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### The Royalty Stacking Supposition

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### I. INTRODUCTION

It has become commonplace for serious people to assert in the SEP/FRAND<sup>2</sup> context that the possibility of royalty stacking is an issue that must be addressed—a concern that threatens profits, progress, and competition itself. Interested parties around the globe are hard at work seeking to enact laws, rules, and policies to address royalty stacking. Frequently the changes sought involve interpretations of or provisions added to the intellectual property rights (“IPR”) policies of standards setting organizations (“SSOs”).

The European Commission’s DG-GROW issued a report on patents and standards in March 2014 noting a concern that “[t]he growing number of patents makes the problem of royalty stacking more prominent,” and outlining a number of possible measures for addressing that perceived problem. China’s Electronic Intellectual Property Center, an entity associated with the Ministry of Industry and Information Technology, released for comment in late 2014 a draft, non-binding template for the IPR policies of SSOs. One provision of the draft effectively seeks to define a FRAND royalty as one that takes into account “the total aggregate royalties that may apply if other owners of intellectual property demand similar terms.” In the United States, a number of judicial decisions have addressed royalty stacking, and the IEEE has now revised its IPR policy to recommend that reasonable royalties take royalty stacking into account.

Yet, in all this activity, little attention has been given to the question that ought to be asked first: Has the possibility of royalty stacking manifested itself as a real-world problem? Thus it was noteworthy when, in December 2014, the U.S. Court of Appeals for the Federal Circuit ruled in *Ericsson v. D-Link* that a jury in a FRAND royalties case may consider royalty stacking only when there is “actual evidence of stacking.”

The Federal Circuit’s ruling heralds a sensible reorientation of the discussion away from mere possibilities toward focusing on realities. No matter where you stand on SEP/FRAND issues, a turn toward evidence should be greeted as a healthy development. The rational development of laws and policies, and rational decisions on individual cases, require factual development as an absolute prerequisite.

### II. GENESIS OF THE ISSUE

The foundation of much of the current discussion was laid in 2007, when Mark Lemley & Carl Shapiro gave a catchy name and an air of academic support to the arguments of manufacturers seeking to lower the royalties they pay for the use of intellectual property. In their

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<sup>2</sup> “Standard Essential Patents” and “Fair, Reasonable, and Non-Discriminatory,” respectively.

paper, *Patent Holdup and Royalty Stacking*, the authors presented a theoretical model and argued that, in their model, royalty stacking could occur with respect to products incorporating multiple patented components. They opined that royalty stacking “can be severe in the case of private standard setting,” and that it can result in products or versions of products not being brought to market due to the combined burden of royalty demands by multiple patent holders.

Underlying the Lemley & Shapiro analysis was little more than the observation that if a number of patent holders succeeded in demanding royalties from a given manufacturer, then that manufacturer would end up paying the sum of those royalties. So, for example, if 10 patent holders each demanded and got a royalty of 10 percent of the selling price of a particular end product, the manufacturer would wind up paying 100 percent of the selling price—all of its revenue—over to the patent holders. Clearly, this untenable situation would force the manufacturer out of business. Simple arithmetic, said Lemley & Shapiro.

In the years since the publication of the Lemley & Shapiro paper, a number of economists have criticized their reasoning, pointing out reasons why royalties may not stack up unduly and patent holders may not be overcompensated. But you don’t have to be an economist to appreciate the very straightforward point that the economic reasoning of Lemley & Shapiro only suggested that a royalty stacking problem could exist in the circumstances specified in their theoretical model, not that it actually does exist in the circumstances found in the real world. To complement their theoretical argument, Lemley & Shapiro collected some empirical data, but it amounted to little more than proof that some industries have a lot of patents and multiple patent holders.

Whenever an economist says that his or her model predicts a certain phenomenon, you need to understand that the model and the real world are two different—perhaps very different—things. It is worthwhile to consider a plain and simple reality test: What if Lemley & Shapiro were correct that royalty stacking is a serious problem, particularly in industries such as electronics, computers, and mobile phones? Well then, we would expect to see the streets of Silicon Valley littered with the wreckage of high-tech companies and products that failed due to excessive cumulative royalty demands.

But, of course, that isn’t reality as we know it. What we see instead are hugely profitable and vibrant enterprises. Notably, Apple is reportedly the biggest target of patent infringement suits in the United States. With all those royalty claims, the Lemley & Shapiro model would suggest that Apple must be in trouble. But, of course, Apple is hardly imperiled, and peerlessly profitable. Interestingly, Apple’s annual report for 2014 makes no mention of any danger from royalty stacking. It mentions royalties only once, and then only to state that if Apple were to lose a patent case it might have to pay damages.

None of this is to say that royalties could never be unreasonable or excessive, or that a “stack” of royalties could never grow too large. But actual examples of such seem to be scarce. Nevertheless, the notion that there is a royalty stacking problem has gained considerable traction over the past several years.

### III. CASE LAW DEVELOPMENT—MICROSOFT V. MOTOROLA

The April 2013 decision of the U.S. District Court for the Western District of Washington in *Microsoft v. Motorola* was an important early decision in the field of (F)RAND royalty

litigation and perhaps has contributed to the momentum behind royalty stacking concerns. In that case, involving the IEEE's 802.11 WiFi standard, the court pronounced that "[t]he RAND commitment also addresses royalty stacking and the need to ensure that the aggregate royalties associated with a given standard are reasonable." This conclusion, incidentally, was based on the testimony of Microsoft's experts, bolstered by the fact that Motorola itself had raised "the risk of royalty stacking" in submissions to a different SSO (ETSI).

Despite deeming the RAND obligation in question to be a contract, the court did not cite any particular language of the IEEE's IPR policy in support of its interpretation of the contract. Nor did it refer to any records of the IEEE or any other entity to suggest that the parties to the IPR policy mutually assented to an anti-stacking purpose or methodology. (It is noteworthy that, subsequent to the *Microsoft* decision, the Federal Circuit in *Ericsson* cautioned that courts should "consider the patentee's actual RAND commitment," as the terms "vary from case to case.")

Be that as it may, the *Microsoft* court went on to reason that "a proper methodology for determining a RAND royalty should address the risk of royalty stacking by considering the aggregate royalties that would apply if other SEP holders made royalty demands of the implementer." The court concluded that Motorola's royalty demands "raised significant stacking concerns" because, with respect to its 802.11 portfolio, there were "at least 92 entities" with SEPs and "[i]f each of these 92 entities sought royalties similar to Motorola's request of 1.15% to 1.73% of the end-product price, the aggregate royalty to implement the 802.11 Standard, which is only one feature of the Xbox product, would exceed the total product price."

Missing from this analysis was any discussion of the actual royalties, if any, that had been—or would be—demanded by any of those 92 entities or paid by Microsoft. Nor did the court consider the strength of those portfolios, or the business models or licensing practices of the patent holders. Not all patents are alike; some provide core functionality for a standard, while others may be of marginal value. And plainly there are significant differences among licensors. A non-practicing entity holding a few weak patents is one thing, a manufacturer who seeks cross licenses in support of its product business is another, and an R&D-focused firm that seeks to profit from its research and development investments through royalty-bearing licenses to a substantial patent portfolio is quite another.

Further, it should be noted that the types of licensing arrangements employed by patent holders vary. The scenario the *Microsoft* court posited, where the potential royalties add up to greater than 100 percent of the total product price, is an artifact of the assumption that royalties will be computed as a percentage of the selling price of the end product. But that arrangement is not foreordained. Up-front, lump-sum royalties, and fixed dollar-per-unit royalties are at least equally viable, can neatly reflect the value of the R&D investment represented by the licensed patents, and allow the costs of technology inputs to be readily incorporated into the cost of the end product.

Bringing the above points together, suppose, hypothetically, that the facts showed that (i) some of the 92 holders of 802.11 SEPs had only weak or *de minimis* portfolios; (ii) some had no history of demanding royalties; (iii) some earned up-front or dollar-per-unit royalties; and (iv) for all the rest Microsoft paid a total of, say, 2 percent of the end product price. On those facts, it

would be hard to conclude that there was a real royalty stacking concern that would weigh greatly in the hypothetical negotiation undertaken by the court to determine a RAND royalty.

Of course, we do not know what actual evidence might have shown. And that is the point. A determination made without important, relevant facts is, to that extent, speculative. In the particular case of *Microsoft v. Motorola*, we may assume that the court's decision was appropriate in view of the limited record developed by the parties. But as lawyers, policymakers, and judges, we should strive for and demand more than conjecture.

#### IV. *Innovatio*

In the case of *In re Innovatio* (October 2013), the U.S. District Court for the Northern District of Illinois, determining a RAND royalty for a different patent portfolio as against the 802.11 standard, largely followed the reasoning of the *Microsoft* court. However, with regard to royalty stacking, the *Innovatio* court took a somewhat more nuanced approach.

The court credited the concern for the risk of royalty stacking, but also took into account the testimony of the patent holder's licensing expert, who "expressed his view that stacking is only a concern if the stack does not accurately reflect the value of the patented technology." The court noted the argument that "[i]f the technology is accurately valued, stacking the royalties for each invention merely reflects the value that is created by combining many inventions into a single product." The court concluded that "royalty stacking may be a concern when setting a RAND rate," and that it should "ensure that the asserted patents are not overvalued compared to the technological contribution they make to the standard." This "requires that the court, to the extent possible, evaluate a proposed RAND rate in the light of the total royalties an implementer would have to pay to practice the standard." Ultimately, the court's RAND royalty analysis did not explicitly address royalty stacking, but rather sought to approximate the value of the contribution of the patents with reasonable accuracy given the available information.

The decision in *Innovatio*, while not markedly different than that in *Microsoft*, at least avoided speculation as to the risk posed by royalty stacking. The *Microsoft* court saw "significant stacking concerns" based on a hypothetical as to how much Microsoft might have to pay in royalties. The *Innovatio* court framed the issue more factually, as a need to take into account—to the extent possible—the amount of royalties an implementer would have to pay to implement the standard. This formulation implies that any consideration of the royalty stacking issue should be grounded on actual royalties or demands, not on what the licensee might pay in some hypothetical world.

#### V. *Ericsson v. D-Link*

The *Ericsson* case involved, yet again, the 802.11 standard. Ericsson won a jury verdict of infringement on a number of patents. At trial, D-Link requested that the district court instruct the jury to consider royalty stacking in its damages deliberations. The court declined, describing the stacking argument as "theoretical." On appeal, D-Link again argued that "the jury should have been instructed on the concepts of patent hold-up and royalty stacking because ... the jury should know the mischief that can occur if RAND royalty rates are set too high." The Federal Circuit noted that many *amici* made the same point.

The appellate court, however, affirmed the district court's decision. The Federal Circuit emphasized the importance of record evidence, holding that "[c]ertainly something more than a general argument that these phenomena are possibilities is necessary.... Depending on the record, reference to such potential dangers may be neither necessary nor appropriate." More particularly, a jury "need not be instructed regarding royalty stacking unless there is actual evidence of stacking. The mere fact that thousands of patents are declared to be essential to a standard does not mean that a standard-compliant company will necessarily have to pay a royalty to each SEP holder." D-Link's expert "never even attempted to determine the actual amount of royalties" defendants were paying for SEPs, and "D-Link failed to come forward with any evidence of other licenses it has taken on Wi-Fi essential patents or royalty demands on its Wi-Fi enabled products." The Federal Circuit concluded, "Because D-Link failed to provide any evidence of actual royalty stacking, the district court properly refused to instruct the jury on royalty stacking."

While the Federal Circuit's decision relates most directly to jury instructions, its reasoning extends more broadly. Fairly resoundingly, the court rejected theoretical arguments on royalty stacking in favor of evidence-based arguments. The Lemley & Shapiro assertion that detrimental royalty stacking is a possibility within the confines of their model would not suffice to warrant a jury instruction.

By logical extension, such an argument should not be considered when a judge determines a FRAND royalty. Merely theoretical arguments such as these are simply not worthy of consideration in a court of law. Likewise, the Federal Circuit squarely rejected the notion from the *Microsoft* case that a large number of SEPs, held by a large number of entities, implies a serious royalty stacking problem. This type of speculative assertion should not be acceptable in FRAND royalty cases going forward. In future cases, licensees, licensors, and courts will need to address royalty stacking arguments with actual evidence.

## VI. CONCLUSION

Regulators, courts, and private parties have expressed concern in recent years about the possibility of royalty stacking and the "mischief" it might engender. Little or no consideration has been given to whether there is any evidence of such mischief in the real world. In the wake of *Ericsson*, the focus must shift to evidence and facts. This change in direction will benefit all parties by properly putting the development of laws and policies on a firm, factual footing.