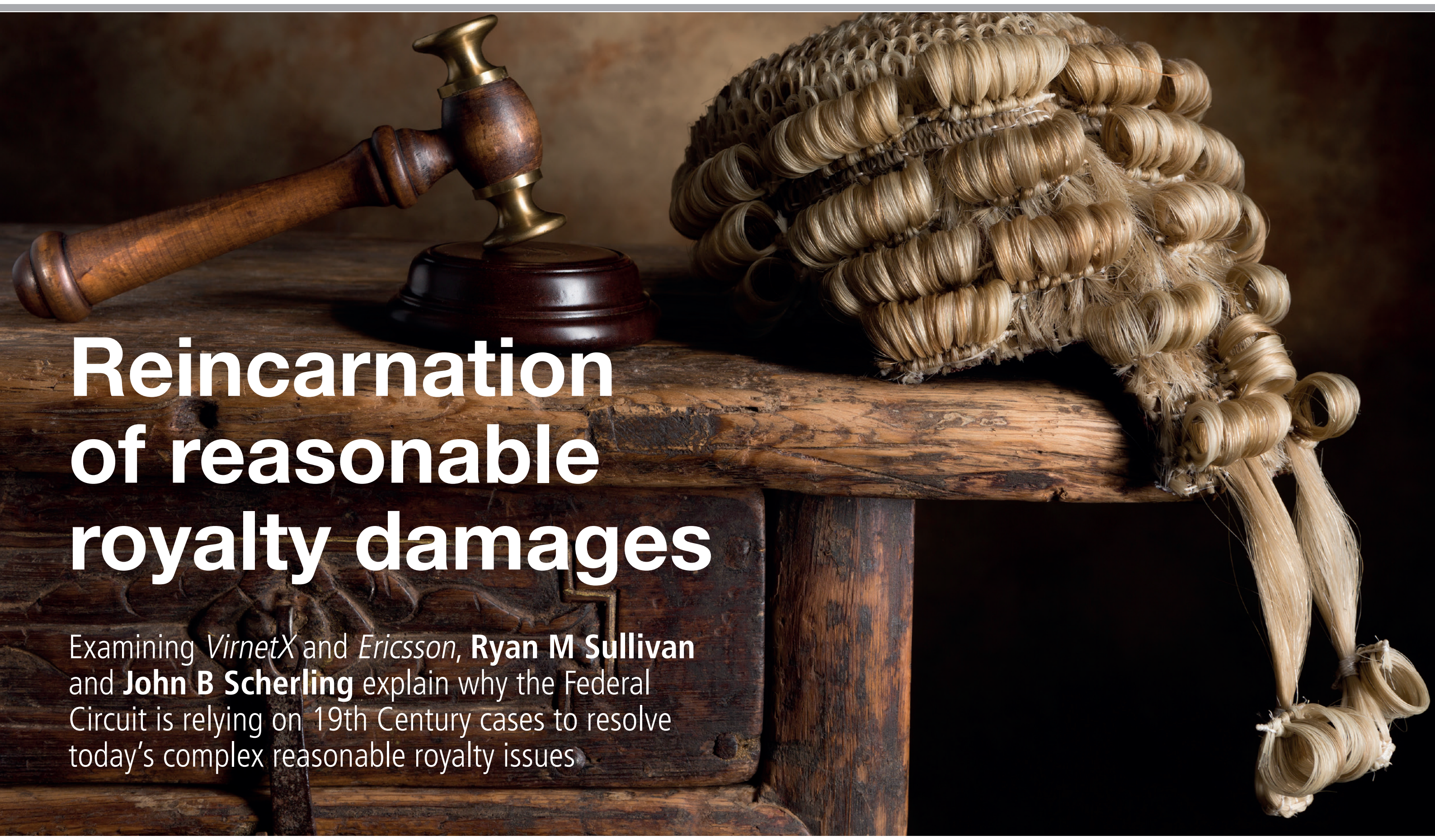

Reincarnation of reasonable royalty damages

Examining *VirnetX* and *Ericsson*, **Ryan M Sullivan** and **John B Scherling** explain why the Federal Circuit is relying on 19th Century cases to resolve today's complex reasonable royalty issues

Recent Federal Circuit opinions have brought about commentary on a changing landscape for reasonable royalty damages. Closer examination, however, reveals that the court has remained true to fundamental principles of reasonable royalty damages that were recognised in judicial opinions published more than 100 years ago. The concepts are the same, but have been reinterpreted – or reincarnated – to address the increasing technological complexity in patent litigation.

United States Frumentum Co v Lauhoff (6th Cir 1914), for example, provided general guidance that a reasonable royalty is an amount of money determined by applying sound economic principles to case-specific facts.[1] The applicability of this economically sound framework for determining reasonable royalty damages has remained fundamentally unchanged over the past century. Meanwhile, the nature of patented technologies (eg, sophisticated electronics), the products utilising those technologies (eg, smart phones), and the business models used to commercialise those products (eg, industry standards) have become increasingly complex. These technological changes have led the courts to analyse and elaborate on why some damages analyses are not economically or legally sound under nuanced, case-specific economic and factual distinctions, and then formulating complex paradigms to address the issues. This in turn results in the courts becoming increasingly burdened when practitioners attempt to apply (or to avoid) the new paradigms, rather than simply applying sound economic principles to case-specific facts.

The Federal Circuit continues to critique damages methodologies in which sound economic principles were not applied to case-specific facts, recently culminating in several important decisions, including *VirnetX, Inc v Cisco Systems, Inc* (Fed Cir 2014) and *Ericsson, Inc v D-Link Systems, Inc* (Fed Cir 2014).[2] In this article, we examine these and other recent decisions to demonstrate that the courts, whether specifically noted or not, continue to resolve today's reasonable royalty issues by relying upon lessons learned from cases going back into the 19th Century.

Reasonable royalty damages

US patent laws provide for damages to a prevailing patent holder in an amount that compensates for the infringement: "Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer" (35 USC § 284).

Under certain circumstances a patent holder may be entitled to recover lost sales and profits resulting from the infringement, but under any circumstance a patent holder is entitled to recover at least a reasonable royalty.

No single specific approach to a reasonable royalty will always be appropriate under the vast variety of potential factual circumstances found in patent litigation. Indeed, in *Apple v Motorola* (Fed Cir 2014), the Federal Circuit stated that "there are multiple reasonable methods for calculating a royalty" and "[a]ll approaches have certain strengths and weaknesses and, depending upon the facts, one or all may produce admissible testimony in a single case."[3]

As an analogy, consider any specific approach to a reasonable royalty as a specific household tool, such as a screwdriver. If the facts of a case are analogous to hanging artwork on a wall with a screw, then the screwdriver is a viable tool for the objective. However, if the facts of the case are that only a nail is available, then the screwdriver is not likely to be the best option and another tool, such as a hammer, is more appropriate for use under the factual circumstances.

While reasonable royalty damages have existed for more than a century, courts continue to define and differentiate reasonable royalties from other forms of damages. Recently, in *AstraZeneca AB v Apotex Corp* (Fed Cir 2015) the court distinguished reasonable royalty damages from other forms of damages, stating: "The reasonable royalty theory of damages, however, seeks to compensate the patentee not for lost sales caused by the infringement, but for its lost opportunity to obtain a reasonable royalty that the infringer would have been willing to pay if it had been barred from infringing."[4]

The Federal Circuit reaffirmed a long-standing principle that reasonable royalties must reflect the "value of what was taken – the value of the use of the patented technology," as stated in the 100 year old Supreme Court case *Dowagiac Mfg Co v Minn Moline Power Co* (1915).[5] This principle was also recently referenced in *Warsaw Orthopedic, Inc, et al v NuVasive Inc* (Fed Cir 2015): "A reasonable royalty, on the other hand, is intended to compensate the patentee for the value of what was taken from him – the patented technology."[6]

Determination during litigation of "the value of what was taken" can be fraught with challenges, especially with respect to three common considerations in reasonable royalty damages assessments: (1) the use of technology agreements; (2) quantifying relative contributions; and (3) application of the entire market value rule ("EMVR"). However, analysis of recent Federal Circuit case law, including *VirnetX* and *Ericsson*, provides guidance from cases decided over 100 years ago to resolve today's complex reasonable royalty issues.

Technology agreements

Established royalties, which are actual royalties received by the patent holder for the patent-in-suit, have traditionally been held to provide the best measure of economic value of that patent in litigation. Established royalties are rare in practice because, as the Federal Circuit observed in Ericsson, prior license agreements "are almost never perfectly analogous to the infringement action."[7] The court in *Ericsson* provides examples of such circumstances, stating that, "allegedly comparable licenses may cover more patents than are at issue in the action, include cross-licensing terms, [and/or] cover foreign intellectual property rights."[8]

In the absence of an established royalty, an agreement nevertheless can be informative for determining a reasonable royalty when the circumstances of that agreement are sufficiently similar such that reasonable adjustments can account for differences between the agreement and the hypothetical negotiation for the patented technology. This approach to a reasonable royalty is based upon principles of a market-based valuation approach, in which value is ascertained by identifying transactions involving similar assets in similar marketplaces. In *Apple v Motorola*, for example, the court stated, "This approach is generally reliable because the royalty that a similarly-situated party pays inherently accounts for market conditions at the time of the hypothetical negotiation, including a number of factors that are difficult to value..."[9]

While a market-based approach using technology agreements is simple in concept, identifying transactions involving economic circumstances that are sufficiently similar to those surrounding the hypothetical negotiation for the patent-in-suit can be complex, particularly since opposing damages experts often disagree as to which technology agreements, or which aspects of those agreements, are most informative on a reasonable royalty for the patent-in-suit. Numerous judicial opinions reflect patent holders identifying technology agreements with relatively high compensation as most informative for a reasonable royalty, while accused infringers identify technology agreements with relatively low compensation as most informative.

Ericsson and *VirnetX* teach that the solution to this problem today is the same as it was 100 years ago, which is to extract relevant information, if available, from applicable technology agreements and account for differences in factual and economic circumstances between the technology agreements and the case at hand. For example, the Federal Circuit in VirnetX stated that a reasonable royalty premised upon technology agreements "must account for differences in the technologies and economic circumstances of the contracting parties",[10] which is consistent with the real estate appraisal analogy used over 100 years ago in *Lauhoff*.[11] The Federal Circuit concluded that "though there were undoubtedly differences between the licenses at issue and the circumstances of the hypothetical negotiation, the jury was entitled to hear the expert testimony and decide for itself what to accept or reject,"[12] which also is consistent with the court's statement in *Lauhoff* that "the jury may take into account all the special circumstances of the situation."[13]

As another example, the Federal Circuit in Ericsson rooted its approval of the use of license agreements tied to the value of the entire product in *Garretson v Clark*, 4 S Ct 291 (1884) based on case-specific facts. In *Ericsson*, the Federal Circuit observed that under the facts and circumstances of that case, the real world license agreements took "into account the very types of apportionment principles contemplated in *Garretson*."[14]

Relative contribution

When a reasonable royalty analysis involves quantification of incremental profits attributable to the patented technology, an analysis of relative contributions may be relevant. In a number of circumstances, a licensor contributes patented technology that enables incremental profits, while the licensee contributes commercialisation of that technology. An economic analysis of relative contributions may be informative on how negotiating parties would agree to a reasonable royalty that is premised upon incremental profits, or economic gains, attributable to the patented technology. These gains may take the form of additional sales, increased prices, or reduced costs enjoyed by the infringer.

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The concept of how parties might agree to divide incremental gains from a patented technology was a key issue in *VirnetX*, with the court examining the Nash Bargaining Solution ("NBS") developed over 60 years ago by Nobel Prize winning mathematician John Nash. NBS is a mathematical model that compares the profits for each party – proceeding rationally, competently, and fully informed – in entering and not entering into a contemplated transaction.

In *VirnetX*, the Federal Circuit stayed true to the fundamental goal and evaluated whether the particular expert's implementation of the NBS was economically sound under the facts and circumstances of that case. The Federal Circuit found the expert's specific implementation of the NBS was, "akin to the '25 % rule of thumb' that we rejected in *Uniloc* as being insufficiently grounded in the specific facts of the case."[15] Specifically, the court rejected the expert's use "of the Nash theorem without sufficiently establishing that the premises of the theorem actually apply to the facts of the case at hand."[16] The court stated, "Anyone seeking to invoke the theorem as applicable to a particular situation must establish that fit."[17]

Thus, contrary to the beliefs of some commentators, the court did not find any fault with the NBS in and of itself, and did not suggest that all implementations of the NBS are economically or legally inappropriate for determining a reasonable royalty. In fact, the court acknowledged district court opinions in which the NBS was allowed where its implementation was "sufficiently tied to the facts of the case."[18] With proper economic support and analysis, the NBS thus remains fair game along with other economic approaches to evaluating the relative contribution of the patented technology to the value of the accused product.

Entire market value rule

The entire market value rule (EMVR) is a legal concept that permits a patent holder to recover damages in the form of a royalty rate applied to the sales base of the entire accused product when the patented technology is the basis of demand for the accused product.

The EMVR is frequently analysed as if negotiation over a royalty base is somehow separate from negotiation over a royalty rate. In real-world negotiations, however, a royalty rate and base are not determined separately from each other. We have previously written of a "conflict between the EMVR and real-world negotiations,"[19] which is consistent with the Federal Circuit's finding in *Ericsson* that real-world "licenses are generally negotiated without consideration of the EMVR."[20]

So how did the court in *Ericsson* address the conflict between the EMVR and real-word factual and economic considerations? By returning to a rational approach articulated in the 19th Century in *Garretson*:

[A] jury must ultimately "apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features" using "reliable and tangible" evidence. *Garretson*, 111 US at 121. Logically, an economist could do this in various ways – by careful selection of the royalty base to reflect the value added by the patented feature, where that differentiation is possible; by adjustment of the royalty rate so as to discount the value of a product's non-patented features; or by a combination thereof. *Ericsson* (Fed Cir 2014).[21]

The patentee ... must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative. *Garretson* (US 1884).[22]

"As made clear over 130 years ago in *Garretson*…the primary focus in determining reasonable royalty damages is to ascertain the economic value of the patented functionality relative to the unpatented functionality of the accused product."

The fundamental lesson

Despite increasing complexity in the commercialisation of patented technologies and products, long-standing precedent confirms that a reasonable royalty is an amount of money that can be reliably determined through applying sound economic principles to case-specific facts. As made clear over 130 years ago in *Garretson*, for example, the primary focus in determining reasonable royalty damages is to ascertain the economic value of the patented functionality relative to the unpatented functionality of the accused product.

No single specific paradigm for determining a reasonable royalty will always be appropriate under the vast variety of potential factual circumstances found in patent litigation. Attempts to draw bright line, broadly applicable rules from nuanced economic and factual distinctions often distract from the fundamental roots of all rational reasonable royalty determinations.

Following guidance from more than 100 years ago – as recently confirmed in cases such as *VirnetX* and *Ericsson* – will provide parties with a more accurate understanding of the value of patented technology in the marketplace, and ultimately a robust opinion of reasonable royalty damages to present at trial.

Footnotes

1. *United States Frumentum Co v Lauhoff*, 219 F.610 (6th Cir 1914).
2. *VirnetX, Inc v Cisco Systems, Inc,* 767 F.3d 1308 (Fed Cir 2014); *Ericsson, Inc v D-Link Systems, Inc*, 773 F.3d 1201 (Fed Cir 2014).
3. *Apple, Inc v Motorola, Inc*, 757 F.3d 1286, 1315, 1319 (Fed Cir 2014).
4. *AstraZeneca AB v Apotex Corp*, No. 2014-1221, --- F.3d ----, 2015 WL 1529181, at *7 (Fed Cir 7 Apr, 2015).
5. Id at *17 (quoting *Aqua Shield v Inter Pool Cover Team*, 774 F.3d 766, 770 (Fed Cir 2014) (quoting *Dowagiac Mfg. Co v Minn Moline Power Co*, 235 US 641, 648 (1915)).
6. *Warsaw Orthopedic, Inc, et al v NuVasive Inc,* 778 F.3d 1365, 1375 (Fed Cir Mar 2015) (same) (co-author Ryan Sullivan provided expert testimony in this case).
7. 773 F.3d at 1227.
8. Id.
9. 757 F.3d at at 1326.
10. 767 F.3d at 1330 (quoting *Finjan, Inc v Secure Computing Corp*, 626 F.3d 1197, 1211 (Fed Cir 2010)).
11. 216 F. at 616.
12. 767 F.3d at 1331 (quoting *i4i Ltd P'ship v Microsoft Corp,* 598 F.3d 831, 856 (Fed. Cir. 2010)).
13. 216 F. at 616.
14. 773 F.3d at 1228.
15. 767 F.3d at 1331.
16. Id. at 1332.
17. Id.
18. Id. at 1331-32.
19. *Rational Reasonable Royalty Damages: A Return to the Roots (November/December 2011 ABA Landslide* Volume 4, Number 2).
20. 773 F.2d at 1228.
21. Id at 1226.
22. 111 US at 291.

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