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## FEATURE ARTICLE

### EX ANTE DISCLOSURE: RISKS, REWARDS, PROCESS AND ALTERNATIVES

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**Abstract:** *Ex ante disclosure of licensing terms, including cost, is being actively discussed today in a variety of standard setting organizations (SSOs), with strong opinions on both sides of the issue being offered in what at times has been a heated debate. In this article, I attempt to place this controversy in context by describing ex ante alternatives, the antitrust issues involved, and the alternative mechanisms that can, more appropriate, be employed instead to achieve similar results. I also suggest that ex ante disclosure presents no greater an antitrust challenge than has often been successfully addressed in the past in the course of implementing other changes to SSO intellectual property rights policies and procedures. I conclude by proposing that the standard setting community should embrace, perfect, and when appropriate, add prudently designed process steps to enable ex ante disclosure of relevant patent claims in order to increase the likelihood of issuing commercially viable.*

It would be a strange result if antitrust policy is being used to prevent price competition.

*U.S. Assistant Attorney General Hewitt Pate<sup>1</sup>*

**Introduction:** On June 27 and 28 of 2005, representatives of five of the largest technology companies in the world met with senior members of the U.S. Department of Justice and the Federal Trade Commission. Those five companies were Apple, Cisco, Hewlett-Packard, IBM and Sun Microsystems, and their common objective in seeking an audience with the top antitrust regulators in the country was to encourage the federal authorities to offer public support for so-called *ex ante* disclosures of patent licensing terms in accredited and unaccredited standard setting organizations (SSOs).

"Ex ante" is the Latin phrase that antitrust lawyers and economists use to describe discussions of licensing terms that occur "beforehand" in the standard setting process, as compared to *ex post*, or "afterwards." The point in time to which both relate is the formal adoption of a standard, and the significance of such timing is that disclosures made prior to adoption can be taken into account in creating a standard, while those that follow cannot.

While the owner of a patent claim that would necessarily be infringed by implementing a standard (a "Necessary Claim") has long been encouraged or required in many SSOs to disclose *ex ante* whether it would commit to license the Necessary Claim on "reasonable and non-discriminatory" (RAND) terms, it has almost never been required to disclose the specifics (e.g., the royalty rate) of such a license. Those discussions today only occur outside the SSO (usually *ex post*) on a one-on-one, confidential basis between the owner of the Necessary Claim and the would-be implementer. In some SSOs, *ex ante* disclosures of licensing terms within the standard setting process are specifically prohibited.

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<sup>1</sup> Pate, R. Hewitt, *Competition and Intellectual Property in the U.S.: Licensing Freedom and the Limits of Antitrust*. 2005 EU Competition Workshop (June 3, 2005), p. 10, at

<<http://www.usdoj.gov/atr/public/speeches/209359.pdf>>, accessed June 27, 2006.

The primary reason for avoiding all but the most general *ex ante* disclosures has been trepidation over the possibility of violating the antitrust laws - or even being unsuccessfully charged with such a violation, given the high cost of defending such a charge.<sup>2</sup> Moreover, the available penalties for antitrust infractions include not only treble damages and payment of the opposition's attorney fees, but criminal penalties for individuals as well. Given that such discussions in SSOs by their nature are among competitors, sometimes comprising the great majority of the "market power" in a given situation under the antitrust laws, the legal counsel of those involved have been understandably leery of permitting their companies to risk crossing over a line which is at best blurred.

At the same time, there are also costs to avoiding such discussions, most obviously when a member that has promised a RAND license does not make the size of its required royalty known until well after the marketplace has become "locked in" to that standard through wide adoption – and then demands what implementers believe to be an exorbitant fee, resulting in the marketplace being "held up," in the parlance of economists and antitrust experts.

A hold up situation can be still worse, when multiple patent owners each assess royalties or other fees. In such a case, the result can be the total (or near total) failure of the standard setting process, as in the case of the 3GPP telecommunications standard. That unhappy specification, by multiple accounts,<sup>3</sup> is encumbered by royalty obligations that exceed 100% of the nominal price of the products it enables.<sup>3</sup> In the face of such stark realities, those impacted understandably go in search of a solution, especially in those industry sectors where participants believe that the frequency of hold ups is increasing.<sup>4</sup>

The solution that the five companies that met with the antitrust authorities in the summer of 2005 proposed was that a greater degree of tolerance should be shown for, at minimum, the disclosure by owners of Necessary Claims of the economic and other licensing terms that they would require from implementers. Absent such knowledge, they contended, those that set standards are incapable of creating the most "economically efficient" standards: i.e., the specifications that provide the best balance between technical excellence and total cost of implementation. This would especially be so when multiple technical avenues (each with different Necessary Claims that are offered at different costs, and are owned by different SSO members) are available to achieve the same desired result, and when deciding whether to make a given feature mandatory or optional in a compliant implementation.

The topic of the June meetings between the technology companies and the regulators was not random. Rather, discussions (sometimes heated) over whether or not to permit *ex ante* discussions were already under way in multiple venues, including the Patent Policy Working Group of the American National

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<sup>2</sup> High sensitivity to antitrust liability relating to intellectual property rights licensing is in some respects a hangover from the 1970s, during which the Department of Justice Antitrust Division took a severe view of some licensing practices (and particularly, what came to be referred to as the "Nine No-Nos") that are today regarded as procompetitive. See Pate, *supra*, pp. 1-2.

<sup>3</sup> Lindsay, Michael A., *Report on Meetings with Justice Department and Federal Trade Commission* (Memorandum to IEEE and All Parties interested in Potential IEEE Patent Policy Issues), Dorsey & Whitney LLP (November 16, 2005), p. 2, at < [standards.ieee.org/board/pat/1205patagen\\_5-5.pdf](http://standards.ieee.org/board/pat/1205patagen_5-5.pdf)>, accessed June 26, 2006.

<sup>4</sup> In the case of 3GPP, multiple companies each filed complaints with the European Commission against Qualcomm, the owner of some of the patents in question, alleging anticompetitive conduct. As of this writing, the European Telecommunication Standards Institute (ETSI) is considering imposing either an *ex ante* disclosure requirement, or a royalty cap, when it approves the next generation of a 3GPP-based radio standard, to be called Long Term Evolution, or LTE. Mobile operators, a powerful group within ETSI, are particularly exercised, and initially urged ETSI to impose a cap of 5% on patent royalties for WCDMA equipment. Absent such a cap, the mobile industry could spend US \$80-100 billion in royalties between now and 2017, by one estimate. See: *ETSI acts on unfair, unreasonable and discriminatory IPRs*, Informa Telecoms and Media (March 1, 2005), at < <http://www.informatm.com/itmgcontent/icom/s/press-releases/20017339276.html;jsessionid=8677D344F6C61C8D1D377B5788EBAF0E>>, accessed June 27, 2006.

Standards Institute (ANSI), the Patent Committee of the Institute of Electrical and Electronics Engineers Standards Association (IEEE-SA) and the European Telecommunication Standards Institute (ETSI).<sup>5</sup>

The result of that meeting and other input from the marketplace was a speech by FTC Chairman Deborah Platt Majoras, delivered on September 23, 2005 via pre-recorded video to a conference held at Stanford University.<sup>6</sup> In that speech, Chairman Majoras sought to reassure the marketplace that, while no blank check would be written for competitors to negotiate licensing terms, the antitrust authorities did recognize the potential value of *ex ante* disclosures and discussions, and would employ the "rule of reason" if called upon to assess such conduct. Under that rule, regulators balance the pro-competitive benefits that can be anticipated from the behavior in question with any anticompetitive impact that could also result. Broadly speaking, if the former outweighs the latter, then the practices in question are held not to violate applicable law.<sup>7</sup>

With that encouragement, the debate over *ex ante* disclosures broadened and deepened, but did not become any less difficult. In fact, the debate has become more heated, since a breakthrough on *ex ante* disclosures now seems within the realm of possibility.<sup>8</sup> Many lengthy email debates have been waged in consequence on list-serves hosted by the American Bar Association Section of Science and Technology, ANSI, IEEE and elsewhere. These debates have sometimes assumed an all or nothing, black or white dynamic, making agreement on any actual plan of action extremely difficult to reach.<sup>9</sup>

As of this date, the discussions in several venues have matured to a point where it is useful to anticipate what the first changes to SSO intellectual property rights (IPR) policies to accommodate *ex ante* disclosures are likely to be. While these changes are apt to be modest rather than radical, they nonetheless provide a public proving ground that will demonstrate – or disprove – the value of *ex ante* disclosure, thus providing a model for other SSOs to evaluate in considering whether or not to modify their own IPR policies and rules of procedure.

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<sup>5</sup> According to the Lindsay memorandum, *supra*, the five companies had requested the meeting with the antitrust regulators in part because one proposal before the ANSI Patent Policy Working Group would, if incorporated into ANSI rules, prohibit *ex ante* disclosures. See Lindsay, p. 2. Another motivation was to reengage with the antitrust regulators following the public, joint hearings that the DOJ and the FTC had held in 2002, at which representatives of a number of the five companies had testified. The FTC later issued a report based on those hearings, but the DOJ report has yet to be released; the DOJ continues to promise that it will be issued. [Private communication with meeting participant.] The FTC report and related press releases and other material may be found at: < <http://www.ftc.gov/opp/intellect/>>, accessed June 29, 2006.

<sup>6</sup> Majoras, Deborah Platt, *Recognizing The Procompetitive Potential of Royalty Discussions in Standard Setting*. Policy statement delivered at Standardization and the Law: Developing the Golden Mean for Global Trade, Stanford University (September 23, 2005), at: < [www.ftc.gov/speeches/majoras/050923stanford.pdf](http://www.ftc.gov/speeches/majoras/050923stanford.pdf)>, accessed June 27, 2006

<sup>7</sup> Or, as has been more turgidly stated by the regulators, the Rule of Reason assesses whether "the relevant agreement likely harms competition by increasing the ability or incentive profitably to raise price above or reduce output, quality, service, or innovation below what likely would prevail in the absence of the relevant agreement." U.S. Department of Justice & Federal Trade Commission, *Antitrust Guidelines for Collaborations among Competitors* (April 2000), 4 Trade Reg. Rep. (CCH) P.13,161, at 20.852, at < [www.ftc.gov/os/2000/04/ftcdojguidelines.pdf](http://www.ftc.gov/os/2000/04/ftcdojguidelines.pdf)>

<sup>8</sup> Some *ex ante* critics, perhaps most notably Richard S. Taffet, of Bingham McCutchen LLP, have advised extreme caution nonetheless regarding *ex ante* disclosures. See, for example, multiple entries by Taffet in this email thread hosted by the IEEE: <<http://grouper.ieee.org/groups/pp-dialog/email/msg00125.html>>, accessed Jun 28, 2006. Others, such as Michael Lindsay, counsel to the IEEE and the author of the June 2005 memorandum summarizing the meetings with the DOJ and the FTC, take a braver approach, as exemplified by this quote from the same IEEE email thread: "[W]e can't very well ignore the real risks of today based on the fear that we *might* see the return of the 'Nine No-Nos' (or, heaven forbid, disco, leisure suits, and other artifacts of the 1970s)." (March 22, 2006)

<sup>9</sup> The IEEE thread cited in the previous footnote, though it provides a more decorous example of exchanges in the ongoing debate, nonetheless includes single emails that are 1,600 words or more in length. Some other threads on the same topic have come closer to recalling the Dan Ackroyd/Jane Curtin "Point-Counterpoint" skits of the early years of Saturday Night Live.

At the same time, it is important to note that permitting *ex ante* discussions is only one tool that can be used to approach, or indeed to surpass, the same goal of achieving satisfactory results. In this sense, the *ex ante* debate is to some degree of greater significance to accredited standards development organizations (SDOs) rather than consortia, since the latter have engaged in a greater degree of experimentation in licensing and disclosure requirements than most of the former, and the members of consortia have often been willing to accept a more stringent set of requirements as regards Necessary Claims than has traditionally prevailed in SDOs.<sup>10</sup>

As a result of this experimentation, there exists a variety of alternative mechanisms that SDOs and other SSOs can consider in addition to *ex ante* disclosures in order to achieve not only greater predictability of outcome, but also lower final cost to implementers, and therefore end-users and other consumers. The *ex ante* disclosure mechanism should therefore be seen as an important addition to the standard setting toolkit, but not as the only tool available to achieve the same ends, nor as the final and ultimate refinement of the SSO process.

In this article, I will review the context within which the *ex ante* debate is occurring, the range of *ex ante* techniques that can be considered, and the first IPR policy modifications that are likely to see the light of day.<sup>11</sup> I will also review the currently available alternative mechanisms (as well as some variations that I will propose) that SSOs may wish to consider that represent less radical (and in some cases more dramatic) changes to their IPR policies and procedures that may provide meaningful relief while incurring limited risk and not unduly burdening the standard setting process.

## I. The current system

**The problem with RAND:** The most frequent, and perhaps most imperfect, example of *ex ante* disclosure in use today is the commitment to license Necessary Claims on "reasonable and non-discriminatory terms."<sup>12</sup> While simple in concept, this phrase has many shortcomings in practice. Most significantly, the words "reasonable" and "non-discriminatory" have no precise meaning, in part because some that participate in the development of SSO policies have resisted defining these terms more precisely.<sup>13</sup> The concept of a "reasonable" royalty or other fee is particularly problematic. Is a royalty "reasonable" if it is based upon the monopoly value that inclusion in a standard can convey, or should the reasonableness of the royalty be based upon its value on a non-inclusion basis? Similarly, where multiple Necessary Claims, owned by multiple owners, are infringed by a single standard, is the royalty demanded by an individual owner of a Necessary Claim "reasonable" only if the total of all royalties relating to the standard does not exceed what the market will bear?

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<sup>10</sup> For many years, SDOs have endorsed the concept that the availability of patent protection spurs innovation, and have therefore sought to achieve a balance in IPR policies between honoring the rights of patent holders and seeking the development of standards that are not unduly encumbered by patent-related restrictions and costs. ANSI states this principle as follows: "There is no objection in principle to drafting a proposed American National Standard in terms that include the use of a patented item, if it is considered that technical reasons justify this approach." ANSI Essential Requirements: Due process requirements for American National Standards, Section 3.1, January 2005 Edition, at <<http://www.itl.nist.gov/biometrics/Requirements0405.doc>>, accessed June 30, 2006.

<sup>11</sup> Current discussions regarding *ex ante* disclosure within IEEE, and to a lesser extent ETSI, will be the examples most frequently used in the discussion that follows. Where statements of fact or summaries of the direction of discussions are included without attribution to a public source, they are based upon private conversations between the author and individuals that are closely involved in the process in question.

<sup>12</sup> Variations on the acronym include FRAND (with the "F" standing for "fair"), which is more frequently used in Europe than in the United States. Section 3.1(b) of the ANSI Essential Requirements, *infra*, includes the following slightly expanded formulation that is therefore picked up in the IPR policies of many ANSI accredited standards development organizations: "A license will be made available to applicants under reasonable terms that are demonstrably free of any unfair discrimination." It is not clear that a court would find any meaningful difference between the various ways of expressing the same concept that are in current use.

<sup>13</sup> Personal experience of the author in moderating the creation of c. 30 IPR policies for consortia. Inclusion of even the most basic definitions of these terms has consistently been objected to by a sufficient number of participants in each drafting committee to thwart such an inclusion.

A further difficulty is that the terms of the actual licenses entered into between the owner of a Necessary Claim(s) and any individual implementer are likely to be confidential, especially if a royalty is involved.<sup>14</sup> How then is one implementer to know whether it has in fact been granted "non-discriminatory" terms? And even if the terms agreed upon in all cases were to be known, would both the licensor and the licensee agree on whether the facts were comparable in two different licenses, after all volume, underlying cross-license, non-economic license terms, and other variables had been taken into account?<sup>15</sup> Moreover, antitrust regulators in the United States are loath to become involved in disputes over whether or not a given royalty is too high. As one regulator cautioned:

Bringing a complaint to the Antitrust Division about "excessive" royalties, without more, is a losing strategy. Antitrust enforcers are not in the business of price control. We protect a competitive process, not a particular result, and particularly not a specific price. In fact, if a monopoly is lawfully obtained, whether derived from IP rights or otherwise, we do not even object to setting a monopoly price. A high patent royalty rate, after all, might just reflect that the Patent Act is functioning correctly and the market is rewarding an inventor for a pioneering invention. When a complainant begins a presentation by telling the Antitrust Division that a royalty rate is "excessive," the staff responds that the complainant is putting the cart before the horse. A complaining party must first identify some anticompetitive conduct beyond a mere unilateral refusal to license and beyond the mere attempt to charge, where a lawful monopoly exists, a monopoly price.<sup>16</sup>

Why then do some SSO members not simply define the RAND obligation more exactly? There are several reasons why this does not appear to offer a palatable alternative to *ex ante* disclosure. The first is that while vendors do not wish to be charged extortionate fees when they are licensees, neither do they wish to have their freedom of action systemically limited when they are on the opposite side of the licensing equation as patent owners. Further, opening up the RAND Pandora's box would lead to discussion of such difficult questions as what to do about existing cross licenses? Frequently, there are underlying licensing agreements already in existence between the largest vendors. When a new standard is approved that involves the Necessary Claims of some subset of such a group, there may be few, if any, royalties that actually change hands among the group.

In such a situation, what should "non-discriminatory" mean? That smaller companies that lack an existing cross license agreement with the owner of Necessary Claims should receive a royalty-free license as well? Currently, that is not the case, and many large companies would doubtless prefer to maintain that state of affairs, as it provides at minimum an advantage over, and at times perhaps an effective barrier to entry by, smaller companies that might otherwise build competitive implementations of the same standard.

Because even the largest companies in the information and communications technology sectors are today feeling the pain of a spate of what are perceived to be excessive royalty demands by the owners of Necessary Claims under important standards, these companies are seeking an alternative solution to refining the RAND definition in order to relieve their stress. And that solution is *ex ante* disclosure.<sup>17</sup>

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<sup>14</sup> The most frequent exception to this generality is a non-economic license requirement by a Necessary Claim owner that simply wishes to include disclaimers or limitations on use. Such licenses are typically short "clickwrap" licenses that are posted on public Webpages and are made available to all on a uniform basis.

<sup>15</sup> For a more detailed discussion of the "apples to oranges" challenge of RAND enforcement, see: Updegrave, Andrew, "Microsoft, Adobe and What's Wrong With RAND." ConsortiumInfo.org, Consortium Standards Bulletin, Vol. V, No. 6 (June 2006), at <<http://www.consortiuminfo.org/bulletins/jun06.php#blog>

<sup>16</sup> Pate, *supra*, at 8.

<sup>17</sup> Whether this represents a trend or only a statistical aberration is not clear to me, and I am unaware of any empirical effort to quantify the situation. In either event, there is a perception among some large ITC companies that are active and influential participants in SSOs that the problem has risen to the point where action is required. The situation has also been exacerbated by the rise of patent "trolls" that have not made RAND commitments. While these patent owners are outside the system, the addition of such



## II. The Ex Ante Alternative

**Why ex ante?** While the potential value of *ex ante* disclosures is accepted by most (if not all), there are costs as well as benefits to be considered in adopting an IPR policy that permits, or requires, such revelations. Further, due to antitrust concerns, the optimal timing, degree, and process of disclosure is a matter of debate, with some advocating for conservatism and others for aggressiveness. Thoroughly understanding these costs and benefits is essential, given that standards development is a consensus-based process, and the value proposition supporting any type of *ex ante* disclosure must therefore be clear to at least a significant majority of the decision makers of any given SSO before the necessary process changes can be approved without loss of dissenting members.

**Benefits: the arguments in favor:** Proponents of *ex ante* disclosure cite the following motivations (some of which have already been mentioned above) for advocating such disclosures:

- **Chaos:** The current disclosure system represents a disorderly bazaar, rather than an orderly marketplace. If an economically efficient result occurs, it is only by accident. As a result, the likelihood of efficiency is very low.
- **Variations in experience:** Different industries have widely divergent practices, to the disadvantage of those that are not versed in the ways of that industry. For example, in some standard settings, there are active contemporaneous one-on-one negotiations among patent owners and would-be implementers "in the halls," resulting in advantages for those that are skilled in horse-trading
- **Certainty:** In some SSOs, it is common to make blanket statements that reserve the right to assert a patent and require a royalty, without requiring the respondent to disclose the Necessary Claims themselves. As a result, would-be implementers not only cannot evaluate whether a royalty may need to be paid (does the respondent actually have a Necessary Claim at all?), but whether it agrees that the claim in question is in fact an enforceable Necessary Claim.
- **Avoidance of total failure:** Developing a high quality, useful standard is a lengthy and time-consuming process. If one or more patent owners later set unduly high royalty rates or impose other burdensome licensing terms, even the best standard, from a technical perspective, may totally fail. In such a case, not only the investment in the standard itself, but the much higher opportunity cost to vendors, service providers and end-users alike of the failure to effectively fill a standards gap may be very high indeed.
- **Slow adoption:** Every standard must survive a critical period during which the market decides whether or not to adopt it, with many implementers adopting a "wait and see" attitude. Where licensing terms are known in advance, early adopters can enter the market more quickly, without the need to engage in licensing negotiations where each side may be testing the other, and all would-be implementers can make more intelligent assumptions about whether adopting the standard will prove to be a good bet or not.
- **Avoidance of RAND non-discrimination risk:** Where licensing terms are out in the open, each participant has a much higher level of assurance that it is getting fair terms relative to other similarly-situated industry players, and that it is getting the vendor's "best price" as well – somewhat akin to buying from a "no haggling" car dealer.
- **Avoidance of RAND ambiguity:** As has previously been discussed in detail, the definition of "RAND" is not only vague at the outset, but has yet to be thoroughly developed in case law. *Ex ante* disclosure avoids the need to define "reasonableness" at all, since the participants can simply decide whether the terms that are offered are appealing or not – a much more accurate, market based means of defining reasonableness under precisely relevant circumstances. Even

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additional royalty demands on top of those required by those that have made RAND commitments adds additional pressure to an already difficult situation.

before Chairman Majoras made her policy announcement (and indeed several weeks before the five company meeting), Assistant Attorney General of the Antitrust Division of the Department of Justice delivered a speech recognizing the value of *ex ante* disclosures in avoiding the RAND quagmire:

A difficulty of RAND...is that the parties tend to disagree later about what level of royalty rate is "reasonable." It would be useful to clarify the legal status of *ex ante* negotiations over price. Some standards development organizations have reported to the Department of Justice that they currently avoid any discussion of actual royalty rates, due in part to fear of antitrust liability. [footnote omitted] It would be a strange result if antitrust policy is being used to prevent price competition.<sup>18</sup>

**Costs: the arguments against:** Real concerns have also been expressed over permitting *ex ante* disclosures, although the degree to which each need in fact be a concern is highly dependent on the details of the process employed to permit such disclosures:

- **Antitrust risk:** First and foremost in the minds of lawyers is the risk of inadvertent violation of the antitrust laws, but following close behind is concern over the costs of defending against any suit or government investigation, whether or not actual liability is finally assessed. SSOs are characteristically (although not always) organizations with few resources and modest budgets, and are ill-equipped to defend themselves against the type of lengthy and expensive litigation that is typical of antitrust suits.<sup>19</sup> In the minds of some, any increase in the threat of catastrophic litigation costs, no matter how small, is sufficient to outweigh any benefits to be derived from *ex ante* disclosure.<sup>20</sup>
- **Management:** Enabling *ex ante* disclosures (and, to a far greater extent, negotiations) would require additional supporting infrastructure. At minimum, times for such disclosures would need to be specified, the disclosures would need to be posted, and those that relate to claims that are relevant to finally adopted standards would need to be publicly displayed for the life of the standard. More importantly, the staff that manages the process would need to be well coached on antitrust concerns in order to be sure that no missteps occurred in the process that might lead to liability. If more than disclosures were permitted (e.g., actual negotiations), the situation would need to be very tightly controlled and supervised, as the antitrust risks would be far higher.

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<sup>18</sup> Pate, *supra*, p. 9.

<sup>19</sup> The total cost to the two SSOs and their members in one recent antitrust case relating to royalties payable in relation to an adopted standard has been estimated to exceed \$10 million – even though the defendants prevailed. See the discussion of *Sony Electronics, Inc. v. Soundview Techs, Inc.*, 157 F. Supp 2d 180 (D. Conn. 2001) in Kelly, John J. and Daniel I. Prywes, *A Safety Zone for the Ex Ante Communication of Licensing Terms at Standard Setting Organizations*, antitrustsource.com (March 2006) at <[www.abanet.org/antitrust/at-source/06/03/Mar06-Prywes3=22f.pdf](http://www.abanet.org/antitrust/at-source/06/03/Mar06-Prywes3=22f.pdf)>, access June 29, 2006.

<sup>20</sup> There is a degree of conflict of interest on the part of some SSOs with full-time staff in this regard. Large and successful SSOs, like any other for-profit or non-profit entity, are led by full-time managers that are loath to jeopardize the economic viability of their organizations. Consequently, while an SSO's members may be willing to accept a degree of risk associated with *ex ante* disclosure, since they hope to reap the direct and substantial benefits of wider adoption of the standards they help create, there is no comparable and direct benefit to SSO management to assume the same risk, since they are not as likely to be judged (or compensated) on that criterion, as compared to other milestones and performance measures. This conflict of interest may explain why the most recent amendment to the National Cooperative Research and Production Act of 1993 (NCRPA) provided a degree of explicit antitrust protection to SDOs - while expressly disclaiming any protection at all for SDO members. Not surprisingly, the amendment was introduced at the urging of several SDOs, who thought that including protection for their members would lessen the likelihood of obtaining greater protection for their own assets – something that is only of concern to SDOs with sufficient assets to represent a "deep pocket" litigation target, in comparison to consortia, which commonly have insignificant assets at best, making them unattractive targets for plaintiffs. See, Updegrave, Andrew, *What Does 1086 Mean to Consortia?* ConsortiumInfo.org, Consortium Standards Bulletin, Vol. III, No. 6 (June 2004), at <<http://www.consortiuminfo.org/bulletins/jun04.php#update>>, accessed June 27, 2006.

- **Cost of participation:** Some fear that it would become necessary to deploy legions of lawyers (a sobering, if not downright terrifying, prospect) as well as engineers to standard setting meetings, vastly driving up the cost of participation in the standards creation process.
- **Delay:** While mere disclosure of licensing terms would not by definition draw out the standard setting process, those involved might request longer periods of time for certain process steps (e.g., to consider alternative submissions, to formulate licensing terms before any deadline for making disclosures, or for adoption voting) in order to decide what to disclose, and/or how to take advantage of the new information. If actual negotiations leading to amendment of offered terms were to be permitted, a much longer delay might be required.
- **Effect:** Not every standard setting participant would welcome even the "social pressure" of a voluntary disclosure policy, since the hoped-for result of such a policy would be to provide incentives to owners of potential Necessary Claims to not only lay their cards on the table, but perhaps to engage in a reverse auction as well.

While recognizing the validity of these concerns, it is worth noting that many of the issues associated with *ex ante* disclosures already exist – they simply arise at other points and outside the process that begins with the chartering of a working group, and ends with the wide deployment of a standard. In short, in order to decide on a net basis whether *ex ante* disclosure provides a net benefit or a net cost in comparison to the current regime as to a single standard, the entire standards creation and deployment cycle must be taken into consideration, including the costs, delays and negative effects in the current system that would be reduced or eliminated by the introduction of *ex ante* disclosures. When conversion to *ex ante* disclosure is considered on a systemic basis, the development and opportunity costs of those standards that failed due to hold-ups should be factored into the calculations as well.

**Ex ante variations:** There are a variety of ways that one could imagine introducing an *ex ante* element into the standard setting process. The following examples are presented in ascending order of complexity and risk, but not in sufficient detail to more than suggest the types of process elements and antitrust risks that would need to be considered before any of them were actually to be put into place.

**Removing prohibitions on voluntary disclosure:** The simplest alternative is simply to remove any prohibitions in an IPR policy that would prohibit one member from informing other participants in the standard setting process about its specific licensing intentions. Since any such act would be voluntary, neither the SSO nor any of its members would be forced to disclose, nor, assuming the absence of additional facts, would there be any collusion between members to establish either a ceiling or a floor on what a member could demand. Only some SSOs currently have such a prohibition, but one of them is the IEEE. As a result, simply eliminating this constraint is one approach that IEEE is currently considering. However, without providing any additional process steps, voluntary disclosures might not be made at the most useful times, and other participants might react to such disclosures with a degree of conservatism that would diminish the value of the disclosures made.

**Permitting and enabling voluntary disclosure:** If an SSO hopes that voluntary disclosures will become a regular and useful adjunct to its standard setting process, such disclosures should be channeled in a way that is most likely to result in the benefits desired. For example, the time when such disclosures are permitted to be made could be restricted to a period during the standard setting process that is far enough along that the likelihood of infringement could be well assessed by both the owners of would-be Necessary Claim as well as by the other members of the standards working group, and yet early enough that a decision could be made to design around any prohibitively priced Necessary Claims. In those processes that commonly begin with the offer of multiple proposals, each of which could form the basis for the resulting standard, disclosures could be required at the time of submission.

In order to be maximally useful, any SSO that did not already require the disclosure of Necessary Claims would wish to introduce that requirement as well, even if *ex ante* disclosure of licensing terms was not mandatory. Absent such a rule, the goal of predictability and the opportunity to make economically efficient choices between technical value and costs would be defeated, and the prospect would remain that a working group member could later assert a Necessary Claim and require payments that would have been avoided had they been disclosed in timely fashion.



For the same reason, it would be highly desirable to have strong assurances that all participants in a standards development working group had, in fact, disclosed all Necessary Claims. Unfortunately, SSO members have not historically been willing to provide this level of certainty. For example, patent disclosures and assertions are most often made in SSOs under a fairly lax "to the knowledge of the individual participant" basis. Tightening this requirement, while still not requiring formal patent searches or imposing penalties for inadvertent failures to disclose, would increase the predictability of the final result. In fact, the IEEE is currently in the process of finalizing revisions to its standard patent disclosure form (which it calls a "Letter of Assurance for Essential Patent Claims) to accomplish just this result.<sup>21</sup>

Absent a desire to be more selective, disclosure of Necessary Claims could still be done within the context of the traditional three basic choices (RAND or non-assertion without charge; RAND with right to charge royalties reserved; or no assurance of RAND licensing at all). By combining a strong Necessary Claim disclosure obligation with the ability to make *ex ante* disclosure of specific licensing terms, there would be a degree of "social pressure" for all owners of Necessary Claims to announce terms if they had a strong desire that their patent claims be included rather than excluded in the final specification. Those owners of Necessary Claims that were not highly motivated to have their IPR included could either disclose high royalty requirements, not disclose terms, or decline to license their Necessary Claims at all. In each of these cases, other working group members would be on notice that inclusion of these claims would be, as appropriate, too expensive, too risky, or not possible at all.

Such a system could provide lower costs of implementation, as well as greater certainty in SSOs where there are perceived indirect benefits to owners from inclusion of their Necessary Claims, since a combination of strong disclosure obligations and *ex ante* disclosure could be expected to lead to a competitive sealed bid environment. This would be particularly true if all disclosures were required to be made on a simultaneous basis, providing an incentive for an owner of Necessary Claims to put its lowest, best offer forward. At the same time, no specific disclosure, or indeed any disclosure at all, would be required, easing, although not eliminating, antitrust concerns.

Necessarily, if price and other terms are introduced at a time that collective action can be taken to select among alternatives, or to change the design of a draft specification to avoid infringement (and therefore payment), care would need to be taken in designing the process in such a way as to forbid inappropriate discussion, bargaining or other behavior that could be problematic under the antitrust laws. The simplest and safest approach would be to prohibit any discussion among working group participants regarding the specific licensing terms disclosed, but permit the knowledge of those terms to inform the voting decisions of individual members.

***Permitting and enabling disclosure and rebidding:*** While a "sealed bid" system would provide real advantages over a merely RAND process, providing Necessary Claim owners with the opportunity to rebid would permit a "reverse auction" dynamic to arise, leading in some cases to yet lower implementation costs and/or less restrictive licensing terms without appreciably increasing antitrust risks. The best way to minimize antitrust risks would be prohibit all discussions relating to terms among those disclosing Necessary Claims, as well as between other members and those making disclosures, until the bidding process was complete, following which voting would immediately commence.

***Permitting and enabling disclosure, rebidding and discussion:*** While permitting *ex ante* disclosure and rebidding would provide real advantages, it would be unfortunate if this was to be at the cost of permitting working groups to discuss whether specific Necessary Claims could be designed around entirely. As a result, an optimized process would specify what topics were fair game to discuss, and what topics were off limits, with (at minimum) the refinement of designs to avoid Necessary Claims being on the list of permitted discussion topics. Working groups could also be allowed to formulate alternative proposals (each with a different mix of Necessary Claims) for member voting, leaving each member to individually decide which alternative provided the best balance between cost and technical result.

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<sup>21</sup> A recent version of the IEEE form, showing cumulative changes preliminarily agreed upon in connection with the *ex ante* discussions, may be found at [http://standards.ieee.org/board/pat/606patagen\\_loa-redline.pdf](http://standards.ieee.org/board/pat/606patagen_loa-redline.pdf), accessed on June 28, 2006. Note the much stricter knowledge language contained in Section D.2.

**Permitting and enabling disclosure, rebidding, discussion and negotiation:** Adding the ability for working group members, or for a single representative of a working group or SSO, to actually negotiate licensing terms would be a much more delicate process to police, since the potential exists for a group of members to inappropriately pressure an individual member, opening the way to conspiracy and other charges. In addition, antitrust regulators in some countries might view such a process unfavorably regardless of any safeguards that were put into place.

**Requiring disclosure:** Requiring, rather than permitting, the *ex ante* disclosure of terms by all holders of potential Necessary Claims could be added as an additional term in most of the scenarios discussed above. Doing so would, of course, increase the completeness of the economic IPR landscape for a give standard under development, but would present its own antitrust issues, as well as perhaps leading to some patent owners deciding not to join the SSO with that policy at all, or not to join in as many working groups, if only direct participants would be become subject to this requirement.

**Next Steps:** It seems unlikely that the first SSOs to adopt policies with additional *ex ante* features will choose to implement adventurous alternatives discussed above rather than opting to pursue a more limited and conservative approach. In any such situation that does not involve actual discussion, it should be possible to design a process that would not require immediate supervision by lawyers. Even where discussion would be involved, there is no reason to assume that individual members would need to arrive at meetings with lawyers in tow.

Similarly, in each of the scenarios described that do not allow actual negotiation, all member-related legal and economic decisions could be made at the facilities of individual members by appropriate business and legal personnel, and submitted in writing as part of a clear and controlled process.<sup>22</sup>

No matter what process an SSO might decide to adopt, the chairs of technical committees and others in charge of the process would need to be carefully instructed regarding which types of behavior would be permissible and which would not, and any existing antitrust policy (typically general rather than specific) would merit revision to provide more helpful and detailed guidance. Of course, technical chairs should in all cases be well coached on basic antitrust rules, since there are many other situations that are apt to arise that can present equivalent, or greater antitrust risk.

### III. Ex Ante Alternatives

As earlier noted, *ex ante* disclosure represents only one among a number of procedures that may be employed to better flesh out the IPR landscape underlying a given standards development effort. Each of these alternate procedures has its own advantages (and shortcomings) that may lead it to be a superior technique to use instead of, or a useful tool to use in addition to, *ex ante* disclosure. Accordingly, every SSO should consider the entire range of options available to it when considering any change of its process to incorporate *ex ante* disclosure.

Current disclosure practices in fact vary widely, ranging from IPR policies that forbid disclosure of licensing terms to policies that mandate royalty free licensing, or indeed impose blanket prohibitions on asserting patents at all. Consequently, the concept of *ex ante* disclosure does not represent the bleeding edge of IPR policy evolution, but rather a refinement of practice that may overlay an intermediate section of the spectrum of current SSO IPR policy practice. These disclosure practices (in addition to the widely-used, and already discussed, RAND disclosure regime) and the terms that may attach to them *ex post* include the following:

**The patent pool:** Nominally the formation of a patent pool should provide relief to the problem of excess royalties, while simultaneously alleviating the burden to implementers of engaging in multiple license negotiations. In brief, a patent pool imposes a voluntary license cap on all patent owners that choose to participate, and includes a mutually agreeable formula for allocating royalties received among

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<sup>22</sup> This conclusory statement is not by any means intended to suggest that such a task would be simple. For an illustration of the diversity and complexity of factors that could be taken into account in an effort to design a relatively safe *ex ante* process, see the ten-point proposal for an antitrust "safe harbor" recently proposed by Kelly and Prywes, *supra*, at pp.7 – 11.

the patent owners, based upon such data as importance of individual patent claims to the standard, remaining life of the patents in which they appear, and similarly relevant criteria. However, patent pools are difficult to form, can be ineffective unless all owners of Necessary Claims participate, and have their own antitrust sensitivities, among other challenges. As a result, their usage has not been widespread.

Nevertheless, the patent pool is interesting in the current context, since the formation of such a pool is an exercise not only in complete *ex ante* disclosure (or *ex post*, if the standard in question has already been approved), but in *ex ante* negotiation as well, since all patents are disclosed, each is frequently evaluated by a neutral third party, and all owners then decide whether they will join the patent pool on terms offered or not.

Patent pools are also instructive in the context of other *ex ante* mechanisms, because they provide something of a model for SSO-imposed license fee caps, a concept that has been reported to be currently under discussion within ETSI. Patent pools formed in the United States typically obtain a business review or advisory opinion from the antitrust regulators, and there is therefore a degree of public record on how such mechanisms are viewed under applicable law that can be consulted to advantage by not only those that might wish to form their own pool, but by SSOs that are considering adoption of *ex ante* policies and procedures as well.

**The Royalty Free Commitment:** Some consortia and forums adopt policies that moot the *ex ante* issue entirely by simply providing that participants agree not to assert royalties at all. This goal is typically difficult to obtain, however, because the perceived value of participation to each member must outweigh the opportunity of leveraging its patent portfolio against the resulting standard. For companies with very large patent portfolios, the tradeoff is more difficult to assess absent an expensive and time-consuming review of its patent portfolio, and the danger remains that the SSO may in the future enter technical territory that was not initially anticipated.<sup>23</sup>

As a result, royalty free commitments are most typical in situations where the membership is small, and is made up of highly-committed participants with a well defined goal and (often, but not always) more limited scope of work. Many of these arrangements are created on an unincorporated "promoter-adopter" model that is closer to a cross license agreement than a by-laws and IPR policy regulated, incorporated SSO.<sup>24</sup> Where such a rule is adopted by an SSO, it is typically the result of a conviction that the imposition of royalties (and sometimes the inclusion of other types of licensing terms) would effectively thwart the goals of the SSO.<sup>25</sup>

Because there is no freedom to charge a royalty in an SSO that has adopted a royalty free policy, *ex ante* disclosure of specific patent claims is largely unnecessary, although some organizations include a provision that allows a member to either place a patent claim off limits early in the process, or the opportunity to resign as a member to avoid capture of its patent claims by the royalty free obligation.

An increasingly popular variation in practice is the use of the "non-assertion covenant" in place of a commitment to license without a royalty. This mechanism is elegant in its simplicity: the owner of potential patent claims simply states that it will not assert the patent claims (if any) that it may own against any compliant implementation of the standard in question. The SSO member therefore need neither

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<sup>23</sup> SSOs with royalty free IPR policies as a result usually allow a member to resign if there is a change in scope. Companies that are members of hundreds of SSOs take only modest comfort from this term, however, as the employees that attend the SSO in question may not always appreciate or communicate the change in scope to those for whom it might represent a cause for alarm.

<sup>24</sup> In the promoter-adopter model (which is especially common in the semiconductor industry), the founders enter into a contractual arrangement as the "promoters," and participate by invitation only. Each promoter may then license "adopters," resulting in a hub and spoke type of licensing environment.

<sup>25</sup> The most prominent example to date of an organization with a large and varied membership that was able to reach consensus on such a rule is the World Wide Web Consortium (W3C). Adoption of the amended Patent Policy of the W3C, which virtually precludes the adoption of a standard that would require the payment of a royalty to a member, required a marathon, three year negotiation. The fact that this result was achieved in an SSO with as broad a scope of work as the W3C is a tribute to its importance, and to the strength of its leadership.

search for nor identify any Necessary Claims, and the implementer may have no license agreement to negotiate and accept with the Necessary Claim owners at all.<sup>26</sup>

The royalty free commitment is a superior and more complete alternative to *ex ante* disclosure for a variety of reasons. Notably, there is no recurring need to disclose license terms, to make adoption decisions based in part on price considerations, or any need (or temptation) to engage in price-related negotiations, all of which substantially obviates (absent additional facts) much of the antitrust risk that worries those considering *ex ante* disclosure. Instead, there is a single, voluntary, up-front decision by each participant whether or not to agree to a unitary set of licensing terms.

Unfortunately, this mechanism is not suitable for situations in which the participation of a broad array of stakeholders is required, and the value of the standards to be developed has low importance to some of those stakeholders. Were the same commitment to be required of all, some categories of participants whose input or support is crucial would simply not join. The result is often that a more lenient, RAND-oriented IPR policy is adopted instead.

**The open source project:** The greatly accelerating popularity of open source software has brought added urgency not only to royalty-free licensing commitments, but also to agreeing to forego a variety of other otherwise acceptable licensing terms. While originally a commitment to such terms arose only as a result of participating in such a project, the proliferation of open source software has put pressure on software-developing SSOs as well to adopt IPR policies that permit implementation of their standards in open source software. Once again, adoption of such a policy can remove the need for *ex ante* disclosure of licensing terms entirely, because if a commitment to provide a license on open source (GPL or other) terms makes patent claims largely irrelevant.

**Permitted or required implementer license terms:** There are a number of specific terms that are commonly explicitly permitted by IPR policies as being consistent with a RAND licensing obligation, and those with Necessary Claims could be required or permitted, as part of an IPR policy, to include such terms in their license agreements. These terms include:

- **Defensive suspension:** Under this term, an implementer that sues another implementer for infringement of its own Necessary Claim(s) may have its implementation license revoked, thus providing a negative incentive to sue, and, if the licensee has sued the owner of another Necessary Claim(s), leveling the playing field between the parties in the infringement litigation.
- **Reciprocity:** While less often used than defensive suspension, some SSOs permit the owner of a Necessary Claim to require a license back of any Necessary Claims of an implementer. Sometimes this license extends to all other implementers (member and non-member alike), resulting in an expanding IPR safety zone of common benefit.
- **Detailed assertion forms:** Many consortia require their members (or at least those involved in a specific development working group) to use, uniform, detailed response forms to disclose their licensing commitments prior to the adoption of a standard. These forms not only require that the member state whether it will or will not license on RAND terms, but whether or not it will require payment of a royalty. They also typically require identification of the specific claims that the member believes are Necessary Claims (and even, in a more general way, any claims under non-public patent applications), and the section of the draft standard to which each Necessary Claim relates. As a result, other members can evaluate whether they agree with the infringement assertion, and if so, assess the feasibility of designing around the infringement. Thus, while the exact amount of any royalty is not disclosed, a member is permitted to disclose that no royalty will be required at all, providing a clear preference for including those Necessary Claims over those of another member that has reserved the right to charge for its patent claims.

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<sup>26</sup> Reliance on non-assertion covenants (also commonly referred to as a "covenant not to assert") carries a degree of legal ambiguity, since there is no actual contract between the patent owner and the implementer. If the covenant was ever violated, the implementer would presumably assert the doctrines of estoppel and reliance, which broadly stated hold that the maker of a promise that expects others to rely on that promise cannot thereafter go back on its undertaking to the detriment of another that relied on the promise.

**Other prospective options:** In addition to those alternatives that have already been implemented, there are others that could be imagined that could be deployed in order to increase certainty and lower implementation costs.

**Overall royalty caps:** One mechanism that is currently under discussion (in addition to *ex ante* alternatives) is the imposition of a cap on the total royalties that a standard could bear, as determined by the SSO in which a standard is developed. In effect, this would represent the merging of the concept of a patent pool with the development process itself, with the total royalty being set in advance, rather than as a result of an agreement reached outside of an SSO during, or after, the standards development process is complete.

Nominally, such a procedure would solve all of the same problems that *ex ante* disclosure and negotiations could achieve, and with greater up-front certainty. If the mechanics of a patent pool were also to be implemented (whether within or outside the SSO), implementers would also benefit from needing to enter into a single license covering all Necessary Claims, rather than negotiating and entering into multiple, unique licenses with each Necessary Claim owner. Finally, non-discriminatory licensing would be far easier to ensure.

Conceivably, such a plan would also increase the likelihood that more owners of Necessary Claims would enter the patent pool, since only by participation could a patent owner influence the inclusion of its patent in the resulting standard.

There are, inevitably, disadvantages to such an approach as well. First, the owners of likely Necessary Claims would need to not only be members (or independently agree to the same conditions), but would also need to conclude that they would in fact be better off being bound by the royalty cap obligation than staying outside the process, in order to retain the right to levy a higher tax on implementation. Further, managing a patent pool-like situation requires a far greater degree of attention to antitrust risks than would providing for a simple voluntary *ex ante* disclosure option, in addition to ongoing administrative tasks (although these can be outsourced). As a result, the degree of infrastructure, management, legal attention and other requirements occasioned by adopting a royalty cap process may mean that few SSOs will have the appetite to be innovators in this regard.

In fact, a proposal for some type of royalty cap mechanism was proposed last year by a group of mobile operator members in ETSI, in reaction to their perception that royalty demands had gotten out of hand. However, as of this writing it appears that discussion within ETSI is focusing now on the possible adoption of rules that would permit *ex ante* disclosure rather than the imposition of royalty caps.<sup>27</sup>

Nevertheless, such a concept does have merit, and in some respects would involve less risk than would novel *ex ante* mechanisms, given the fact that antitrust regulators have issued advisory opinions in the past on the structure and operations of patent pools, providing a useful reservoir of guidance upon which SSOs could draw in designing their own procedures.

**Defining reasonability:** Another alternative would be for an SSO to define what "reasonable" means in the context of a patent royalty. While not offering the security of a total royalty cap for all Necessary Claims on a single standard, members could agree on a standard formula to value Necessary Claims that would then operate automatically, thus ensuring a maximum economic burden per claim without the requirement of discussion. Such a formula could also take into account the total number of claims asserted, automatically decreasing the maximum allowed per claim as the number of claims increased. As there would be no requirement that any patent owner would be required to become a member, or if a member, to actually participate in a given working group, antitrust concerns would be reduced, although (once again) not eliminated.

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<sup>27</sup> Private conversations with representatives of ETSI participants. ETSI shares far less information at its Website than does IEEE, which posts a great deal of data relating to ongoing discussions involving possible changes to its IPR policies. See, for example, the PatCom page of the IEEE Standards Association Standards Board Patent Committee, at <<http://grouper.ieee.org/groups/pp-dialog/>>, accessed June 29, 2006



**Establishing terms:** An SSO could also further define the non-economic terms that an implementer license could include, or even mandate the exact language of a set of terms that such a license would be required to use if the Necessary Claims owner wished to include those types of terms generically.

**Conclusions:** The current debate over *ex ante* alternatives has suffered to a degree from being addressed in a vacuum, without regard (on the one hand) to all of the existing issues outside of the standard setting process itself that it could help resolve, or (on the other hand) to the other methods that could also be considered to achieve similar ends. Similarly, proponents of *ex ante* process additions have not always appreciated some of the complexity and risk that could be involved with *ex ante* disclosure and/or negotiations, while the opponents have painted an unduly dire picture of the risks of even simple disclosure proposals, and ignored the fact that more challenging programs, such as patent pools, already exist and operate without frequent calamitous antitrust consequences.

It is to be hoped that one or more SSOs will in fact implement an *ex ante* disclosure program in the near future, and obtain a business review letter or advisory opinion from the antitrust regulators to provide a degree of comfort, not only for their members, but for the standard setting community at large. Once SSOs and their members gain experience with designing and operating such programs, confidence will grow, and the benefits of this logical and innovative concept, conjoined with other existing and new techniques, will presumably spread.

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