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Dr. Patrick Gallagher
Co-Chair, Sub-Committee on Standards
National Science and Technology Council
Director, National Institute of Standards and Technology
100 Bureau Drive, Stop 1000
Gaithersburg MD 20899-1000

Re: Standardization Feedback for Sub-Committee on Standards (75 FR 76397)

Dear Dr. Gallagher and Members of the Sub-Committee:

I appreciate this opportunity to respond to the National Institute of Standards and Technology ("NIST") Request for Information regarding the Effectiveness of Federal Agency Participation in Standardization in Select Technology Sectors dated December 8, 2010 ("RFI"). I am writing to urge NIST and the Federal Government to continue its current policy in support of voluntary consensus-based ("VCB") standards developed by standards setting organizations ("SSOs"), and in particular, in support of such SSOs continuing to develop and adopt their own patent policies. In my view, such patent policies are most appropriate when defined by the relevant stakeholders, and when based on market needs, the technology involved, the relevant SSO's structure and governance, among other factors.

I am a partner with Davis Wright Tremaine LLP and I represent a number of SSOs as well as clients who participate as members in SSOs in connection with the development of technical standards. I am a patent attorney whose practice has focused on standards setting issues for more than a dozen years. I am also an adjunct professor at Seattle University School of Law where I teach a class on industry standards and open source software. I have held or currently hold leadership positions in standards committees in the American Bar Association, American Intellectual Property Law Association, and the Intellectual Property Owners Association. My response to the RFI offers background based on my personal observations and experience representing numerous clients in matters that involve patents and standards, and in particular, standards-related patent licensing issues.

The RFI solicits an array of information concerning intellectual property right ("IPRs") and standards. While I have not observed any systemic problems attributed to the inclusion of patented technology in standards, I have noticed a heightened focus on patents and standards in recent years that, in my view, is attributable to competitive strategies employed by entities that have adopted emerging business models.

Background of SSOs

Innovation has and continues to prosper as a result of the diversity and flexibility of the global VCB[1] standards system through both cooperation and competition at many levels. Specifically, SSOs often cooperate by referencing each others' standards and/or ratifying standards developed in other SSOs to provide greater visibility and opportunities for adoption. SSOs also compete on standards, as well as their policies, procedures, operations, and governance. This cooperation and competition is market driven and successful standards are judged in the relevant marketplace. Information and Communications Technology ("ICT") has proliferated into every industry and every business by building upon the internet, web, and wireless technologies as well as the wired communications infrastructure in an interoperable world. The development and global adoption of interoperability standards have brought about many new products and services in virtually every sector of the economy. This impressive level of innovation has benefited from the global VCB standards system as that system has demonstrated the flexibility to evolve in response to ever-increasing market needs.

Unlike most standards that specify health or safety requirements to protect the public interest, interoperability standards are developed based on the pre-existing intellectual property of at least a few, if not several, different commercial entities. Typically these entities are financially motivated to have their products and services work together and/or are interested in finding vehicles for distribution of the results of their research and development efforts. Such entities often contribute technical proposals based on their own intellectual property to SSOs developing relevant standards. The resulting standards often naturally incorporate patented technologies from multiple parties. Given the explosive growth of the ICT sector, based on the thousands of standards that have been developed by SSOs over the past 10–15 years,[2] it would be difficult to

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[1] References to VCB standards herein are intended to have the same meaning as defined in OMB Circular A-119.

[2] For example, the International Organization for Standardization publishes 1,100 new standards every year and has published over 18,500 standards total. International Organization for Standardization, ISO Standards, http://www.iso.org/iso/iso_catalogue (last visited Mar.1, 2011); INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO IN FIGURES FOR THE YEAR 2010 (Jan. 2011), *available at* http://www.iso.org/iso/iso_in_figures_2010.pdf. And the U.S. has more than 100,000 standards in place. Standards Boost Business FAQs, http://www.standardsboostbusiness.org/faq.aspx (last visited Mar. 1, 2011). Another SSO, the International Electrotechnical Commission, produced 483 international standards in 2008. INT'L

conclude that such patented technology has thwarted innovation, competition, and harmed consumers.

Patent Hold-up Concerns

Despite this overwhelming evidence of successful standardization, I have observed requests for government entities here in the U.S. and abroad to interfere with the VCB standards system by establishing constraints on standards-related patent licensing. The entities making these requests allege that such constraints are necessary to avoid "patent hold-up" situations, which they claim are rampant in the ICT industry. In my view, patent hold-up — where a patent holder of an essential patent claim (one that is necessarily infringed by the relevant standard) refuses to license an essential patent claim or refuses to do so on objectively reasonable and non-discriminatory ("RAND") terms and conditions — should be distinguished from situations where a patent holder and an accused infringer merely cannot agree on licensing terms with regard to the infringing technology. The former situation may constitute a true patent hold-up in the context of standards, while the latter simply constitutes a commercial dispute. Commercial disputes involving standardized technologies are rarely, if ever, limited to disagreements over only essential patent claims for a given standard. Rather, such disputes almost always involve many other non-essential patent claims owned by both of the parties involved in the dispute as well as other commercial terms and conditions related to the parties' unique business relationship.[3] In addition, such disputes will not necessarily be limited to the implementation of a specific standard.[4]

Such commercial patent disputes in the context of standards are no different than commercial patent disputes in other contexts where the parties either work out their disagreements by entering into bilateral licensing arrangements or resolve conflicts through litigation. Market forces and existing judicial processes are generally sufficient to address commercial patent disputes. If, by contrast, a patent holder was to refuse to license an essential patent claim and

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ELECTROTECHNICAL COMM'N, IEC PERFORMANCE 2008 26 (2009), *available at* http://www.iec.ch/about/brochures/pdf/performance/IEC_Performance_2008_LR.pdf.

[3] *See* Michele K. Herman, *Negotiating Standards-Related Patent Licenses: How the Deal is Done, Part II*, LANDSLIDE, Nov.–Dec. 2010, at 33–34, *available at* http://www.dwt.com/LearningCenter/BooksPublications?find=364461.

[4] *Id.* at 34.*See also* Press Release, Research in Motion, Motorola and Research in Motion Announce Settlement and License Agreement (June 11, 2010), *available at* http://mediacenter.motorola.com/content/detail.aspx?ReleaseID=12922&NewsAreaId=2 (settlement involving cross-licenses of patent rights relating to 2G, 3G, 4G, and 802.11 standards).

chose to enforce that patent claim against implementers of an applicable standard, such a situation could hold-up the industry from implementing a standard. I have not seen such a "patent hold-up" situation, but I am witnessing growing confusion in distinguishing commercial patent disputes from true patent hold-ups in the standards context. [5]

As concerns grow over the fear of patent hold-up, several solutions to this perceived problem have been proposed. Since in my experience patent hold-up is not a problem, I do not believe that the proposed solutions are needed, and these commercial disputes can be resolved through business negotiations and existing legal mechanisms. Nonetheless, others argue that there are patent hold-up problems that need to be addressed through a variety of proposed solutions that may thwart a patent holder's right to obtain a fair return on its investment in research and development. Such proposals have fueled widespread debate on the topic of patents and standards, and observers to this debate have been led to conclude that the two sides of the debate represent patent licensors who want to charge royalties to implementers of standards and implementers who cannot afford to pay royalties to patent holders. But the debate is not truly about patent "haves" and patent "have-nots," but rather about differing business models.

Developing Business Models

New business models have emerged along with the above-mentioned innovation in the ICT industry. For example, when we purchase a product such as a mobile phone, we purchase it with a monthly subscription service from a telephone service provider. As consumers, we care about

[5] For example, I do not view recent patent lawsuits involving a few telecommunications and wireless standards to constitute patent hold up situations because those lawsuits involve disputes over license terms, and are therefore commercial disputes that are either settled or adequately vetted through litigation. The relevant telecommunications and wireless standards continue to be widely adopted notwithstanding the litigation among parties who can not agree on license terms. Only a few of these cases even raise issues concerning SSO obligations. *See e.g.,* Complaint, *Motorola Mobility, Inc. v. Apple, Inc.*, No. 1:10-cv-06381 (N.D. Ill. Oct. 6, 2010) (patent infringement litigation where patents in suit relate to wireless communication technologies like 3G, GPRS, and 802.11; dismissed without prejudice November 2010); Complaint, *Wi-LAN Inc. v. Alcatel-Lucent USA Inc.*, No. 2:10-CV-408 (E.D. Tex. Oct. 4, 2010) (patent infringement involving 3GPP standard; dismissed LG entities December 2010 presumably pursuant to a settlement); Complaint, *Innovative Sonic Limited v. Research in Motion LTD*, No. 6:10-cv-00455 (E.D. Tex. Sept, 2, 2010) (patent infringement litigation purporting to cover 3G wireless communications technology); Complaint, *U.S. Philips Corp. v. Motorola, Inc.*, No. 7:09-cv-07820 (S.D.N.Y. Dec. 7, 2009) (patent infringement litigation involving 3GPP standard; settlement reached October 2010); Complaint, *Adaptix, Inc v. Clearwire Corp.*, No. 6:09-cv-00562 (E.D. Tex. Dec. 21, 2009) (patent infringement litigation involving WiMAX-related patents related to IEEE 802.16 and 802.16e standards; dismissed by motion of Adaptix in March 2010); Complaint, *Nokia Corp. v. Apple, Inc.*, No. 1:09-cv-00791 (D. Del. Oct. 22, 2009) (patent infringement litigation involving ETSI and IEEE standards); First Amended Complaint, *Wi-LAN, Inc. v. Research in Motion Corp.*, No. 2:08-cv-247 (E.D. Tex. July 3, 2008) (patent infringement litigation involving CDMA2000 and 802.11 standards; settlement with RIM August 2008 and UTStarcom August 2010).

the cost of the phone plus the monthly services, but do not necessarily care how those costs are allocated between the phone and the services. The service provider, however, profits more when the phone is very inexpensive, so that the consumer has more money to pay for monthly services.[6] The cost of the phone can be reduced when the phone does not require licenses to use patented technology. Of course, the service provider can provide new features and sell new services only when the phone can support those services. Service providers naturally want to encourage phone and components developers to incur large research and development costs to develop new technologies (including interoperability standards), which are typically patented by the phone and components developers. But the service provider does not want the cost of these advancements to be incurred by consumers who are willing to pay a certain price for the phone plus the subscription services because it will mean less profit for the service provider. The tension between the business models of the phone/components developers and the telecommunications service providers results in more robust competition and choices for consumers.

The mobile phone market is not the only market where such business models compete. ICT support services that might include services such as installation, maintenance, and consulting, have business models that compete with ICT product developers, such as software developers and developers of various data storage media. Similarly a systems integrator provides value to its customers by combining ICT components (e.g., chipsets, software, electrical connectors, etc.) together to form a final end user product or system, relying on others to invest in the development of the ICT components. Service providers, integrators, and others with similar business models ("service-oriented businesses") that rely on mass marketed products and infrastructure often have patent portfolios,[7] even large patent portfolios, but the value in those

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[6] *See, e.g.*, Chris Ziegler, *Editorial: The American Phone Subsidy Model Is a RAZR Way of Thinking in an iPhone World*, ENGADGET, Feb. 23, 2010, *available at* http://www.engadget.com/2010/02/23/editorial-the-american-phone-subsidy-model-is-a-razr-way-of-thi/; Sascha Segan, *Your Free Phone Cost $240*, PCMAG.COM, Nov. 19, 2009, *available at* http://www.pcmag.com/article2/0,2817,2356098,00.asp#; Press Release, Consumer Reports, Cell Phone Services Improves (Dec. 1, 2008), *available at* http://pressroom.consumerreports.org/pressroom/2008/12/verizon-a-standout-carrier-in-survey-of-23-cities-five-ways-to-cut-cell-bills--yonkers-ny-cell-phone-service-has-become.html; Elizabeth Woyke, *Calculating Your Phone Bill*, FORBES.COM, June 16, 2008, *available at* http://www.forbes.com/2008/06/15/calculating-phone-bill-tech-wireless08-cx_ew_0616bill.html; Laura M. Holson, *New iPhone Pricing Model Is a Step Backward for Consumers*, N.Y. TIMES, June 11, 2008, *available at* http://bits.blogs.nytimes.com/2008/06/11/new-iphone-pricing-model-is-a-step-backward-for-consumers/; Crayton Harrison & Connie Guglielmo, *Apple Analysts Say to Buy As iPhone Goes Mainstream*, BLOOMBERG, June 10, 2008, *available at* http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aEp_LHAU0qdo&refer=.

[7] *See, e.g.*, Press Release, IBM, IBM Awarded Contract to Modernize the U.S. Government's Acquisition and Procurement System (Feb. 18, 2010), *available at* http://www-03.ibm.com/press/us/en/pressrelease/29436.wss ("The project will include the integration of nine key GSA applications into a single system -- based on open source

portfolios may not be concentrated in the standardized technologies that enable their businesses to succeed. Such service-oriented businesses are therefore financially motivated to create the impression that the inclusion of patented technology in standards is a significant problem, that patent hold-up is a significant problem, and that governments and SSOs must find ways to curb perceived patent holder abuses.

First, they argue that RAND is too uncertain because the details of the license are not sufficiently defined by the commitment to RAND licensing. Consequently, implementers of a standard cannot know in advance how much they will be required to pay to implement the standard. This is simply a red herring as far as standards are concerned. ICT products often include dozens if not hundreds of standards and other technology.[8] No one purchasing an ICT product can negotiate a license with a patent holder only for the patent holder's essential patent claims on one standard without expecting to need licenses to additional patent claims that will cover the relevant product or at least other related features. Even if an SSO were to define the license terms and conditions for all participant patent holders, products that implement the standardized technology would almost certainly infringe other patent claims owned by the participant patent holders. If the defined terms and conditions are royalty-free and unrestricted, the patent holders could pursue licenses for their non-essential patent claims for fees that would offset what they had agreed to give away for free. In practice, however, patent holders and licensees do not separately license essential patent claims and non-essential patent claims, they license portfolios that include both, or enter cross-licenses that include both, or form business relationships that involve transactions that expressly or impliedly involve both essential and non-essential patent claims.[9] Furthermore, such arrangements typically are in regard to multiple standards, although they may be related within a given field of use.

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software -- designed to simplify the entire acquisition and procurement process"); Chris Preimesberger, *Red Hat CEO Likens Company to Facebook, Wikipedia in Collaborative Innovation*, eWeek.com, Aug. 18, 2009, *available at* http://www.eweek.com/c/a/Linux-and-Open-Source/Red-Hat-CEO-Likens-Company-to-Facebook-Wikipedia-in-Collaborative-Innovation-489559/ (Red Hat CEO discusses its business model of monetizing enterprise and technical services based on software that is licensed for free).

[8] Brad Biddle, Andrew White & Sean Woods, *How Many Standards in a Laptop? (And Other Empirical Questions)*, SOC. SCI. RES. NETWORK, Sept. 10, 2010, *available at* http://ssrn.com/abstract=1619440 (identifying 251 interoperability standards that are embodied in or directly used by a laptop computer).

[9] For example, a cross-licensing agreement between Samsung and Ericsson, analyzed during patent infringement litigation after the parties were unable to agree on renewal terms, included both essential and nonessential patent claims for WCDMA cellular technology. Michele K. Herman, *Negotiating Standards-Related Patent Licenses: How the Deal is Done, Part II*, LANDSLIDE, Nov.-Dec. 2010, at 33, *available at* http://www.dwt.com/LearningCenter/BooksPublications?find=364461.

Proposed Solution: Royalty-Free Licensing

There have been proposals to create detailed definitions of RAND and to require SSOs to adopt patent policies that are royalty-free for all essential patent claims. Essential patent claims are typically defined very narrowly, however, under royalty-free patent policies, increasing the risk that licenses to non-essential patent claims, not subject to any licensing commitment at all (not even a RAND one), will be needed. There is even a growing effort to require participants to agree to not assert essential patent claims against implementations of standards, eliminating the possibility for patent holders and prospective licensees to negotiate terms and conditions. But such "covenants not to sue" often are not reciprocal and do not have reasonable defensive termination provisions. In other words, a patent holder is expected to waive its patent rights even with regard to parties who have not made a similar agreement not to assert against the patent holder and the patent holder may not be able to revoke its "covenant not to sue" even when an implementer sues the patent holder for patent infringement. These patent policy proposals are draconian for companies that invest substantially in research and development in connection with standardized technology as well as for large companies that use their patent portfolios defensively and are the targets of many patent infringement lawsuits. Adoption of these proposals, therefore, would impose disincentives to the very innovation they claim to protect.

Proposed Solution: Prior Disclosure of License Terms

In the same vein, there is increasing interest to have patent holders that participate in standards setting activities not only declare that they have patents likely to contain essential claims before the draft standard is adopted ("ex ante disclosure") but to also disclose their specific license terms even though they have made a commitment to RAND licensing. Such proposals presume that the patent holder has a one-size-fits-all license for all product implementations and for all licensees regardless of their business model, industry, and business relationships. In other words, the proposal benefits prospective licensees only if all implementers will want to negotiate the same terms with the patent holder as all other implementers. Otherwise, prospective licensees still need to negotiate their own licenses.[10]

Prospective licensees will not, however, share the same goals and objectives regarding the terms of the licenses. They will want to cover different products in different fields of use and will want licenses to different sets of patent claims, not just the essential patent claims subject to the

[10] Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq., Drinker, Biddle & Reath, LLP 9 (Oct. 30, 2006), *available at* http://www.justice.gov/atr/public/busreview/219380.htm.

RAND commitment. They will want to negotiate other types of business terms, e.g., indemnification, co-development, dispute resolution, payment methods, etc.[11] In practice, the most likely outcome of having a patent holder post a set of license terms for its essential patent claims for a hypothetical licensee is that prospective licensees will collectively take that opportunity to negotiate the patent holder's terms and conditions down to terms and conditions that are acceptable to all — the least common denominator. The least common denominator in many cases will be no royalties or fees and no restrictions. If the patent holder refuses to license for free and without restrictions, the group of prospective licensees simply can threaten to select other technology to include in the standard.

Such conduct by a group of prospective licensees could raise competition and other legal concerns. Additionally, the hostile and costly environment for patent holders participating in SSOs requiring ex ante disclosure of license terms is likely to cause innovators with relevant expertise to refrain from participating altogether. Such innovators are likely to include patent holders that may have the most to offer and contribute to the standards setting process. Consequently, these "ex ante" proposals will also likely delay and harm the standardization process. While the competition concerns may be mitigated through appropriate counseling from the parties' lawyers, it seems that there are few, if any, benefits from such proposals in contrast to their many identifiable risks. While driving the cost of standardized technology down is helpful to some business models, especially for patent holders with significant service-oriented businesses, SSO patent policies need to remain balanced to enable various interests to compete in the marketplace.

Impact on Foreign Patent Protection for U.S. Businesses

As other countries consider standards policy, the U.S. in particular should likewise consider how U.S. policy, if implemented elsewhere around the world, could impact U.S. businesses. For example, if another country that is a major U.S. trading partner were to adopt regulations mandating that all standards for green technology must be implemented on a royalty-free basis within that country, U.S. automakers and other U.S. businesses might fear that such a country was attempting to appropriate U.S. IPR. If the U.S. government was to show preferences for royalty-free policies or other policies designed to achieve a similar goal within the U.S., then the

[11] Some proponents of "ex ante" policies have employed overly simplistic analogies to message the need for such proposals, stating that no one would purchase a house if one did not know the asking price for the house. The proper analogy, however, for "ex ante" disclosure of license terms is that the homeowner can state the price it deems appropriate for its kitchen, but a purchaser will not purchase just the kitchen alone but rather will want to negotiate the price and terms for the entire house even if the price of the kitchen is very reasonable.

U.S. government could have a difficult time persuading other countries to avoid similar policies or regulations.

Conclusion

As the government becomes more focused on interoperability standards in areas such as smart grid, healthcare IT, green technologies, cloud computing, and cybersecurity, it should recognize that these debates over patent hold-up are often theoretical and are often motivated by competition among parties with different business models rather than concerns about anti-competitive behavior. In short, SSOs should remain free to define their own patent policies as long as there is no empirical data showing that patent hold-up problems are impeding the development and adoption of standards. SSOs also may wish to experiment with new policies, and as long as those policies are lawful, such experimentation would add to the diversity and flexibility of the global standards ecosystem. Government preferences for certain policies over others may skew the competitive standards landscape that has generated substantial innovation, new business, and many jobs in recent years. And equally important, any U.S. government preferences concerning standards and patent policy may negatively impact U.S. business opportunities for growth abroad, if not carefully devised or considered with all potential impacts in mind.

The current standards ecosystem in large part works well to foster innovation and permit the development of voluntary consensus-based standards that meet both private and public sector needs. While there is an important role for government in articulating public sector standards requirements and participating in the development of relevant voluntary consensus-based standards development, caution should be exercised in promoting "one-size-fits-all" solutions or responding to rhetoric not supported by empirical data that could distort competition among business models. As governments around the world become increasingly involved and interested in interoperability standards and look to the U.S. as a potential model, the exercise of caution becomes even more important.

Very truly yours,

Michele Herman
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