Comparative Analysis of Court-Determined FRAND Royalty Rates

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STARTING WITH THE *MICROSOFT v. Motorola* decision in 2013, litigation over licensing practices involving standard-essential patents (SEPs), and particularly the appropriate "fair, reasonable and non-discriminatory" (FRAND) royalty rates for portfolios of such patents, has taken off.[1] In *Microsoft v. Motorola* (U.S., 2013), *In re Innovatio* (U.S., 2013), and *Realtek v. LSI* (U.S., 2014), FRAND rates were determined for portfolios of 802.11 Wi-Fi SEPs (in the first two cases by judges and in the latter case by a jury).[2] In *Huawei v. InterDigital* (China, 2013), *Unwired Planet v. Huawei* (UK, 2017), and *TCL v. Ericsson* (U.S., 2017), FRAND rates were determined for cellular (2G, 3G, and 4G) SEPs (in each case by judges).[3]

These litigations have taken place in various jurisdictions around the world, which raises the possibility of inconsistency across jurisdictions, either in the FRAND rates themselves or in the methodologies used to determine the rates. Inconsistency could be particularly problematic given that some of these litigations have set FRAND rates that would apply globally (e.g., *TCL*). We review and compare the two most recent cellular cases, *Unwired Planet* and *TCL*, to determine the extent to which the decisions are consistent with each other.[4]

In patent infringement litigation in the United States, one form of damages that a patent owner may seek is a "reasonable royalty." The reasonable royalty is meant to be limited to the "incremental value of the invention" and, in the case of an SEP, the reasonable royalty should exclude "the value of the standard as a whole or any increased value the patented feature gains from its inclusion in the standard."[5] Three approaches commonly used to determine the reasonable royalty in patent litigation in the United States are (1) benchmarking of the royalty based on "comparable" licenses ("comparable license approach"), (2) calculation of the incremental economic benefit of the patented technology versus a non-infringing alternative ("bottom-up approach"), and (3) explicit "apportionment" of an appropriately defined profit to the patented technology, taking into account the contributions of factors other than the patented technology at issue ("top-down approach"). Versions of these approaches have also provided the basis for experts opining on FRAND royalty determination in SEP litigation.

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Summary of the Two Decisions

In *Unwired Planet*, the court began with a set of Ericsson patent licenses on the basis that *Unwired Planet* had acquired the SEP portfolio at issue from Ericsson.[6] After analyzing and "unpacking" each of these licenses to assess the "one-way" royalty rate that Ericsson charged the counter-party, the court chose one specific license (the counter-party was not named), and Ericsson's one-way rate from that license, as a starting point.[7] To adjust for differences in size between the Ericsson and Unwired Planet portfolios, the court multiplied the Ericsson one-way rate from the chosen comparable license by the ratio of Unwired Planet's portfolio strength to Ericsson's portfolio strength.[8] As a "cross-check," the court calculated the "aggregate royalty burden" (ARB) for all SEPs that would be implied by the Ericsson and Unwired Planet one-way rates.[9] The ARB is a key element of a top-down approach.

In *TCL*, the court relied on both a top-down analysis and comparable licenses. In its top-down analysis, the court determined an ARB for all SEPs for a given standard, then apportioned the ARB to the Ericsson SEP portfolio based on Ericsson's share of total SEP value of that standard. In its comparable license analysis, the court determined that the appropriate comparable licensees were those with global businesses and then unpacked the licenses to determine the one-way rate that Ericsson was charging each counter-party. The court compared the range of rates from the top-down and comparable license approaches and settled upon a FRAND royalty rate from the range of these rates.[10]

An important question is the extent of consistency between these two decisions. We start by comparing the outcomes, i.e., the determined rates, and subsequently compare the methodologies used and the inputs to those methodologies.

The royalty that the UK *Unwired Planet* court determined for the six Unwired Planet LTE SEPs was 0.062 percent. In addition, as an intermediate step in the analysis, the *Unwired Planet* court concluded that the FRAND rate for Ericsson's LTE SEP portfolio was 0.80 percent for a "major market."[11] In contrast, the *TCL* court found the FRAND rate for Ericsson's LTE SEP portfolio (after the divestiture of the SEPs to Unwired Planet) in the United States to be 0.45 percent.[12] The difference between the two decisions in their conclusions regarding the FRAND rate for Ericsson's portfolio is substantial. We analyze the methodologies of the two decisions to identify the reasons for this difference.

Although both courts relied on Ericsson licenses as comparables, they ultimately arrived at substantially different FRAND royalty rates for Ericsson's SEP portfolio. . . . [T]he *Unwired Planet* court found a rate for Ericsson's LTE portfolio that is almost double that found by the *TCL* court.

Comparison of the Comparable License Approaches in the Two Decisions

Although both courts relied on Ericsson licenses as comparables, they ultimately arrived at substantially different FRAND royalty rates for Ericsson's SEP portfolio. As noted above, the *Unwired Planet* court found a rate for Ericsson's LTE portfolio that is almost double that found by the *TCL* court.[13] It is therefore instructive to consider what can be gleaned from the decisions as to why the two courts may have differed in their comparable license analyses.

A first consideration is the list of licenses that were available for analysis to each court and the specific licenses the respective courts chose to examine. A comparable license analysis typically begins by identifying those licenses that were signed under economic circumstances that are sufficiently comparable to the situation being studied or for which reasonable adjustments could be made to account for any significant differences. Moreover, in a FRAND case, the non-discriminatory component of FRAND would appear to limit consideration to licenses with counter-parties that are "similarly situated" to the prospective counter-party in question.

Although both decisions focus on licenses with major handset manufacturers, the courts may not have considered the same set of licenses.[14] For example, the *TCL* decision discusses a 2015 Ericsson license with Apple, but this license may not have been considered in *Unwired Planet*.[15] The TCL court specifically addressed the question of whether Apple and Samsung (the world's two largest handset manufacturers) were similarly situated to TCL, which was substantially smaller than those two companies.[16] The court found that such firms should be included in the FRAND analysis for TCL because excluding them "would have the effect of insulating them, and further contributing to their dominant positions, by imposing a barrier in the form of higher rates for those not at the top end of the market."[17]

Both courts also concentrated on more recent licenses, with the *Unwired Planet* court specifically noting evidence of a decline in rates over time due to a number of FRAND decisions worldwide that reduced the threat of injunction faced by implementers.[18]

Apart from the respective sets of licenses that were analyzed, the specific assumptions and methodologies may also have differed between the two courts. While both courts appeared to have adopted a similar framework for unpacking the licenses at a high level, both decisions redacted much of the information necessary to compare details of the assumptions made on a license-by-license basis. The major factors considered by the courts were:

- **Unpacking one-way rates from cross-license agreements.** Because Ericsson also sells cellular networking equipment (e.g., cellular base stations), most of the license agreements involving Ericsson were cross-licenses. Under a cross-license, one party typically makes payments to the other, and those payments are net of any cross-licensing value the paying party receives under the license. In both *TCL* and *Unwired Planet*, Ericsson's one-way rates were unpacked using various measures of the relative SEP portfolio strengths of the parties to the respective licenses.[19]
- **Sales forecast estimates.** In *TCL*, Ericsson's expert relied upon Ericsson's internal projections (referred to as its "Business Case"), which the court viewed skeptically, while TCL's expert relied upon both the Ericsson Business Case projections, as well as sales data from a third-party vendor, International Data Corporation (IDC).[20] The court favored the IDC data, noting that such "independent third-party data serves as a valuable check on a party's internal and unvalidated projections."[21] In *Unwired Planet*, the court did not specifically address the types of sales forecasts used to calculate the effective royalty rates, and appears to have relied on the projections used by the experts in the case.
- **Other provisions.** A license may include other provisions that may need to be taken into account if they had a material effect on the net payments made under the license. Examples of such provisions are the exchange of patents, licensing of other patent rights (e.g., patents to other standards, non-SEP or implementation patents, etc.), or other business arrangements.
- **Unpacking of rates for major and minor markets.** Many of Ericsson's licenses covered worldwide sales. In principle, its worldwide royalty rate for a given counter-party should reflect its average portfolio strength across jurisdictions, weighted by the counter-party's sales in those jurisdictions. Ericsson's portfolio strength varies substantially across jurisdictions. The *TCL* court unpacked the Ericsson licenses into U.S. rates, European rates, and rest-of-world rates. Notably, it placed a lower bound on Ericsson's portfolio strength in each jurisdiction based on Ericsson's

portfolio strength in China, where TCL manufactured its products. We note, however, that patent rights covering products manufactured, but not sold, in a country are generally less valuable than patent rights covering products sold in a country because a manufacturer could, in principle, choose to manufacture in a different country. The *Unwired Planet* court appears to have made a similar unpacking adjustment to calculate Ericsson's rate in "major markets," which was then used to calculate Unwired Planet's rate in such a market.[22] The court then made a downward adjustment to obtain Unwired Planet's rate in the rest of the world. As in *TCL*, the *Unwired Planet* court used China as a lower bound for the rest-of-world rates, though it relied on an ad hoc 50 percent adjustment to the major market rate rather than an adjustment based directly on portfolio strength.[23]

Comparison of the Top-Down Approaches in the Two Decisions

In its top-down approach, the TCL court began by determining the appropriate aggregate royalty burden for the standard as a whole, and then apportioned that ARB to the Ericsson SEP portfolio. Thus, the FRAND rate for Ericsson's LTE SEP portfolio can be expressed as:

Ericsson FRAND LTE Rate = ARB x Ericsson's Share of the Value of All LTE SEPs.

In assessing the ARB, the *TCL* court cited statements regarding ARB levels that Ericsson and other SEP holders made at around the time the standards were set. The court noted that Ericsson had long endorsed the concept of a maximum ARB, that these statements held special importance in a FRAND context because the statements were made prior to or around the time the standards were set and, at the time, Ericsson was both a licensee and a licensor for handsets, and therefore had an incentive to "strike a reasonable balance" with respect to how FRAND rates should be set.[24] Moreover, the court found that "Ericsson's statements were thus not a hope or prediction, but a pledge to the market that if the market adopted Ericsson's championed standard, the total aggregate royalties would be calculated" based on its 6 to 8 percent ARB.[25] Based on these statements, the *TCL* court adopted 5 percent as the ARB for 2G and 3G, and a range of 6 to 10 percent as the ARB for LTE.

The *TCL* court then turned to determining Ericsson's appropriate share of the ARB, noting that the ARB should be apportioned across SEP holders according to the relative values of their respective portfolios.[26] It is widely accepted among economists that patent values vary widely, and the court acknowledged that "many [SEPs] are relatively trivial, while some are key features of the standard."[27] TCL had presented a technical analysis of Ericsson's patents that attempted to measure the "contribution" and "importance" of Ericsson's SEPs to the standard. While the court found certain flaws in the technical analysis, it nevertheless concluded that the technical analysis provided "some value" in showing that "Ericsson's patent portfolio is certainly not as strong or essential as it has claimed."[28]

TCL's economics expert also presented a forward citation analysis of Ericsson's portfolio as a secondary approach.[29] However, although a number of empirical economic studies have shown a relationship between patent value and forward citations,[30] and other courts have endorsed this form of analysis,[31] the TCL court chose not to rely on forward citation analysis to calculate Ericsson's share of the ARB. The TCL court effectively concluded, based on the evidence, that the relative strength of the Ericsson SEP portfolio was reasonably approximated by its share of the total number of all SEPs, which is equivalent to concluding that the average Ericsson SEP had value equal to the average SEP.

The *TCL* court made certain adjustments, such as accounting for patents that would expire over the license term as well as new SEPs that would issue during that period. As discussed above, the *TCL* court also accounted for variation in Ericsson's portfolio strength across jurisdictions, adopting TCL's expert's estimate of Ericsson's regional portfolio strength ratios in arriving at separate FRAND rates for different regions.[32]

Although the *Unwired Planet* court rejected the Ericsson statements on which the TCL court based its range for the ARB, calling them "self-serving," it nevertheless relied upon the ARB as a check against its FRAND rate determinations.[33] As discussed above, the *Unwired Planet* court did not perform a full top-down analysis, but instead calculated the ARB that is implied by the Unwired Planet one-way rate and its relative portfolio strength. Specifically, rearranging the equation above,

ARB = UP LTE FRAND Rate / UP's Share of the Value of All LTE SEPs.

The *Unwired Planet* court's calculation yielded an ARB of 8.8 percent.[34] This is within the range that the *TCL* court determined for the ARB (6 to 10 percent).

Conclusion

The *Unwired Planet* and *TCL* decisions found different rates for Ericsson's LTE SEP portfolio primarily because they reached different conclusions from their respective comparable license analyses. While the details of these analyses are not entirely clear, the two analyses likely differed in the licenses considered most comparable and the sales forecasts used to unpack the Ericsson one-way rates.

The two decisions also differed substantially in their respective implied assessments of Ericsson's portfolio strength. From the *Unwired Planet* court's calculations, the implied Ericsson share of all LTE SEP value was 9.1 percent. The *TCL* court, on the other hand, concluded that Ericsson's share of all LTE SEP value was only about half as large.[35]

Interestingly, these two factors roughly canceled out so that the two decisions were in rough agreement as to the ARB for all LTE SEPs. The ARBs determined in the two decisions are also consistent with statements made by Ericsson, Nokia, NTT Docomo, NEC, and Sony—some of which had both significant SEP portfolios and handset businesses—at around the time of LTE adoption advocating a single-digit ARB for LTE handsets.[36] This suggests that future FRAND rate litigation in the cellular space may focus more on the measurement of relative portfolio strength and less on the level of the ARB. ■

[1] In some contexts (e.g., 802.11), the term "RAND" ("reasonable and non-discriminatory") is used instead of FRAND. As economists, we view the two terms as having the same meaning. We use FRAND throughout this article for ease of exposition.

[2] Microsoft Corp. v. Motorola, Inc., No. C10-1823JLR, 2013 WL 2111217 (W.D. Wash. Apr. 25, 2013); *In re* Innovatio IP Ventures, LLC Patent Litig., No. 11 C 9308, 2013 WL 5593609 (N.D. Ill. Oct. 3, 2013); Realtek Semiconductor Corp. v. LSI Corp., No. C-12-3451-RMN, 2014 WL 10936481 (N.D. Cal. Feb. 26, 2014).

[3] Unwired Planet Int'l Ltd. v. Huawei Techs. Co., [2017] EWHC (Pat) 711; TCL Commc'n Tech. Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson, Nos. SACV 14-341 JVS(DFMx) and CV 15-2370 JVS (DFMx), 2017 WL 6611635 (C.D. Cal. Dec. 21, 2017), ECF No. 1802; InterDigital v. Huawei, Civil Judgment Record No. 305 (2013), Final, Civil Division III, Higher People's Court of Guangdong Province.

[4] In both *Unwired Planet* and *TCL*, FRAND rates were determined for the 2G, 3G, and LTE portfolios as well as for both handsets and infrastructure. For simplicity, we focus on the FRAND rates for LTE handset SEPs.

[5] Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1235 (Fed. Cir. 2014).

[6] The *Unwired Planet* court also considered other agreements entered into directly by Unwired Planet with Lenovo and Samsung, but ultimately concluded that the Lenovo license "is not a useful comparable from the point of view of setting a FRAND rate today" and that the Samsung license "does not represent useful evidence of the market value of the Unwired Planet patent portfolio." *Unwired Planet*, [2017] EWHC (Pat) 711 ¶¶ 389, 409.

[7] A license agreement may involve each party licensing the other (a "cross-license"). Instead of specifying "one-way" royalty payments (or royalty rates) that would be applicable to each party, cross-licenses often specify only the "balancing" royalty payment (or royalty rate) that is the difference between the two one-way payments. Thus, what has been termed an "unpacking" analysis is required to determine the one-way royalty payments (or rates) from a typical cross-license that specifies only the balancing payment (or rate). For more detail, *see infra* note 22.

[8] For example, for LTE, the court determined that Ericsson's one-way royalty rate from the chosen license was 0.80%. The court then determined that Unwired Planet's LTE SEP portfolio was 7.69% of the value of Ericsson's LTE Portfolio, arriving at an adjusted royalty rate of 0.062% for Unwired Planet's LTE portfolio. *Unwired Planet*, [2017] EWHC (Pat) 711 ¶ 475.

[9] *Id.* ¶ 476.

[10] For example, for LTE the *TCL* court first analyzed the range of rates from both the top-down and comparable licenses approaches (which ranged from 0.28% to 0.84%) and then narrowed down the range by eliminating the highest and lowest rates. It then selected a data point near the middle of this range, 0.45%, as the final FRAND rate for the United States. *TCL*, *supra* note 3, at *51.

[11] *Unwired Planet*, [2017] EWHC (Pat) 711 ¶¶ 464, 476. Note that the heavily redacted *Unwired Planet* decision does not explicitly identify the rates as Major Market rates, but it is implied by the adjustments made by the court. *See id.* ¶¶ 478, 807. Also, although the *Unwired Planet* decision does not explicitly say so, the court's calculations imply that it was evaluating the Ericsson portfolio after divestiture of the patents to Unwired Planet. *See also id.* ¶ 228 ("From now on I intend to put most weight on figures derived from the [post-divestiture] portfolio.").

[12] *TCL*, *supra* note 3, at *51.

[13] In *TCL*, although the royalty rate rates from the top-down approach influenced the final rate of 0.45% in the U.S., the derived rates from many of Ericsson's licenses were also near 0.45%: three of the eight were below 0.45%, while two others were slightly above 0.45% (one at 0.50% and the other at 0.53%). *Id.*

[14] The *TCL* court focused on licenses with Apple (2015), Samsung (2014), Huawei (2016), LG (2014), HTC (2014), and ZTE (2011 with a 2015 Amendment), though it is likely that other licenses were produced in the matter. *Id.* at *41–48. The *Unwired Planet* court listed other licenses, such as Huawei (2009), RIM (unspecified date), Apple (2008), Sony (2012), and an unnamed licensee. *Unwired Planet*, [2017] EWHC (Pat) 711 ¶¶ 382–468. The *TCL* decision specifically excluded certain Ericsson licenses with regional manufacturers. *TCL*, *supra* note 3, at *32 ("Local kings [regional manufacturers] are not similarly situated to global firms for two reasons. First, their sales largely occur in one country, while a single country will generally account for a relatively small percentage of the global firm's sales . . . . Second, local kings receive a different license from Ericsson. A local king only needs license to Ericsson's SEPs in one jurisdiction, and Ericsson is bound to limit its offer to a rate that reflects the SEP strength of its portfolio in that jurisdiction. . . . Thus, a license between Ericsson and a local king does not reflect the rate that a global firm like TCL would have to pay.").

[15] The *Unwired Planet* decision does not name the parties to the licenses it analyzed and, given the date of the Ericsson-Apple license, it is possible that it was executed after the close of discovery.

[16] The *Unwired Planet* court also rejected the idea that the FRAND rate should vary with licensee size, stating that "it would not be FRAND, for example, for a small new entrant to the market to have to pay a higher royalty rate than an established large entity." *Unwired Planet*, [2017] EWHC (Pat) 711 ¶ 175.

[17] *TCL*, *supra* note 3, at *30. The court further noted that "ETSI contemplates facilitating competition in the market, particularly from emerging firms" and that "permitting Ericsson to define similarly situated very narrowly by picking and choosing criteria with no relation to its SEPs or the FRAND commitment would effectively allow Ericsson to read the non-discrimination prong out of the FRAND commitment." *Id.*

[18] Huawei's expert pointed to decisions in jurisdictions, such as the United States, China, Japan, and the EU. The court accepted that there was "some evidence of a decline in some rates over time and I am sure that at least part of the explanation is the emergence by 2013 of decisions in which courts were prepared to set FRAND rates, which in turn strengthened the bargaining position of licensees by reducing the power of the threat of an injunction." The court rejected the proposed ad hoc 50% adjustment to the rates in early licenses. *Unwired Planet*, [2017] EWHC (Pat) 711 ¶¶ 431–432; *see also id.* ¶ 175.

[19] That is, the balancing payment made by the counter-party is equal to Ericsson's one-way royalty rate multiplied by the counter-party's sales, less the counter-party's one-way royalty rate multiplied by Ericsson's sales. Mathematically, if the balancing payment and the parties' sales are known, there is one equation and two unknowns—i.e., the royalty rates. However, under FRAND, the counter-party's one-way royalty rate would be expected to be proportional to Ericsson's one-way royalty rate, with the factor of proportionality equal to the relative strengths of the parties' SEP portfolios. This provides a second equation that allows calculation of Ericsson's one-way royalty rate.

In *Unwired Planet*, the parties to the litigation appeared to have considered portfolio strength measures based on quality-adjusted patent counts, where the quality adjustment was based on the number of a party's technical "contributions" to the standard-setting organization. *Unwired Planet*, [2017] EWHC (Pat) 711 ¶¶ 187–195. The *Unwired Planet* court noted that such contribution measures do not necessarily reflect patented technologies and that just because "Ericsson advanced arguments on this [contributions] basis during negotiations does not mean it is accepted as a method by the counterparty." *Id.* ¶ 185. In *TCL*, TCL's expert relied on the estimated number of SEPs based on a technical assessment of whether the SEPs were essential and related to handsets. Ericsson's expert relied upon technical contributions to the standard-setting organization. As in *Unwired Planet*, the *TCL* court rejected this measure because "standard contribution counting counts contributions, not patents," and because such contributions "can be made for ideas that are unpatented . . . [or] patented by someone else." The *TCL* decision in particular noted the incentive to manipulate this measure, pointing to Ericsson's internal documents, which showed "that it has inflated its counts by 'hijacking' the contributions of other companies as well as requiring subsidiaries to vote for Ericsson's proposals." *TCL*, *supra* note 3, at *41.

[20] The *TCL* court noted that the "IDC data is based on actual handset sales, which makes it much more reliable." The court further noted that, in many cases, "Ericsson's business cases dramatically underestimated the licensee's revenue when compared to IDC data." *Id.* at *39–40.

[21] *Id.*; *see also id.* at *39.

[22] The redacted decision does not specifically detail the court's unpacking methodology. However, the court uses the Ericsson royalty rate to calculate Unwired Planet's adjusted royalty rate in a major market. For example, the court took the 0.80% Ericsson rate for LTE and adjusted it downward to calculate the rate for Unwired Planet as the benchmark rate in major markets, which implies that the 0.80% rate was also for a major market. *Unwired Planet*, [2017] EWHC (Pat) 711 ¶¶ 464, 591.

[23] *Id.* ¶¶ 582–584.

[24] *TCL*, *supra* note 3, at *11.

[25] *Id.* at *13.

[26] *Id.* at *8.

[27] *Id.* at *21.

[28] *Id.* at *24.

[29] A patent receives a forward citation when it is cited by a later patent.

[30] *See generally* Dietmar Harhoff et al., *Citations, Family Size, Opposition and the Value of Patent Rights*, 32 Research Pol'y 1343 (2003); Dietmar Harhoff et al., *Citation Frequency and the Value of Patented Inventions*, 81 Rev. Econ. Stat. 511 (1999); Adam Jaffe & Manuel Trajtenberg, Patents, Citations and Innovations: A Window on the Knowledge Economy (2002); Mark Schankerman, *How Valuable Is Patent Protection? Estimates by Technology Field*, 29 RAND J. Econ. 77 (1998); Manuel Trajtenberg, *A Penny for Your Quotes: Patent Citations and the Value of Innovations*, 21 RAND J. Econ. 172 (1990).

[31] *See, e.g.*, Better Mouse Co. v. Steelseries ApS, No. 2:14-cv-198-RSP, ECF No. 308 (E.D. Tex. Jan. 5, 2016); Comcast Cable Commc'ns, LLC v. Sprint Commc'ns Co., No. 12-859, ECF No. 334 (E.D. Pa. Nov. 21, 2016).

[32] *TCL*, *supra* note 3, at *24–26.

[33] The court also claimed that Ericsson's statements did "not take into account what implementers and SEP holders have actually been content to agree in the intervening years," and "have little value in arriving at a benchmark rate today." *Unwired Planet*, [2017] EWHC (Pat) 711 ¶¶ 269–270. This stands in contrast to the *TCL* court, which viewed Ericsson's statements as a "pledge to the market," and that were "designed to entice manufacturers to invest in LTE" over alternative standards at the time. *TCL*, *supra* note 3, at *11, *13. From this perspective, effective royalty rates for Ericsson above the level implied by Ericsson's ARB "pledge" would constitute hold-up.

[34] *Unwired Planet*, [2017] EWHC (Pat) 711 ¶ 807.

[35] The Ericsson share of 9.1% implied by the *Unwired Planet* decision is calculated by dividing the 0.70% Unwired Planet LTE share by the 7.69% relative strength of Unwired Planet's portfolio as compared to Ericsson's portfolio. *Id.* ¶ 807. The Ericsson share implied by the *TCL* decision is obtained by dividing the *TCL* court's U.S. rate of 0.45%, which was based on both a comparable license analysis and a top-down analysis, by an ARB of 10%, which is the upper end of the range that the *TCL* court considered.

[36] *TCL*, *supra* note 3, at *11–12; *see also* Press Release, Ericsson, Wireless Industry Leaders Commit to Framework for LTE Technology IPR Licensing, (Apr. 14, 2008), http://www.ericsson.com/en/press-releases/2008/4/wireless-industry-leaders-commit-to-framework-for-lte-technology-ipr-licensing. As noted above, the *TCL* court specifically cited these statements as support for its ARB range, while the *Unwired Planet* court declined to rely on these statements, despite finding an ARB consistent with them.