a license and thereby pay low or no royalties for the use of an SEP. They can do so because many believe that when the SEP owner finally shows up to seek a royalty, they can use the FRAND commitment as: (i) a shield to minimize their risk of adverse litigation outcome; (ii) a vehicle for disagreement over whether the offered terms are or are not FRAND and a resulting delay in actually having to pay royalties to the SEP owner; and (iii) a ceiling on any court-awarded royalties they may have to pay. Viewed in this way, some implementers essentially view FRAND as a security blanket that carries with it no cost because they believe the FRAND commitment imposes little or no requirements on them.[8] It is essentially a classic "one way" street. And it is a one-way street

[4] A perfect example of missing the forest for the trees can be seen in the Joint Research Centre of the European Commission's science and knowledge service report *Licensing Terms of Standard Essential Patents* (2017). This otherwise excellent summary of the theories behind FRAND and the associated case law rings hollow as a guide to policy because it fails to address the actual costs and challenges of people doing actual licensing including the costs of getting and enforcing SEPs and defending against SEP assertions.

[5] IPlytics Landscaping Study on Essential Patents p.11 (http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=8981) (accessed March 2, 1017))

[6] See, e.g., ETSI IPR Policy § 3.1, available at http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf.

[7] Other SSOs like the US based IEEE, typically make similar requirements, but use the acronym "RAND." It remains unclear what might be the legal force of the lack of fairness as a factor in licensing. It has been suggested that the "Fairness commitment of FRAND can be seen as a commitment to avoid anti-competitive terms; Reasonable refers mainly to a royalty rate that is not out of proportion with the utility of the license or the value of the technology, and Non-discriminatory refers to a commitment to apply similar or equivalent terms in all licenses related to the standard []." *Patents and open access in the knowledge economy,* Ulf Petrusson in *The structure of intellectual property law, can one size fit all?,* Annette Kur, Vytautas Mizaras, eds. at 89 (Edward Elgar UK 2011). This makes a certain degree of intuitive sense as most European analyses of FRAND start in competition law and those in the US start in contract and patent law. See e.g., *Standardization under EU Competition Rules and US Antitrust Laws, The Rise and Limits of Self-Regulation*, Bjorn Lundqvist at 333 (Edward Elgar, UK 2014) (noting the similarity in effect between the US and EU FRAND regimes regarding injunction but also noting that the EU regime arises from competition law and in the US from an equitable exception to patent law).

[8] See, e.g., *Defendant's Skeleton Argument for the CMC, Vringo Infra, Inc. v. ZTE (UK) Ltd.*, HC12D03985/HC12B04711 (Chancery UK) ¶¶44 – end (arguing that a putative licensee of SEPs need not express

that matters. In classic Nash bargaining, negotiated outcomes are driven by the value of the parties' outside options.[9] If the relative cost of outside options like litigation becomes less risky, then there is less motivation to reach a negotiated resolution.

II. Economics of SEPs

If the primary basis for a patent's worth is *in terrorem* value, the cost benefit analysis of acquiring SEPs for licensing becomes relatively straightforward: what does it cost to receive an SEP and what is the likely litigation outcome? Based on a typical SEP profile, we assume[10] fixed prosecution and annuity costs of $300,000[11] and litigation and IP costs for a single assertion of $3,350,000 (where multiple assertions are possible).[12] We omit for simplicity's sake the cost of R&D that was a necessary perquisite to coming up with the invention that led to the patent (even though the failure to reward the SEP owner for this risky investment could actually have a direct effect on future innovation); the in-house costs for vetting and applying for the invention; the in-house costs associated with determining whether a patent should be declared to an SSO, and declaring it; and the time value of money. This leaves $3,650,000 on the cost side of the ledger. According to the most recent Price Waterhouse Cooper study, the average US damages award across all patents is $7.3M.[13] According to the same study plaintiffs (ignoring patent type) have on average 33% chance of success.[14] This chance of success, is overstated for SEPs and needs to be reduced substantially since most SSOs keep highly detailed records of the proceedings leading up to the issuance of a standard, *i.e.*, prior art, all relatively easily available for the picking.[15] Moreover, since many (if not most) SEPs employ method or system claims

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a willingness to take a license until after receiving a judgment that a particular patent is valid and infringed and then it only need to express such a willingness with respect the particular patent in suit and not to any larger subset of the putative licensor's portfolio.

[9] *See* generally VirnetX, Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1332 (Fed. Cir. 2014) (discussing an expert's use of Nash bargaining).

[10] This bet, while somewhat more global in that in the past, is still worthwhile viewing through a US prism since, despite changes to the US patent landscape that are best described as patentee unfriendly, most companies still put a premium on getting their patents in the US. (See "New grant stats show that companies still put a premium on US patents." http://www.iam-media.com/blog/Detail.aspx?g=6d151be1-91f8-4812-acfb-385a631da6ba) (accessed March 2, 1017).

[11] We assume that most SEPs today typically have counterparts in the US, the EPO (and nationalized in 4 countries) Japan, Korea or China, (c.f., the Fairfield Resources studies only review declared SEPs that have at least a Chinese, European and/or US patent in the family, see, e.g., *Review of Patents Declared as Essential to WCDMA Through December 2008*, Fairfield Resources (Jan 6, 2009) *available at* http://www.frlicense.com/recent.html.) Thus most current SEPs have a prosecution costs and annuity payments over the life of the patent of at least $300,000. (*see generally* AIPLA 2015 study and http://www.ipwatchdog.com/2015/04/04/the-cost-of-obtaining-a-patent-in-the-us/id=56485/)(accessed March 2, 1017), *see also* http://www.ipwatchdog.com/2016/08/28/cost-filing-obtaining-maintaining-patents/id=72336/ (accessed March 2, 1017).

[12] Total assumes only one IPR per patent, though in principle there is no reason for a defendant not to file multiple IPRs. AIPLA 2015 Report of the Economic Survey. However, after a certain number of successful defenses against IPRs, the strength of the patent increases and the relative cost of assertion decreases due to actual or perceived strength of the patent (*e.g.*, a settlement is reached).

[13] *See* 2016 PwC Patent Litigation Study at p4 (May 2016)

[14] *Id.* at p15

[15] For example ETSI makes available all prior standards documents, including prior versions and drafts, as well as meeting reports and comprehensive record of the development of GSM and WCDMA see http://webstore.etsi.org/ecommerce/Listarticle.asp (accessed March 2, 1017).

and the subject matter of SEPs are rooted in software, the subject matter eligibility of many SEPs are put into question under the Supreme Court's *Alice* regime.[16] It is no wonder, therefore, that according to RPX, in the US, SEPs are likely to be less than half as successful as non-SEPs.[17] Thus, looking at the issue simply as a matter of patent infringement liability (before even addressing contractual or competition law issues that a potential licensee may throw into the mix), it is worth noting that the SEP holder has to spend $3.65MUSD to receive a 1 in 6 chance – *effectively rolling the dice* –to double their money. If we looked simply at probabilistic outcomes then, an SEP owner spends $3.6 million in a one-SEP patent enforcement action where the risk-adjusted return is likely only $1.2 million in rough terms.

In no small part to account for this fact (and the sheer transaction costs of evaluating SEP's on a patent-by-patent basis), most SEP owners try to hedge their bets (and reduce transaction costs) by licensing on a portfolio basis. Owners of larger SEP portfolios generally insist that putative licensees take a license to the larger portfolio of SEP's for a given standard.[18] The idea is that there exist at least a handful of SEPs in the larger portfolio whose *in terrorem* value more than balances out the other SEPs (even with the licensee's security blanket of likely litigation outcomes and FRAND constraints).[19] Reasonable and willing licensees generally prefer this approach as well because they do not want to leave open the risk that they infringe other SEP's and will have to deal with that fact at some point in the future. In other words, if they enter into a license agreement, they want complete and final "patent peace" between the parties.[20] There is a strong logistical challenge, however, when a potential licensee rebuffs the SEP portfolio holder. While the SEP portfolio might have a value as a whole, only a small subset can actually be litigated in court and courts have been extremely reluctant to take the value of the entire portfolio into account when considering the damages owed for being found to infringe just a handful of the patents in the larger portfolio.[21] Thus, short of agreeing to global arbitration[22] or massive, multi-patent, multi-jurisdictional global patent warfare, the sophisticated implementer knows that an SEP owner can only ever receive damages for the patent being asserted on a piecemeal basis and at great costs to the SEP owner.

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[16] For a slightly biased review of the danger see "Apple motion against Ericsson could result in devaluation of wireless patent portfolios: protocols patent-ineligible under Alice" http://www.fosspatents.com/2015/10/apple-motion-against-ericsson-could.html Tuesday, October 27, 2015.

[17] Standard Essential Patents: How do they fare? Page 9 (https://www.rpxcorp.com/2014/11/11/just-how-valuable-are-standard-essential-patents/) (accessed March 2, 1017)

[18] *See, e.g.*, *Ericsson Inc. v. D-Link Systems, Inc.*, No. 6:10-CV-473, 2013 WL 4046225 at *15 (E.D. Tex. Aug. 6, 2013) (Davis, C.J.)

[19] *Id.*; *but see* David J. Teece et al., *SDO IP Policies in Dynamic Industries: A Submission in Connection with the October 2012 National Academy of Sciences Symposium on RAND Patent Policies*, Submission to the ITU Patent Roundtable 19 (Oct. 10, 2012) ("[T]here is no reason to believe that the value of different patents (or portfolios of patents) is proportional to the number of patents in the portfolio, even for 'essential' patents.").

[20] See., e.g.,Keith Mallinson, Busting Smartphone Patent Licensing Myths (Center for the Protection of Intellectual Property Sept 2015) at 6 ("Portfolio licensing is the norm with standards because this unified approach is most convenient and cost efficient for licensor and licensee alike").

[21] See, e.g., Vringo Infrastructure, Inc. v. ZTE (UK) Ltd. [2013] EWHC 1591 at ¶52-end (UK Chancery, Patents Court 2013).

[22] Which is unlikely absent a powerful threat of harm to the putative licensee – *see infra* 2.

It is no surprise, therefore, that, that the phenomena of reverse hold-up has become well-known where companies implement patented technology without compensating patent owners.[23] While an injunction might otherwise have evened the playing field, in the context of SEPs, injunctions are nearly impossible to obtain in certain jurisdictions. Moreover, many current theories of patent value almost guarantee *de minimis* damages award for SEPs. One does not need a fancy PhD in law and economics to predict the inevitable result: certain companies are manufacturing infringing product and trying to avoid compensation indefinitely. This is forcing SEP owners either to license SEPs far below their true value or face costly and drawn-out litigation to obtain royalties they should have received at the outset. Or even worse, withdraw from future standardization efforts.[24]

III. Relief in the SEP Context

A. Injunctive Relief in the USA

Potential infringers were traditionally dissuaded from infringing a patent owner's rights by the threat of injunction. The possibility of this "outside option" was something that traditionally needed to be factored into the calculus by aggressive licensees when considering whether to enter into a negotiated resolution. Today, such relief is very difficult to obtain generally and almost impossible to obtain with respect to SEPs in the United States. This results primarily from a development in patent law generally regarding the standards for obtaining injunctive relief that springs from the Supreme Court's decision in *eBay v. MercExchange LLC.*[25]

With respect to SEPs, the Federal Circuit, held in *Apple v. Motorola*[26], that there are no special per se rules for SEP's prohibiting injunctions and that the general standard under *Ebay* should apply. Nevertheless, it is evident from the Federal Circuit's decision in *Apple* that when the SEP owner made a FRAND commitment, this commitment draws the court's inquiry into the parties' negotiations and whether the licensee has acted so unreasonably that an injunction would be appropriate.[27] Therefore, the discussion is essentially reduced to arguments about the meaning of a FRAND commitment. In this regard, certain administrative agencies considering

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[23] *See, e.g.,* Certain Wireless Devices with 3G and/or 4G Capabilities and Components Thereof at 113– 14, Inv. No. 337-TA-868, USITC Pub. 2929 (June 13, 2014) (Initial Determination on Violation of Section 337 and Recommended Determination on Remedy and Bond) [hereinafter USITC Inv. No. 337- TA-868 Initial Determination].

[24] This implication of such withdrawal were described by Ron D. Katznelson, in his presentation at the Symposium on Antitrust, Standard Essential Patents, and the Fallacy of the Anticommons Tragedy, (Berkeley, CA. October 29, 2016) (Available at http://www.ipleadership.org/articles/ieee-controversial-policy-standard-essential-patents-%E2%80%93-empirical-record-adoption (accessed March 2, 1017)) in the case of the IEEE as a Substantial and significant decline in licensing assurances to IEEE since the new patent policy: average net submission rate of LOAs declined by 83%, counting known negative and missing LOAs as negative numbers. Work at some standards Working Groups has been disrupted and delayed; Uncertainty undermines draft standards' credibility. The IEEE-SA Standards Board has yet to ratify a standard with recent negative or missing LOAs; ANSI accreditation of such a standard is at risk; untenable decisions are inevitable.

[25] 547 U.S. 388 (2006).

[26] 757 F.3d 1286 (Fed. Cir. Apr. 25, 2014)

[27] *Id.* at 1332.

claims of SEP infringement have determined the FRAND commitment means that patent owners need to engage in good faith attempts to license the applicable IP on so-called FRAND terms. After demonstrably making such a good faith effort, such administrative agencies have considered the patent owner to have met their FRAND obligation, without a detailed analysis of each offer being required.[28] Moreover, if an IP owner has engaged in such good faith attempts, injunctions are not deemed to be incompatible with SEP enforcement.[29]

Other courts and regulators, however, have interpreted FRAND commitments more restrictively, with many arguing that injunctive relief should only be available based on the infringement of an SEP where the infringer is an "unwilling licensee" to the patent owner's patents.[30] Thus, the Department of Justice and the U.S. Patent & Trademark Office issued a policy statement arguing that injunctions may be inconsistent with the public interest, but may be appropriate for an unwilling licensee.[31]

Similarly, regulators have investigated patent owners for their attempts to seek injunctions resulting in consent orders prescribing specific steps that the patent holder must take prior to seeking such relief in the future.[32] For example, Google committed not to seek injunctive relief with respect to its SEPs unless: (1) six months prior to seeking injunctive relief, Google had made a license offer to the prospective licensee; and (2) 60 days prior to seeking injunctive relief, Google had provided an offer to arbitrate the terms of a license to its SEPs on FRAND terms.[33]

Indeed, only a few U.S. courts have issued injunctions based on an SEP,[34] and the USTR overturned the only such order issued by the ITC.[35] Patent infringers have taken notice. The result in trying to prevent patent "hold-up" [36] there is a proliferation of "patent hold-out."[37] Courts and regulators have attempted to stop hold-out by leaving open the possibility of

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[28] *See e.g.,* In the Matter of Certain Wireless Devices with 3G Capabilities and Components Thereof, ITC Inv. No. 337-TA-800, Initial Determination at 421 (June 28, 2013).

[29] See *Id.*

[30] *See, e.g.*, Douglas H. Ginsburg et al., *Enjoining Injunctions: The Case Against Antitrust Liability for Standard Essential Patent Holders Who Seek Injunctions*, 14 ANTITRUST SOURCE, no. 1, Oct. 2014, at 1.

[31] January 8, 2013 DOJ USPTO Policy Statement at 6, available at http://www.uspto.gov/about/offices/ogc/ Final_DOJ-PTO_Policy_Statement_on_ FRAND_SEPs_1-8-13.pdf (accessed March 2, 1017).

[32] *See, e.g.,* In the Matter of Motorola Mobility LLC and Google Inc., FTC File No. 121-0120, Decision and Order at 9-10 (Jan. 3, 2013), available at https://www.ftc.gov/sites/default/files/documents/cases/2013/01/ 130103googlemotorolado.pdf (accessed March 2, 1017).

[33] *Id.*

[34] *E.g.,* CSIRO v. Buffalo Technology, Inc., 492 F. Supp.2d 600 (E.D. Tex. 2007)

[35] *see* https://ustr.gov/sites/default/files/08032013%20Letter_1.PDF (accessed March 2, 1017).

[36] *See, e.g., Microsoft Corp. v. Motorola, Inc. et al.,* 696 F.3d 872, 876 (notingthe ability of a holder of a SEP to demand more than the value of its patented technology and to attempt to capture the value of the standard itself is referred to as patent "hold-up".)(*citing* Mark A. Lemley, *Ten Things to Do About Patent Holdup of Standards (And One Not To Do),* 48 B.C. L.Rev. 149 (2007)).

[37] Anne Layne-Farrar, Why Patent Holdout is Not Just a Fancy Name for Plain Old Patent Infringement,(CPI North American Column Presents Feb 2016) (*accessed March 3, 2017)* (arguing that refusal to license SEPs is more than simple patent infringement and that it "can be a very attractive strategy for standards' implementers"); Keith Mallison, "Patent Holdup and Holdout", published at www.ipfinance.com August 16, 2016 (arguing that the empirical evidence shows there has been no patent holdup but rather significant patent hold out).

injunctions for SEPs.[38] Yet, in practice, these protections are not enough. An ITC ALJ summarized the difficulties faced by SEP owners noting that in SEP litigation "the patent owner can lose the IPR they believe they have, but if the patent holder wins they gets no more than a FRAND solution, that is, what they should have gotten under the agreement in the first place. There is no risk to the exploiter of the technology in not taking a license before they exhaust their litigation options if the only risk to them for violating the agreement is to pay a FRAND based royalty or fee. This puts the risks of loss entirely on the side of the patent holder, and encourages patent hold-out, which is as unsettling to a fair solution as any patent hold up might be." [39]

B. Damages in the US

In the United States, standards implementers have latched onto a number of different theories in an attempt to aggressively drive SEP royalties down. Initially, implementers cited to the dangers of patent hold-up and royalty stacking to argue that there should be downward pressure on any SEP royalties. With regard to hold-up, their arguments were that SEP owners should not be entitled to recover the "value of the standard" *i.e.*, the value that SEP's purportedly acquire as a result of a patented invention being adopted into the standard. This concept has been pursued in the economic literature and has led some economists to argue that SEP owners should only be entitled to recover the *ex ante* incremental value of the invention prior to standardization over other available alternatives. The *ex ante* incremental value approach was endorsed by the United States District Court for the Western District of Washington in the *Microsoft v. Motorola*[40] case with numerous statements that the RAND royalty being set by Judge Robart in that case had to exclude the "value of the standard."[41] In *Microsoft v. Motorola*, however, Judge Robart quickly ran into the practicalities of trying to determine the *ex ante* incremental value for a number of SEP's in a world where it is difficult to identify the available alternative technologies (if any) that could seamlessly be plugged into a standard – much less to price each of them and determine an incremental value.[42] Thus, Judge Robart was forced in *Microsoft v. Motorola* to look to other measures to determine appropriate royalty rates.[43] Yet, the notion that royalty rates for SEP's must reflect *ex ante* incremental value and not include the "value of the standard" has persisted as a mantra from standards implementers who seek to make the SEP owners efforts to prove infringement damages as difficult as possible and to place a large, weighty hand on the scale driving SEP damages as low as possible. They do so despite recent empirical evidence that the market for cellular handsets, for example, does not show any

[38] In the Matter of Certain Wireless Devices with 3G and/or 4G Capabilities and Components Thereof, ITC Inv. No. 337-TA-868, Initial Determination at 124 - 125 (June 13, 2014).
[39] *Id. At 125-126*
[40] Microsoft Corp. v. Motorola, Inc., No. C10-1823JLR, 2013 WL 2111217 (W.D. Wash. Apr. 25, 2013) (Robart, J.)).
[41] *Id.* It should be noted that the Microsoft v. Motorola case was not a patent damages case but a breach of contract case in which Microsoft accused Motorola of breaching RAND commitments to IEEE and ITU because, among other things, the royalty rates offered by Motorola were allegedly too high.
[42] *Id.* at *54
[43] *Id. At 65-end (noting the many problems with all the proffered comparables).*

of the hallmarks of a market affected by "hold-up" problems and, in fact, demonstrates quite the opposite.[44]

Implementers have likewise relied upon the notion of "royalty stacking" as a reason to drive down SEP royalties.[45] Their argument is that modern electronic devices implement a number of different technologies and given the number of technologies that must be licensed, there is a potential for the total royalty "stack" to exceed the profits generated from sale of the product. Of course, royalty stacking is always presented as a theoretical concern rather than an actual one and licensee's typically do not and likely cannot prove that such circumstances actually exist in the marketplace. But they use the fear of "royalty stacking" as another weighty hand on the scale. Judge Robart likewise endorsed this concern over royalty stacking in the *Microsoft v. Motorola* case stating that any RAND royalty would have to seek to avoid "royalty stacking" problems.[46]

The third argument that implementers seek to use is the concept of the "smallest saleable patent practicing unit" or SSPPU.[47] The concept that reasonable royalty damages under a *Georgia-Pacific* analysis[48] should be based not on the sales price of a complicated end-user product or service (often referred to as the "Entire Market Value") but on the smallest component within the product or service that implements the patented invention is, at its heart, an attempt by the US courts to avoid jury confusion. In some cases, juries would be presented by patent owners with the substantial price of an end user product or service and then be told by the patent owner that the royalty it was seeking represented a very modest share of that price (even though the invention may relate to a relatively minor feature). The classic example is a patent owner presenting the jury with the price of Microsoft's Office software for purposes of demonstrating that the royalties it sought on a "date picker" function in Microsoft Outlook's calendar feature were quite modest.[49] But implementers of SEP's have started to use the SSPPU concept to argue that royalties for SEP's related to fundamental things like cellular telecommunications systems that unlock value up and down the distribution chain cannot be determined by reference to end user devices but must instead be determined by reference to the price of a small component that is used to process the digital signalling and communications on the cellular network.

Implementers seek this result for two reasons. First, by moving the discussion over royalties from a $600 smartphone to a $25 chip in the smartphone, implementers understand that they can impose a practical cap on the amount of royalties that can ever be recovered by all the

[44] See Gaetovic, Haber and Zareszki, "A New Data Set on Mobile Phone Patent License Royalties", Working Patent Series 16011, September 25, 2016, Hoover IP2, (Available at: http://www.ipleadership.org/articles/new-dataset-mobile-phone-patent-license-royalties)
[45] *See, e.g., Ericsson Inc. v. D-Link Sys., Inc.*, No. 6:10-CV-473, 2013 WL 4046225, at *18 (E.D. Tex. Aug. 6, 2013).
[46] *Infra* 41 at 11
[47] *See, e.g.,* Ericsson Inc. v. D-Link Corp., No. 6:10-CV-473, 2013 WL 2242444, at *2 (E.D. Tex. May 21, 2013).
[48] *See Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1229 (discussing Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), mod. and aff'd, 446 F.2d 295 (2d Cir. 1971), cert. denied, 404 U.S. 870 (1971)
[49] *See Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F. 3d 1301 (Fed. Cir. 2009).

owners of SEP's for a given standard. Second, in many instances, implementers know that the component they choose as the appropriate royalty base does not and was never intended to reflect the value of the standardized technology used in the device. In other words, the price of the component represents an artificially deflated royalty base because it is manufactured in a world where the component manufacturer does not account for IPR costs. [50]

In addition to royalty stacking, hold-up, and SSPPU arguments, the other approach that implementers have used to try and drive down SEP royalties is an artificially narrow definition of what constitutes a comparable license.[51] Implementers often contend that any difference between an otherwise informative license and the royalties that they should pay render the license agreement incomparable. They also contend that prior licenses may be "infected with hold up" or do not reflect recent patent damages law. By doing so, implementers hope to scrub the record of any actual market data points that could be used by the SEP owner to establish a FRAND royalty and to force a court into using theoretical models constructed on notions of "excluding the value of the standard," royalty stacking, and SSPPU using component profits.

Fortunately, recent developments in U.S. damages law seem to be recognizing these arguments by implementers for what they truly are – naked attempts to push SEP royalties as close as possible to zero.

The Federal Circuit's recent decisions in *Ericsson v. DLink*[52] and *CSIRO v. CISCO*[53] both contained favorable analysis for SEP owners, as the Federal Circuit instructed that there must be actual, concrete evidence of holdup in order for holdup to be considered in setting a FRAND rate.[54] The court's decision also included favorable language regarding the use of a comparable license in setting a FRAND rate, noting that comparable licenses need not be perfectly analogous, and that any differences merely go to weight of the evidence, not their admissibility. In *CSIRO*, the Federal Circuit rejected the contention that the smallest saleable unit analysis must be universally applied, noting that the appropriateness of the SSPPU doctrine will depend on the particular facts and circumstances of a case.[55]

While these recent decisions in the Federal Circuit have been trending more favourably, the current case law in the United States still presents significant risks to SEP owners in FRAND cases, as many courts continue to issue orders driving down FRAND rates based on smallest saleable unit analysis, limited consideration of comparables[56], and concerns regarding patent holdup[57].

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[50] Richard J. Stark, Debunking the Smallest Saleable Unit Theory (CPI Antitrust Chronicle July 2015(2).

[51] *See LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012); *but see Prism Tech. LLC v. Sprint Spectrum LP,* (Fed Cir. March 6, 2017) *(rejecting a categorical rule that would bar settlement agreement being considered a comparable license).*

[52] 773 F. 3d 1201 (Fed. Cir. 2014)

[53] 809 F. 3d 1295 (Fed. Cir. 2015)

[54] *See Id.* At 1302 (*citing* Ericsson, 773 F.3d at 1234).

[55] *Id.*

[56] Another interesting decision that holds out hope for licensors is St. Lawrence Comm. LLC V. ZTE Corp, Et. Al. (2:15cv-349-JRG) (Feb 21, 2017 (holding that expert could testify hypothetical FRAND royalty rate to be awarded

C. Relief in Europe

Traditionally, injunctions were available in Europe to owners of SEPs and have been granted in, for example, France, Belgium, The Netherlands and Germany. In Germany and Holland, a FRAND-doctrine has been developed which aims at striking a fair balance between the interests of the patent owners and those of good faith implementers of the standard in question.

In the Orange Book-decision of 6 May 2009,[58] the Federal Court of Justice in Germany ruled that a SEP-holder seeking an injunction only abuses a dominant position if: the alleged infringer made an unconditional offer to conclude a license agreement, which cannot be rejected unreasonably or discriminatorily; AND, where the putative licensee is alleged to have previously infringed the patent, it complies with all obligations in the proposed license agreement, including the payment of royalties and the rendering of account. This framework has been used in Germany leading to both many denials and grants of injunctions.[59]

A similar approach exists in Holland.[60] The Dutch approach emphasizes FRAND does not preclude the SEP-holder from enforcing SEPs including seeking inunctions.[61] Only in "special circumstances" will such enforcement be considered an abuse of right, for example, if the enforcement is aimed at unduly pressurizing a third party into accepting non-FRAND conditions.

With the recent interventions of the European Commission in the Motorola- and Samsung-decisions of 29 April 2014[62] the term "willing licensee" has now become the buzzword in the field of SEP-enforcement in Europe. According to the European Commission, an SEP confers a dominant position, and although the European Commission accepts in principle that a SEP-holder is entitled to injunctions, the "exceptional circumstances" under which no such entitlement exists are in practice very broadly formulated.[63] Essentially, where an alleged infringer is a "willing licensee" injunctions are proscribed. The exact criterion for what makes one a willing licensee remains unclear, opening the door to abuse and uncertainty.

This situation prompted the Regional Court of Düsseldorf to request a preliminary ruling from the European Court of Justice to provide clarity on the approach to be followed in cases of SEP-enforcement.[64] Interestingly, the court not only points to the risk of a "hold up" by the

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for infringement damages would be higher than the royalty rate of a comparable FRAND license, which comparable license's royalty rate may have been skewed low based on discounts made for litigation risks and costs).

[57] Another interesting development to watch is whether SEP holders seeking declaratory judgments that implementers are "unwilling licensees" becomes a trend and whether such findings if issued have material effect on the settlement/license dynamic. *See* Huawei Tech. Co. v. T-Mobile, US, Inc., No: 2-16-CV-00715, Report & Recommendation (February 21, 2017) (magistrate declines to recommend dismissing Huawei's DJ request to find T-Mobile "an unwilling licensee").

[58] Orange Book Standard (German Federal Supreme Court, May 6, 2009, Doc. No. KZR 39/06)

[59] *Id.*

[60] See Philips/SK Kassetten (District Court of The Hague 17 March 2010).

[61] *Id.*

[62] In re: Motorola Mobility LLC, Case AT.39985 (European Commission 29/04/2014) In re: Samsung Elec. Co, et. Al. ,Case AT.399939 (European Commission 29/04/2014)).

[63] *Id.*

[64] Huawei/ZTE, case C-170/13

patentee but also warns against "reverse hold-up" in case injunctive relief would no longer be available to the patentee.[65]

In the decision from the ECJ[66], the ECJ set out a framework that has been generally viewed as helpful to SEP owners because it provides clarity as to the process that should be followed before seeking an injunction but also because it imposes requirements on an implementer who wishes to avoid the possibility of an injunction. Overall, the ECJ's approach is defined by information exchange and clarity. The SEP owner, before obtaining injunctive relief on an SEP, must advise the implementer of the SEP and the manner in which the implementer is infringing the SEP. In addition, the SEP owner is obligated to provide a license offer and to explain the methodology for determining the royalties. Once the SEP owner has completed these tasks, however, the responsibility shifts to the implementer to respond "diligently" to the SEP owners offer and, if it believes the offer is not offered under FRAND terms, to make its own proposal promptly. In addition, the implementer has to provide adequate security for its payment of royalties due for past and future use of the SEP. By imposing such requirements, implementers now face risks if they take the traditional approach of simply contending that the SEP is invalid or not infringed and contending that any royalties offered by the SEP owner are not offered under FRAND terms without ever explaining what royalties would be FRAND compliant or making their own counterproposal – a strategy that has been used by implementers to drag out resolution for years by testing the willingness of the SEP owner to actually litigate the issues of infringement and damages.[67] As the courts across Europe issue rulings in accord with the ECJ's judgment, some clarity is coming to the full scope of these obligations. [68]

D. Relief in Brazil

In Brazil, the IP statute specifically provides for injunctive reliefs as remedy against violation of IPRs,[69] and courts are often granting injunctions to prevent the violation SEPs.[70] Injunctions require an *eBay*-like analysis, but the absence of punitive or enhanced damages, together with the length of proceedings, tips the "balance of hardships" in favor of patentees.

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[65] Regional Court Düsseldorf of 21 March 2013, paragraph 36.

[66] Case C170/13 (ECJ 16 July 2015).

[67] Courts now appear to be taking a dim view of this approach, *see.e.g*, Wiko SAS v. Sisvel UK, Ltd No. RG2016F01637, Tribunal De Commerce De Marseille (20 September 2016) holding that Sisvel's approach to licensing was in compliance with competition and thus was entitled to see injunction., Sisvel v. Haier (ases 4a O 93/14 and 4a O 144/14, discussed at (http://www.allthingsfrand.com/frand-news-research/judicial/sisvel-v.-haier/)(accessed March 2, 1017)., Vringo Infrastructure. V. ZTE (Romania, Court of Appeal 4th Civil Division, decision 507a, October 28, 2015)(upholding a preliminary injunction) (available at https://drive.google.com/file/d/0B8xYsG-VkgXNMEJKQUFCRURueTA/view) (accessed March 2, 1017) , but see http://www.fosspatents.com/2016/11/mannheim-regional-court-denies.html (accessed March 2, 1017).

[68] One highly anticipated decision is the Unwired Planet litigation in the UK High Court v. Huawei; *see, e.g., Unwired Planet International Limited v Huawei Technologies Co. Limited et al, High Court of Justice, Patents Court, London*, UK, 21 July 2015, Case No. [2015] EWHC 2097 (Pat)

[69] See., e.g., ZTE do Brasil Indus. Com. Serv. E Part. LTDA v. Vringo Infra. Inc., Interlocutory Appeal 0022777-86.2014.8.19.0000 at 9 (4th Civil Panel Rio de Janerio State Court of Appeal, 2014) noting that injunctive relief for patent infringement is guaranteed by Article 209 §1^0 of Industrial Property Law 9.279.96.

[70] Section 209, first paragraph of Law 9,279/96 (Brazilian Patent and Trademark Act); Section 273, caput and item I, of the Brazilian Code of Civil Procedure; *see generally* Paulo Bianco and Rafael Lacaz Amaral, *Avoiding lengthy litigation*, Managing Intellectual Property, May 2013, pp. 1-3.

Implementers usually deny infringement and submit FRAND defenses only after the confirmation of the injunctions before appellate courts. Courts are signaling that FRAND defenses will not be persuasive unless the implementer brings evidence of a willingness to negotiate a license in good faith before the filling of the infringement complaint. [71] Indeed, the highest civil court in Brazil has upheld a preliminary injunction on an SEP premised on the defendant being an unwilling licensee.[72]

E. Relief in India

In India, however, contrary to perception of the country being a bad jurisdiction to enforce patents, SEP owners have made reasonable headway. In cases involving SEPs, Indian Courts have done one of the following: (a) Initially granted orders allowing the patentee to object to imports of infringing products under the Imported Goods IP Enforcement Rules;[73] (b) In cases where such orders have been passed, most defendants have agreed to either deposit royalties with the Court or with the patentee, in order to be allowed to do business;[74] (c) Maintenance and furnishing of accounts is made compulsory in most SEP cases;[75] and (d) Furnishing of bank guarantees for sums equivalent to the royalty payable have been directed.[76] Patent owners have thus been able to obtain some monetary relief even at the interlocutory stage.[77] This is seen by courts as a method of balancing between patentees' rights and the business of the defendants. India is however currently grappling with the issue of the interface of IP and competition. It appears that Competition law is being used by most users of SEPs to get better bargains from the Patentees and India is no exception.[78] It remains to be seen as to how the SEP landscape pans out in India but at this stage, it would not be wrong to state that it holds out sufficient promise for SEP owners to consider it as a serious jurisdiction to file patents and litigate on them.

III. Keys to Successful Licensing

Manufacturers understand that protections for SEPs are not robust and are taking advantage. In spite of the fact that regulators, such as the FTC, clearly contemplate courts determining FRAND royalties, manufacturers now often fight patent owners' efforts to set such rates by arguing that the claims are unripe. For example, manufacturers have argued that the claims are unripe because they would not result in a signed license agreement or that a court cannot set a FRAND rate for an entire portfolio because each and every patent would have to be analyzed for essentiality, validity, and infringement.[79] If upheld by the courts, such arguments

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[71] See e.g., case # 2015.51.01.037510-8, ZTE v. Vringo, 13th Chamber of the Rio de Janeiro Federal Trial Court (May 11th, 2015).
[72] ZTE do Brazil Ltd. (Appellant) v. Vringo Infrastructure Inc (Appellee), Superior Court of Justice, 3d Panel Interlocutory Appeal #594.155 (Published November 13, 2015) (available at https://drive.google.com/file/d/0B8xYsG-VkgXNZGJ3c0R5a2JSbW8/view) (accessed March 2, 1017)
[73] Telefonktiebolaget LM Ericsson v. Lava International Ltd
[74] *Id.*
[75] *Id.*
[76] *Id.*
[77] *Id.*
[78] Micromax Informatics Ltd V Telefonaktiebolaget Lm Ericsson, Case No. 50 OF 2013, Competition Comm'N Of India (12 November 2013)
[79] See e.g., Vringo Infra, Inc. v. ZTE (UK) Ltd., [2013] EWHC 1591 (pat) at ¶¶23-28 (Chancery Div. Birss, J.).

would require patent owners to litigate each and every patent in their portfolios in order to obtain FRAND compensation rather than entering into a portfolio license. These tactics serve to further delay the determination of FRAND license terms and increase the expense of litigation, while manufacturers continue to make use of patented technology without compensating SEP owners.

Another potential challenge can be seen in Apple the FTC's various filings against Qualcomm alleging illegal bundling of its chips and SEPs[80] and Apple's filings against Nokia alleging that Nokia's SEP divestments inherently violate antitrust law.[81] Yet another area of interest is the new focus on the non-discriminatory aspect of FRAND. While this has not been as large an issue in the USA with discovery and the available of protective orders, given the prevalence of non-disclosure agreements it has been a challenge for SEP owners to prove non-discrimination and still satisfy the confidentiality concerns of their other licensees.[82]

In the face of such a legal / regulatory scheme and such tactics on the part of standard-implementers seeking to reduce royalties by forcing patent owners to litigate, SEP owners must think about how best to enforce their patents in order to ensure that they are adequately compensated for the use of their intellectual property. [83] First, SEP owners should think carefully about where to enforce. Litigating in jurisdictions more amenable to the idea of injunctive relief in the SEP context can help to level the playing field by forcing standards-implementers to bear some of the risks of patent litigation. Second, prior to seeking injunctive or exclusionary relief, SEP owners should make sure that they are in compliance with applicable rules concerning the licensing of SEPs in order to avoid unnecessary litigation expense and potential regulatory inquiry. Significantly, prior to seeking injunctive relief, an SEP holder should make at least one license offer on FRAND terms. SEP owners should also offer to arbitrate the terms of a FRAND license with the infringer and should allow some time for a response to such an offer prior to seeking injunctive relief. Finally, SEP owners should be able to clearly articulate why their license offers are FRAND to show that they have negotiated in good faith.

IV. Conclusion

[80] *FTC v. Qualcomm Inc.*, Case 5:17-cv-00220 (NDCA Filed 1/1/2017); *Apple Inc. v. Qualcomm Inc.,* Case 3:17-cv-00108 (SDCA filed 1/20/2017).

[81] Apple Inc., v. Acacia Rsch. Corp., et al case no 5:!6-cv-07266 (NDCA) at ¶¶108-115 (Complaint filed December 22, 2016). This is a theory that has been brewing and circulating for some time, *See .e.g., Complaint by ZTE against Vringo before the European Commission*, filed 10 April, 2014, non-confidential version at 37, (alleging privateering encourages royalty stacking in violation of competition law); *Vringo Inc v. ZTE Corp.* No.15-cv-4988 (SDNY) Doc no 285 filed November 10, 2015 at 2 ("ZTE sent Google ZTE's draft EU and Chinese antitrust complaints [against Vringo]").

[82] See e.g., Discussion Paper on Standard Essential Patents and their Availability on FRAND Terms, Government of India, Department of Industrial Policy and Promotion, Ministry of Commerce & Industry (1 March 2016) at 24-26; FRAND in India: The Delhi High Court's emerging jurisprudence on royalties for standard-essential patents, J. Gregory Sidak, Journal of Intellectual Property Law & Practice (2015) (10(8) : 609-18.. But see, the January 17, 2017 decision of the Higher Regional Court of Dusseldorf that in a groundbreaking decision created a protective order-like regime in Germany that may allow licensors to share other licenses – at least in the context of litigation – more easily. http://ipkitten.blogspot.com/2017/02/german-court-prowls-into-realm-of.html (accessed March 2, 1017)

[83] A rather interesting test case of the regulatory impact and how the political climate will be seen *Federal Trade Commission v. Qualcomm Inc.*, Case no. 5:17-cv-00220 (ND CA), especially in light of the Commissioner Maureen K. Ohlhausen's dissent. *In the Matter of Qualcomm, Inc. File No. 141-0199* (January 17, 2017).

The SEP-enforcement landscape is hostile at present but there are some hopeful trends in US damages law and also from recent European decisions. In the current environment, standard -implementers take advantage of the difficulty in obtaining injunctive relief to pressure SEP owners into accepting licenses at suboptimal rates or face the prospect of years of patent litigation in multiple forums, risking adverse findings concerning the patents themselves in the process. However, by utilizing forums willing to curb the effects of patent hold-out and by taking care to comply with their FRAND obligations before seeking injunctive relief in different jurisdictions, SEP owners can maximize their ability to obtain fair compensation for their intellectual property rights.