Applying 'Footprint' Methodology To Prism V. Sprint

Law360, New York (March 21, 2017, 3:02 PM EDT) -- The "footprint" approach to patent damages synthesizes the profit equation *P = R - C*, causation, Federal Rule of Evidence 403 (probative value v. prejudicial effect), and Rule 702 (expert reliability). This framework provides a holistic and consistent way to integrate and apply the Federal Circuit's opinions on damages issues.[1] The March 7 decision in Prism Technologies v. Sprint Spectrum[2] affirming a $30 million jury verdict illustrates yet another footprint application, interesting because of its focus on costs — and not revenues — as a reasonable royalty measure.

Footprint Methodology Recap

To quickly summarize the four pillars of the footprint methodology:

1. Profit equation: Profit (*P*) equals revenue (*R*) minus costs (*C*):

$$P = R - C$$

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The analysis therefore begins with the infringer's real-world profit achieved using the patented invention, designated with the subscript "Inv":

$$P_{Inv} = R_{Inv} - C_{Inv}$$

2. Causation: To incorporate causation, the footprint analysis determines the difference in profit (*ΔP*) between the infringer's actual profit (using the invention) and the profit the infringer would have achieved using a noninfringing alternative (designated with the subscript "Alt"):

$$\Delta P = P_{Inv} - P_{Alt}$$

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Hypothetical profit using an alternative follows the same profit equation:

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$$P_{Alt} = R_{Alt} - C_{Alt}$$

Substituting variables in the differential profit (ΔP) equation results in:

$$\Delta P = (R_{Inv} - R_{Alt}) - (C_{Inv} - C_{Alt})$$

And switching signs on the cost variables produces the footprint equation:

$$\Delta P = (R_{Inv} - R_{Alt}) + (C_{Alt} - C_{Inv})$$

Accounting for all variables in this equation allows the patentee to quantify the differential profit attributable to the invention versus a noninfringing alternative. The patentee can establish the value attributable to the invention by proving increased revenue, decreased costs, or a combination of both.

3. FRE 403: The footprint approach accounts for the rules of evidence by asserting that the patentee must establish each variable in the equation with admissible evidence. The Federal Circuit's damages opinions historically applied Rule 403 without referencing it by name, and we previously argued that the court's entire market value rule precedents merely applied Rule 403.[3] Since December 2014, when the court issued Ericsson v. D-Link and for the first time expressly recognized the evidentiary component of EMVR,[4] the court has analyzed the admissibility of damages evidence under the Rule 403 probative value / prejudice balancing test.

4. FRE 702: The patentee must establish the footprint equation's variables with reliable expert testimony. In many cases, the patentee's expert addresses some but not all of the variables, and the absence of expert testimony on a single variable can render the analysis unreliable.

Footprint Application in Prism v. Sprint

Often, patentees focus their damages theories on the revenue side of the footprint differential profit equation.[5] In Prism v. Sprint, the patentee and the Federal Circuit analysis emphasized the cost side instead. The jury awarded Prism a $30 million royalty, and Sprint appealed, arguing that "Prism's damages model was not sufficiently tied to the 'footprint' of the invention."[6] The Federal Circuit disagreed with Sprint and affirmed the result. The footprint methodology illustrates why.

Prism tied its damages model to the cost side of the footprint equation. It assumed that Sprint would continue to "provide its customers the kind of service it wanted to offer them" with or without the invention,[7] effectively making Sprint's revenue using the invention (R_{Inv}) and using an alternative (R_{Alt}) equal in the damages model. Thus, (R_{Inv} - R_{Alt}) equals zero, making the equation:

$$\Delta P = C_{Alt} - C_{Inv}$$

Prism therefore had to establish the cost differential between using the invention and using an alternative.

Prism established this cost differential by determining the cost of a noninfringing alternative: "building a

private backhaul network instead of leasing backhaul services from third-party providers."[8] Prism relied on an expert, Mr. Minor, with experience in "building and leasing backhaul infrastructure," who testified to the difference between building and leasing costs.[9] Minor estimated that:

Sprint's cost savings would actually be "no less than two to three times" its leasing costs and "would

potentially be more than five times" those costs.[10]

In sum: After assuming that revenues would not change with or without the invention, Prism's expert addressed both costs using the alternative (C_{Alt}) and costs using the invention (C_{Inv}) by addressing the difference between the two (a range extending from two to three times to more than five times).

Sprint challenged the reliability of leasing costs as evidence of cost savings, arguing that it included technological and business-related factors unrelated to the technical requirements of a non-infringing alternative. Sprint did not, however, show why the jury could not reasonably find that such factors were accounted for in the use of leasing costs to estimate cost savings.[11] Thus, Sprint attempted to disrupt the variable — costs using the alternative (C_{Alt}) — but failed to do so.

Thus, Prism accounted for all variables in the footprint equation, resulting in a cost savings analysis supported by admissible expert testimony. Its expert established a profit differential based on a cost multiplier that Sprint would incur if it used a noninfringing alternative instead of the invention. On this evidence, the Federal Circuit affirmed the jury's award.

Conclusion

In sum, the Federal Circuit's Prism opinion has confirmed that both patentees and accused infringers can apply the footprint analysis — addressing revenue, costs, or both — as the framework for establishing or challenging reasonable royalty damages. Prism provides an interesting example of the successful application of the cost side of the equation.

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[1] See, e.g., A. Fahrenkrog et al., A Grand Unifying Theory for Determining Infringement Remedies, Intellectual Asset Management, March/April 2016; A. Fahrenkrog, Convergence: A Common Framework for Lost Profits and Reasonable Royalty Damages Using the Footprint Approach, Intellectual Property Today, May 2015; A. Fahrenkrog, A New 'Footprint' Paradigm for Reasonable Royalty Damages, Law360, Mar. 11, 2015.

[2] Prism Techs. v. Sprint Spectrum LP, No. 2016-1466, 2017 U.S. App. LEXIS, (Fed. Cir. Mar. 6, 2017).

[3] A. Fahrenkrog et al., A Guide To Understanding Fed. Circ.'s VirnetX Opinion, Law360, Oct. 14, 2014.

[4] Ericsson Inc. v. D-Link Sys. Inc., 773 F.3d 1201, 1226 (Fed. Cir. 2014).

[5] See VirnetX Inc. v. Cisco Sys. Inc., 767 F. 3d 1308, 1325, 1333-34 (Fed. Cir. 2014).

[6] Prism Techs., 2017 U.S. App. LEXIS at *30-31.

[7] Id. at *30.

[8] Id.

[9] Id. at *33-34.

[10] Id.

[11] Id. at *33.