Negotiating Royalty or Other License Terms Before the Standard Is Set

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Everyone has heard the saying "You get what you pay for." When a patent is included in a standard, however, the Standards Development Organization (SDO) and would-be implementers of the standard have learned a variation on the old saying: "you have already gotten what you haven't yet paid for, and now it's time to negotiate." The promise of *ex ante* disclosures and negotiations is that the price and other material terms for use of an essential patent can be established (or at least capped) *before* the SDO and implementers have "bought" the technology by including it in the standard. Implementers (at least as they are represented by the SDO) will be able to make a conscious choice between price and quality.

I. Essential Patents and RAND Assurances

A standard achieves its purpose by establishing a defined pathway to reaching a technological outcome. For example, a standard might specify a particular technology for computers to communicate with one another, or a common technology for external media, such as CDs or DVDs. The result is that companies can produce more and better products at lower cost, and consumers can enjoy the benefits. As the U.S. Department of Justice and Federal Trade Commission observed:

> Industry standards are widely acknowledged to be one of the engines driving the modern economy. Standards can make products less costly for firms to produce and more valuable to consumers. They can increase innovation, efficiency, and consumer choice; foster public health and safety; and serve as a "fundamental building block for international trade." Standards make networks, such as the Internet and wireless telecommunications, more valuable by allowing products to interoperate. The most successful standards are often those that provide timely, widely adopted, and effective solutions to technical problems.[2]

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[2] U.S. Department of Justice and the Federal Trade Commission, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition 33 (April 2007), *available at* http://www.usdoj.gov/atr/public/hearings/ip/chapter_2.pdf (hereinafter "IP & Competition Report").

A. Essentiality

In the last two decades, however, SDOs have become increasingly aware of the importance of patents and the role they play in fostering or hindering the adoption of standards. Depending on one's view, one might either say (i) that patents have become increasingly (and perhaps unjustifiably) common and have created artificial barriers to progress, or (ii) that by providing greater legal protection (and thus more secure returns on investment in research and development), more favorable attitudes toward patents have expanded the available technological alternatives and thus have benefited producers and consumers alike.

In either event, SDOs have had to recognize that there may be patents that are "essential" to implementation of their standards. The essentiality may be literal (that is, there is no other technological alternative for implementation of the standard) or commercial (that is, there is no economically viable alternative).[3] Thus, a standard's implementer must either seek a license from the patent holder, bring an action to establish invalidity or non-infringement (assuming that the legal prerequisites for such a a suit can be met), or proceed with implementation and take the litigation risk of a potentially valid and infringed patent.

B. Patent Declarations and RAND Assurances

Standards organizations vary in their degree of openness to the "knowing" inclusion of a patented technology in their standards.[4] Some SDOs are willing to include a patented technology in their standards and permit the patent-holder to seek a "reasonable" royalty.[5] Other

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[3] See, e.g., U.S. Department of Justice Business Review Letter to RFID Consortium LLC (Oct. 21, 2008), *available at* http://www.usdoj.gov/atr/public/busreview/238429.htm ("The Consortium's definition of essentiality encompasses not only patents "necessarily" essential to the standard (i.e., inevitably infringed by compliance with the standard), but also essential to the standard as a practical matter because there are no economically viable substitutes for the patents (i.e., not reading on the standard itself but nonetheless required to manufacture a competitive product compliant with the standard, due to production or design costs, consumer preferences, or other reasons). In prior letters, the Department has determined that such a definition, if applied scrupulously and independently, will exclude economically viable substitutes from the pool.") (footnotes omitted).

[4] The quotation marks signify that the knowledge is not certain, because patents are inherently probabilistic. A patent may be strong, moderate, or weak (when measured, for example, against obviousness or prior art), and the infringement question may be close or not close (in either direction). Until the patent's validity is litigated and the enforceable scope of its claims is established, one cannot know whether there is a property right and how far it extends. One can be reasonably confident, however, that if a patent-holder participating in a standards development effort claims that it holds an essential patent then that patent-holder is highly likely to assert the patent, and implementers will have to decide whether to pay or litigate.

[5] *See generally* ANSI Patent Policy (rev. ed. 2008), *available at* http://publicaa.ansi.org/sites/apdl/Reference%20Documents%20Regarding%20ANSI%20Patent%20Policy/ANSI%20Patent%20Policy%20-%20Revised%202008.pdf ("no objection in principle to drafting an American National Standard (ANS) in terms that include the use of an essential patent claim (one whose use would be required for compliance with that standard) if it is considered that technical reasons justify this approach" and if patent holder has provided a RAND or RAND-z declaration).

SDOs are willing to include a patented technology in their standards but only if the patent-holder agrees to grant a royalty-free license (or agrees not to assert the patent).[6]

The difficulty with a RAND requirement is that it leaves open for later determination exactly what "reasonable" means. In its most serious form, this has become known as the "hold-up" problem. The *DOJ/FTC IP & Competition Report* describes the problem (as in turn described to it by various panelists) as follows:

> Panelists reported that after a standard has been adopted and switching to an alternative standard would require significant additional costs, the holder of a patent that covers technology needed to implement the standard can force users of the technology to choose between two unpleasant options: "You either don't make the standard or you accede to the — I don't want to say blackmail, but that's [what it] tends to be in that environment." Anointing a patented technology as the standard improves the bargaining position of the owner of the needed technology in licensing negotiations because "[i]f you are the owner of one of the rights to one of those many equally valuable [technologies], then it is the standard-setting process that will reduce the substitution, possibly eliminate the substitutes, and elevate your technology to [be] the most valuable."[7]

In other words, including a patented technology in a standard privileges that patent. The result is that the patent-holder may have greater ability to extract royalties than if the license terms had been negotiated before the patented technology was included in the standard. This leads to the question: why not negotiate the license terms before choosing between technologies, and since the decision to include the technology is a group decision, why not have a group negotiation? And if not a group negotiation, why not at least a disclosure to the group of the patent-holder's maximum or "not to exceed" terms?

II. Justice Department and FTC Views on Ex Ante Negotiations

The U.S. Justice Department and Federal Trade Commission have provided useful guidance on the antitrust analysis to be applied to joint ex ante negotiations for technology to be included in a standard. The recent guidance began with a speech by then-Chairman of the FTC Deborah Majoras. She analogized the decision to include a technology as being similar to a group purchase decision and stated that joint ex ante negotiations should be judged under the Rule of Reason:

[6] *See*, *e.g.*, *W3C Patent Policy* (Feb. 5 2004), *available at* http://www.w3.org/Consortium/Patent-Policy-20040205/ ("In order to promote the widest adoption of Web standards, W3C seeks to issue Recommendations that can be implemented on a Royalty-Free (RF) basis. Subject to the conditions of this policy, W3C will not approve a Recommendation if it is aware that Essential Claims exist which are not available on Royalty-Free terms.")

[7] IP & Competition Report, *supra*, at 37-38.

> [J]oint ex ante royalty discussions that are reasonably necessary to avoid hold up do not warrant per se condemnation. Rather, they merit the balancing undertaken in a rule of reason review. We would apply the rule of reason to joint ex ante royalty discussions because, quite simply, they can be a sensible way of preventing hold up, which can itself be anticompetitive. Put another way, transparency on price can increase competition among rival technologies striving for incorporation into the standard at issue. They may allow the "buyers" (the potential licensees in the standard-setting group) to get a competitive price from the "sellers" (the rival patentees vying to be incorporated into the standard that the group is adopting) before lock in ends the competition for the standard and potentially confers market power on the holder of the chosen technology.[8]

The guidance continued in two business review letters (discussed below) and in the *DOJ/FTC IP & Competition Report*. In that report, the agencies reiterated there are "procompetitive reasons" for SDOs "to broaden *ex ante* competition between technologies beyond the traditional selection criteria, such as technical merit" and that "*ex ante* knowledge about licensing terms could help mitigate hold up that is not resolved in the first instance by the existence of SSO rules requiring disclosure of IP or by requirements that SSO members license on RAND terms."[9] Because of these considerations, the agencies stated that they would evaluate ex ante negotiations under the Rule of Reason, using these guidelines:

> First, an IP holder's voluntary and unilateral disclosure of its licensing terms, including its royalty rate, is not a collective act subject to review under section 1 of the Sherman Act. Further, a unilateral announcement of a price before "selling" the technology to the standard-setting body (without more) cannot be exclusionary conduct and therefore cannot violate section 2.
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> Second, bilateral ex ante negotiations about licensing terms that take place between an individual SSO member and an individual intellectual property holder (without more) outside the auspices of the SSO also are unlikely to require any special antitrust scrutiny because IP rights holders are merely negotiating terms with individual buyers.
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> Third, per se condemnation is not warranted for joint SSO activities that mitigate hold up and that take place before deciding which technology to include in a standard. Rather, the Agencies

[8] Chairman Deborah Platt Majoras, Federal Trade Commission, *Recognizing The Procompetitive Potential Of Royalty Discussions In Standard Setting* 7-8 (Remarks Prepared For Standardization And The Law: Developing The Golden Mean For Global Trade, Sept. 23, 2005, Stanford University), available at http://www.ftc.gov/speeches/majoras/050923stanford.pdf.

[9] IP & Competition Report, *supra*, at 53-54.

> will apply the rule of reason when evaluating joint activities that mitigate hold up by allowing the "buyers" (members of the SSO who are potential licensees of the standard) to negotiate licensing terms with the "sellers" (the rival IP holders) before competition among the technologies ends and potentially confers market power (or additional market power) on the holder of the chosen technology. Such joint activities could take various forms, including joint ex ante licensing negotiations or an SSO rule that requires intellectual property holders to announce their intended (or maximum) licensing terms for technologies being considered for adoption in a standard.[10]

III. The VITA Experience

In January 2007, the VITA Standards Organization (VSO) formally adopted a patent policy that not only required patent-holders to disclose potentially essential patents but also required the member/patent-holder to declare the maximum royalty that it would seek. This section explores the background of the policy and reports on the experience under the first two years of the policy.

A. VITA and VSO

VSO is the standards-development arm of VITA. VITA is a non-profit organization of vendors and users who have a common market interest in real-time, modular embedded computing systems. Founded in 1984, VITA believes in and champions open system architectures as opposed to proprietary system architectures. VITA's activities are international in scope. The functions performed by VITA are technical, promotional and user related and are aimed at increasing the total market size, providing vendors additional market exposure and providing users with timely technical information.

B. VITA Policy

The VITA policy requires that each working group member disclose the existence of all potentially essential patents and patent applications "owned, controlled, or licensed by the VITA member company" that the working group member represents "are known by the WG Member . . . after the WG Member has made a good faith and reasonable inquiry into the patents and patent applications the VITA Member."[11] The policy also requires that the member agree to grant any implementer a license on FRAND terms.[12] More relevant here, the policy also includes a *mandatory* disclosure of maximum terms: "Each WG Member must declare the maximum royalty rate for all patent claims that the VITA Member Company he or she represents (or its Affiliates) owns or controls and that may become essential to implement the Draft VSO

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[10] Id. at 54-55.

[11] VITA Patent Policy § 10.2.1, *available at* http://www.vita.com/disclosure/VITA%20Patent%20Policy%20section%2010%20draft.pdf.

[12] Id. §10.3.2.

Specification."[13] The policy also encourages (but does not require) submission of a draft license agreement for all essential patent claims. While the member is not *required* to submit a license agreement, the policy sets a default rule for certain key terms; if the member does not submit a draft license agreement specifying other terms, then the member is prohibited from including a grantback, reciprocal license, non-assert provision, covenant not to sue, or defensive suspension provision that is broader or more restrictive upon licensees than the VITA default terms.[14]

C. Justice Department Business Review Letter

On October 30, 2006, the U.S. Department of Justice issued a Business Review Letter ("BRL") regarding VITA's new patent policy. The letter offered some of the same themes that Chairman Majoras had enunciated in her Stanford address and that would later appear in the *DOJ/FTC IP & Competition Report*. For example, the Justice Department noted that before a particular technology is chosen, "working group members often can choose among multiple substitute technological solutions, some of which may be patented," but once a particular technology is chosen and the standard is adopted, "it can be extremely expensive or even impossible to substitute one technology for another." [15] The result is that potential implementers "may be willing to license a patented technology included in the standard on more onerous terms than they would have been prior to the standard's adoption in order to avoid the expense and delay of developing a new standard around a different technology."[16]

The Justice Department recognized that a requirement that patent holders "disclose their most restrictive licensing terms in advance could help avoid this outcome by preserving the benefits of competition between alternative technologies that exist during the standard-setting process." The reason for this is that advance disclosure would permit working group members to consider not only the relative technical merit of competing technologies, but also to "compare the most restrictive licensing terms associated with each alternative technology, including freely-available public domain technologies, when deciding which technology to support for inclusion in the draft [standard]."[17] The Justice Department certainly did not maintain that cheaper solutions were better; rather, the disclosure policy permitted a working group to decide that "a cheaper, less technologically elegant solution would be best or they might determine that it is worth including the proffered technological elegance even on the most restrictive terms declared by the patent holder."[18] The disclosure policy "decrease[d] the chances that the standard-setting efforts of the working group will be jeopardized by unexpectedly high licensing demands from the patent holder."[19]

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[13] Id. §10.3.2.

[14] Id. §10.3.2.

[15] Business Review Letter from Hon. Thomas Barnett to Robert Skitol, Esq. at Part IV (October 30, 2006) (available at http://www.usdoj.gov/atr/public/busreview/219380.htm) ("VITA BRL").

[16] Id.

[17] Id.

[18] Id.

[19] Id.

The DOJ concluded that the VITA policy was "a sensible effort to address a problem that is created by the standard-setting process itself" and that implementation of the policy "should preserve, not restrict, competition among patent holders."[20] The DOJ stated that it therefore had no intention to raise an antitrust challenge to the policy.

D. Experience with Policy[21]

The policy was formally adopted policy in January 2007. Implementation began shortly thereafter, but the ANSI review process continued through May 2007. Every year, each member must sign a contract committing to abide by VITA policies (which includes the Ex Ante Policy). Members have various anniversary dates, but at this point all members (previous and new) have signed such contracts. Thus, VITA has about two years' experience with its Ex Ante Policy.

1. Number of Disclosures

During the approximately two years following the policy's adoption, VITA received five disclosures of potentially essential patents. All five of the disclosures included a declared maximum royalty rate. All five disclosures also included attached a sample license. In other words, VITA had a 100% compliance rate with both the mandatory and optional disclosure provisions.

2. Effects on Membership

During consideration of the Ex Ante Policy's adoption, there were dire predictions that VITA would lose members if it moved forward with the proposed policy. The opposite has proved true: VITA's membership has been steadily growing. VITA has acquired approximately 20 new members since the policy's adoption, and it has lost only a handful. Of these, most were lost because of mergers or acquisitions between members. Only one member's departure can be linked to the Ex Ante Policy, and that was the most vocal opponent to the policy's adoption.[22] It is impossible to determine, at least on this data, whether the growth in membership resulted from the increased protection provided by VITA's new patent policy or from industry growth or from other factors. But what can be said is that the evidence definitely does not support the inverse proposition (that a policy more protective of implementers will lead to loss of members).

3. Revisions and Negotiations

Does an ex ante disclosure policy lead to "rounds" of disclosures, similar to the rounds of bidding one might see in an auction? Or do patent holders tend to stick with the first price they put out?

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[20] Id.

[21] Unless otherwise indicated, the information in this section is drawn from an interview of VITA's executive director Ray Alderman conducted on March 13, 2009.

[22] The member (Motorola) later sold the business to another company. The buyer (Emerson) was not a member and has not joined VITA since the acquisition, but its business is not focused in VITA's area (primarily military equipment).

Under the VITA policy, the declaration of maximum royalty is irrevocable. A member/patent-holder is permitted to submit a revised declaration, but the revision will supersede the previous declaration only if the subsequent declaration "is less restrictive upon prospective licensees than the former Declaration. Otherwise, the former Declaration continues to apply."[23]

In VITA's case, only one of the five submitters of license terms has submitted a revised sample license, and the revision was on a non-monetary (though economically significant) provision. The company had included what other members of the group evidently considered an overly broad "defensive termination" provision. After reading the provision, representatives of those other member companies discussed the issue with the patent-holder. When that did not resolve the difference, the member companies filed formal complaints with VITA, saying the provisions were neither fair nor reasonable. VITA and its counsel discussed the matter with the patent-holder, who reconsidered its position and removed the clause.

This episode was not a formal group negotiation. Indeed, the policy expressly forbids group negotiations: "The negotiation or discussion of license terms among WG Members or with third parties is prohibited at all VSO and WG meetings."[24] VITA was careful not to be an overseer of what is fair and reasonable. In this instance, VITA acted more as a resource for resolving issues, facilitating the delivery of the multiple, separate complaints – and facilitating the resolution of the issue.[25] The net result was that the working group was able to move forward after removal of a roadblock.

E. Efficiency and Time to Market

Another learning that VITA's policy has yielded is that the earlier that patents are disclosed in the standard-development process, the earlier the parties can start negotiations – meaning that differences can be resolved earlier. VITA's executive director believes that the early disclosure of patents and mandatory declaration of maximum royalties (and early declaration of other terms more restrictive than the default terms) has speeded up the process by 20%. In essence, the policy takes some risk out of the process and permits members to do their costing earlier. In VITA's case, implementers will often be required to provide customers with price quotes for compliant products before the standard becomes final. The early and mandatory disclosure of permits implementers to make more accurate and reliable price quotes. In the longer term, VITA's executive director believes that this will lead to earlier and more widespread adoption of VITA standards.

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[23] VITA Patent Policy, *supra*.

[24] VITA Patent Policy, *supra*.

[25] The VITA Patent Policy, however, does contemplate the possibility of member complaints that a member / patent-holder has not complied with its obligations under the policy. The policy creates a mandatory arbitration procedure for such circumstances, but it also encourages informal resolution of complaints before arbitration – which is what happened in the episode discussed in text.

IV. The IEEE Experience

Around the same time that VITA adopted its new patent policy, the IEEE also adopted a new patent policy. Like the VITA policy, the IEEE policy addresses the issue of declaration of maximum terms. Although that provision was certainly important, it was by no means the new policy's only innovation (and not necessarily the most controversial). The IEEE policy differs from the VITA policy in a number of ways, but most relevant here is the fact that declaration of maximum royalties is voluntary, rather than mandatory.

A. IEEE and IEEE Standards Association ("IEEE-SA")

The IEEE is a New York not-for-profit organization as described in section 501(c)(3) of the Internal Revenue Code of 1986, and it is the world's leading professional association for the advancement of technology. The IEEE has well over 350,000 members from across the globe. The IEEE-SA is an operating division of the IEEE, and it is the leading developer of global industry standards in a broad range of electro-technical subjects, including: power and energy, biomedical and healthcare, information technology, telecommunications, transportation, nanotechnology, and information assurance. For over a century, the IEEE-SA has offered an established standards development program based on balance, openness, due process, and consensus. The IEEE-SA is accredited by the American National Standards Institute (ANSI).

B. The IEEE Policy

The IEEE-SA seeks to become aware of potentially essential patents as early in the process as feasible through inquiry to all participants in its working groups. At the beginning of every working group meeting, the chair displays a slide set that states the IEEE-SA's patent policy, and he or she invites every participant to disclose patents or patent applications (or identify the patent holders or applicants) that the working group member believes may be essential for implementing the proposed standard. Disclosure of pertinent information is welcome even before the inquiry is made.

Once a working group participant discloses a potentially essential patent or patent application or identifies a possible holder/applicant for such a patent, the working group chair will ask the holder to state its intentions as to licensing. The IEEE-SA policy permits the known use of essential patents (and patent applications), but only if the IEEE-SA receives the patent-holder's or applicant's assurance that either (a) the patent-holder or applicant will not enforce any of its present or future essential patent(s) against any person complying with the standard; or (b) the patent-holder or applicant will make available a license for such implementation without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination (RAND — i.e., reasonable and non-discriminatory). This assurance is irrevocable once submitted and accepted, and it applies from the date of the standard's approval to the date of the standard's withdrawal.[26] While the IEEE-

[26] The policy clarified the binding effect of the assurance on the submitter's affiliates. An assurance binds the submitter's affiliates unless the submitter identifies affiliates that it does not wish to bind. This was intended to address the problem that can arise when potentially essential patents are held by a corporate affiliate other than the submitter itself. Without this provision, an assurance from one affiliate might offer a false sense of security concerning a patent held by another affiliate.

SA cannot compel a patent-holder to provide an assurance, the absence of an assurance is a factor that the IEEE-SA will take into account when considering whether to approve the draft standard. The document through which this assurance is provided is commonly referred to as a Letter of Assurance ("LoA").

The IEEE's new policy permits and encourages (but does not require) the optional and unilateral ex ante disclosure of royalty rates and other license terms. The LoAs (including attached disclosures) are made available on the IEEE-SA website.[27] Working group members are permitted to make copies available at working group meetings, but discussion of the specific terms of the disclosure cannot occur at IEEE-SA standards development meetings.[28] The disclosed terms will be the maximum that the patent holder will charge; nothing prevents the patent holder submitting a letter with different terms, but the original Letter of Assurance will still be in effect. The idea is that the patent-holder has the flexibility to offer alternative terms, but the potential licensee is permitted to "choose from among the alternative assurances offered" (that is, to decide which terms are more favorable from that potential licensee's perspective).[29]

C. The IEEE Business Review Letter

Like VITA, the IEEE requested a Business Review Letter from the U.S. Department of Justice. The Justice Department's letter[30] built on the foundation established in the VITA BRL, but it added provided some additional analysis relevant to cost discussions and joint negotiations. The Justice Department noted that the IEEE policy permitted working group discussion of relative licensing terms:

> IEEE-SA working group members will have access to all accepted LOAs, but working group members will not discuss specific licensing terms at standards-development meetings. Working group members, may, however, discuss the relative costs of the proposed technological alternatives, and these costs may include the relative costs of licensing the essential patent claims needed to implement the technologies under consideration.[31]

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[27] *See IEEE-SA Records of IEEE Standards-Related Patents, available at* http://standards.ieee.org/db/patents/index.html.

[28] The IEEE has published explicit guidance on how Letters of Assurance can be used in meetings. *See Understanding Patent Issues during IEEE Standards Development Patented technology in IEEE standards, available at* http://standards.ieee.org/board/pat/faq.pdf. FAQ #40 deals with this topic. Additional guidance is found in *Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy, available at* http://standards.ieee.org/resources/antitrust-guidelines.pdf.

[29] *IEEE-SA Standards Board Operations Manua*l § 6.3.4, *available at* http://standards.ieee.org/guides/opman/sect6.html#6.3.

[30] Business Review Letter from Hon. Thomas Barnett to Michael Lindsay, Esq. (April 30, 2007), *available at* http://www.usdoj.gov/atr/public/busreview/222978.htm.

[31] Id.

The Justice Department noted that although the prohibition on cost discussions also prohibited joint negotiations of licensing terms within standards development meetings, the discussions that were permitted "could, in certain circumstances, rise to the level of joint negotiation of licensing terms."[32] The IEEE had not requested the Justice Department's views on joint negotiations that might take place inside or outside such standards development meetings or IEEE sponsored meetings, however, and the Justice Department accordingly declined to provide them.

D. Experience With Policy

The IEEE's policy does not appear to have affected the total number of Letters of Assurance received. In the almost two years since the policy's adoption in 2007, the IEEE has received almost half again as many letters of assurance as it had received in the two years before the policy's adoption.[33] Whether the IEEE would have received fewer or Letters of Assurance had the new policy not been adopted cannot be definitively determined from this data, but certainly the substantial increase in letters received does not suggest any diminution of interest.

The primary use that parties have made of the new policy is the opportunity to disclose non-royalty terms, such as reciprocity or defensive suspension.[34] Although the author has identified at least one Letter of Assurance that declared a proposed maximum royalty rate,[35] the author has not identified any situation in which two or more proponents seeking to cause a standard to include the proponent's fundamental technology have used the IEEE policy to compete on maximum royalty terms. As before the policy's adoption, however, most of the letters are "blanket" letters of assurance – that is, the letters that do not identify specific patents but assure that if the patent-holder has any essential patents, licenses will be made available on RAND terms.[36]

A question that these facts suggest is why have there not been more disclosures of proposed maximum royalty rates? Several possible explanations might exist:

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[32] Id.

[33] From June 2005 to March 2007, IEEE received 162 Letters of Assurance. From June 2007 to March 2009, IEEE received 238 Letters of Assurance.

[34] See, e.g., Letter of Assurance from Fujitsu Ltd. (Sept. 20, 2007), *available at* http://standards.ieee.org/db/patents/loa-802_11g-fujitsu-20Sep2007.pdf; Letter of Assurance from Alcatel Lucent (Feb. 25, 2009), *available at* http://standards.ieee.org/db/patents/loa-802_21-alcatel-25feb2009.pdf.

[35] *See* Letter of Assurance from Visible Assets, Inc. (Sept. 20, 2008), *available at* http://standards.ieee.org/db/patents/loa-1902_1-visible-20Sep2008.pdf.

[36] See, e.g., Letter of Assurance from Atheros Communications, Inc. (), *available at* http://standards.ieee.org/db/patents/loa-802_11h-atheros-24Jul2007.pdf; Letter of Assurance from Qualcomm Inc. (Feb. 19, 2009), *available at* http://standards.ieee.org/db/patents/loa-802_11ad-qualcomm-19feb2009.pdf; Letter of Assurance from Ciscso Systems, Inc. (June 24, 2008), *available at* http://standards.ieee.org/db/patents/loa-802_3ba-cisco-05Jun2008.pdf.

1. Royalty declarations may be likeliest to be offered on fundamental technologies (where the proponent is highly likely to hold essential patents and where costs may be a larger consideration), and there simply have not been many occasions for choices between fundamental technologies.

2. The policy may not yet have been communicated sufficiently widely.

3. There may not be enough SDOs with similar policies. In the absence of similar policies in other organizations, patent holders may not feel sufficiently comfortable with the idea of declaring maximum rates, or may not have developed the expertise to be able to make such declaration relatively early in the standards development process.

4. Patent holders may not want to start what they perceive as a price war against rival technologies. This might suggest that only a mandatory royalty-declaration policy will produce a significant number of declared maximum royalties. (This is not to say that such a policy should necessarily be adopted, because there are policy considerations on the other side as well.)

5. Patent-holders may still prefer one-to-one discussions of royalties. Nevertheless, it may be that the new possibility of public royalty declarations makes patent-holders more willing to hold the one-to-one discussions.

6. The IEEE's guidelines for cost-discussions in working groups may not provide enough incentive for patent-holders to declare maximum rates because they do not feel they can gain enough advantage relative to other proposals (where rates are not disclosed) to warrant the commitment.

This list of possible explanations certainly is not complete, and the available information is not sufficient to form any final conclusions. Nevertheless, an episode from the IEEE's past demonstrates the value of maximum royalty declarations. Some aspects of the episode were widely discussed in 2008, because the episode gave rise to the FTC consent decree in *In the Matter of Negotiated Data Solutions LLC.*[37] Employees of National Semiconductor Corporation ("National") were members and active participants in the IEEE's 802.3 Working Group. In 1994, National proposed that the 802.3 Working Group adopt its autonegotiation technology, referred to as "NWay," into the Fast Ethernet standard. National disclosed that it had already filed for patent protection for the technology. Several other participants also had developed competing technologies. The Working Group considered several alternatives (each with advantages and disadvantages compared to NWay), as well as the possibility of adopting the Fast Ethernet standard without any autonegotiation feature.

At the time, the IEEE's written patent policy neither prohibited nor expressly permitted a party to declare a proposed royalty rate. The policy in effect in 1994 permitted the inclusion of

[37] FTC File No. 051 0094 (docket available at http://www.ftc.gov/os/caselist/0510094/index.shtm). The facts in this discussion are drawn from the FTC's *Analysis Of Proposed Consent Order To Aid Public Comment* (Jan. 23, 2008), *available at* http://www.ftc.gov/os/caselist/0510094/080122analysis.pdf.

patented technology, if there was a technical justification for it and if the patented technology, and only if "the patent holder agrees to nondiscriminatory licensing at reasonable rates."[38] Guidelines also stated that a patented technology could only be included if "Adopting such technology is not in itself prohibitively costly or noncompetitive to a substantial part of the industry"[39] and if the patent holder provided "a draft of their license that assures that the technology will be made available at nominal competitive costs to all who seek to use it for compliance with an incorporated IEEE standard."[40] (The IEEE Standards Companion noted, however that a working group "should not become involved in determining a reasonable free for use of [a] patent or any other condition that the patent holder may impose."[41])

Representatives of National publicly announced that if NWay technology were chosen, National would license NWay to any requesting party for a one-time fee of $1,000. National's subsequent letter stated:

> In the event that the IEEE adopts an autodetection standard based upon National's NWay technology, National will offer to license its NWay technology to any requesting party for the purpose of making and selling products which implement the IEEE standard. Such a license will be made available on a nondiscriminatory basis and will be paid-up and royalty-free after payment of a one-time fee of one thousand dollars ($1,000).[42]

Based on National's licensing assurance, and following its normal balloting and voting procedures, IEEE incorporated NWay technology into the Fast Ethernet standard, which IEEE published in final form in July 1995.

The bar's discussion of the consent decree has focused on the proper scope of (and limits on) the FTC's authority under Section 5 of the FTC Act.[43] Fascinating though that has been, there has been little discussion of the seemingly obvious background fact: namely, that this case illustrates the role that price competition and the disclosure of maximum royalties (or, in this case, an actual royalty) can play in assisting an SDO in selecting one technology over another. National came in with a price for its technology, and it worked. National's action provided a definite rate and thus removed all uncertainty as to what a "reasonable" royalty might be, and National's technology was chosen.

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[38] IEEE Standards Board Bylaws § 5 (Dec. 1993).

[39] IEEE Standards Operations Manuals (1994) § 6.3.1.

[40] Id. § 6.3.2.

[41] The IEEE Standards Companion – Lessons Learned About the Standards Process 16 (1995).

[42] Letter of Assurance from National Semiconductor to 802.3 Working Group Chair (June 7, 1994), *available at* http://standards.ieee.org/db/patents/loa-802_3u-natl-semi-07Jun1994.pdf.

[43] Federal Trade Commission Act, 15 U.S.C. § 45

The successors to National's patent (Vertical Networks and N-Data), however, declined to honor the commitment.[44] As the FTC observed, however, "if N-Data's conduct became the accepted way of doing business, even the most diligent standard-setting organizations would not be able to rely on the good faith assurances of respected companies."[45] If a patent holder could dispose of its patents free of any commitment to SDOs, the patents might "make their way to others who are less interested in honoring commitments than in exploiting industry lock-in."[46] The consent decree stands for the proposition that licensing commitments are binding upon the company that makes the commitment and on its successors in interest.

V. Golden Bridge

One recent appellate decision has some implications for joint ex ante negotiations. In *Golden Bridge Technology, Inc. v. Motorola, Inc.*,[47] Golden Bridge owned patents on certain technology that had been included as an optional component in a standard published by Third Generation Partnership Project ("3GPP"), a non-profit standards development organization. In 2004, various members wanted to simplify the 3GPP standard by removing old and unused technologies, and two members presented a proposed feature clean-up list. Golden Bridge's technology was not on the list, but at a later meeting (that Golden Bridge did not attend), one member proposed adding it. No one objected, so the Working Groups added it to the list, which was preliminarily approved at a later meeting (that Golden Bridge did not attend). The list (including removal of Golden Bridge's technology) was received final unanimous approval (at yet another meeting that Golden Bridge did not attend). Golden Bridge alleged that the defendants – members of 3GPP – had "conspired with each other to remove [Golden Bridge's Technology] from the 3GPP standard, resulting in the unlawful exclusion of GBT from the market."

The Fifth Circuit's opinion focused on whether there was sufficient evidence of an agreement to exclude Golden Bridge from the market, and much of the discussion dealt with whether the evidence was direct or circumstantial. But two parts of the opinion are significant for ex ante negotiations. First, near the end of its opinion the court recognized the value of standards and SDOs and the importance of communication in the standards-development process: the informal communications that Golden Bridge pointed to "are an important part of the standard setting process, and . . . the 3GPP standards are beneficial to the market."[48] More generally, "Potential procompetitive benefits of standards promoting technological compatibility include facilitating economies of scale in the market for complementary goods, reducing consumer search costs, and increasing economic efficiency."[49] The Court also recognized that a

[44] Analysis of Proposed Consent Order To Aid Public Comment at 3-4.

[45] Statement of The Federal Trade Commission (Jan. 23, 2008), in In the Matter of Negotiated Data Solutions LLC, File No. 0510094, available at *http://www.ftc.gov/os/caselist/0510094/080122statement.pdf*.

[46] Id.

[47] 547 F.3d 266 (5^{th} Cir. 2008).

[48] 547 F.3d at 273.

[49] Id.

"a standard setting organization must exclude some products, and such exclusions are not themselves antitrust violations."[50]

Second, the court rejected Golden Bridge's argument that the defendants had a motive to conspire in order to avoid the payment of royalty fees for using Golden Bridge's technology. The court based its rejection on two grounds. First, none of the defendants had ever paid royalties to Golden Bridge. Second, the Golden Bridge technology was an optional feature, and each defendant could avoid royalty payments simply by opting not to use this feature. What is slightly troubling about the opinion, however, is that the court did not seem to recognize that members might perceive a royalty as being unreasonably high and decide for that reason to remove the technology from the standard. The perception of unreasonableness could derive from independent negotiations, joint negotiations, the patent holder's unilateral announcement, or other sources, but in any event, members could legitimately decide to exclude a technology because the royalty demand was too high. That is not a "conspiracy to exclude" anyone, it is simply a natural aspect of a group purchase decision. The court, however, had multiple grounds for its decision, so its opinion on this topic is only a missed opportunity.

VI. Conclusion

Inclusion of patented technology in a standard without first determining the price is a thorny problem. Rules that try to get more price transparency may have unintended consequences or may not achieve their objectives, but failure to address the issue leaves implementers vulnerable to hold-up. SDOs, implementers, patent-holders, and the lawyers who counsel them should continue both to experiment with new approaches and to determine the results of policies that SDOs adopt to deal with the issue.

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[50] Id.