Can Existing Licenses be Used to Estimate Reasonable Royalty Damages?

Jonathan Masur

November 28, 2014

Prepared for the symposium on Governing Innovation:
The Law, Economics, and Political Economy of Patent Systems

The research question I am exploring is how courts should go about calculating reasonable royalty patent damages, and in particular whether and to what extent they should draw upon existing licenses when doing so. In the wake of the Supreme Court's 2007 decision in *eBay v. MercExchange*, which made it more difficult for prevailing patent plaintiffs to obtain injunctions, the calculation of damages for patent liability has moved closer to center stage. Renewed attention to damages calculations, both in the courts and the scholarly literature, has been driven as well by numerous high-profile cases involving notably high (or low) damages awards.[1] In some of these cases, the plaintiff and defendant are both practicing entities that produce competing products. In these cases, the judge or jury has the comparatively easier task of determining damages by estimating lost profits: how many additional sales would the plaintiff have made had the defendant not infringed its patent? However, in an increasing number of cases, the patent holder is a non-practicing entity (NPE) that does not make or sell a commercial product.[2] In those cases, the court must attempt to estimate a reasonable royalty.

Calculation of lost profits is by no means trivial, but it is nonetheless substantially more determinate and straightforward than estimating a reasonable royalty. To accomplish this latter task, a court must attempt to reconstruct a hypothetical negotiation between patent plaintiff and defendant—a negotiation that likely never took place—and determine the amount of money for which the two parties would have agreed to settle. Worse still, the legal guidance provided to courts and juries is almost comically counter-productive. When determining reasonable royalty damages, courts are instructed to consider the fifteen *Georgia-Pacific* factors, a laundry list of considerations that shed little light on the appropriate dollar figures. The Federal Circuit has (correctly) struck down more determinate types of guidance, such as the "25% rule of thumb," according to which 25% of the defendant's profits should be paid to a patent defendant as a reasonable royalty.[3] The result has been to leave courts almost entirely at sea, and at the mercy of the parties' experts, when attempting to assess damages. It is not surprising, then, that courts have largely floundered when attempting to ascertain or estimate reasonable royalties.

In the face of these difficulties, courts have increasingly turned to existing licenses, either granted by the plaintiff or paid for by the defendant, as evidence of the proper measure of damages. Reliance on existing licenses has become even more prominent in recent years.[4] At first blush this approach makes

---

[1] *See*, *e.g.*, Apple v. Samsung, 2014 WL 549324 (denying Apple's request for additur following a second trial on damages); Apple v. Samsung, 2014 WL 6687122 (setting ongoing royalty payments); Lucent v. Gateway, 580 F.3d 1301 (Fed. Cir. 2009); In re Innovatio IP Ventures, LLC Patent Litigation, 2013 WL 5593609; Apple, Inc. v. Motorola, Inc., 869 F. Supp. 2d 901 (N.D. Ill. 2012) (Posner, J.); Apple, Inc. v. Motorola, Inc., 757 F.3d 1286 (Fed. Cir. 2014).
[2] *See* Christopher A. Cotropia, Jay P. Kesan & David L. Schwartz, *Unpacking Patent Assertion Entities (PAEs)*, 99 Minn. L. Rev. (forthcoming 2014); David L. Schwartz, *The Rise of Contingent Fee Representation in Patent Litigation*, 64 Ala. L. Rev. 335 (2012).
[3] Uniloc USA, Inc. v. Microsoft Corp, 632 F.3d 1292 (Fed. Cir. 2011).
[4] *See, e.g.*, LaserDynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51 (Fed Cir. 2012) (validating the use of some licenses in determining damages and rejecting others).

sense; if the courts must reconstruct a hypothetical royalty negotiation, actual pre-existing royalty agreements might well constitute the best available evidence of the contours of such a negotiation.

But the use of existing licenses to measure reasonable royalty damages creates three significant and distinct problems. The first is that it relies upon private information available only to the parties to the first licensing agreement. Every agreement to license a patent is necessarily made in the shadow of the threat of litigation. If a patent holder had no means to enforce its patent, no licensee would pay royalties for a license. Accordingly, any negotiation over royalties will necessarily be based upon the outcome the parties should the case go to trial.[5] The parties will have to account for the possibility that the patent will be found invalid or not infringed—the possibility, that is, that the licensee will not be forced to pay anything. For instance, imagine that a patent holder (P) and a putative licensee (L_1) agree that \$20 million would be a reasonable royalty for licensing a valid and infringed patent on a particular technology. However, suppose that the parties recognize that a court is only 25% likely to hold the patent valid and infringed. The patent holder's expected outcome from trial is \$5 million (\$20 million x 25%), and the parties should be expected to negotiate a royalty based upon that amount.

Now suppose that P sues another putative infringer (L_2) for infringing the same patent and prevails at trial. Imagine that the first agreement (between P and L_1) is public information available to the court. The court cannot simply use the licensing figure from that agreement—\$5 million—when calculating damages in the P v. L_2 litigation because the parties had negotiated the \$5 million royalty with the understanding that there was some probability that the patent would not be found valid and infringed. Now that P has prevailed in its suit against L_2, that probabilistic inquiry has been resolved in favor of P. The court cannot discover the true valuation that P and L_1 placed on the patent without knowing what P and L_1 believed were their probabilities of success at trial. This is private information, unknowable to the court, and without it the court cannot use the existing license to reliably estimate the value of the patent. All it can know is that P and L_1 valued the patent—if valid and infringed—at *no less* than \$5 million.

It is easy to see that the court would err if it simply assessed \$5 million in damages against L_2. The next putative infringer, L_3, would understand that it faced liability of only \$5 million in the event that it chose to litigate against P and lost. Outside of litigation, it would be willing to pay P a royalty equal to \$5 million discounted by the probability that P will win at trial. If that probability is 50%—for instance, perhaps the patent is almost certainly valid, but L_3 may not infringe—then L_3 will be willing to pay only an amount in the range of \$2.5 million, instead of the \$10 million that L_1 would have paid under similar circumstances. The court's failure to understand that royalty agreements are discounted by the probability of success at trial artificially reduces the value of the patent. Is there a way for courts to overcome this problem without access to undiscoverable private information?

The preceding paragraphs highlight the second problem with using existing licenses to calculate reasonable royalty damages: the procedure is inevitably circular. Licensing agreements will be based upon expected damages awards at trial. If damages awards at trial are in turn based upon licensing agreements, the cat is chasing its own tail. The example in the preceding paragraphs highlights this problem. Judicial error with regard to the appropriate measure of damages will produce smaller royalty amounts outside of litigation, which will in turn lead to lower judicial calculations of damages, which will then beget even smaller royalty payments outside of litigation, and so forth. Is there a judicial way out of this chicken-and-egg problem?

---

[5] *See* William M. Landes, *An Economic Analysis of the Courts*, 14 J.L. & Econ. 61 (1971); Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. Legal Stud. 399 (1973); *see also* John P. Gould, *The Economics of Legal Conflicts*, 2 J. Legal Stud. 279 (1973).

The third problem stemming from the use of existing licenses is common to any setting in which a contract between two parties, A and B, will affect the rights of a third party, C. A and B will always have an incentive to distort their contract so as to maximize their joint gains against C. For instance, suppose that P understands that the licensing agreement it reaches with L_1 will affect the damages it obtains in litigation against L_2 or the royalty it can negotiate with L_3. P has a strong incentive to inflate the value of its agreement with L_1, perhaps in exchange for providing L_1 with something else of value. In the most crass scenario, P and L_1 might agree to license the patent for more than it is worth in exchange for an unreported side payment from P to L_1. But even if parties do not behave quite so nefariously, P might still attempt to include other valuable services—technical advice, access to its employees, unnamed future considerations, and so forth—in the licensing deal in order to inflate the price. Courts will have to be vigilant in policing licensing agreements for extraneous considerations if they plan to use those agreements to estimate damages. But if courts are too particular in requiring that an agreement include nothing but a license to use a patented technology, they may find few existing licenses that can serve as a sound basis for calculating damages.

In light of these problems, the question is what role existing licenses should play in judicial damages calculations. It would seem counter-productive to throw away information regarding patent valuations when such information is so scarce to begin with. But without some means of accounting for the context within which licenses are negotiated, there is doubt as to whether existing licenses can provide reliable evidence of reasonable royalty damages.