Six “Small” Proposals for SSOs
Before Lunch

Renata Hesse
Deputy Assistant Attorney General
Antitrust Division
U.S. Department of Justice

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Introduction

Good morning. It is a pleasure to be with you today in Geneva at the ITU-T Patent Roundtable. This event is an opportunity for members of industry, standard-setting entities, and government officials to discuss some of the important issues that arise when standards incorporate patented technology, thereby making that technology essential to implementing the standard. These issues are an important focus of the Antitrust Division’s work in the last several years, and we have been actively engaged with industry and the standard-setting community more broadly in an effort to ensure that our views are known. I look forward to discussing these issues with you over the course of the day.

I. Role of the Antitrust Division

The mission of the Antitrust Division is to “promote economic competition.” We seek to accomplish this goal by enforcing our antitrust laws and by providing guidance on these laws and the principles that underlie them. In the modern economy, innovation is key to economic growth. Our enforcement and guidance activities are heavily influenced by a desire to preserve incentives to innovate, which we accomplish by engaging in thorough analysis of the economic factors that affect these incentives.

In our enforcement actions, the division, and our sister agency, the Federal Trade Commission (FTC), frequently address complex antitrust questions related to conduct involving the exercise of intellectual property rights. Section 1 of the Sherman Act prohibits agreements that unreasonably restrain trade. Section 2 of the Sherman Act prohibits monopolization where monopoly power is obtained or maintained by suppressing competition through anticompetitive conduct, but not where it is obtained
through superior skill, foresight, or industry. The Clayton Act prohibits mergers or acquisitions that are likely to lessen competition. When enforcing these laws where intellectual property rights are involved, the division identifies and seeks to prevent illegal collusive or exclusionary conduct while, at the same time, preserving the incentives to innovate created by those intellectual property rights. In addition to enforcing the antitrust laws, the division also acts as an advocate for competition in all sectors of the economy. It is our engagement of this second objective that primarily brings me here today.

II. Promoting Innovation in Collaborative Standard Setting Activities

Recently, the division has focused significant enforcement and competition advocacy efforts on the mobile wireless industry where three factors—competition, patent rights and collaboratively set standards—allow our modern economy to harness the benefits of innovation. We work to ensure that these factors work together optimally to provide consumers with high-quality mobile wireless products and services at competitive prices while preserving incentives for the innovation that creates and improves those products.

A. Factors That Promote Innovation

To understand the necessity for the division’s work in this area, let us explore how these three factors promote innovation. Competition creates incentives for invention, innovation and risk-taking by allowing competitors to profit from being at the forefront of technological change. The desire to improve existing products to maintain or gain market share pushes competitors to improve function, design and production
processes. Standing on the shoulders of those who come before them, some leap over existing offerings to introduce radically new products and services that transform the lives of consumers.

Patents, provided for in Article I of the U.S. Constitution, have long played a central role in promoting innovation and economic growth by encouraging individuals and companies to apply their knowledge, take risks and invest in research and development to create a new product or process. “Innovation,” wrote Robert Grant, “is the initial commercialization of invention by producing and marketing a new good or service or by using a new method of production.”¹ In exchange for being granted an exclusive right over a patentable invention for a limited time period, patent holders benefit society by offering new and valuable technologies, improved quality, and increased consumer choice.²

Interoperability standards enable the complementary products of diverse systems to work together. In so doing, they promote efficient resource allocation and production which encourages innovation. The world’s need for interoperability standards is not new, of course, and development of them is often led by industry.

Here is an example from the 1800s, in which the need for a standard was addressed in a similar fashion in both Europe and the United States. For centuries, noon was when the sun was at the highest point in the sky. Consequently, time was different from town to town. Railroads dramatically decreased the time it took to travel between

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¹ ROBERT M. GRANT, CONTEMPORARY STRATEGY ANALYSIS 298 (7th ed. 2010).

locations by horse or by foot. Soon, it became clear that solar time needed to be replaced by standardized time so that trains could run on schedule. This standardization allowed differing rail lines as well as other modes of transportation to interoperate (and decreased accidents on the rail lines). Railroads in Britain began adopting standard time in 1840, and railroads in the United States followed suit, coordinating and adopting standard time within time zones in 1883. Our need for interoperability standards has grown since the heyday of the railroads. Today, interoperability standards underpin myriad improvements in our lives including the exchange and protection of health information, the use of smart grids for the delivery of electricity and the mobile communication devices that have become hallmarks of our time.

**B. Opportunities for Hold-up**

The division’s interest in issues where laws and policies affecting standard-setting activities, patents and competition intersect was highlighted in 2007, when the Antitrust Division and the FTC issued a joint report addressing a number of critical standard-setting issues, among several other topics. Although high technology industries quickly moved from generation to generation of products, our findings remain highly relevant today. The agencies recognized that standards serve the public interest in many ways and collaboratively-set industry standards may substantially reduce transaction costs by helping firms avoid wars between competing standards. We also found that firms benefit from participating in standard-setting processes and having their patented technology incorporated in a standard. Patent holders may gain a first-mover advantage by being the company most competent to implement the technology, or a firm may seek to offer products and services that complement the standard. Firms that participate in
standard-setting activities may be more likely to have their technology included in the standard and are able to seek royalties for products that infringe the valid patented technologies they have promised to license.

However, collaborative standard-setting does not come without some risks to competition. In particular, when a standard incorporating patented technology (owned by a participant in the standard-setting process) becomes established, switching may become difficult and expensive. This lock-in may cause that particular technology to gain market power. Patent holders may seek to take advantage of that market power by engaging in one form of patent hold-up, such as excluding a competitor from a market or obtaining an unjustifiably higher price for its invention than would have been possible before the standard was set. This type of hold-up raises particular concerns when alternative technologies could have been included in the standard before it was set. Patent hold-up can cause other problems as well—it may induce users to postpone or avoid incorporating standardized technology in their products. Consumers could also be harmed when companies implementing the standard pass on increased royalties by raising prices.3

C. Using the Division’s Business Review Procedure to Promote Clarity in Patent Policy Choices Designed to Reduce Opportunities for Hold-up

To reduce the occurrence of such opportunistic conduct, most standards bodies have adopted patent policies that seek commitments from participants to license the patents they own that are essential to the standard (standard-essential patents) on

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“reasonable and non-discriminatory” (RAND) in the United States or “fair, reasonable, and non-discriminatory” (FRAND) terms in Europe and other jurisdictions. However, standards bodies, and their members, have long-recognized the inherent ambiguity of a commitment to license patents essential to a standard on reasonable and nondiscriminatory terms -- after all, what do “reasonable” and “non-discriminatory” actually mean?

The division has advised that standards bodies that set forth well-defined patent policy rules that minimize ambiguity can effectively promote competition. Former Assistant Attorney General Christine Varney explained that “clearer rules will allow for more informed participation and will enable participants to make more knowledgeable decisions regarding implementation of the standard. Clarity alone does not eliminate the possibility of hold-up . . . but it is a step in the right direction.”

In 2006 and 2007, two U.S. standards bodies proposed trying to clarify the meaning of RAND for their standards by getting more information about licensing terms before a standard is set. They asked the division, through our business review letter process, whether their prospective policies covering disclosure of maximum royalty rates or most restrictive licensing terms would cause the department to initiate an enforcement action.

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The division’s business review procedure permits industry to receive guidance from the division about activity that has not yet taken place. A firm submits a written request to the division asking for a letter explaining the division’s enforcement intentions regarding the proposed activity. The firm’s request includes background information and copies of operative documents. In order to assess the likely impact of the activity on competition, division staff often asks the firm for more information, researches the market, and interviews interested parties, potential customers and potential competitors. The division then can issue a business review letter that publicly states the division’s enforcement intentions regarding the proposed activity as of the date of the letter, reserving the right to take enforcement action as necessary. The letter may state one of three conclusions: the division has no intention of challenging the proposed activity, a so-called positive business review; the division is unwilling to issue a business review based on the facts or conditions in the market; or the division cannot issue a positive business review because it foresees anticompetitive harm. The firm may withdraw its business review request at any time so, naturally, most letters we issue are positive.\(^5\)

In 2006, VITA, an international trade association that develops standards for modular embedded computing systems, asked us to review its proposed patent policy that requires participants to disclose essential patents and to declare their maximum royalty rates and most restrictive licensing terms. The department issued a favorable business review letter to VITA because of the likely procompetitive benefits of such a requirement. The division found that such disclosures were likely to increase incentives

for patent holders to compete on licensing terms, allow VITA’s working groups to make more informed decisions and decrease the chances of unexpectedly high licensing demands after a standard is set. In the letter, the division also noted that we would deem licensing activities used as a sham to cover up bid rigging by patentees or the price-fixing of downstream products a *per se* violation of the Sherman Act and prosecute them as such.6

The second business review request came from the IEEE in 2007. IEEE proposed a patent policy that permits, but does not require, the disclosure of most restrictive licensing terms. The policy also permits the relative costs of competing technologies to be discussed within IEEE working groups. The department concluded that efficiencies similar to VITA’s would occur as a result of this policy, and, therefore, that we would not be inclined to take enforcement action.7

Of course, standards bodies have no affirmative duty to implement an *ex ante* licensing policy, and the VITA and IEEE policies are not the only way standards bodies could approach this issue. We are aware that, thus far, there has been little inclination among standards bodies to follow VITA’s and IEEE’s lead regarding *ex ante* licensing disclosures. We saw then, and continue to see now, the potential benefits to competition from the implementation of such an approach.

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D. Current Suggestions for Procompetitive Patent Policy Improvements

The world at this moment is awash in lawsuits related to patented technologies used to make mobile devices which have raised competition concerns around the globe. In this context, the division has identified other potential changes to the patent policies of standards bodies that could benefit competition by decreasing opportunities to exploit the ambiguities of a F/RAND licensing commitment.

After giving this issue a good deal of thought, I would like to identify for you some policy choices that standards bodies could implement which we believe would promote competition among implementers of the standard, potentially benefiting consumers around the world. A standards body could:

• Establish procedures that seek to identify, in advance, proposed technology that involves patents which the patent holder has not agreed to license on F/RAND terms and consciously determine whether that technology should be included in the standard;

• Make it clear that licensing commitments made to the standards body are intended to bind both the current patent holder and subsequent purchasers of the patents and that these commitments extend to all implementers of the standard, whether or not they are a member of the standards body;

• Give licensees the option to license F/RAND-encumbered patents essential to a standard on a cash-only basis and prohibit the mandatory cross-licensing of patents that are not essential to the standard or a related family of standards, while permitting voluntary cross-licensing of all patents;

• Place some limitations on the right of the patent holder who has made a F/RAND licensing commitment who seeks to exclude a willing and able licensee from the market through an injunction.

To my mind, a patent holder who participates in the standard-setting activities and makes a F/RAND licensing commitment is implicitly saying that she will license the patent claims that must be used to implement the standard to any licensee that is willing and able to comply with the licensing terms embodied in the commitment. Thus, it would seem appropriate to limit a patent holder’s right to seek an injunction to situations where the standards implementer is unwilling to have a neutral third-party determine the appropriate F/RAND terms or is unwilling to accept the F/RAND terms approved by such a third-party;
• Make improvements to lower the transactions cost of determining F/RAND licensing terms. Standards bodies might want to explore setting guidelines for what constitutes a F/RAND rate or devising arbitration requirements to reduce the cost of lack of clarity in F/RAND commitments. VITA’s patent policy, for example, creates an arbitration procedure to resolve disputes over members’ compliance with the patent policy; and

• Consider ways to increase certainty that patent holders believe that disclosed patents are essential to the standard after it is set. The number of “essential” patents encumbered by F/RAND licensing commitments at certain standards bodies has increased exponentially in recent years.

It is in everyone’s interest for the scope of disclosure to be broad before a standard is set in order to maximize opportunities to avoid hold-up after the standard is set. However, recent litigation in the United States has demonstrated that a number of patents declared essential to a standard are not, in fact, essential to that standard because standards-compliant products did not infringe them.8

Standards bodies whose members choose to take steps such as these will help the market for the standardized product to work efficiently by lowering costs, increasing transparency and reducing uncertainty – all of which benefit innovation and competition. I want to be clear, though, that implementation of these proposals has not been mandated by any of the division’s enforcement actions and that we continue to engage in dialogue with standards bodies and their members to further refine our thinking about which practices would be most beneficial to competition. The division has found that determining which intellectual property policies to adopt is primarily a private matter for standards bodies so that industry can benefit from experimentation with different costs and benefits. However, the division is ready to enforce the antitrust laws against standard-setting activities that harm competition. We encourage standards bodies that

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revise their patent policies to seek ex ante review through our business review procedures, as VITA and IEEE did, if the proposed revisions could impact competition.

**Conclusion**

The private patent enforcement litigation currently taking place in courts across the United States and in many jurisdictions around the world will, no doubt, affect how patent holders may license and enforce patents essential to a standard. The decision-makers in these actions will be interpreting the licensing commitments that patent holders have made to standards bodies. It would seem to be in the interests of all for firms that benefit from standards to seize the opportunity to eliminate some of the ambiguity that requires difficult ex post deciphering of the scope of a F/RAND commitment. Clarifying or modifying existing intellectual property policies increases the likelihood that the standards you set will continue to promote incentives to innovate. There will be many paths to finding, and clearly stating, the policy choices that work in particular industries for particular standards. The division is fully engaged in working to promote competition in industries where standards and patents overlap. We are looking to the firms that make up the backbone of standards bodies to fully engage in this process as well.