Good morning. On behalf of the Commission, I want to welcome you to our standards workshop. Our focus today will be on ways to limit the risk of patent hold-up that can occur when patented technologies are incorporated into collaborative standards. I would like to take a few minutes to introduce the key issues and questions our three panels will discuss today. But before I do that, I want to take a moment to thank those responsible for organizing this workshop, in particular, Suzanne Michel and Pat Roach from our Office of Policy Planning, Pete Levitas, Assistant Director of the Bureau of Competition, and Joe Farrell, Director of the Bureau of Economics, who will be speaking to you himself after our last panel this afternoon.

I also want to thank our panelists for taking the time to participate in the workshop today. Our panelists have extensive experience with the technical, business and legal issues associated with standard setting activities, particularly in the high technology sector, and will no doubt have very interesting things to say about the subjects that will be discussed today.

Standards are of course ubiquitous in everyday life. They guarantee that the electrical plugs on ordinary household products fit the standardized outlets in our homes. Ordinary products like printer cartridges and tires come in standardized sizes and specifications, which fosters choice and competition in the supply of replacement parts.

1 The Federal Register notice, agenda and other materials related to the workshop can be accessed at http://www.ftc.gov/opp/workshops/standards/index.shtml. The views expressed in these remarks are my own and do not necessarily reflect the views of the Commission or any other Commissioner.
Standards play a particularly vital role in the communications and high technology sectors, making it possible for us to exchange information seamlessly across competing carriers, platforms and devices. Interoperability standards are especially important in network sectors, like wireless communications, where the value of the product to any one consumer grows with the total number of consumers using the network.

Sometimes standards arise de facto in the marketplace, which may not always be ideal. Innovators may be reluctant to invest in R&D until they know which standards will dominate the market, and consumers may delay their purchases until a winner emerges. This is one reason why many industries turn to collaborative development through standards setting organizations. Collaboration can also lead to the adoption of better technical standards, with input from a broad range of knowledgeable engineers and technicians.

On the other hand, collaborative standard setting can raise risks for competition and consumers. SSO members are often product or technology market competitors, and collaboration can raise the risk of anticompetitive agreements to exclude rivals or fix prices. However, since standards development can generate substantial procompetitive benefits, both courts and agencies evaluate most SSO conduct under the rule of reason.²

The risk of patent hold-up—the subject of today’s workshop—is another important competitive concern associated with collaborative standard setting. In the context of the standard setting process, patent hold-up describes a situation where a

patentee is able to exercise increased market power in licensing negotiations because its patented technology has been incorporated into a standard.\(^3\) The adoption of technical standards can generate switching costs that change the competitive landscape for an industry. After a standard is adopted, firms may begin to make irreversible investments tied to the adopted standard. Moreover, collaborative standard setting can be a lengthy process that requires SSO members to reach consensus on a large number of complex technical issues. Changing a standard after the fact can add additional delay that slows the introduction of new products, resulting in lost profits for firms implementing the standard. As a result of these costs, patentees that may have faced meaningful competition prior to adoption of the standard may face little competition after the fact. Hold-up occurs when a patentee uses these switching costs to demand higher royalty rates than it could have negotiated before the standard was adopted.

Where a firm acquires market power through deception or other exclusionary conduct, patent hold-up can be an antitrust violation, as the Commission maintained in its \textit{Dell},\(^4\) \textit{Unocal}\(^5\) and \textit{Rambus}\(^6\) cases. And, as the Commission concluded in \textit{N-Data},\(^7\) conduct that permits patent hold-up can violate Section 5 of the FTC Act even if it does not necessarily violate Section 2 of the Sherman Act.

\(^3\) Patent hold-up is a specific example of opportunism that can arise in the face of sunk costs, a problem that is well recognized in the economic literature. \textit{See U.S. DEPT. OF JUSTICE & FED. TRADE COMM’N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION} (April 2007) (“2007 IP Report”), at 35 n.11, available at \url{http://www.ftc.gov/reports/innovation/P040101PromotingInnovationandCompetitionrpt0704.pdf}.

\(^4\) \textit{Dell Computer Corp.}, Docket No. c-3888, available at \url{http://www.ftc.gov/caselist/c3888.shtm}.

\(^5\) \textit{In re Union Oil Co. of California}, Docket No. 9305, available at \url{http://www.ftc.gov/os/adipro/d9305/index.shtm}.

\(^6\) \textit{In re Rambus Inc.}, Docket No. 9302, available at \url{http://www.ftc.gov/os/adipro/d9302/index.shtm}.

\(^7\) \textit{In re Negotiated Data Solutions LLC}, Docket No. C-4234, available at \url{http://www.ftc.gov/caselist/0510094/index.shtm}. 
However, even where patent hold-up does not raise an antitrust enforcement issue, it remains an important issue for competition policy more broadly. The risk of hold-up distorts the alignment between investment and reward, and can discourage firms from investing in complementary technologies, product development and commercialization. Moreover, patent policies that do not adequately deter hold-up can lead to excessive royalty rates for essential patents. Where standards are involved, excessive royalty rates may be passed along to consumers in the form of higher prices for an entire class of products.

Our three panels today will discuss several possible approaches that SSOs can employ to limit the risk of patent hold-up. The two panels this morning will explore solutions focusing on the “ex ante” period before the standard is adopted. Our first panel will discuss patent disclosure rules. Many large SSOs require their members to disclose patents that read on a proposed standard to facilitate licensing negotiations before lock-in occurs. Disclosure policies, however, vary widely across SSOs.8 Some require disclosure of issued patents but not applications. Some disclosure rules apply broadly to SSO members while others only apply to members directly involved in working groups writing standards. While weak or vague disclosure rules may do little to encourage early negotiations, overly burdensome requirements may slow the adoption of standards or discourage participation in SSO activities, harming the standard setting process and potentially exacerbating patent hold-up problems.

Our second panel this morning will focus on SSO rules to require or encourage the disclosure of licensing terms for essential patents before a standard is adopted. At

least two SSOs—VITA and IEEE—several years ago adopted patent policies that encourage firms holding essential patents to disclose the most restrictive licensing terms they would demand, including maximum royalty rates. Because most SSOs prohibit discussion of royalty rates as part of the standard setting process due to antitrust risks, both organizations asked the Department of Justice to review their proposed policies prior to adoption. In both instances, the Justice Department evaluated the policies under the rule of reason and concluded that it had no intention of challenging the policies.9 Following DOJ’s opinion letters, some expected similar policies to proliferate across SSOs. Yet, it is my understanding that VITA and IEEE are the only major SSOs that permit consideration of royalty rates as part of the standard setting process, which raises another interesting set of issues I expect our panelists will explore.

Some commentators have argued that SSOs should adopt stronger mechanisms to generate competition between technologies vying for incorporation in a standard, such as sealed-bid auctions or collective negotiations.10 But, here too, the solution has likely costs and benefits. Some form of collective negotiation prior to adoption of the standard may limit the risk of patent hold-up by licensors. Yet, there is concern that, in industries where technologies that do not find their way into the latest standard die on the vine, joint

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negotiations may lead to royalties that reflect the collective bargaining power of the licensees, rather than the value of the technology exclusive of switching costs.\footnote{See Joseph Farrell, John Hayes, Carl Shapiro & Theresa Sullivan, Standard Setting, Patents and Hold-Up, 74 ANTITRUST L.J. 603, 632-35 (2007) (explaining that group negotiations could in some cases lead to a reverse hold-up problem that could inefficiently discourage future innovation).}

In our joint Intellectual Property Report in 2007, the Commission and the Justice Department stated that joint negotiation policies will be evaluated under the rule of reason,\footnote{2007 IP Report at 7.} which raises interesting and difficult questions regarding the standards for defining the relevant market, and proving market power and competitive effects.\footnote{See, e.g., Richard J. Gilbert, Deal or No Deal? Licensing Negotiations by Standards Setting Organizations, ANTITRUST L.J. (forthcoming) (explaining that the balancing required under the rule of reason can be a difficult task for SSOs making a large number of standardization decisions).} At least one commentator has argued for an abbreviated rule of reason or “inherently suspect” standard, which would look first at whether joint negotiations are reasonably necessary to support the procompetitive benefits of the collaboration.\footnote{James F. Rill & Christopher J. MacAvoy, Ex Ante Licensing Negotiations in Standard Setting and the Rule of Reason, 4 ANTITRUST REP. 82, 86-87 (2010).} I would be interested to learn more from our panelists today about whether in fact joint negotiation policies are likely to offer practical advantages over other tools to limit patent hold-up.

After lunch, our third panel will discuss RAND royalty commitments—the prevailing “ex post” approach to limiting patent hold-up. Many SSO rules require members to commit to license patents to those practicing the standard on reasonable and nondiscriminatory terms. While some believe that the RAND commitment works adequately to clarify licensing terms and frees SSO members to focus on technical merit
rather than royalty rates, others claim that a RAND commitment is too vague to provide meaningful protection against patent hold-up.\(^\text{15}\)

In our recent report on the Evolving IP Marketplace, the Commission recommends that damages for infringement of a patent subject to a RAND commitment should reflect the outcome of a hypothetical negotiation between a willing licensee and licensor at the time the standard was set.\(^\text{16}\) In this hypothetical negotiation, a licensor will not be able to charge more for its technology than the value it provides to a licensee over the next best alternative at the time the infringer invested in the technology. Properly applied, the hypothetical negotiation framework aligns reward with contribution by linking royalty awards to the market value of a technology. But some claim the approach risks harming incentives to innovate or is too difficult to implement. Our third panel will address both the theoretical and practical issues associated with this and other approaches to clarifying the RAND commitment.

Let me conclude by thanking the panelists once again for participating today and sharing their knowledge and various perspectives. I think we can all look forward to a lively and interesting discussion of these important issues. Thank you.

\(^{15}\) See, e.g., Gilbert, supra note 13 (arguing that reasonable royalties are inherently ambiguous and calling for greater attention to the nondiscriminatory prong of the RAND commitment as a way to limit patent hold-up).