Justice Department Agrees IEEE’s New RAND Policy Isn’t Price Fixing

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The Department of Justice (DoJ) announced on 2 February 2015 that it will not challenge an IEEE proposal to modify its RAND (reasonable and non-discriminatory) policy on the licensing of standard-essential patents (SEPs). On 8 February, the IEEE Board of Directors voted to approve this policy update.

Under the new policy, IEEE addresses (with varying success) four aspects of the problems in licensing SEPs:
- What is a “reasonable” royalty?
- What terms are nondiscriminatory?
- To what extent should injunctions be available in RAND cases?
- Can a reciprocal cross-license be demanded?

IEEE had requested a business-review letter from the DoJ granting a “clearance” that would put to rest concerns that some people had expressed in the past that any IEEE “concerted action” in regard to royalty rates might be considered illegal price fixing (see the “Patent Maximalists Claim IEEE Engages in Collusive Agreement in Restraint of Trade” sidebar). The effect of the letter from the DoJ is to clarify that the DoJ does not intend to prosecute the proposed conduct of IEEE as an antitrust violation.

Background

For many years, it has been IEEE policy to ask the owners of patents covering technology that IEEE contemplated incorporating into an IEEE standard, such as 802.11 on Wi-Fi, to voluntarily provide IEEE with a letter of assurance (LOA). An LOA would state either that the patentee will allow royalty-free licensing of SEPs to implementers of the standard or that the patentee will offer implementers of the standard a license of SEPs on RAND terms. The LOAs did not mention what constituted RAND terms. In fact, for many years it was IEEE policy to have nothing to do with terms and conditions of licenses so that, among other reasons, it could not be accused of restraining trade.

Patent owners have no obligation to provide an LOA. Its absence, however, is a factor that the IEEE committee or working group formulating a standard will consider in deciding whether to base the standard on the patented technology, and which IEEE expressly has stated that it “will take into account when considering whether to approve the draft standard.” In fact, IEEE standards committees seldom embody patented technology into a standard when no LOA is forthcoming. Because it is a considerable business advantage for a company to have a standard incorporate its patented technology, LOAs are hardly ever refused. Usually, the benefits to a company from having a type of product standardized on the company’s technology far outweigh theoretical lost royalty revenue.

In 2007, IEEE adopted a patent policy that expressly permitted (but did not require) a patent owner to disclose its proposed maximum rates and other terms. IEEE had adopted this policy because its previous policy was just too vague to be effective. But the 2007 policy did not work. In a statement to the DoJ, IEEE later said that it had found that a mere “RAND commitment is inherently vague” (www.justice.gov/atr/public/busreview/request-letters/311483.pdf).

As a result:

It can lead to expensive litigation whose cost and risk can impede the adoption of a socially valuable standard. Even where a license negotiation does not result in litigation, the negotiation of license terms ... in negotiations occurring after a technology’s inclusion in a standard ... increases the patent-holder’s market power (potentially to the point of monopoly), can lead to higher royalty payments, and ultimately higher prices to consumers.

In actual practice, the 2007 policy was, IEEE said, “insufficient to deal with the broad problem of uncertainty over the meaning of ‘reasonable rates’ for SEPs.” Because the policy did not require royalty rate disclosure, 95 percent of owners of SEPs subject to the policy did not disclose what would be the “reasonable” rates they would demand. Manufacturers of IEEE standard-compliant products and SEP owners took “widely divergent positions” on what were “reasonable rates” for the SEPs. For example, in several cases relating to IEEE’s 802.11 standard, the patent owner and the implementing manufacturers were “several orders of magnitude apart in their respective valuations of the
Patent Maximalists Claim IEEE Engages in Collusive Agreement in Restraint of Trade

Typical of the opposition to IEEE’s effort to overcome present difficulties in licensing patents essential to the implementation of standards is a comment that Criterion Economics filed with the Justice Department (www.criterioneconomics.com/proposed-ieee-bylaw-amendments-affecting-fraud-licensing-of-seps.html). Criterion’s business is providing litigants with expert testimony on antitrust liability and damages in antitrust and patent infringement cases, including RAND controversies (www.criterioneconomics.com/expertise.html). The company urged the DoJ not to issue a clearance letter stating that the DoJ did not intend to sue IEEE under the antitrust laws for adopting the new policy.

According to Criterion, “The IEEE’s proposed amendments are an agreement in restraint of trade that would coordinate the actions of buyers of patent licenses under SEPs to reduce the price they pay for a valuable input. Far from deserving a positive business review letter, the new policy will constitute a reasonable royalty rate or a valuable input. Far from deserving a positive business review letter, the new policy constitutes a reasonable royalty rate or a valuable input. Far from deserving a positive business review letter, the new policy constitutes a reasonable royalty rate or a valuable input. Far from deserving a positive business review letter, the new policy constitutes a reasonable royalty rate or a valuable input. The Antitrust Division of the DoJ has urged that standard-setting organizations should consider taking steps to “eliminate some of the ambiguity that requires difficult [after the fact] deciphering of the scope of a F/RAND commitment.” The Federal Trade Commission urged clarification of RAND requirements. Additional clarity on a framework for determining FRAND royalties would benefit industry stakeholders and consumers alike. Greater clarity on the terms of a FRAND license is likely to facilitate private negotiations and limit the need to seek a third-party determination of a FRAND rate.

What is a reasonable royalty?
The new IEEE policy takes a stab at providing some additional guidance on RAND beyond the cryptic 2007 policy. The new policy first defines what a “reasonable royalty” is to mean for purposes of an LOA and then identifies three nonexclusive factors appropriate to consider in determining what rate is reasonable. The core of the new policy is as follows (www.justice.gov/atr/public/busreview/request-letters/311483.pdf):

‘Reasonable rate’ [shall mean] appropriate compensation to the patent holder for the practice of an Essential Patent Claim excluding the value, if any,
Recent Lawsuits over What Is RAND for a SEP

- In re Innovatio IP Ventures, LLC Patent Litigation, No. 11-C-9308, 2013 WL 5595809, at *12 (N.D. Ill. Oct. 3, 2013). The patentee contended that the RAND royalty rate was, on average, approximately $3.39 per access point, $4.72 per laptop, up to $18.17 per tablet, and up to $36.90 per barcode scanner or other inventory tracking device. The manufacturer contended that the RAND royalty should be from 0.72 cents to 3.09 cents per chip.

- Microsoft Corp. v. Motorola Inc., No. C10-1823, 2013 WL 2111217, at *87, *99 (W.D. Wash., April 25, 2013). The patentee contended that Microsoft's RAND royalty was between $5.00 and $8.00 per Xbox unit. The manufacturer contended that the RAND royalty was between 3 cents and 6.5 cents per unit.

- Ericsson Inc. v. D-Link Sys., Inc., No. 6:10-CV-473, 2013 WL 4046225, at *18 (E.D. Tex. Aug. 6, 2013). The patentee contended that RAND was a $0.50 per unit royalty. The manufacturer contended that a proper RAND royalty rate would be "pennies or fractions thereof" per unit.

- Apple Inc. v. Motorola Mobility, Inc., No. 11-CV-178-bbc, 2012 WL 7989412, at *2 (W.D. Wis., Nov. 8, 2012). The patentee contended that the RAND royalty rate was 2.25% per unit. The manufacturer contended that the RAND rate was no more than $1 for each Apple device.

resulting from the inclusion of that Essential Patent Claim's technology in the IEEE Standard." In addition, determination of such reasonable rates should include, but need not be limited to, the consideration of:

- The value that the functionality of the claimed invention or inventive feature within the Essential Patent Claim contributes to the value of the relevant functionality of the smallest saleable Compliant Implementation that practices the Essential Patent Claim.

- The value that the Essential Patent Claim contributes to the smallest saleable Compliant Implementation that practices the claim, in the value contributed by all Essential Patent Claims for the same IEEE Standard practiced in that Compliant Implementation.

- Existing licenses covering use of the Essential Patent Claim, where such licenses were not obtained under the explicit or implicit threat of a Prohibitive Order, and where the circumstances and resulting licenses are otherwise sufficiently comparable to the circumstances of the contemplated license.

The provisions of the new patent policy statement about the meaning of RAND will be read into all future LOAs as defining terms, such as "reasonable," and rights of SEP owners and their licensees, as well as the meaning to be given RAND commitments.

The definitional paragraph focuses on what is not appropriate compensation—"excluding the value, if any, resulting from the inclusion of that ... technology in the IEEE standard." It corresponds to court decisions that a patent holder is not entitled to latch on to the value created by the IEEE standardization process—the creation of a technical standard with which everyone in the industry will have to comply in order to make a standard-compliant product that will be compatible with other products in the field and thus be commercially acceptable. The Federal Circuit recognized this concept in its recent Ericsson v. D-Link decision (see the Jan./Feb. 2015 Micro Law column). The court said that "the patentee's royalty must be premised on the value of the patented feature, not any value added by the standard's adoption of the patented technology." By stating this expressly as part of the meaning of the LOA, the new IEEE policy makes the matter quite clear and forecloses disputes about it. (Such a dispute occurred in GPNE Corp. v. Apple, Inc., in which the court rejected an expert's testimony on damages. His testimony was that "Apple had no ability to design around GPNE's patents and sell devices [iPhones] that connected to cellular networks, because the patents were essential to compliance with the standard; therefore, "in order to compete in the marketplace, Apple [smartphone] products needed to be compliant with the standard") and "GPNE had the power to 'hold up' Apple, giving it considerable negotiating leverage based on the scope of its intellectual property rights," so that Apple would have to pay at least the rather high $1 royalty per iPhone to be able to do business. The court rejected the analysis as impermissible.)

The first of the nonexclusive factors introduces the idea of the smallest compliant implementation. The idea here is to avoid a royalty base that is greater than what is attributable to the invention. For example, if the invention is a semiconductor chip that performs a particular function, the IEEE policy does not want the royalty to be charged as a percentage of the whole computer or smartphone in which the chip is a component. On the other hand, if the patent is on a circuit in a chip, the chip price will be the royalty base, because the circuit is not sold except as part of a chip or other electronic product.

There is a problem, however, that could permit patentees to game the system. The language used is directed (unavoidably) toward the patent claim in the SEP—"the smallest saleable compliant implementation that practices the
Tweaking the Policy Update

Perhaps the problem of gaming the system with patents on "exhausted combinations" could be overcome by adding some further language to the first bullet item in the introduction of the main article. Consider the hypothetical case of a $500 smartphone containing a $50 chip in which one of 25 patented circuits is located. These 25 circuits each contribute 2% of the value of the chip. By hypothesis, the patented circuit of interest contributes $1 to the value of the chip and the smartphone. Let us assume, however, that the patent holder has three patents: Patent 1 claims the circuit. Patent 2 claims the chip containing the circuit, and Patent 3 claims the smartphone containing the chip that contains the circuit. The patent holder gives IEEE a letter of assurance (LOA) making Patent 3 available on a RAND basis. What is the RAND royalty under the new IEEE patent policy?

As a matter of patent law, the smallest saleable unit that practices (that is, infringes) the patent of the LOA is the patented $500 smartphone. The $50 chip does not infringe the patent of the LOA, although it might contributorily infringe it. (Suppose, as with the microprocessors of the Quanta case, the chip is good for nothing else but incorporation into the smartphone; then it will contributorily infringe Patent 3. But technically it will not infringe it and thus practice the invention as claimed in Patent 3. If the chip has noninfringing uses, it will not even contributorily infringe Patent 3.) The circuit neither infringes Patent 3 nor is a saleable compliant implementation, because you cannot sell the circuit as such. The patent holder will therefore demand a modest percentage of $500 as the RAND royalty.

Even though the licensed patent is Patent 3, the concept that IEEE sought to establish is surely that the invention is the circuit or at most the chip, and that the proper RAND royalty is a modest percentage of $1 or at most $50—not $500.

Suppose we add some further language to the first bullet item, in effect redefining "practice" to mean something more than infringe the claims of the licensed patent. The italicized words are the addition.

The value that the functionality of the claimed invention or inventive feature within the essential patent claim contributes to the value of the relevant functionality of the smallest saleable compliant implementation that practices the essential patent claim, where for purposes of this paragraph to practice an essential patent claim includes indirect as well as direct infringement and includes the manufacture, sale, or importation of a product with knowledge that it will be used to make, use, or sell the patented invention.

Further tweaking may be needed to address process or method claims of patents.

essential patent claim. " When a combination X of elements is claimed, present patent law permits the claim drafter to claim the invention as a larger combination Y of which the invention's claim X is a subset. For example, if I invent a new carburetor that makes it possible for cars to get 100 miles per gallon, I could write my patent claim as an engine combined with a carburetor or even as a car containing an engine to which the carburetor is attached. Now, what is claimed is the car, and the royalty base is greatly inflated.

There used to be a patent law doctrine called the exhausted combination rule, which prohibited this stratagem, but the Federal Circuit abolished the exhausted combination rule some years ago. For a detailed discussion of the interaction between the exhausted combination rule and the exhaustion doctrine, see the Nov/Dec. 2006 Micro Law column. In the Quanta case, the patentee (LGE) had an inventive circuit and patents both on microprocessors containing the circuit and on otherwise conventional computers containing such microprocessors. In an extreme application of this stratagem, a German inventor named Papst invented a new kind of motor; he then obtained patents on the motor and also on an otherwise conventional disc drive containing the new motor. This led to litigation when disc drive manufacturers without licenses from Papst bought licensed motors and incorporated them into their disc drives.

There is nothing to stop a patent holder nowadays from inventing a circuit in a microprocessor chip and then patenting it as a microprocessor containing the circuit or as a computer containing the chip containing the circuit. This provision in the updated IEEE patent policy therefore might not work as planned. Further refinement may be needed (see the "Tweaking the Policy Update" sidebar).

The second of the nonexclusive factors seeks to establish a rough relative weighting or balance among the various SEPs for the implementation of a standard. Because each SEP is essential, ordinarily no one SEP is entitled to the lion's share of the total reasonable royalty. This provision also seeks to address the problem of royalty stacking. The sum of the individual reasonable royalties for a product implementing the standard may be more than the traffic will bear. Thus, the royalties can "stack" to a commercially unacceptable level.

In the case of patent pools, such as the Moving Picture Experts Group (MPEG) pool, the value of having a standard and consequent interoperability is substantial enough for those in the industry who are contributing patents to the pool that they are willing to reduce their royalty demands proportionately in order to make standardization possible. They are more interested in being able to manufacture a standardized interoperable product than in monetizing their patents. Their main orientation is toward manufacturing, not collecting patent royalties. Such pool members, in effect, "collude" to lower their respective patent licensing prices to a level that will allow the pool and the standard to operate. The necessity for such benign collusion to permit
standardization patent pooling to work has led the DoJ to grant business review clearances to MPEG and similar patent pooling organizations. They agree to have a neutral expert maintain royalties at a level that will permit implementers of their standard to stay in business and to distribute the royalties among the patent owners in a fair allocation. The DoJ considered this collusion to be a reasonable restraint of trade.

But the second bullet item does not contemplate such a pooling arrangement. Carrying out the second bullet item successfully will therefore be very difficult. Without an organized pool, we are left with a game theory problem—the Hobbesian trap or prisoner’s dilemma (see http://en.wikipedia.org/wiki/game_theory). Moreover, the sense of self-restraint that causes those who create a standard to moderate their tendencies to maximize royalty exactions often vanishes when a successor takes over the ownership of a SEP. That is a common occurrence and can lead to a spiral of stacking.

This aspect of the new IEEE patent policy is a step in the right direction, but it is unlikely to curb the rapacious demands that have characterized recent RAND litigation. Probably, nothing short of a patent pool able to license at one reasonable royalty all of the SEPs needed for implementation of a standard can protect against continued RAND litigation. The IEEE policy does not prevent those who establish a new IEEE standard from also forming a patent pool, as the companies forming the MPEG standard did. But neither does the policy do anything to encourage that. Like the 2007 IEEE policy, therefore, the 2015 policy may be insufficient in itself to cure all the problems it set out to cure.

The third of the nonexclusive factors calls for consideration of other licenses as benchmarks. However, only those previous licenses are to be considered that were not negotiated under an explicit or implicit threat of patent infringement litigation and a resulting injunction. This group of licenses is likely to be a null class. Still, making the statement that previous licenses negotiated under a coercive threat are not proper benchmarks for reasonable royalties is helpful. It is a worthwhile clarification.

What terms are nondiscriminatory?

The new policy makes it clear that manufacturers of components and sub-assemblies that go into standard-compliant devices are entitled to RAND licenses. Essentially, if the patent owner could sue them for infringement or contributory infringement or induced infringement, then they need and can ask for a RAND license. Presumably, a RAND royalty on a chip is lower than the RAND royalty on a smartphone or computer containing the chip. Thus, the DoJ said in its clearance letter to IEEE that “the royalty rate need not necessarily be the same at all levels of production.” How this provision will interact with the exhaustion doctrine is unclear. In the Quanta case, the Supreme Court held that the exhaustion doctrine made the sale of a licensed microprocessor chip act as a license on the patented computer for which the chip was designed. However, very careful drafting of the license to the chip manufacturer may overcome the problem for a multistore licensing program. But both IEEE’s letter to the DoJ and the DoJ’s clearance letter to IEEE gloss over the problem (see the “Tiered Licensing” sidebar).

To what extent should injunctions be available in RAND cases?

Recent federal decisions have tended to deny injunctions (orders prohibiting continued manufacture and sale of the allegedly infringing product) on SEPs subject to a RAND license requirement. The reasoning is that because the patentee has agreed to license the patent, monetary damages are an adequate remedy and no injunction is justifiable. Injunctions are appropriate only when monetary damages will not be an adequate remedy. (For example, in Apple Inc. v. Motorola, Inc., the Federal Circuit denied an injunction and stated that the patentee’s FRAND commitments “strongly suggest that money damages are adequate to fully compensate for any infringement.”) Consistent with that, the new IEEE policy states that companies agreeing to the IEEE RAND commitment “shall neither seek nor seek to enforce a prohibitive order ... unless the implementer fails to participate in, or to comply with the outcome of, an adjudication” in the court system.

This provision takes injunctions off the table as a bargaining tactic (“pay what I say or I’ll put you out of the market for standard-compliant devices”) to obtain higher royalties. Critics of IEEE’s policy complained that eliminating injunctions reduces the bargaining power of patentees, leads to lower royalty revenues, and therefore will decrease companies’ willingness to invest in research that will produce innovation. This argument misconceives the purpose of injunctive relief. The purpose is not to produce increased financial rewards for patent owners, but to protect them from injury that cannot be repaired by awarding money damages to them.

Can a reciprocal cross-license be demanded?

SEP owners sometimes demand a cross-license from a company requesting a RAND license on a SEP. When the cross or reciprocal license is on a different SEP for the same standard, that is reasonable and the IEEE policy recognizes that the demand is proper. But when a SEP owner demands a license on a patent that is not a SEP for the same standard, the demand is unreasonable and can be anticompetitive. If the non-SEP is a feature that differentiates its owner’s product, it would interfere with legitimate competition to take away the second patent owner’s exclusive rights in its innovation. Therefore, the IEEE policy prohibits SEP owners from requiring applicants for RAND licenses to yield up licenses on patents that are not essential to the same standard.
Tiered Licensing

The hypothetical licensing conundrum has been posed by critics of IEEE’s new policy and its letter of clearance by the DoJ: Suppose a power-saving feature called Power Super Saving (PSS) mode is incorporated into a hypothetical 802.11xx. Both smartphones and desk PCs must contain PSS functionality to be standard-compliant, even though the PCs draw their power from wall sockets and don’t need the functionality. The Wi-Fi microprocessor chips for smartphones and PCs alike must contain a standard, patented PSS circuit hardwired into them in order to comply with 802.11xx. Therefore, all 802.11xx Wi-Fi microprocessor chips infringe the patent, no matter what end-use device they go into. How do you determine the RAND royalty for these chips?

- Is the RAND royalty rate the same for all of the microprocessor chips?
- Should the microprocessor manufacturer ask device-manufacturer customers what their end use will be and charge them different prices depending on whether they are making mobile cell phones or stationary desktop PCs?
- Should the microprocessor manufacturer tool up for and sell different models for the mobile and stationary device markets?

The underlying problem here is the assumed facts of the hypothetical case. It is hypothesized that IEEE is so boneheaded as to require all standard-compliant devices to have hardwired into them the patented PSS circuit, instead of permitting it to be implemented with software that the smartphone or PC manufacturer installs or to be mandatory only in mobile devices. That would let microprocessor manufacturers make one type of chip and leave it up to the end-use device manufacturers to deal with the issue, which they can more readily do because they know what they are manufacturing.

But let’s assume that IEEE is as inflexible as the critics assume in framing their hypothetical. Probably the best solution would be for the patentee to grant the microprocessor manufacturer for a nominal fee a limited-field license only to make chips containing the patented circuit, but not to use them or sell them for use in other devices, such as smartphones, it being expressly understood by the parties that a separate tier license will be made available to smartphone manufacturers and other end-use device manufacturers desiring to include the PSS functionality in their devices. Presumably, that RAND royalty rate will be different for smartphones and PCs. (It would be all right also to grant the chip manufacturer a cheap license to use and sell for use in the field of stationary or nonmobile devices.) If the microprocessor chip manufacturers do not have a license to use the chips in end use devices, they cannot pass an implied license along to their customers via the exhaustion doctrine—if Alice doesn’t own Blackacre, she can’t sell it to Bob.

The magic words that make all the difference here require explicitly withholding any license to chip manufacturers in the field of chip use, especially in the field of mobile device use. (I discussed this kind of licensing language in an earlier Micro Law article.) The Supreme Court’s opinion in Quanta emphasized the patentee LGE’s failure in drafting as the reason that the patentee lost the case: “The License Agreement [from LGE] authorized Intel to sell products that practiced the patents. No conditions limited Intel’s authority to sell products substantially embodying the patents. … Intel’s authorized sale to Quanta thus took its products outside the scope of the patent monopoly, and as a result, LGE can no longer assert its patent rights against Quanta.”

References and Notes

1. See General Talking Pictures Corp v. Western Electric Co., 304 U.S. 175, 182 (1938) (upholding as legitimate field-of-use limitations on scope of patent licenses to make and sell amplifiers only in “non-commercial” field), aff’d on rehe’g, 305 U.S. 124 (1938).

The Justice Department’s View of Its Role

In its announcement, the DoJ said, “The Department’s task in the business review process is to advise the requesting party of the Department’s present antitrust enforcement intentions regarding the proposed conduct. It is not the Department’s role to assess whether IEEE’s policy choices are right for IEEE as a standards-setting organization (‘SSO’). SSOS develop and adjust patent policies to best meet their particular needs. It is unlikely that there is a one-size-fits-all approach for all SSOS. … Other SSOS, therefore, may decide to implement patent policies that differ.

The Department has analyzed whether the [revised IEEE policy] … will harm competition by anticompetitively reducing royalties and thereby diminishing incentives to innovate. The Department has concluded that such harm is unlikely to occur. … Further, to the extent that there are any potential competitive harms, the Department concludes that the [new IEEE policy]’s potential procompetitive benefits likely outweigh those harms.”

course, the parties remain free to negotiate voluntary such licenses.

Finally, it should be emphasized that submittal of an LOA and making a RAND commitment are voluntary. Patent owners participate in the program because they believe that the advantages to them make it worthwhile. The DoJ’s clearance letter states only that the DoJ’s present intention is not to sue. The clearance does not bind third parties or courts, and a future administration can change its mind and bring an enforcement action if it decides the program is harming competition. The DoJ’s letter to the letters (see the "The Justice Department’s View of Its Role" sidebar).

References and Notes

1. The most notable exception, and the only one of which I am aware, was involved in Commonwealth Scientific and Industrial Research Organisation v. Cisco Systems, Inc., 2014 WL 3805817 (E.D. Tex. July 23, 2014), a case now on appeal before the Federal Circuit. CSIRO owns an ‘069 patent, the technology of which was incorporated into 802.11a in 1999; Cisco acquired a RAND license under the ‘069 patent for products compliant with 802.11a. IEEE in 2003 revised 802.11a as 802.11g. CSIRO provided an LOA for 802.11a but CSIRO declined to give IEEE any LOA for 802.11g or for any other revisions of 802.11e. IEEE did not change the standard to remove the ‘069 patent’s technology. Apparently, it was locked into the technology by then. This may suggest that IEEE should make LOAs cover devices compliant with the proposed standard and any revision thereof.


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