



To the members of the IEEE Standards Association Standards Board:

You will soon be asked to vote on a set of proposed clarifications to the section of the IEEE Standards Association (IEEE-SA) By-Laws that covers the interplay between patents and IEEE standards. The proposed clarifications were approved by the Patent Committee at its June meeting.

As a frequent participant in standards development at IEEE-SA, a regular contributor of patented inventions to IEEE standards, and an implementer of IEEE standards, Cisco encourages you to approve the proposed clarifications. This paper explains why we support the proposed clarifications, and why adopting them will help the IEEE-SA standards development process.

As you know from your years of service to the IEEE-SA, it is a leading consensus-based standards development organization. Some of IEEE-SA's work focuses on interoperability standards involving computing and telecommunications, areas characterized by dense patenting. Implementing IEEE-SA computing or telecommunications standards may require licenses to thousands of patents owned by hundreds of patentees. To give one example, a court recently estimated that there were 3,000 patents required to implement the IEEE 802.11 wireless LAN standard.

The inclusion of patented inventions in a standard can result in a higher quality standard that better anticipates customer needs. The opportunity to license the use of patents to what may be a large community of implementers encourages some participants in standards development to contribute their patented inventions for use in standards. Recent developments in patent licensing and patent litigation suggest, however, that the IEEE-SA By-Laws should be more explicit on three issues at the intersection of patent law and standards development.

The first issue addresses when a patentee that has committed to license patents to implementers of IEEE standards on reasonable and non-discriminatory (“RAND”) terms, can, despite this commitment, pursue an order from a court or government agency that would prevent the sale or importation of products that implement the standard. IEEE-SA and other standards development organizations require RAND commitments to prevent owners of patents essential to implement standards from blocking implementers, who may compete with the patent owner, from selling their products. Nevertheless, by threatening to prevent the sale of products that implement the inventions claimed in hundreds or thousands of patents, patent owners have used the threat of what the Patent Committee defines as “prohibitive orders” to coerce implementers of IEEE standards into unfair and unreasonable settlements.

The second issue concerns the “reasonable” element of the RAND commitment. Unfortunately, there is sometimes disagreement between patent owners and implementers of IEEE standards on what limits the RAND obligation imposes on the ability of a patent owner to seek whatever licensing terms the market will bear. For example, in a recent case involving Cisco, the owner of nineteen patents claimed to be required to implement IEEE 802.11 sent letters to more than thirteen thousand Wi-Fi users across the US, including motels and cafes, seeking 2,500 *dollars* per access point for the right to use. Wi-Fi access point vendors Cisco, Hewlett Packard, Motorola Solutions, and Netgear sued the patent holder to protect their customers. The court determined that value of the nineteen asserted patents was only 9.56 *cents* per Wi-Fi baseband processor. The wide difference in views concerning the value of the asserted patents demonstrates that greater clarity regarding what principles a court should apply in determining reasonable licensing terms would benefit both patent owners and implementers. A common set of principles would help both sides to predict more accurately what patents subject to RAND licensing commitments will be worth, which would make it easier to resolve disputes without going to court.

The last issue involves which implementers of IEEE standards can obtain a license to patents claimed to be required to implement an IEEE standard. The existing Letter of Assurance form requires that licenses be granted “to an unrestricted number of

applicants”. Nevertheless, some owners of patents essential to implement IEEE standards have argued that they are not required to license patents to component vendors like Broadcom, Intel, and Marvell. One reason patent holders take this position is that they believe that they can earn higher royalties by seeking a percentage of the price of a complex end product, for example a smartphone or a wireless access point, rather than the simpler component that encompasses the invention claimed in their patent, like a baseband processor. Indeed, some patent owners have taken this logic a step further, refusing to license patents required to implement IEEE standards at the device level, and instead asserting patents against customers such as hotels, retailers, and communications service providers, to seek a percentage of the revenues the customers derive from services they deliver using IEEE standards, such as the fees hotel guests may pay to access a wireless network.

Cisco has repeatedly experienced each of these issues in cases asserted against our company or our customers by companies that are formed only to buy and license patents, sometimes called “patent trolls”. Our company has been faced with the risk of having products we make excluded from the market by patent owners claiming to own patents required to implement IEEE standards like Ethernet and Wi-Fi. We have been unable to settle patent disputes because the patent owner, often, but not exclusively, a purchaser of patents previously owned by a participant in IEEE standards development, believed its patents were worth far more than what a court later awarded. And we have experienced owners of patents claimed to be required to implement IEEE standards refuse to license our component suppliers, and refuse to license Cisco, while asserting patents against our customers in an effort to receive a windfall recovery based on the revenues our customers derive from the use of our products.

The proposed clarifications to the IEEE-SA By-Laws will address all of these issues. While preserving the right of patent owners to seek prohibitory orders, the proposed clarifications express a preference for the determination of licensing terms without the threat that an implementer will be unable to sell its products merely because it has implemented a widely-recognized standard. Only if an implementer refuses to participate in a process for determining reasonable licensing terms, or fails to comply

with the outcome of that process, will it face an injunction or other prohibitory order. These clarifications restore the original purpose of a RAND licensing commitment, to allow broad access to contributions that are required to implement standards while permitting the owner of the contribution a reasonable royalty.

The proposed clarifications also help both patentees and implementers settle licensing disputes by providing a non-exclusive list of principles courts and arbitrators must apply in evaluating what licensing terms are consistent with RAND. The principles identified in the proposed clarifications are taken from recent court cases, including two cases involving the IEEE 802.11 standard. The principles focus on how much value a particular patented invention adds to an IEEE standard, and how much value that standard adds to the product in which it is implemented. As courts have done, the principles also require courts and arbitrators to examine the question of added value in light of the many other patents that are essential to the same IEEE standard. This consideration will alleviate the concern that cumulative royalties for the entire set of patents required to implement a standard will make implementation of that standard economically impractical.

To address the risk that patent owners will refuse to license certain implementers, the proposed clarifications define a “compliant implementation” of an IEEE standard as one that complies with the standard in whole or in part. This clarification will prevent patent owners from taking the position that they may refuse to license, for example, a developer of baseband processors because another portion of the standard is implemented in an antenna. This change will make clear that the IEEE-SA’s requirement that patents essential to IEEE standards be licensed to “an unrestricted number of applicants” means what it says: owners of patents required to implement IEEE standards cannot gain an advantage in the marketplace by refusing to license competitors.

As the Patent Committee recognized, the proposed clarifications to the IEEE-SA By-Laws are a response to an increasingly contentious environment for the licensing of patents required to implement IEEE standards. The proposed clarifications balance the interests of patent owners, who are entitled to reasonable compensation for inventions

they contribute, and implementers and their customers, who deserve to implement standards without fear of being held up by unscrupulous patent owners who wield the injunction threat, seek unreasonable royalties, or refuse to license particular implementers of a standard. The proposed clarifications deserve your support.

We hope this submission has been helpful to you. Any questions you have about the submission would be welcome.