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# The Department of Justice's Long-Awaited and Much Needed Course-Correction on FRAND-Assured Standard-Essential Patents

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On November 10, 2017, the Assistant Attorney General (AAG) for the Antitrust Division of the Department of Justice, Makan Delrahim, announced a crucial course-correction for policies involving standard-essential patents (SEPs) that a patent holder has voluntarily committed to license on fair, reasonable, and non-discriminatory (FRAND) terms.<sup>2</sup>

Key takeaways include:

- FRAND is not a compulsory licensing scheme.
- Unilateral refusals to license should be *per se* lawful.
- Seeking or enforcing injunctive relief and breach of a FRAND commitment normally raise contract or fraud, not antitrust, issues.
- Disputes involving FRAND should be resolved through “freely negotiated licensing agreements.”
- Antitrust enforcers have likely “strayed too far in the direction of accommodating the concerns of technology implementers,” which risks undermining incentives for innovators.
- Holdout by implementers is a “more serious risk” than holdup by innovators.<sup>3</sup>
- Holdup and holdout “are not symmetric” given that “innovators make an investment before they know whether that investment will ever pay off.”
- An intellectual property right (IPR) policy of an SDO that is biased in favor of implementers or innovators should trigger “close antitrust scrutiny” into the process by which the policy was adopted.

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<sup>1</sup> Judge Douglas H. Ginsburg of the United States Court of Appeals for the District of Columbia Circuit is Professor of Law and Chairman of the International Board of Advisors to the Global Antitrust Institute at Antonin Scalia Law School, and a former Assistant Attorney General in charge of the Antitrust Division of the U.S. Department of Justice. Koren W. Wong-Ervin is the Director of Intellectual Property and Competition Policy at Qualcomm Incorporated, a Senior Expert and Researcher at China’s University of International Business and Economics, and former Counsel for Intellectual Property and International Antitrust at the U.S. Federal Trade Commission. The authors thank Dylan Naegele for his assistance. All views are those of the authors.

<sup>2</sup> Makan Delrahim, Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, Remarks at the USC Gould School of Law’s Center for Transnational Law and Business Conference (Nov. 10, 2017), <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-usc-gould-school-laws-center> [hereinafter AAG Speech].

<sup>3</sup> “Holdup requires lock-in, and standard-implementing companies with asset-specific investments can be locked in to the technologies defining the standard. On the other hand, innovators that are contributing to [a standard-development organization] SDO can also be locked-in, and hence susceptible to holdup, if their technologies have a market only within the standard. Thus, incentives to engage in holdup run in both directions. While reverse holdup refers to the situation in which a licensee uses its leverage to obtain rates and terms below FRAND, holdout refers to a licensee either refusing to take a FRAND license or delaying doing so.” Douglas H. Ginsburg et al., *The Troubling Use of Antitrust to Regulate FRAND Licensing*, 10 CPI ANTITRUST CHRON. 4 (2015).

- In particular, SDO rules “purporting to clarify the meaning of ‘reasonable and non-discriminatory’ that skew the bargain in the direction of implementers warrant a close look to determine whether they are the product of collusive behavior.”
- For example, “[w]hile the so-called ‘smallest salable component’ rule may be a useful tool among many in determining patent infringement damages for multi-component products, its use as a requirement by a concerted agreement of implementers as the exclusive determinant of patent royalties may very well warrant antitrust scrutiny.”<sup>4</sup>

The remainder of this short article touches on the central policy implications of the AAG’s remarks, namely: (1) the cabining of the Division’s 2015 Business Review Letter (BRL) to the Institute of Electrical and Electronics Engineers (IEEE) on the amendments to its IPR policy; (2) the strong message both at home and abroad that U.S. antitrust law generally does not reach the seeking or enforcing of injunctive relief or breach of a FRAND commitment; and (3) the shift in enforcement priorities from concerns about unilateral holdup by patent holders to collective holdout by implementers.

### ***Renouncing the Policy Endorsements in the IEEE BRL***

AAG Delrahim implicitly renounced the sections of the 2015 IEEE BRL that had endorsed SDO policies prohibiting injunctive relief, requiring licensing at the component level, and recommending valuation based on the “smallest saleable component.”<sup>5</sup> As many critics noted when the 2015 BRL was issued, these endorsements went well beyond the Division’s standard practice, which is limited to opining on whether a proposed arrangement raises antitrust issues; they were also wholly unsupported by any evidence of their consequences.<sup>6</sup> The AAG also seemed to reject the fundamental assumptions underlying much of the 2015 BRL, namely, that clarity (regardless of the costs) is procompetitive; holdup by patent holders is a widespread problem in need of fixing; and focusing on only one side of the holdup-holdout relationship is not putting a thumb on the scale in favor of implementers over innovators or otherwise threatening to harm investment in innovation.

Specifically, the AAG said:

- SDOs “should not be a tool for IP licensors or licensees to obtain more favorable terms than they would otherwise achieve in an unconstrained market.”

One implication is that implementers should not be able to use SDOs to mandate specific terms in license agreements, including, for example, a required royalty base or rate.

- “Every incremental shift in bargaining leverage toward implementers of new technologies acting in concert can undermine incentives to innovate. I therefore view policy

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<sup>4</sup> AAG Speech, *supra* note 2.

<sup>5</sup> Letter from Renata B. Hesse, Acting Assistant Att’y Gen., U.S. Dep’t of Justice, to Michael A. Lindsay, Esq., Dorsey & Whitney LLP 7 (Feb. 2, 2015), <https://www.justice.gov/sites/default/files/atr/legacy/2015/02/02/311470.pdf>.

<sup>6</sup> See, e.g., Koren W. Wong-Ervin & Joshua D. Wright, *Intellectual Property and Standard Setting*, 17 FEDERALIST SOC’Y REV. 52 (Nov. 2016), <https://fedsoc-cms-public.s3.amazonaws.com/update/pdf/IN25JBwMZTLLGBW2Jfk3t3Z4CwJlqTGVX3nkQPPE.pdf>.

proposals with a one-sided focus on the hold-up issue with great skepticism because they can pose a serious threat to the innovative process.”

With respect to the 2015 IEEE amendments, as IEEE explained to the Division in connection with its request for a BRL, “the entire patent policy is itself intended to protect implementers against the risk of patent holdup (as well as ‘patent stacking’).”<sup>7</sup>

- “Patents are a form of property, and the right to exclude is one of the most fundamental bargaining rights a property owner possesses. Rules that deprive a patent holder from exercising this right—whether imposed by an SSO or by a court—undermine the incentive to innovate and worsen the problem of hold-out. After all, without the threat of an injunction, the implementer can proceed to infringe without a license, knowing that it is only on the hook only for reasonable royalties.”

Indeed, given the time value of money and the fact that the worst penalty an SEP infringer is likely to face after adjudication (likely on a patent-by-patent basis around the world) is merely paying the FRAND royalty that it should have agreed to pay when first asked, it is easy to understand why holdout can be an attractive strategy for implementers.<sup>8</sup>

- Holdup and holdout “are not symmetric” given that “innovators make an investment before they know whether that investment will ever pay off,” and “the implementer has some buffer against the risk of hold-up because at least some of its investments occur after royalty rates for new technology could have been determined.”<sup>9</sup>

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<sup>7</sup> Letter from Michael A. Lindsay, Esq., Dorsey & Whitney LLP, to William J. Baer, Assistant Att’y Gen., U.S. Dep’t of Justice 2 (Feb. 7, 2015) (on file with authors).

<sup>8</sup> See, e.g., Ginsburg et al., *supra* note 3, at 4-6. As Dr. Anne Layne-Farrar has explained: “Working backwards through a simple example illustrates this point. After litigation is concluded, if an implementer is found to infringe the asserted SEPs it will have to pay FRAND damages/royalties of  $F$ . But there is some chance (call it  $p$ , where  $0 < p < 1$ ) that the court will decide the litigation in the implementer’s favor, in which case it will pay nothing in damages. Abstracting from litigation expenses that both the plaintiff and the defendant must pay, on the eve of litigation the implementer’s expected loss is only  $p \times F$ , which is clearly less than  $F$ . Stepping back even earlier in time, there is some chance (call it  $\delta$ , where  $0 < \delta < 1$ ) that the SEP holder will never file suit, say because it is focused on its downstream market or because it is worried about retaliation in other commercial dealings with the implementer. Thus, before the implementer ever makes its first investment in bringing standard-compliant products to market, it faces two options: 1) enter into a license with the SEP holder now and pay the FRAND royalty  $F$  with certainty, or 2) practice patent holdout, which has the expected payout of  $\delta \times p \times F$ , an amount clearly lower than either  $p \times F$  or  $F$ . It would be entirely unsurprising for a significant number of implementers to choose option 2.” Anne Layne-Farrar, *Why Patent Holdout is Not Just a Fancy Name for Plain Old Patent Infringement*, CPI N. AM. COLUMN 4 (Feb. 2016) (internal footnotes omitted), <https://www.competitionpolicyinternational.com/wp-content/uploads/2016/02/North-America-Column-February-Full.pdf>.

<sup>9</sup> As Anne Layne-Farrar and Koren Wong-Ervin have explained, “[w]hen discussing lock-in, holdup arguments refer regularly to notions of *ex ante* and *ex post*, typically using the codification of a standard as the demarcation point between before and after. Competition among different technology solutions that may occur *ex ante* is contrasted to lock-in and switching costs that may be present *ex post*, after one of the competing options has been chosen.” However, “what constitutes *ex ante* and *ex post* can differ with perspective: the development period for a standard generally is *ex ante* for an implementer, but it is *ex post* for an innovator, who has already sunk its R&D investments to obtain technologies to contribute to the standard’s development.” Anne Layne-Farrar & Koren W. Wong-Ervin, *Methodologies for Calculating FRAND Damages: An Economic and Comparative Analysis of the Case Law from China, the European Union, India, and the United States* JINDAL GLOBAL L. SCH. L.R. (forthcoming Fall 2017) (manuscript at 8), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2985073](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2985073) [hereinafter Layne-Farrar & Wong-Ervin].

An example of the “buffer” referred to by the AAG can be seen in the number of major SEP holders that announced the maximum royalty they would charge on end-user devices that use the LTE (4G) standard, with the average announced rate at approximately 2.1 percent as of 2010.<sup>10</sup>

### ***Breach of a FRAND Commitment is Properly Analyzed Under Contract or Fraud and Not Antitrust Law***

The AAG recognized (as have several U.S. courts) that a FRAND assurance is a contractual commitment. He went on to explain the benefits of relying on contract or fraud remedies as opposed to the “heavy-hand” of antitrust law.

These statements aptly recognize that, as the U.S. Supreme Court made clear in *NYNEX* and *Trinko*, even a monopolist is entitled to engage in profit maximizing pricing without fear of antitrust liability so long as its monopoly power was lawfully obtained. As such, an SEP holder’s deviations from or attempt to renegotiate a FRAND commitment made in good faith, in order to obtain higher royalty payments, amounts to no more than pure ex-post contractual opportunism that “is properly analyzed under contract, not antitrust, law.”<sup>11</sup>

The AAG’s statements also send the right message internationally, particularly to jurisdictions that have used the IEEE BRL as a justification for adopting troubling antitrust enforcement policies. Indeed, within days of the 2015 issuance of the IEEE BRL, several enforcers (particularly in Asia) had remarked that the United States endorses prohibitions on seeking and enforcing injunctive relief on FRAND-assured SEPs and condemns end-user device licensing in favor of component-level licensing.<sup>12</sup>

Similarly, following the U.S. Federal Trade Commission’s consent agreements in *Bosch* and *Motorola Mobility/Google*, competition agencies around the world, including those in Canada, China, Korea, and Japan, adopted similar approaches, creating a competition or unfair trade practice sanction for seeking or enforcing injunctive relief on FRAND-assured SEPs against a willing licensee. For example, in December of 2014 and again in 2016, the Korea Fair Trade Commission revised its Guidelines on the Unfair Exercise of Intellectual Property Rights, adding provisions addressing various practices involving SEPs, including provisions on injunctive relief.<sup>13</sup> Similarly, in 2016, Canada’s Bureau of Competition revised its Intellectual Property Enforcement Guidelines,

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<sup>10</sup> Eric Stasik, *Royalty Rates For Telecommunications* 15-16 (Sept. 2010), [http://scholar.googleusercontent.com/scholar?q=cache:OCFJbwDcoO4J:scholar.google.com/+stasik+4g+rates&hl=en&as\\_sdt=0.5](http://scholar.googleusercontent.com/scholar?q=cache:OCFJbwDcoO4J:scholar.google.com/+stasik+4g+rates&hl=en&as_sdt=0.5).

<sup>11</sup> Joshua D. Wright & Douglas H. Ginsburg, *Comment on the Canadian Competition Bureau’s Draft Updated Intellectual Property Enforcement Guidelines* 8 (Aug. 15, 2015), [https://www.ftc.gov/system/files/documents/public\\_statements/734661/150810canadacomment.pdf](https://www.ftc.gov/system/files/documents/public_statements/734661/150810canadacomment.pdf).

<sup>12</sup> The authors have first-hand knowledge of these remarks.

<sup>13</sup> KOREA FAIR TRADE COMM’N, REVIEW GUIDELINES ON UNFAIR EXERCISE OF INTELLECTUAL PROPERTY RIGHTS (2014), <http://www.ftc.go.kr/eng/solution/skin/doc.html?fn=4040fae4f8e1b6c222f1a84c05a1cb2f2d639f10a73352f1a2e5fc19ba387c6d&rs=/eng/files/data/result/files/bbs/2015/>; Press Release, *KFTC Rationalizes Its Regulations on SEPs to Promote Technology Innovation* (Mar. 30, 2016), <http://www.ftc.go.kr/eng/solution/skin/doc.html?fn=366aa2f4a69f216a84a85de9d158544e679a8566574b877747c75936e16794ea&rs=/eng/files/data/result/files/bbs/2016/> (amending the 2014 KFTC IP Guidelines).



adding provisions on injunctive relief, among others.<sup>14</sup> Also in 2016, the Japan Fair Trade Commission revised its Guidelines for the Use of Intellectual Property Under the Antimonopoly Act, adding provisions addressed to when a patent holders' seeking or enforcing injunctive relief on a FRAND-assured SEP may constitute an antitrust violation or unfair trade practice.<sup>15</sup>

### ***Intent to Investigate Cartel-Like Behavior in SDOs***

AAG Delrahim warned against cartel-like behavior in SDOs, and urged antitrust enforcers “to take a more humble approach to the application of antitrust to unilateral violations of SSO commitments and to take a fresh look at concerted actions within SSOs that cause competitive harm to the dynamic innovation process.” Given the asymmetry between holdup by patent holders and holdout by implementers (due to the difference in the timing of sunk costs), “under-investment by the innovator should be of greater concern than under-investment by the implementer.” He went on to “urge SSOs to be proactive in evaluating their own rules, both at the inception of the organization, and routinely thereafter,” adding that “SSOs would be well advised to implement and maintain internal antitrust compliance programs and regularly assess whether their rules, or the application of those rules, are or may become anticompetitive.”

With respect to the AAG's warning against collusive agreements by implementers to require the use of the so-called “smallest salable component” rule, it is important to understand how that requirement can devalue SEPs and result in higher prices for consumers.

As an initial matter, and as the U.S. Court of Appeals for the Federal Circuit has explained, the “smallest salable patent practicing unit” (SSPPU) approach was created as an evidentiary rule “to help our jury system reliably implement the substantive statutory requirement of apportionment of royalty damages to the invention's value.”<sup>16</sup>

In some circumstances, however, using the SSPPU as the royalty base may undervalue the technology. “For example, although some technology may technically be implemented by a single component part, that technology may provide the end product more value than is captured in the component itself. Relying on the end-user product as the royalty base can help to internalize such externalities.”<sup>17</sup> With respect to wireless cellular technologies in particular, the licensed patents may read on the system or device level, rather than the component level. Indeed, many SEPs related to wireless cellular technologies incorporated in 2G, 3G, and 4G standards are designed to optimize the wireless system and network; their value therefore reaches well beyond a specific component in the device. One study that examined a representative sample of patents in a large portfolio of SEPs owned by Ericsson found that more than 80% of the SEPs read on the cellular network or the end device, not on an individual component.<sup>18</sup>

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<sup>14</sup> COMPETITION BUREAU CANADA, ENFORCEMENT GUIDELINES: INTELLECTUAL PROPERTY (2016), [http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/cb-IPEG-e.pdf/\\$file/cb-IPEG-e.pdf](http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/cb-IPEG-e.pdf/$file/cb-IPEG-e.pdf).

<sup>15</sup> JAPAN FAIR TRADE COMM'N, GUIDELINES FOR THE USE OF INTELLECTUAL PROPERTY UNDER THE ANTIMONOPOLY ACT (2016), [http://www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines.files/IPGL\\_Frand.pdf](http://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines.files/IPGL_Frand.pdf).

<sup>16</sup> *Ericsson v. D-Link*, 773 F.3d 1201, 1226 (Fed. Cir. 2014).

<sup>17</sup> Layne-Farrar & Wong-Ervin, *supra* note 9, at 30.

<sup>18</sup> Jonathan D. Putnam & Tim A. Williams, *The Smallest Salable Patent-Practicing Unit (SSPPU): Theory and Evidence* 41 tbl. 3 (Sept. 2016), <https://ssrn.com/abstract=2835617>.

In addition, in the wireless industry, the price of components such as chipsets do not currently account for the use of valuable SEPs, which have long been licensed at the end-user device level. While mathematical changes in the royalty base are neutral as long as the parties can adjust the royalty rate, this is not necessarily the case in practice due to anchoring effects (i.e., the idea that economic agents make estimates by starting from an initial value that they then adjust to yield the final answer, and are biased towards the initial value that is presented to them).<sup>19</sup> As such, fixing a royalty base at an artificially low level can pull down the ultimate royalty below the value of the IP.

In terms of consumer welfare, Drs. Gerard Llobet and Jorge Padilla show that, compared to per unit component royalties, ad-valorem royalties based on the price of the end-user device tend to decrease the prices paid by consumers, particularly in the context of successive monopolies, which result in double-marginalization. Specifically, they find that “the resulting price in the final market is never higher under ad-valorem royalties. The reason is that ad-valorem royalties are more similar to fixed fees than per-unit royalties. As a result, they make the double-marginalization problem less severe, generating lower distortions in the final market.”<sup>20</sup>

Llobet and Padilla also conclude that ad-valorem rates tend to spur innovation: They tend to benefit upstream producers without hurting downstream producers. When there are multiple upstream developers with complementary innovations, “numerical results indicate that ad-valorem royalties typically work better [because] by increasing upstream profits they generate a positive feedback on the incentive to innovate of all parties.”<sup>21</sup>

## Conclusion

The Division’s course-correcting policy shift is a critical step in the right direction, restoring balance to the FRAND ecosystem. As the Division has long recognized, “[i]ndustry standards are widely acknowledged to be one of the engines of the modern economy.” With respect to the wireless industry in particular, economic research reveals that, relative to other industries, the wireless industry with its collaborative (as opposed to government or proprietary) standards is characterized by more competitive and dynamic markets for innovators and lower prices and better quality for consumers.<sup>22</sup> These outcomes, however, depend upon private SDOs and their members striking the right balance between the interests of innovators and those of implementers. If

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<sup>19</sup> See Axel Gautier & Nicolas Petit, *Smallest Salable Patent Practicing Unit and Component Licensing—Why 1\$ is Not 1\$* (Apr. 18, 2017), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2954592](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2954592).

<sup>20</sup> Gerard Llobet & Jorge Padilla, *The Optimal Scope of the Royalty Base in Patent Licensing* 59 J.L. & ECON. 45, 46-47 (Feb. 2016) [hereinafter Llobet & Padilla]. In short, a per unit component fee increases the marginal cost of the end-device manufacturer on a one to one basis. Part of that increase is passed on to final consumers in the form of higher prices. A fixed fee does not affect the marginal cost of the end device manufacturer and hence has no impact on end-device prices. Ad valorem fees also reduce the margin of the end device manufacturer, which will want to offset that reduction by raising prices but its incentive to do so is weak because an increase in prices will in turn increase the royalty burden. As a result, these fees will increase the price final consumers pay but the magnitude of that effect will be smaller than with per unit fees.

<sup>21</sup> *Id.*

<sup>22</sup> Jorge Padilla et al., *Economic Impact of Technology Standards* (2017), <http://www.compasslexecon.com/highlights/economic-impact-of-technology-standards>. The study finds that cooperative standards are a more optimal means of developing technologies that rely on positive externalities flowing between users on a common platform by both allowing firms to focus on niche specializations and creating a level playing field for implementing the common technology standards.

innovation is not sufficiently rewarded, this model ceases to work and standards will be established by other means.

The Division's new policy also comes at a critical time given the barrage of efforts in recent years seeking to devalue SEPs in order to reduce input costs and unduly benefit local manufacturers or national champions. While these efforts, including for example efforts to impose compulsory component-level licensing requirements on SEP holders, may well result in reduced costs for certain implementers, they would come at an enormous cost to consumers. Indeed, conservative estimates involving just one of the major cellular SEP holders shows that compulsory component-level licensing would result in a reduction in consumer welfare worldwide of \$2.56 billion.<sup>23</sup> Our hope is that the Division's recent policy statement is only the first of many to come in the long-awaited and much-needed shift to restore balance worldwide in competition policy toward patents.

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<sup>23</sup> Based on conservative estimates, Dr. Jorge Padilla finds that forcing Qualcomm to abandon the longstanding industry practice of charging ad-valorem royalties at the end-user device level, and instead imposing a revenue-equivalent compulsory per unit royalties at the component-level, would cause a reduction in consumer welfare worldwide of \$2.56B. Analysis on file with author Wong-Ervin; see *also generally* Llobet & Padilla, *supra* note 20.