August 5, 2011

Earl Nied
Program Director, Standards and IPR
earl.nied@intel.com

Federal Trade Commission, Office of the Secretary
Room H–113 (Annex X)
600 Pennsylvania Ave., NW
Washington, DC 20580

Intel Corporation's Response to the Commission's Request for Comments in Connection with Its Patent Standards Workshop, Project No. P11–1204

Intel thanks the Commission for this opportunity to share Intel's views on the practical and legal issues arising from the incorporation of patented technologies into collaborative industry standards. Intel has a strong interest in this subject because it is a world leader in computing innovation and because a typical computer employs hundreds of standards, many of which involve technologies to which Intel has contributed. Intel continues to invest heavily in both technological innovation and standards development efforts around the world.

Overview

Intel appreciates the Commission's concerns regarding standards development processes, including the possibility of "hold-up" by holders of patents that must be licensed in order to practice industry standards. Nevertheless, Intel strongly believes that the reports of problems have been overblown and that government efforts to regulate or to provide prescriptive guidance on disclosures and licensing—however well intended—are likely to be counterproductive.

To begin with, the evidence shows that standard-setting processes generally work well. Thousands of standards are developed every year, generally without incident, and they are normally followed by significant price drops year after year in almost all industry sectors where standards are used. Intel is unaware of any systemic problems of patentees misleading standard-setting organizations ("SSOs") or refusing to abide by previous licensing commitments made to those organizations, including commitments to license on reasonable and nondiscriminatory ("RAND") terms. To be sure, a few well-publicized disputes have arisen, but they have been the rare exception to the general rule. Moreover, standard-setting organizations have appropriately responded by changing their rules and practices to prevent abuses.

Different SSOs have changed their rules in different ways that reflect the particular circumstances and needs of the various SSOs.

In considering whether to supplant this record of successful self-regulation with government regulation, the Commission should bear in mind that SSOs' primary mission is to select optimal technologies for incorporation into industry standards. Over the long term, innovation is the most important driver of economic welfare—far more important than short-term pricing. Ideally, standardization promotes more widespread adoption of technological advances, but the benefits to society depend on selecting the best technology in the first place. The Commission therefore should be more concerned about SSOs' adoption of optimal industry standards than about the short term royalties that innovators may charge others for using proprietary technologies incorporated into standards.

In the end, Intel believes that government regulation or prescriptive guidance regarding the standard-setting processes and licensing terms is likely to do more harm than good. Rigid disclosure requirements and excessive regulation of licensing terms will likely discourage innovative companies from participating in standard-setting organizations, slow down the standard-selection process, drive up costs for companies that continue to participate, and distract from and interfere with SSOs' selection of technologies on their technical merits. Moreover, broadly applicable government regulations are unlikely to be flexible enough to adapt to the nuances and practicalities of different contexts. To make matters worse, the Commission's adoption of regulations may be cited to justify more mischievous intervention by foreign governments. In Intel's view, the far better course is to allow the occasional instances of abuse to be addressed by enforcement of existing law in contract, fraud, antitrust, and other applicable areas and then allow SSOs to apply corrective actions they find appropriate for their individual environments.

Organization of the Remainder of This Submission

The remainder of this paper is organized as follows. Part 1 summarizes Intel's overall perspective on licensing, standard-setting, and the hold-up paradigm with which the Commission seems most concerned. Part 2 addresses the Commission's questions regarding disclosure of patent rights to SSOs. Part 3 answers the Commission's questions about commitments to license on a RAND basis. Part 4 responds to the Commission's questions about ex ante disclosure and negotiation of licensing terms. Part 5 contains concluding remarks.

Discussion

1. Background: Intel's Overall Perspective on Intellectual Property Rights, Standard-Setting Organizations, and the "Hold-Up" Issue

The Commission's interest in regulating standard-setting and the licensing of standard-essential patents appears to be based on a "hold-up" paradigm in which a patent holder lies low and fails to disclose its patent positions and licensing terms regarding essential technologies while the standard is being developed, but then rises up to assert those patents and demand exorbitant royalties after the standard is adopted and the industry has been locked into using the patent holder's proprietary technology. Although such hold-ups may occur on rare occasions, Intel is concerned that the Commission's paradigm is simplistic and overlooks important complexities and subtleties in patent licensing.

To begin with, the Commission's paradigm mistakenly assumes that companies regularly seek narrow licenses limited to particular patents covering particular standards. In reality, such licenses are the exception, not the rule. Intel, for example, historically has entered into broad cross-license agreements designed to preserve overall patent peace and promote general design freedom for both sides. In many other cases, parties reach a tacit standoff without a formal cross-license: each side recognizes exposure to the other's patent portfolio and is thus deterred from provoking a dispute. In such cases, there is no need for a license addressing particular patents to practice a particular standard. These kinds of outcomes not only avoid the "hold-up" problem with which the Commission is concerned but also save the costs of negotiating individual licenses.

Moreover, when parties do negotiate patent licenses, the licensee's concerns most often center on removing obstacles to a product or product line in general. Design decisions during product development often implicate patents wholly unrelated to standards. Moreover, even when standards are central to product design, the licensing concerns often involve multiple standards. A laptop computer or smartphone, for example, are designed to include hundreds of different standards and specifications.

In any event, licensing scenarios are quite varied, complex, and idiosyncratic. The specific terms that particular parties ultimately negotiate depend on their circumstances, which differ from case to case. For example, the importance of the patented features to the licensed products varies from negotiation to negotiation. The availability and cost of non-infringing alternatives likewise range widely. The licensor's exposure to patent assertions by the licensee will vary as well, as will the extent of any existing patent licenses and the parties' desire to enter into broader business relationships. The licensors' goals

and licensing strategies also differ, for various reasons – some general and others specific to the particular standard involved.

Furthermore, reasons wholly unconnected to any standard-based hold-up may cause a later-negotiated license to be priced differently than an earlier-negotiated license. For example, while a product is in early development, the parties can only guess about how popular a product will be, how much it will cost to manufacture, what royalties the licensee will have to pay others, how much of the value of the product is attributable to the technology in question, and so forth. They will have much more information about these factors months or years later. Of course, intervening adoption of a standard may also affect the outcome because alternative technologies may have become less attractive, but to ascribe the entire difference in price to lock-in and hold-up is not appropriate.

In addition to considering the varying contexts of licensing negotiations, the Commission should also consider that the complex nature of SSOs also affects the patent landscape and the ability to mitigate inappropriate behaviors such as hold-up. Every SSO is unique, varying according to the industries it serves, the technology involved, and the composition of the organization. In general, however, SSOs tend to have large and heterogeneous memberships including constituents at various stages of the design and production process, including technology developers, manufacturers of products using those technologies, and customers of those manufacturers. Even at the same level of production, SSOs typically include rivals that are suspicious of each other's technologies and motivations and are amply motivated to guard against anticompetitive strategic behavior. This healthy diversity of interests makes SSOs well-suited to self-regulate.

When self-regulating, SSOs must consider a wide variety of concerns in addition to patent holdup. Among others, these include the need to adopt standards speedily and efficiently, competition from other SSOs promoting alternative technologies and from firms promoting technologies outside the SSO context, the risk of anticompetitive collusion by members, and the risk of strategic gaming in the standard selection process. SSOs also must recognize the legitimate concerns of member companies. Most notably here, if mandatory disclosure or licensing terms are too onerous, companies may elect not to join or to stop participating, resulting in an impoverished organization and poorer-quality standards.

Different SSOs balance these concerns in different ways depending on their unique circumstances. Moreover, that balance evolves over time, as SSOs learn from the experiences of themselves and other organizations.

Intel submits that SSOs have generally done an excellent job of self-policing. Only a relatively small number of disputes over licensing standard-essential patents have arisen. Only a subset of those have been litigated, and even that handful of cases has highlighted the complexity and idiosyncrasy of each

licensing situation. Overall, technology markets have functioned well. New and innovative technologies and supporting standards are regularly brought to market and regularly replace inferior solutions. Intel remains convinced that the SSOs for each industry and technology are in the best position to develop effective and efficient patent disclosure and licensing policies that satisfy both the public interest and the needs of their markets and constituencies. Intel is skeptical that government agencies in the U.S. or elsewhere can effectively and efficiently regulate or guide the standard-setting process. Intel is particularly dubious of efforts to impose one-size-fits-all regulations given the wide diversity of businesses, technologies, SSOs, and licensing fact patterns.

2. Responses to Questions about Disclosure of Patent Rights within an SSO

The Commission should not assume that disclosures of patent rights to other SSO members are an unmitigated and virtually cost-free good. In practice, disclosures are less valuable than the simple hold-up paradigm would suggest, and disclosure requirements can impose significant costs. SSOs have adopted a variety of circumstance-sensitive disclosure policies, and Intel doubts that generic government rules will produce a better balance of competing considerations for most or all cases. The better solution, in Intel's view, is to continue to rely on SSO self-regulation, backed by existing laws to redress the rare instances of misconduct.

The benefits of patent disclosure are modest at best. In theory, disclosures of potential patent rights would serve to alert SSO members to other companies' patent interests and enable them to investigate nonproprietary alternatives for inclusion in the standard. In practice, however, disclosures almost never result in the hypothesized careful, fully informed cost-benefit assessment of alternative unpatented technologies. To begin with, the sheer number of patents and patent applications implicated by a proposed standard is often huge, and the SSO members are unable to assess all of them. Moreover, mere disclosure of the existence of a potentially relevant patent or patent application is of limited value because it says nothing about the validity and scope of the claims that will eventually issue. In addition, SSO members recognize and accept that other, undisclosed patents may surface. Even ignoring the inevitable imperfections of SSO members' own searches, non-members often own or acquire relevant patent rights. As a result, disclosure of patent interests rarely has a significant effect on what technology goes into a standard. Instead, its practical effect is usually only to trigger RAND or other licensing obligations, which can be achieved without requiring patent disclosure. For example, declaration of a licensing obligation as a prerequisite to participation.

By contrast, the costs of disclosing can be quite large. The most obvious costs are search and related costs to the disclosing parties. These necessarily vary according to the nature and breadth of the standard, the size of the company, and the extent of the SSO's search requirements, but they can be

quite high. For example, to perform a complete, comprehensive, companywide patent search, a searcher would need to understand not only the entire proposed standard (often thousands of pages of dense material), but also to find and review each potentially relevant patent and patent application owned by the company and make a subjective judgment about the scope of the claims and its technical necessity to practice the standard. To complicate matters further, neither draft standards nor companies' patent portfolios are static. Draft standards evolve to reflect new functionality resulting from numerous engineering decisions; companies buy and sell patents; and claims in patent applications are routinely amended for various reasons. Costs can increase significantly whenever updated disclosures are required.

Disclosures can also be costly to others, as well. To begin with, for the disclosure to have any effect, the recipients need to invest the resources necessary to evaluate the disclosure. Moreover, the overall process of disclosure and evaluation is time-consuming and can significantly complicate and delay the standard-setting process. In addition, the disclosure process can result in gamesmanship and even anticompetitive behavior. For example, although the Commission has focused on under-disclosure, over-disclosure designed to inflate a patent holder's position can also occur. SSO members also may collude to boycott patented technologies. Last but not least, overly burdensome disclosure requirements may cause companies to decline to contribute their innovations, and could result in some companies deciding not to join or to stop participating in SSOs, thereby reducing the availability of innovative ideas and potentially affecting the quality/marketability of the standard that those SSOs produce.

The Commission also needs to appreciate that the costs and benefits of disclosure are a tradeoff. For example, the value of disclosure could be increased by requiring a detailed, comprehensive search and disclosure with regular updates—but that would increase the costs. There is no simple or uniformly optimal solution to this tradeoff.

These realities have important policy implications. To begin with, one needs to have a clear understanding of the purpose and likely effect of any disclosure requirement. For example, if the purpose or effect is simply to trigger a licensing obligation (e.g., to license on RAND terms), then the disclosure is superfluous and the RAND assurance could be achieved in another way. If the goal instead is to enable members to consider the relative costs and benefits of alternative technologies, then the cost-benefit tradeoff just discussed needs to be considered.

In Intel's view, SSOs are best informed and situated to assess those tradeoffs and decide what disclosure requirements to impose. SSOs best understand the nature of their proposed standards, the characteristics of their member companies, and the likely costs and delays of particular rules. Moreover,

they have the incentive to tailor their rules accordingly and adjust them over time as necessary. Because SSOs tend to be diverse and heterogeneous, they are likely to adopt a reasonable, balanced approach, and they are unlikely to be *captured* by those with parochial interests adverse to the interests of consumers. The Commission and other U.S. or foreign government agencies, by contrast, are ill-suited to find the right balance. Because the agency could not practically regulate each SSO individually, it presumably would adopt a one-size-fits-all regulation. But such an untailored approach would surely be an unhappy and suboptimal medium in almost every case. Instead, the better approach is to rely on SSOs' self-regulation in the first instance and let aggrieved parties invoke the wide variety of existing legal doctrines (discussed in the following section) in cases of alleged abuse.

3. Responses to Questions about RAND Licensing Commitments

Most SSOs require members to offer licenses to essential patents to any interested party on a RAND (sometimes royalty-free RAND) basis. Some SSOs have a similar requirement between members. Intel sees no reason for the Commission to require more widespread use of such requirements or to specify a definition of "RAND" or its own notion of appropriate royalties and other licensing terms.

Experience shows that RAND obligations effectively prevent SSO members from outright refusing to license or imposing royalty demands that would have the same effect. Hundreds of SSOs have adopted thousands of standards, and allegations of refusal to license are rare.

Disputes over the reasonableness of licensing terms (e.g., royalty rates) have become slightly more common in recent years, but they are still relatively infrequent. In any event, the courts are well-equipped with existing legal tools to address whether a particular patent holder has insisted on unreasonable or discriminatory terms in a particular circumstance.

The most obvious and useful tool for an implementer to take advantage of the licensing assurances made to an SSO is contract law. SSOs can and do draft rules in the form of contracts that are enforceable not only by the SSO and other SSO members, but also by nonmembers as third party beneficiaries. Indeed, many SSOs keep databases that enable companies wanting to practice a standard to identify which SSO members have made licensing commitments, and many SSOs provide direct access to copies of those documents.

To be sure, SSOs generally do not today define what they mean by "reasonable" licensing terms. While that might have been inadvertent many years ago, all SSOs today are aware of the controversies regarding RAND commitments. Many of them have chosen not to define "reasonable" in their own agreements for a variety of legitimate reasons – because it is too difficult to come up with an

administrable definition that they would like applied in all instances, because there is a wide variety of business models among members and thus no consensus among members SSOs may decide that a lack of specificity is preferable to disgruntled members or excluded parties, because the SSOs concluded that efficient technology selection is most important, and/or because the SSOs concluded that courts were better able to resolve disputes about RAND on a case-by-case basis. The Commission's earlier reports about patent issues, especially its discussion of optimal patent damages, provide valuable guidance to the courts in that case-by-case process.

Often lost in the discussion about "reasonable" terms is the RAND requirement that the patent holder license on "non-discriminatory" terms. Discriminatory licensing is potentially more damaging to competition and economic welfare than excessive royalty demands because discriminatory licensing can enable a patent holder to migrate market power from a technology market downstream to product markets. Yet charging different licensing terms to different licensees is often procompetitive and efficient. To our knowledge, no SSO has attempted to define "non-discriminatory," presumably for the same reasons that they have chosen not to define "reasonable." And with "non-discriminatory," as with "reasonable," courts have numerous tools in contract, tort and competition law to resolve on a case-by-case basis genuine disputes about non-discrimination requirements.

Tort law is also available to address abuses. For example, common law fraud may apply in cases of intentional misrepresentations of fact, and unfair business practice statutes may also apply. The antitrust laws may also apply in cases resulting in injury to competition.

The Commission should not define "RAND." For one thing, if the Commission were simply to define RAND without requiring SSOs to apply the Commission's definition to RAND licensing, it would accomplish little more than lexicon refinement because SSOs would be free – as they are now -- to select the defined RAND or some alternative licensing commitment or no commitment at all. And if the Commission were to require all SSOs to require licensing on RAND terms as defined by the Commission, it would become a price regulator rather than a competition agency. And such a regulation would be a form of compulsory licensing that would raise serious issues under the TRIPS Agreement.

Specifically, among other requirements, the TRIPS Agreement makes it clear that governments can only issue compulsory licenses (i) according to the individual merits of each situation; (ii) after the proposed user of the patent has tried to negotiate reasonable terms and conditions with the patent holder; and (iii) with remuneration based on "the circumstances of each case, taking into account the economic value of the authorization. TRIPS Agreement, Article 31(a), (b), (h). TRIPS in effect prevents a government from establishing generic royalty payment rules because they would undermine the market value of patents that is based on a host of fact dependent circumstances.

In any event, there is no simple, universally applicable test to determine the reasonableness of licensing terms. Any analysis of reasonableness must be context-specific, involve many factors, and in many cases address additional terms beyond the royalty rate. As discussed above, most patent licenses are not a simple exchange of a lump-sum or per-unit royalty in exchange for the right to practice a few patents necessary to practice a particular standard. No regulation could possibly contemplate all the possible models and all the possible terms, and any limited regulation would have the undesirable consequence of distorting or prohibiting creative approaches in a evolving field. Absent far more evidence of abuse than Intel is aware of, the Commission should let market forces – in the shadow of existing contract, tort and antitrust law -- determine licensing practices and SSO licensing requirements.

4. Responses to Questions about Ex Ante Disclosure and Negotiation of Licensing Terms

In theory, it could be helpful for standards developers to understand potential licensing terms (e.g., maximum royalty rates) before a proprietary technology is included in a standard. In theory, that information could help SSO members make an informed decision about alternative technologies and help licensors and licensees agree to terms earlier in the product development process.

In practice, however, ex ante disclosures of future licensing terms have rather limited value, and they may raise antitrust problems. Intel recommends that the Commission remain neutral on this issue and leave it to SSOs to judge what data to collect and whether to make such disclosures voluntary or mandatory. For simplicity, the following discussion focuses on the limitations of maximum royalty rates, but a similar analysis would apply to ex ante disclosures of other licensing terms.

Ex ante disclosures of maximum royalty rates are of limited utility for several reasons. First, as discussed above, simple licenses requiring payment of a royalty in exchange for a license to a few standard-essential patents are not the norm. Most licensing agreements are more complex, involving multiple patents and multiple standards affecting a product line and in some cases broader cross-licenses and business deals. A regulation focused on a simplistic, unusual deal structure would likely have little effect.

Second, ex ante licensing is unlikely to occur in the most common licensing scenarios: those involving new technologies, new product markets, and/or early versions of standards. In those cases, patent holders will often not yet have enough information about the value of their technologies to know what terms to require. Industry experience suggests that, where ex ante disclosure of maximum royalties is mandatory, patent holders are less likely to participate in the SSO -- resulting in poorer quality standards or slower industry adoption of new standards. To be sure, where a draft standard is evolutionary and the product market and patent landscape are well understood, such disclosure may make more sense.

But the SSO is in the best position to assess the circumstances with which it will be faced and thus the optimal rules for it.

In fact, in some cases ex ante disclosures within SSOs may be anticompetitive—leading to, for example, coordinated disclosures of licensing terms (licensor cartels) or coordinated responses to such disclosures (licensee cartels). Indeed, the enforcement agencies have recognized this potential for abuse and accordingly have said that they will assess such situations under the antitrust laws on a case-by-case basis. Intel believes that policy is correct and should be maintained.

Again, Intel believes that SSOs' circumstances are too varied and too nuanced to support generic regulation or prescriptive guidance in this area. Ex ante disclosure should be viewed as an experiment; there is not enough experience to show if it has real value. The Commission should continue to allow individual SSOs to decide what data to collect and what disclosures should be required in their unique contexts. IEEE and ETSI, for example, recently studied ex ante disclosure policies and decided that voluntary disclosure of licensing terms made more sense for them. VITA, in contrast, adopted a mandatory disclosure policy—but then found that policy drove a leading member and primary technology provider to withdraw from the organization. SSOs will continue to learn from these experiences, and the Commission should not interfere with that process by attempting to impose rules that cannot take into account the realities that standards, product markets, and licensing needs vary widely and evolve significantly over time.

5. Conclusion

Intel thanks the Commission for its interest in this important topic. Workshops such as this can help both the Commission and the SSOs and their members explore difficult policy issues and learn from a robust exchange of views. The Commission and other antitrust authorities can play a valuable role in redressing the occasional instances of anticompetitive abuses related to standard-setting and licensing of standard-essential patents.

The Commission should not, however, step in and try to regulate or to provide prescriptive guidance regarding standard-setting and licensing practices beyond enforcement of existing antitrust and other applicable laws. The Commission should place principle emphasis on fostering a legal environment that is most likely to enable technological innovation. To that end, Intel believes that the Commission should remain neutral with respect to alternative and evolving legitimate approaches to dealing with standard-setting issues. Broad, generic regulations or prescriptive statements are unlikely to be flexible enough to account for the nuances and practicalities of different contexts, and they are likely to encourage foreign governments to intervene in other ways that do not further sound competition law principles and could in practice disadvantage U.S. companies. At

a minimum, the Commission should carefully consider the costs of any regulations (to consumers as well as to SSOs, licensors, and licensees) and ensure that any regulatory cure is not worse than the actual disease.

Respectfully submitted,

INTEL CORPORATION

by _____

Earl Nied