December 29, 2017

TCL Comm'n v. *Ericsson*

District Court Issues Comprehensive Decision Determining Worldwide FRAND Royalty Rates for Ericsson's 2G, 3G and 4G Wireless Standard Essential Patent Portfolio

SUMMARY

Earlier this week, the long-awaited decision in *TCL Comm'n* v. *Ericsson*, C.A. No. 14-CV-341 (C.D. Cal. December 21, 2017) was released to the public. In his 115 page opinion, Judge Selna used both a "top-down" patent counting approach, and an analysis of Ericsson's comparable licenses, to determine FRAND royalty rates for Ericsson's portfolio of more than 100 patent families essential to one or more of the 2G, 3G or 4G wireless standards. For 4G-capable telephones and tablets (including multimode devices), the court declared the FRAND royalty to be 0.450% on sales in the United States, and 0.314% on sales in the rest of the world. The corresponding FRAND rates for 3G were found to be 0.300% for U.S. sales, 0.264% for European sales, and 0.224% for sales in the rest of the world. The court also ordered TCL to pay $16.5 million for unlicensed past sales. Finally, the court declared that, while Ericsson's prior offers to TCL were not FRAND, Ericsson had not negotiated in bad faith, and it refused to consider whether Ericsson had been obliged by its FRAND declarations to the relevant standard-setting organization to offer a FRAND rate at the start of its negotiations with TCL.

BACKGROUND

In order to have their technology incorporated into an industry standard, participants in standard setting processes organized by industry standard setting organizations typically must declare that they are willing to license patents covering the technology—known as "standard-essential" patents or SEPs—on fair, reasonable and non-discriminatory ("FRAND") terms. Such declarations are required because incorporation into "a standard may bestow a 'windfall' monopoly position" on an individual patent holder, and allow it to engage in patent "hold-up," in which the "patent holder seeks to extract more for the use of his patent than the value which his patent adds to a standard."[1] Courts have treated such declarations as binding contractual obligations enforceable by potential licensees as third party beneficiaries of the FRAND commitment, but have struggled to define what constitutes a FRAND royalty, and to develop methodologies by which a FRAND royalty rate should be determined. Recent efforts by courts in *Microsoft Corp.* v. *Motorola, Inc.*, No. C10-1823JLR, 2013 WL 2111217 (W.D. Wash. Apr. 25, 2013) (the subject of our memo to clients dated April 30, 2013), *In re Innovatio IP Ventures, LLC Patent Litigation*, No. 11 C 9308, 2013 WL 5593609 (N.D. Ill. Oct. 3, 2013) (the subject of our memo to clients dated October 7, 2013), and *Unwired Planet* v. *Huawei*, [2017] EWHC 711 (Pat), have coalesced around certain principles, but failed to offer clear guidance to market participants on several critical elements of the FRAND obligation.

In *TCL Comm'ns* v. *Ericsson*, Ericsson made FRAND declarations to the relevant standard-setting organization, ETSI, regarding its SEPs covering the 2G, 3G and 4G wireless standards. TCL, which manufactures and sells wireless cellphones, tablets and other wireless devices throughout the world, entered into a seven-year 2G license with Ericsson in 2007. In 2011, the parties began to negotiate in earnest for a license to Ericsson's 3G SEPs, and in 2013, the negotiations addressed Ericsson's 4G SEPs. From 2012-2014, Ericsson brought 11 patent infringement suits against TCL in various foreign jurisdictions. In early 2014, Ericsson made an offer to TCL—designated as Option A—to license its SEPs under various terms.[2] In early 2015, Ericsson made another offer—designated as Option B.[3] Ericsson contended that Options A and B both embodied FRAND terms.

As TCL's 2G licenses were about to expire, and after receiving Ericsson's Option B offer, TCL filed suit in the United States District Court for the Central District of California seeking, among other things, a declaration that Ericsson had failed to offer FRAND terms as well as a determination of the FRAND rates to which TCL is entitled as a result of Ericsson's FRAND commitments. In response, Ericsson sued TCL in the Eastern District of Texas, seeking a declaration that it had complied with its FRAND obligations through its Option A and Option B offers and asking for a "compulsory forward royalty" in lieu of an injunction against TCL's continuing infringement of its SEPs. Ericsson's suit was transferred to California and consolidated with TCL's lawsuit. In June 2015, the California court enjoined Ericsson from further prosecuting its foreign litigations after TCL agreed to be bound by the court's determination of FRAND terms for a worldwide portfolio license.

The FRAND issues were tried to the court in early 2017, during which the court heard experts from both sides opine about the proper methodology for determining a FRAND royalty rate.

THE COURT'S DECISION

In his lengthy and detailed opinion, Judge Selna addressed multiple issues (described below) which are regularly the subject of academic literature and testifying expert analysis. Before doing so, Judge Selna emphasized as the fact-finder that "the search for precision and absolute certainty [in connection with a

FRAND determination] is a doomed undertaking" and that the court's role was simply to "determine whether each expert's work has a reasonable level [of] reliability and convincing force that allows the Court to make a judgment whether to accept the ultimate conclusions advanced."[4]

The Court's Use of a "Top-Down" Patent-Counting Analysis to Determine the FRAND Rate

The district court first assessed the parties' very different proposals for determining a FRAND rate for Ericsson's SEPs. TCL proposed a "top-down" approach, in which the royalty would equal Ericsson's proportional share of the aggregate royalty available for the universe of all SEPs covering the 2G, 3G or 4G standards. In contrast, Ericsson proposed an "*ex ante*" approach in which the royalty would equal the value, in absolute terms, that Ericsson's patents conferred on a product incorporating them.

The court acknowledged that both TCL's top-down and Ericsson's *ex ante* methods had limitations, but held that TCL's proposed method was more sound.[5] In explaining why it chose the "top-down" approach, the court relied on Ericsson's own public statements prior to standardization that it and other SEP owners believed that the aggregate "royalty stack" applicable to all 2G and 3G SEPs was 5% of sales, and 6% to 10% for all 4G SEPs, and that they intended to apportion each SEP owner's share of that aggregate royalty in proportion to the number of SEPs owned by each individual patent owner. Because these statements were made prior to standardization, the court concluded they were made to induce others to adopt and invest in the standards, and that a larger royalty would therefore constitute an impermissible patent "hold-up."[6] Accordingly, the court held that the aggregate royalty available for the universe of SEPs was 5% for 2G and 3G, and from 6% to 10% for 4G, based on Ericsson's public statements. Limiting the royalty stack in this way ensured that the aggregate royalty for the universe of applicable SEPs could never become so great that the licensees could no longer sell their products at a profit.

The court then determined Ericsson's proportional share of the royalty stack by dividing the number of SEP families[7] owned by Ericsson (the "numerator") by the total number of SEP families covering handset (phone or tablet) technology for each of the standards at issue (the "denominator"). To find the denominator—the total number of SEPs for each standard—the court largely relied on industry-wide essentiality studies on the universe of FRAND declarations to ETSI for the 2G, 3G and/or 4G standards (performed by Ernst and Young and/or Concur IP under the direction of a TCL expert); the court also applied correction factors to guard against the well-recognized likelihood of over-declaration of SEPs by patent-owners.

The court next determined the numerator using two methodologies, once using the number of SEP patent families that TCL conceded were owned by Ericsson, and a second time including the additional families that Ericsson contended were also SEPs. The court corrected these numbers to exclude patent families where all of the U.S. patents had expired, and to exclude patents that would expire before the end of a five year license.[8] Based on these numbers, the court calculated Ericsson's proportionate share of the royalty stack for each of the standards, and thus the appropriate FRAND royalty rate for Ericsson's U.S. SEP families, as follows;

	2G		3G		4G	
	TCL	Ericsson	TCL	Ericsson	TCL	Ericsson
SEP Families Owned by Ericsson	12	12	20	25	70	112
Total SEP Families Per Standard	365		953		1481	
Royalty Stack	5%		5%		6%	10%
Ericsson's Share of Royalty Stack	3.28%		2.06%	2.58%	4.76%	7.53%
Ericsson's FRAND Royalty (U.S. Only)	0.16%		0.10%	0.13%	0.28%	0.75%

The court rejected TCL's attempt to revise these numbers to reflect its expert's purported determination of the relative technical importance of Ericsson's SEPs to other SEPs relating to the standards. It found TCL's "contribution analysis" flawed and unreliable because, among other reasons, TCL simply rated the contribution of Ericsson's SEPs on a scale of 1-3, but never rated other non-Ericsson SEPs on the same scale, so that "there is nothing to compare [TCL's rankings of Ericsson's SEPs] against to determine the strength of Ericsson's portfolio."[9] The court's rejection of "grading" the technical contribution of patents is consistent with an order we recently obtained in another infringement matter in the Eastern District of Virginia, and demonstrates the importance of sound technical analysis to support any claim that some SEPs are more valuable than others.

While rejecting TCL's grading system, the court did adjust for the relative strength of Ericsson's portfolio inside the United States as compared to its strength in Europe and the rest of the world. Although the court noted that it had no authority to require payments by TCL based on non-US patents, it also recognized that, "as a matter of commercial reality, firms regularly adopt a single world-wide rate," and therefore FRAND "permits companies to agree to a global rate between themselves and structure their contracts accordingly."[10] To adjust for the different strengths of Ericsson's portfolios in different regions, the court essentially looked at the country in each region outside the U.S. in which Ericsson's portfolio was strongest, and then calculated a purely numerical "regional strength ratio" based on the number of SEP patent families registered in that country relative to the number registered in the U.S.[11] Accordingly, the court found the following worldwide royalty rates to be FRAND based on its top-down analysis.

	2G	3G		4G	
	TCL/Ericsson	TCL	Ericsson	TCL	Ericsson

	2G	3G		4G	
	TCL/Ericsson	TCL	Ericsson	TCL	Ericsson
Ericsson's FRAND Royalty (U.S. Only)	0.16%	0.10%	0.13%	0.28%	0.75%
European Regional Strength Ratio	72.2%	87.9%		N/A	
European Royalty	0.12%	0.09%	0.11%	N/A	N/A
Rest of World Regional Strength Ratio	54.9%	74.8%		69.8%	
Rest of World Royalty	.09%	.08%	.10%	0.19%	0.52%

The Court's Use of a Comparable License Analysis to Determine the FRAND Rate

Having determined a FRAND rate through the "top-down" methodology, the court next looked at the effective royalty rates for Ericsson's SEPs as provided in licenses between Ericsson and similarly situated licensees. The parties disagreed about whether the similarly situated licensees to TCL were limited to global handset and tablet manufacturers/sellers like Apple and Samsung, or whether such similarly situated licensees also included smaller, regional firms such as CoolPad and Kaarbon. The court held that similarly situated firms to TCL included "all firms reasonably well-established in the world market," such that a firm's presence in a global, rather than a local, market was dispositive.[12] For that reason, well-established global firms Apple, Samsung, Huawei, LG, HTC, and ZTE were considered similarly situated to TCL, but companies such as CoolPad (China) and Kaarbon (India) with large local sales were not. In reaching this conclusion, the court rejected any notion that "factors such as the firm's overall financial success or risk, brand recognition, the operating system of their devices, or the existence of retail stores" were relevant to "comparability" and that such factors therefore had no "bearing on whether Ericsson's royalty rates for its SEPs [for these licensees as compared to rates offered to TCL] are discriminatory."[13] Of note, the better royalty rate offered to Apple and Samsung based on their substantial sales volumes did not prevent the court from declaring that the higher royalty rate offered to TCL was discriminatory as compared to these two industry giants.

Continuing its analysis, the court next considered the terms of the licenses between the similarly situated firms and Ericsson. However, any direct comparison was complicated by the fact that all of the licenses except for Ericsson's license with Huawei included up-front payments for release of past infringement, lump sum annual payments, cross-licenses, and royalty ceilings and floors in addition to straight running royalties. As a result, the court in its word had to "unpack" the licenses to translate their distinct terms into effective royalty rates that could be directly compared to both the results of the top-down analyses discussed above and the pre-litigation offers made by Ericsson to address TCL's discrimination claim. The court unpacked the licenses by converting any payment into an effective royalty rate over all of the actual (or where actual figures were unavailable, the expected) sales by the licensee, and by looking at the relative strength of the parties' patents to determine the value of any cross-license.[14] Based on its unpacking analysis, the court found that the rates given by Ericsson to similarly situated licensees were comparable to those the court had determined based on its top-down approach.

The Court's Determination That Ericsson's Option A and Option B Offers Were Not FRAND

Finally, the court calculated FRAND rates based on the distribution of rates provided by its top-down and comparable license analyses, with each analysis serving as reasonableness check against the other. For the 4G patents, the court put all of its royalty determinations in order and discarded the top and bottom two results; the remaining results were relatively close to each other, ranging from 0.414% to 0.662%. The court therefore found a U.S. FRAND rate for 4G would be 0.45%, a rate nearly identical to the result of its top-down calculation. For the 3G SEPs, however, the results were not as close, with the top-down analysis giving lower royalty rates than the comparable license analysis. The court ultimately held, without explanation, that the U.S. FRAND rate would be 0.30%, a number between the lowest comparable license rate of 0.39% and the highest top-down rate of 0.129%. For the 2G patents, the court relied entirely on the top-down analysis (because it could not reliably unpack rates for the 2G SEPs from the comparable licenses) to find a FRAND royalty rate of 0.16% for Ericsson's U.S. SEP families. The court then used its previously calculated regional strength ratios to determine FRAND rates in Europe and the rest of the world. In sum, the court found the following rates for Ericsson's SEP portfolio to be FRAND:[15]

	2G	3G	4G
US	0.164%	0.300%	0.450%
Europe	0.118%	0.264%	
Rest of World	0.090%	0.224%	0.314%

Finally, the court used the same techniques it used in its comparable license analysis to unpack Ericsson's prior offers (Options A and B). It found that the unpacked effective rates in those offers—2.592% and 1.466%, respectively—were two to four times greater than the rates given to similarly situated licensees, and accordingly concluded that Ericsson's prior offers were discriminatory and not FRAND. It also concluded that "there is no way to reconcile the results of the top down analysis with Option A or Option B," and therefore "Option A and Option B are . . . not fair or reasonable offers."[16] The court noted that "there is no single rate that is necessarily FRAND," and that "different rates offered to different licensees may well be FRAND given the economics of the specific license."[17] However, even considering these points, as well as the defects in its unpacking methodology, the court found that Ericsson's Option A and Option B were so "radically divergent" from rates of similarly situated licensees that they had to be considered unreasonable and discriminatory.[18]

However, the court refused to determine whether Ericsson's FRAND obligation included a requirement that each of its offers to TCL be FRAND. Even if Ericsson's failure to offer FRAND rates was a breach of its obligation, the court noted that "no damages will flow to TCL" because the court had already granted summary judgment to Ericsson on damages as a result of discovery violations by TCL.[19] Finally, the court rejected the notion that FRAND requires giving every licensee the same terms or a "most favored nation" (or licensee) provision entitling them to terms as low as those given to any other licensee. The court also found no requirement that license discrimination must impair the development or adoption of a standard to breach the FRAND obligation, instead finding it sufficient that a potential licensee is harmed by the offer of a discriminatory rate to find that the rate was discriminatory. In reaching that conclusion, the court refused to interpret Ericsson's obligation through the lens of antitrust law on the ground that such law "provide[s] no guide to understanding . . . discrimination under FRAND."[20]

IMPLICATIONS

The district court's decision in *TCL* articulates not one, but two methodologies for calculating a FRAND rate: the top-down approach of starting with a total royalty for all relevant SEPs and then determining the share attributable to a given SEP owner, and the comparable license approach in which licenses to similarly situated firms are unpacked and translated into royalty rates expressed as percentages.

The use of the top-down approach could dramatically limit the amount of royalties available to SEP owners subject to FRAND commitments. However, the court in *TCL* justified its use of that approach largely by pointing to Ericsson's own statements endorsing the same approach, publicly and prior to standardization. Therefore it is not clear whether the approach will be considered viable generally or in other cases in the absence of similar statements.

The decision also has potential implications for multinational litigation. Although parties can enter into global licenses, courts in the U.S. do not have global jurisdiction. As a result, although the district court should be commended for recognizing the commercial reality of world-wide licenses, the district court may not be able to enforce an order that TCL pay any amount, even if FRAND, for infringement occurring entirely outside the boundaries of the United States or for infringing patents that have no force within those boundaries.

Much will be written about the court's determination in the coming months, and it remains to be seen whether, in light of a likely appeal, the decision will survive undisturbed. In addition to addressing non-U.S. patents, the decision may be vulnerable in light of its refusal to distinguish comparative technological values among the universe of SEPs relevant to the particular standard. While the failure of the court to address comparative value may be based on the parties' providing no reliable evidence on the issue, it seems that litigants should be able to show that one patent may be entitled to a different royalty than another based on the technical contribution of that patent. Finally, the court's opinion also may generate controversy for failing to address the value to a licensor of a high-volume licensee, and the industry practice of generally offering such high-volume licensees more favorable rates.

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ENDNOTES

[1] Slip op. at 11.

[2] *Id.* at 5.

[3] *Id.*

[4] *Id.* at 14.

[5] The court rejected the *ex ante* analysis proposed by Ericsson expert as lacking in "fundamental credibility," in part because Ericsson's expert concluded that two relatively minor features were more valuable than Ericsson's entire patent portfolio. *Id.* at 54.

[6] *Id.* at 25-26.

[7] The court considered only patent families including unexpired U.S. patents. *Id.* at 28.

[8] The court relied on the Supreme Court's decision in *Brulotte* v. *Thys Co.*, 379 U.S. 29, 32 (1964), which it found "does not permit Ericsson to demand value for patents that have expired." Slip op. at 35. The court explained that because "FRAND cannot permit what domestic patent law prohibits," SEPs that "expire before a license begins . . . have no bearing on a fair and reasonable prospective royalty rate." *Id.* at 36. However, while excluding expired SEPs from the numerator, it left them in the denominator, reasoning that Ericsson's share of the royalty stack should decrease as its patents expired and the inventions claimed in the expired patents become the property of the public. *See id.*

[9] *Id.* at 41. The court also rejected TCL's use of a forward-citation analysis to evaluate the importance of Ericsson's SEPs because it was "not convinced . . . that it provides a meaningful way to value SEPs. *Id.* at 42.

[10] *Id.* at 43.

[11] *Id.* at 45-46. The court's actual analysis was somewhat more complex, and largely adopted the opinions of TCL's expert, Gregory Leonard, who calculated the value share of Ericsson's SEPs in Europe and the rest of the world relative to that of its SEPs in the U.S. Those opinions, however, relied on the importance and contribution analyses the court had already rejected. The court explained that this was not a significant problem because the value shares were only used in the context of "a ratio of one value share to another," and therefore the result would change only if Ericsson disproportionately registered its less valuable patents outside the United States (unlikely given Ericsson's incentive to register its most valuable inventions more, rather than less, widely throughout the world). *Id.* at 46.

[12] *Id.* at 56.

[13] *Id.* at 58.

[14] It is difficult to provide more detail about the court's analysis because so much of it is redacted.

[15] These are rates for handsets and tablets. However the court found, somewhat cryptically, that TCL was entitled to a royalty-free license "for the sale of External Modems and Personal Computers" because "the revenues for these devices have already been accounted for in the unpacking analysis for handsets." *Id.* at 115.

[16] *Id.* at 50.

[17] *Id.* at 109.

[18] *Id.* at 94. However, the court did not rely solely on the effective rates in Options A and B in concluding they were not FRAND. The court also found evidence of improper discrimination in Ericsson's offer of royalty floors set at dollar amounts (rather than percentages) per unit. The court held that "there is no basis for essentially discriminating on the basis of the average selling price where a floor would result in a higher effective rate for lower priced phones." *Id.* at 113.

ENDNOTES (CONTINUED)

[19] *Id.* at 112.

[20] *Id.* at 91.

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