NON-DISCRIMINATION – FRAND'S LAST STAND?

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I. INTRODUCTION

A significant number of technical interoperability standards today are developed under the auspices of standards development organizations ("SDOs") that require their participants to license patents that are essential to the implementation of those standards (standards-essential patents or "SEPs") on terms that are "fair, reasonable and nondiscriminatory" ("FRAND"). With few exceptions, SDOs fail to define these terms with any degree of detail. As a result, the meaning of FRAND has been the subject of litigation in jurisdictions around the world, and each new case seems to increase the divergence of opinions over the appropriate manner of calculating FRAND royalties. One SDO's attempt to establish guidelines for FRAND royalty calculations has been attacked as unfair to SEP holders and a potential violation of antitrust laws.[2] The result has been a general failure of the FRAND commitment to establish meaningful limits on royalties charged for SEPs or the manner of calculating these royalties.

Less attention has been paid to the "non-discrimination" or ND prong of FRAND. In this essay, we explore possible interpretations of this component of the FRAND commitment and the conclusions of two courts that have examined this issue.[3] Enforcement of the ND prong enables a level playing field for competition and investment by SEP licensees. Moreover, enforcement of the ND prong can be an effective means to assess fair and reasonable royalty rates in the fractious environment of FRAND compliance under some circumstances. If SEP holders commit to royalty terms before a standard is approved and released by the SDO, and if the ND prong of the FRAND commitment requires that such terms apply to future licensing negotiations, this would have the ancillary benefit of mitigating concerns about holdup that might arise after firms and consumers have committed to the standard.

For the ND prong to accomplish this latter purpose, SDOs must specify that a nondiscrimination commitment applies to licensing negotiations that occur at different times, as well as to negotiations between different licensees. The presiding judges in the two court cases reviewed in this essay concluded that the relevant FRAND obligation was not a most-favored customer requirement that gives every licensee the benefit of the most favorable licensing terms ever granted to another party. This suggests that, unless SDOs state otherwise, a similar FRAND commitment would not obligate SEP holders to extend the same terms to future licensees. Such an interpretation would undermine the value of the ND prong in mitigating holdup in future licensing negotiations.

2 In 2015, the Department of Justice issued a Business Review Letter ("BRL") that did not object to a revision in the IEEE patent policy that limited the ability of SEP holders that make FRAND commitments to demand injunctive relief. In 2020, the Department of Justice provided supplementary advice that effectively reversed this conclusion. Updated Response to IEEE's Request for Business Review Letter, Makan Delrahim, Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice (Sep. 10, 2020).

3 We disagree with the UK Supreme Court, which recently held that the non-discrimination prong of the FRAND commitment was not a separate commitment at all, but merely "gives colour to the whole and … provides focus and narrows down the scope for argument about what might count as 'fair' or 'reasonable.'" *Unwired Planet v. Huawei*, [2020] UKSC 37, Para. 114.

Enforcement of a non-discrimination commitment in bilateral market negotiations requires transparency about royalties that SEP holders have negotiated in the past and are likely to obtain in the future. We propose that SDOs encourage or require their participants to post a binding royalty schedule for their SEPs covering a given standard for all licensees as early in the standard development process as possible and include measures to limit future royalty increases. This obligation, which parallels the posting of royalty schedules by most patent pools, would allow the ND prong of the FRAND commitment to constrain opportunistic licensing demands by SEP holders that might occur after firms and consumers have made investments that are specific to a standard.

II. UNDERSTANDING THE ND PRONG OF FRAND

Absent SDO guidance, the meaning of the ND prong of the FRAND commitment must be derived from the understanding of SEP holders, licensees and enforcers. There are several possible interpretations of this commitment:[4]

(i) Every licensee pays the same royalty;

(ii) Royalties may differ, but they do not violate an ND commitment unless they harm competition among licensees;

(iii) Royalties may differ if they promote the adoption of the standard for which the licensed patent is essential;

(iv) Royalties may differ if licensees do not compete with each other.

We discuss each of these possible criteria and evaluate whether they are economically sensible interpretations of the FRAND non-discrimination commitment.

A. Every Licensee Pays the Same Royalty

The apparently simple criterion that every licensee should pay the same royalty has practical difficulties. The rule does not specify whether "the same royalty" should be interpreted as the same amount for every unit of product sold by each licensee, the same running royalty paid as a percentage of the sale price of a product that implements the standard, or perhaps some other measure.

"The same royalty" is an ambiguous concept if SEP holders charge a menu of prices that include fixed fees and per-unit or running royalties, royalties that vary with the number of units sold, or royalties that have caps or floors. Total licensing fees under royalty schedules that include these common components depend on the numbers or prices of units sold by the licensees and may involve discounting of expected future sales, which makes a comparison of amounts paid by different licensees the result of a complicated and necessarily imperfect estimation. Many SEP holders charge a running royalty that is a percentage of a base price that is related to the price of a product that implements the standard covered by the patent, but if two licensees sell the same number of products, they would pay different royalties under these schemes if their products have different prices.

B. Royalties May Differ, But They do not Violate an ND Commitment Unless They Harm Competition Among Licensees

An alternative approach to the definition and enforcement of an ND commitment applies the analytical framework of competition law to identify royalties that materially discriminate among licensees. Competition law would apply if SEP holders have substantial market power. That is likely if they hold patents that are essential to a standard that has wide acceptance, the patents have no close substitutes, and firms or consumers that implement the standard have high cost to switch to an alternative. In that event, competition law may limit discriminatory licensing arrangements if they are likely to distort competition and harm consumers.

The UK High Court (Patents) embraced the use of competition law to evaluate the non-discrimination prong of a FRAND commitment in *Unwired Planet v. Huawei*, a decision that was ultimately affirmed by the UK Supreme Court.[5] The application of competition law to assess and enforce compliance with a non-discrimination commitment has several drawbacks, which we discuss in Section III below.

4 We focus on the assessment of nondiscriminatory royalties. Discrimination can involve other dimensions of SEP licensees, such as products that must be licensed, availability of injunctions, geographical scope, or reciprocal licensing obligations.

5 [2017] EWHC 711 (Pat), aff'd [2018] EWCA Civ 2344, aff'd [2020] UKSC 37.

C. Royalties May Differ if They Promote the Adoption of the Standard for Which the Licensed Patent is Essential

An alternative criterion to evaluate compliance with an ND commitment is whether differential royalties promote the adoption and use of the standard for which the licensed patent is essential. In some respects, this is the converse of applying competition law to evaluate ND compliance. Whereas competition law may condemn licenses that are excessively discriminatory, a promotion criterion would permit a degree of discrimination notwithstanding an ND commitment if the discrimination is likely to facilitate the adoption and use of the standard.

Economists have long recognized that price discrimination can enhance economic efficiency by increasing sales of a product. Bilateral bargaining that extracts the most that every licensee is willing to pay is an example of first-degree price discrimination. First-degree price discrimination can promote the adoption and use of a standard by allowing licensors to reach agreements with every licensee that is willing to pay for a license to implement the standard. Royalty schedules that include fixed fees or lower payments for higher sales are examples of second-degree price discrimination. Compared to a uniform rate for every unit of a product that implements a standard, a royalty schedule that practices second-degree price discrimination can increase the adoption and use of a standard by allowing licensors to charge prices for additional utilization of licensed patents that are closer to the incremental cost of another licensed unit.

Although price discrimination may promote adoption and use of a standard under some circumstances, it can have the opposite effect. Permitting rival licensees to negotiate differential licensing terms can result in royalties that cause consumers to pay higher prices for the licensees' products and reduce incentives for licensees to innovate.[6] Price discrimination can harm *dynamic* economic efficiency, even if it improves *static* economic efficiency, because licensees have less surplus available to cover the costs incurred to improve their products or develop new products. Differential royalties can harm smaller rivals and new entrants in markets where established firms already benefit from network effects and brand reputation, thereby diminishing the ability of competitors to disrupt industries with dominant firms.

D. Royalties May Differ if Licensees Sell Products that do not Compete with Each Other

Third-degree price discrimination occurs when a firm charges different prices to different types of users. A SEP holder engages in third-degree price discrimination if it charges different royalties for a patent that is used in different applications – such as mobile phones versus cellular base stations or DVD players versus discs – or for use of the same product in distinct geographies.

Third-degree price discrimination has no adverse competitive effect if the differential royalties are for applications that do not compete with each other or are for use of the licensed technology in separate geographies. Furthermore, third-degree price discrimination can have pro-competitive benefits for the adoption and use of a standard, including encouraging use of the standard in new markets. For example, Avanci, a patent licensing platform that licenses patents on 3G, 4G, and 5G cellular technologies for use in non-telecommunications applications such as vehicles, charges royalties that differ from those charged under licenses that cover mobile phones and other devices.

We believe that a FRAND commitment should allow licensees to pay different royalties if they operate in different markets or distinct geographies. That is, absent contrary evidence, third-degree price discrimination should not violate the ND prong of a FRAND commitment. At the same time, we believe that the ND prong should prevent similarly-situated licensees from paying significantly different royalties for patents encumbered with a FRAND commitment if the licensees sell similar products in the same region.

We now turn to how courts have evaluated the meaning of the ND prong of the FRAND commitment. We focus on two judicial decisions that considered this question in detail.[7] While they agree that the ND prong should apply to similarly-situated licensees, at least one of the decisions is clouded by factors that leave governance of the ND commitment open to some uncertainty.

6 Compare, e.g. Michael L. Katz. *The Welfare Effects of Third-Degree Price Discrimination in Intermediate Good Markets*, 77 Am. Econ. Rev. 154 (1987) (price discrimination can raise prices) and Roman Inderst & Tommaso Valletti, *Price discrimination in input markets*, 40 RAND J. Econ. 1 (2009) (price discrimination can lower innovation incentives) *with* Daniel P. O'Brien, *The welfare effects of third-degree price discrimination in intermediate good markets: the case of bargaining*, 45 RAND J. Econ 92 (2014) (price discrimination can lower prices).

7 In addition to the two decisions discussed below, we note that the district court in FTC v. Qualcomm ruled on the requirements of the ND prong of the FRAND commitment made to two SDOs. The issue addressed by the court, however, related to whether the ND commitment permitted a SEP holder to refuse to license certain rival firms under its SEPs. We do not address this issue, referred to in the literature at "level discrimination" or "license to all."

III. NON-DISCRIMINATION AND THE COURTS

A. TCL v. Ericsson

In *TCL v. Ericsson*,[8] the U.S. District Court for the Central District of California considered whether Ericsson complied with a FRAND commitment to the European Telecommunications Standards Institute ("ETSI"). The court noted with regard to ETSI's patent policies that "[T]he precise contours of the FRAND obligation were never crystalized in a definitive formulation. … Neither the history of ETSI's policy development nor the meager case law development of the FRAND concept provides the Court definitive guidance in assessing whether Ericsson's offers have been non-discriminatory."[9]

The Court rejected Ericsson's argument that unlawful discrimination must harm competition in a market for the adoption or use of a standard. Instead, the Court found that harm to a licensee offered discriminatory rates is sufficient to violate the ETSI ND commitment. The Court reasoned:

To be sure, one of the goals of ETSI is to foster standardization and its resultant benefits to all firms, but that is not to the exclusion of protecting individually harmed firms. Indeed, Ericsson would engraft into the FRAND analysis the distinction which American antitrust law makes between the harm to competition, which is actionable, and mere harm to a competitor which is not. … The Sherman Act and its long history provide no guide to understanding ETSI's non-discrimination under FRAND.[10]

The Court concluded that the ND prong of the FRAND commitment required that the SEP holder offer rates to firms that are "like, or close to like."[11] For purposes of comparing Ericsson's FRAND-encumbered cellular royalties, the Court included all cellular firms that are well-established in the world market, which includes many firms with much higher sales than TCL. The Court rejected the notion that SEP holders can justify differential royalty terms because they differ in overall financial success or risk, brand recognition, efficiency, the operating system of their devices, or the existence of retail stores, and emphasized that sales volume alone does not justify giving lower rates to otherwise similar firms. The Court did, however, allow for differential rates for firms that operated exclusively in separate geographies. Without directly saying so, the Court implicitly recognized that third-degree price discrimination based on geography does not violate ETSI's FRAND commitment.

Citing evidence from the history of ETSI's patent policies, the Court rejected the notion that the non-discrimination commitment was a most-favored licensee provision that would give every licensee the benefit of any more favorable terms and conditions granted to another licensee for the same intellectual property rights under comparable circumstances.

B. Unwired Planet v. Huawei

The UK High Court (Patents) considered the requirements of ETSI's non-discrimination commitment in *Unwired Planet v. Huawei*.[12] The Court concluded that the ETSI FRAND undertaking should be interpreted as establishing a benchmark FRAND rate applicable to all licensees seeking the same kind of license. The Court said that this rate is non-discriminatory because it is a measure of the intrinsic value of the portfolio being licensed but it does not depend on the identity of the licensee.

The characterization of the non-discrimination requirement of a FRAND commitment adopted by the UK court is broadly similar to the conclusion reached by the U.S. District Court in *TCL*. The judges in both cases adopted the view that royalty terms should be similar for similarly-situated licensees. Both courts also rejected the notion that the ND prong should act as a most-favored-licensee commitment, which would automatically give a licensee the benefit of a lower rate if such a rate were granted to a different licensee. The UK court characterized such a most-favored approach as "hard-edged" non-discrimination and distinguished it from "general" non-discrimination, which the court concluded was consistent with the ETSI FRAND commitment.

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8 TCL Commun. Tech. Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson, 2017 U.S. Dist. LEXIS 214003 (C.D. Cal. 2017), rev'd on other grounds, 955 F.3d 1317 (Fed. Cir. 2020).

9 *Id.* at *23.

10 *Id.* at *122.

11 *Id.* at *94.

12 [2017] EWHC 711 (Pat), aff'd [2018] EWCA Civ 2344, aff'd [2020] UKSC 37.

Although the UK court concluded that the non-discrimination commitment prohibits size-based discrimination, it also held that a licensee cannot challenge a license allegedly granted on FRAND terms if it later discovers that a similarly-situated licensee received a lower royalty rate unless the difference would distort competition between the two licensees, and thereby violate applicable competition law.

We do not believe that compliance with the ND prong of a FRAND commitment should be assessed on the basis of compliance with competition law unless the SDO's patent policy includes an affirmative statement to this effect, for two main reasons. First, since competition law already applies to all arrangements between licensors and licensees, an ND commitment would have no incremental effect if it means nothing more than a requirement that licensing should not violate applicable competition law. We believe that most SDO participants intend an ND commitment to mean something more, otherwise there would be no need for it.

Second, most FRAND commitments are for non-exclusive world-wide licenses, but national competition laws have different tolerances for discriminatory conduct. In the U.S., the Robinson-Patman Act can condemn differential pricing, but only for commodities of like grade and quality (not patent licenses). Differential pricing can be addressed under Section 2 of the Sherman Act, the Clayton Act, or Section 5 of the Federal Trade Commission Act. However, these laws do not condemn differential royalties without additional evidence of antitrust injury.

In contrast, Article 102(c) of the Treaty on the Functioning of the European Union specifically notes that it is a violation for a dominant firm to apply "dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage." Both U.S. and European competition laws require evidence of substantial market power to challenge licensing conduct, but their thresholds for substantial market power differ, as can the means by which they evaluate market power. Competition laws differ in other respects, such as requirements for bringing actions and for proving injury. We believe it is unlikely that SDO members intended competition law to be the measure by which FRAND licensing is evaluated, given that licensing is often world-wide, competition laws differ substantially across jurisdictions, and SDOs and their members are required to comply with the applicable competition laws in any event.

The *TCL* and *Unwired Planet* cases suggest that FRAND commitments would not prohibit intertemporal price discrimination unless they specifically grant licensees the benefit of more favorable terms and conditions that may be negotiated in the future. We believe that an interpretation of the ND prong that constrains intertemporal price discrimination for similarly-situated firms would have important pro-competitive benefits by limiting the ability of SEP holders to raise royalties after firms and consumers have made investments that are specific to the patented technology. This most-favored licensee interpretation is not inconsistent with a FRAND commitment, but SDOs would have to specify that the ND prong applies to licenses negotiated at different points in time as well as across similarly-situated licensees.

IV. A NOT SO MODEST PROPOSAL

To effectuate such a policy, we propose that SDOs adopt measures to disclose royalty terms early in the development of a standard and limit rate escalation.

Non-discrimination cannot be enforced without information about the royalty terms and conditions negotiated by other similarly-situated licensees. Licensing negotiations are often confidential. Consequently, licensees often cannot assess – let alone challenge – compliance with a non-discrimination commitment without requesting a court to require discovery of other relevant FRAND-encumbered licenses. Transparent disclosure of licensing terms is also indispensable to enforce intertemporal non-discrimination and mitigate opportunistic conduct.

Intertemporal enforcement of the ND prong can help a FRAND commitment to prevent conduct that may disadvantage licensees. Indeed, litigated evaluations of compliance with the FR prong often rely on comparisons with other comparable licenses, which is effectively a study of compliance with the ND prong. We can do better if the ND prong is interpreted to prevent intertemporal discrimination and SDOs require SEP holders that make FRAND commitments to disclose their licensing terms and conditions early in the development of a standard, before firms and consumers have made decisions that create the opportunity for holdup.

Early disclosure requirements would not address potential opportunistic conduct if holders of FRAND-encumbered patents have no limitations on changes to future licensing terms and conditions. We propose that SDOs also impose caps on the rate at which royalties can increase for FRAND-encumbered patents.

The idea of a published royalty schedule for SEPs is not new, and a number of SEP holders have voluntarily published royalty rates in the past.[13] In 2006, the VMEbus International Trade Association (VITA), an SDO that develops standards in the aviation and defense electronics sector, amended its patent policy to require that VITA participants disclose the maximum royalty rates that they will charge for SEPs covering a VITA standard in advance of the voting on that standard ("*ex ante*").[14] Around the same time, IEEE and ETSI amended their patent policies to permit the voluntary *ex ante* disclosure of SEP licensing terms, but did not follow VITA's lead in mandating such disclosure.[15]

We propose that SDOs encourage their participants to post a royalty schedule for all patents that they declare essential to a standard early in the development of said standard. Ideally, the posting would apply to the portfolio of standard-essential patents declared by their members, much as patent pools publish schedules for licenses to their relevant portfolios, and would include caps on future rate increases. In addition to providing transparency and limiting the potential for *holdup*, such posting may also limit the potential for *holdout*.

Holdout occurs when technology users delay or refuse payment of lawful royalties. Potential licensees of FRAND-encumbered patents sometimes allege that they are entitled to delay or refuse payment because the requested royalties do not comply with the patent holder's FRAND obligations. The existence of a transparent royalty schedule that is applicable before firms and consumers make investments that are specific to the relevant standard would help to validate compliance with FRAND commitments and would undermine allegations that the requested royalties are not FRAND.

V. PRACTICAL AND IMPLEMENTATION CONSIDERATIONS

We do not underestimate the difficulty that an SDO today may face in gaining membership approval for our proposal. Moreover, we note that despite the DOJ's positive review of VITA's 2007 policy amendment, no other SDOs of which we are aware have adopted a mandatory *ex ante* disclosure policy in the thirteen years since. Numerous reasons for this reluctance have been proposed, including determined opposition by large SEP holders, the unwillingness of SDO participants to develop detailed licensing programs before the value of standards is known, competition from other SDOs with intellectual property licensing policies that afford greater discretion to patent holders, and the desire of SDO participants to "let sleeping dogs lie."

VI. CONCLUSIONS

We believe that there are sound economic reasons to allow owners of standard-essential patents to offer royalty schedules that depart from uniform royalties and include terms such as volume discounts or royalties that depend on the devices that employ the licensed technology. However, these reasons do not justify an interpretation of the non-discrimination prong of a FRAND commitment and that allows SEP holders to negotiate agreements with licensees that are constrained only by the relative bargaining power of the parties or relevant competition law and allows the terms of these agreements to be concealed from public view. That lack of discipline invites opportunistic pricing that can limit competition and harm incentives for innovation.

The not-so-modest proposal we advance in this note would facilitate enforcement the ND prong of a FRAND commitment by requiring SEP holders to disclose their licensing terms. Furthermore, if SEP holders are required to offer similar licensing terms at different points in time as well as to different but similarly-situated licensees, this would go far to mitigate both opportunistic holdup by licensors and opportunistic holdout by licensees.

13 See Jorge L. Contreras, *Patent Pledges*, 47 Ariz. St. L.J. 543, 559-61, Table 4 (2015) (examples of rate disclosures by Nokia, Ericsson, Qualcomm and others).

14 See Jorge L. Contreras, *Technical Standards and Ex Ante Disclosure: Results and Analysis of an Empirical Study*, 53 Jurimetrics 163, 172-75 (2013) (discussing VITA policy amendment).

15 See *id.* at 175-77.

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