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INTELLECTUAL PROPERTY RIGHTS AND STANDARD SETTING

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EDITOR'S NOTE

THE CHALLENGE OF IPR

For better or worse, intellectual property rights (IPR), and particularly patent claims, are part of the very atmosphere that standards developers must breath as they practice their craft. As a result, I write about them frequently, not only in this journal, but in every other section of this site as well.

This focus arises not only from the fact that impacting IPR cannot be avoided in standard setting, but also because so many things change so frequently in the standard setting environment that affect IPR. Given the economic importance of IPR, there is always a lot to think and write about in this area.

In this issue, I will examine IPR issues from both ends of the telescope. For the benefit of those that are not already acquainted with the intricacies of IPR, I'll provide a high-level overview of what they are all about in the context of standard setting. And for those that are already well versed in this area, I'll focus on some of the IPR stories that are currently in the news.

In this month's ***Editorial***, I review and commend the recent efforts by VITA and the IEEE, two standard setting organizations that have elected to boldly go where few of their peers have as (as yet) traveled. Each has taken the difficult, time-consuming, and even traumatic step of revising its IPR policy to permit (in the case of IEEE) and require (in the case of VITA) its members to disclose the licensing terms they would require to implement their necessary claims in a draft standard, if adopted. This type of "*ex ante"* disclosure raises legal and other concerns that merit careful attention, but the practice could also increase the efficiency and effectiveness of the standard setting process as well. By becoming first adopters of *ex ante* disclosure, these pioneers are providing a service to all other standard setting organizations that may choose to follow their lead in the future.

In my ***Feature Article***, I provide a comprehensive overview of the role of IPR in standard setting, providing a historical introduction, a description of the rights themselves, and an overview of the policies and procedures standard setting organizations have evolved to address them. This is the latest in a series of overview articles I have written that are intended, when taken together, to help anyone to become well-grounded in the essentials of standard setting. Each time I publish one of these articles in the CSB, I also add it to the Essential Guide to Standard Setting Organizations and Standards. At some point in the future, I may make these articles available as a book, to provide a reference in hard copy form for those that elect, or are asked by their employers, to participate in standard setting activities.

In my ***Standards Blog*** selection for this month, I report on a recent IPR-based court decision involving two industry giants (QUALCOMM, Incorporated and Broadcom Corporation), and on allegations by the latter that the former engaged in the same type of abuse of the standard setting process that Rambus, Inc. was convicted of practicing (last week, a federal judge agreed with Broadcom).

In an ***Update***, I describe what's new with Rambus itself. Two weeks ago, the Federal Trade Commission granted the semiconductor technology company a partial stay of the penalties the FTC had imposed upon Rambus in February, pending the hearing of its appeal. Under the FTC's decision, however, Rambus may only have access to the amount of royalties allowed under the penalty order – the balance must be paid by implementers into an escrow account. If

Rambus is successful in its appeal, it will receive those funds. If it loses, they will be returned to the manufacturers that paid them.

And finally, in this month's ***Consider This***, I explore the dire and deleterious impact that *de facto* standards can sometimes have on the user experience, using that most feared and loathed of all garments – the medical jammy – as an example.

As always, I hope you enjoy this issue.

Andrew Updegrove
Editor and Publisher
2005 ANSI President's Award for Journalism

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EDITORIAL

STANDARD SETTING AND INNOVATION: A SALUTE TO VITA AND IEEE

Andrew Updegrove

Standard setting and innovation enjoy an interesting symbiotic relationship. Without innovation, the need for new standards would decrease, and eventually dry up completely. And without standards, many types of innovation would struggle in the marketplace, and some would fail. As the world becomes more virtual and less physical, an increasing percentage of the new products and services that are the fruits of technical innovation will rely upon standards. The hundreds of consortia that have sprung up in the last twenty years bear ample witness to this trend.

Standard setting itself has not traditionally been distinguished by rapid innovation, however. This may be so in part because in the past, standards have more often followed, rather than led or been developed in parallel with the technologies that they serve. Again, while product innovation can be driven by a single individual with a vision, standards by definition are the product of consensus, often achieved with considerable difficulty among those with quite divergent interests. Too, standards must be highly credible to become widely deployed. Each of these dynamics lends itself to conservatism rather than risk taking in the breach.

Of course, innovation is not wholly unknown in standard setting, although it has not always been universally welcomed. To some, the concept of launching consortia in competition with accredited standard setting organizations seemed radical, and even dangerous, when the floodgates of this type of activity were first opened. Today, of course, there are many well-respected consortia that are nearly indistinguishable from their accredited peers in width and breadth of activity, and in the wide adoption of their standards output.

Why would innovation seem threatening to some? Perhaps because consensus-based processes have much to gain when they become recognized as institutions. Those that achieve that status are likely to become enamored of the respect and credibility that institutions enjoy. As a result, change, even in the service of innovation, can seem to be more threatening than desirable.

A natural hesitation to embrace change can be found among many individuals that participate in standard setting as well. Standard setting is, after all, a political process. As in all political processes, the most influential participants are likely to be those that best understand the rules and the system, and that have learned how to use those tools to best advantage. For those on the offense, a stable system therefore offers an excellent opportunity to refine skills and benefit from that prowess.

For those on the defense, predictability offers a sense of security. Predictability is more likely to be found in stable systems, where rules are applied consistently in similar situations. All things being equal, and so long as the rules do not change, a member's competitors are more likely to act, vote and bargain in the future as they have in the past.

The same comfort factor applies to legal risks. Experience has demonstrated that participation in standard setting is not a high risk activity, despite the fact that it involves bringing many competitors into the same room to agree upon common action – ordinarily, the very stuff of which antitrust investigations are based upon. Operating beyond parameters that have proven

to be safe in the past can make change appear threatening indeed, especially if understanding the bounds of safety might seem to require the advice of a legal expert.

For all of these reasons, there has always been great inertia in standard setting. That inertia can make innovation appear to represent purely risk, and offer no potential for reward.

But surrendering to inertia can have its risks as well, although this type of risk may be less apparent. For example, inertia can lead to a gradual loss of efficiency in the standard setting process, higher costs of standards development, a decrease in the market-appropriateness of the standards that are produced, or even a higher failure rate of standards to become widely adopted.

Currently, standard setting is experiencing a sort of innovation challenge, as many participants in the standard setting process conclude that traditional intellectual property rights (IPR) policies are proving inadequate to address the realities of the marketplace as it is evolving today. While some changes that are being advocated in response are relatively minor, evolutionary and non-threatening, others are more dramatic, and may appear to be revolutionary, and even alarming.

One such change involves the so-called "ex ante" disclosure of licensing terms, perhaps even including the prices that a patent owner might demand as a precondition to implementing a given standard. Permitting, or even requiring, such disclosures would seem to require conduct that standards participants have always been sternly warned by lawyers to avoid. Moreover, such a practice would dramatically change many dynamics in the consensus-based process, requiring members to develop new strategies and skills in order to achieve their individual goals.

As a result, those that do not individually feel the need for change are likely to feel threatened, or even hostile, to proposals to amend existing policies to embrace *ex ante* disclosure. These reactions can render the introduction of changes within a consensus-based organization difficult indeed.

Recently, two well-respected, accredited standards development organizations headquartered in the United States have moved in the direction of ex ante, one conservatively, and one dramatically. The first is the IEEE, which is changing its IPR policy to permit *ex ante* disclosure, and the other is VITA, which has gone much further, and voted to put in place a policy that will require it.

The actions of these two organizations, I believe, are to be greatly applauded. Each has gone to great time, trouble, and expense to move these significant process changes through their internal approval procedures. In doing so, they have performed a significant service to the standard setting community as a whole. This is because each organization has served as a crucible within which the benefits, risks and impacts of such a change have been debated, modified and ultimately approved. The resulting IPR policies, offer real-world, “stress tested” examples that other organizations interested in making similar changes can use as efficient starting points for their own efforts.

Moreover, each organization has gone to the time and expense of asking its attorneys to file a detailed request with the United States Department of Justice for a "business review letter." These requests, as well as the DOJ’s responses, are public documents. In each case, the organization’s proposed process has been described in detail. The DOJ has already commented upon, and expressed approval of, the VITA process (the IEEE expects to receive the DOJ's response to its request shortly). While business review letters are unique to their situations and cannot be legally relied upon by other organizations, they can provide valuable information on how regulators view specific instances of *ex ante* implementation. When read in conjunction with earlier policy statements from both the FTC and the US Department of Justice,

the letters requested by VITA and IEEE will provide a growing body of guidance, and an expanding comfort zone, for other organizations to exploit.

A similar service will also be provided by these organizations when their amended policies are reviewed by the American National Standards Institute (ANSI) for compliance with that organization's accreditation requirements. When both policies have been approved as proposed, or as supplemented or changed at the request of ANSI, these determinations will provide guidance for accredited organizations, each of which will benefit from the willingness of VITA and IEEE to act as pioneers.

In summary, I believe that the standard setting community at large owes a vote of thanks to these two organizations for taking the initiative and demonstrating the determination to innovate. Inertia is a seductive force, and neither of these organizations faced an urgent crisis that demanded action. Because they were willing to tackle a tough task, other organizations will find it easier to do so.

Sometimes, standard setting demands innovation as urgently as do the industries that standard setting serves. And, just as in those industries, innovation demands leadership. Hats off to VITA and IEEE for providing must that.

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FEATURE ARTICLE

INTELLECTUAL PROPERTY RIGHTS AND STANDARD SETTING

Andrew Updegrove

Abstract: *Intellectual property rights (IPR), and particularly patent claims, provide special challenges to standards developers. Following adoption of standard, members may be unwilling to share implementation rights on licensing terms that are conducive to wide adoption of the standard (or at all). Or, during the development phase, they may secretly seek to ensure that a standard will infringe their undisclosed patent claims, in order to reap a harvest of royalties when those rights are revealed after the marketplace has already become locked in. Externally, there will often be patent claims that are essential to the implementation of a standard, but which may be owned by those that have little or no incentive to make their valuable IPR available on acceptable terms (or at all). As a result, standard setting organizations must have IPR policies that are designed to minimize - although they cannot totally eliminate - such problems. In this article, I briefly review: the history of IPR issues; those changes in the standard setting landscape that are accentuating IPR concerns today; the ways in which IPR (and particularly patent claims) give rise to concerns for standards developers and implementers; the documents that comprise an appropriate IPR management regime; and finally those areas in which IPR policies are most significantly being challenged and reworked today.*

Introduction: The need to deal with intellectual property rights – principally copyrights and patents – lies at the core of standard setting. At the most basic level, the standards, reference software, compliance test suites, white papers, and other common deliverables that standard setting organizations (SSOs) create are themselves copyrightable works, and can be sold by SSOs, if desired, to defray some or all of the costs of their production. At the level of implementation, standards that dictate technical design features have the potential to require the infringement of patents owned by members and non-members (as compared to performance standards – which only specify output parameters - or physical interoperability standards - which deal with otherwise arbitrary characteristics such as physical dimensions). Patent infringement has more significant economic implications, since the owner of a patent can require the payment of a per-product fee to implement a standard, or can withhold permission to implement the standard at all.

Every SSO therefore needs a set of rules that addresses IPR in order to ensure that the SSO owns its work product upon completion, and to decrease the risk that its completed standards will encounter IPR-based impediments to broad implementation. Those rules typically address questions such as whether and when patent claims must be disclosed, so that participants will know whether all members (at least) will make available any essential patents claims on what are traditionally referred to as "reasonable and non-discriminatory" (or RAND) terms.

Achieving agreement on what such policies should state, and on the process rules under which they are implemented, can be as contentious a process as creating standards with high commercial impact. Differences of opinion on specific tenets and terms exist not only between individual companies, but also between industries and sometimes among nations. In recent years, the importance of patents in some sectors, and particularly in the information and communications technology (ICT) industries, has focused increased attention on IPR policies. That attention has caused existing SSOs to reexamine their rules, and made it all but impossible to form a new SSO until the founders have agreed upon the IPR policy that the new organization will adopt.

In this article, I will survey the changes in the standard setting landscape that are accentuating IPR concerns today; the ways in which IPR (and particularly patent claims) give rise to concerns for standards developers and implementers; the documents that comprise an appropriate IPR management regime; some of the SSOs that have grappled with difficult IPR issues today, and the changes that they have made to their IPR policies; and finally those areas in which IPR policies are most significantly being challenged and reworked today. But first, I will briefly describe the more peaceful days and uniform policies that prevailed before things began to change.

I. The Placid Past

For the first hundred years of standard setting, IPR concerns were relatively easily addressed, because most participants in the standard setting process had roughly similar views on how the rights of inventors and standards implementers should be balanced. During that time period, rules were developed that were reasonably uniform across the world of standard setting, minimizing (if not eliminating) the degree to which owning and sharing IPR complicated the standard setting process.

The relative lack of friction that prevailed during these years also arose from the fact that individual setting organizations often constituted independent ecosystems, with little reason to interact with each other. These organizations could develop rules of behavior under otherwise substantially similar IPR policies that were well understood by their members. In some SSOs, those rules might be highly tolerant of including IPR in a standard that would result in implementers needing to pay royalties to one owner or another, while in others, such an outcome would be seen as very undesirable. Moreover, a single standards organization often served all of the standards needs of an industry niche. As a result, many or all of the standards that a given group of industry participants might need in order to build their products were developed within a single, independent organization, and thus subject to the same set of rules and expectations.

The fact that, standards in most organizations were created until relatively recently by career professionals, also led to stability. These individuals came to know each other well, and collaborated over long periods of time on standards, allowing many potential issues to be identified early in the process, and for differences to therefore be resolved more amicably. In addition, a large percentage of the standards created in traditional industries were unlikely, or indeed unable, to infringe upon patentable inventions (e.g., a standard that sets light bulb wattage increments of 40, 60, 75 and so on, or a standard that dictates the gauges of electrical wiring).

Standard setting also occurred primarily at the national level, and was therefore implemented within a single patent system. Indeed, national standards were often created, or at least used, expressly to make it more difficult for foreign vendors to enter the domestic marketplace. In such a situation, infringement of patents could be considered a favorable attribute of a standard. But in either event, only IPR issues of national relevance were of concern.

For all of these reasons, addressing IPR was a comparatively easy challenge, and did not consume a great deal of time on the part of standard setting organizations, virtually all of which were accredited standards development organizations (SDOs) that were, in addition, required to comply with a single high-level set of IPR rules in order to obtain and maintain accredited status. To the extent that rules varied from organization to organization within the boundaries permitted by such overall rules, these distinctions were not likely to cause problems, due to the level of isolation (noted above) that tended to exist between industry niches, and therefore between those that might be affected by any differences.

Because of this same insularity, cross licenses were often easy to arrange among the traditional leaders of a given industry. And so on, in a process common to matured industries that have an interest in sorting things out, and which have evolved common strategies and practices in order to create predictable market conditions within which to compete. In many SSOs, IPR disputes were therefore unknown, and many members were only dimly aware of the specifics of the IPR policies of the SSOs in which they participated – assuming those policies had specifics at all. Many such policies were in fact only one or two pages of high-level statements of principle, or simple references to, or adoption of, the policies mandated by the accrediting authority to which the SSOs were subject.

In short, standard setting could progress apace with relatively little concern over IPR, either during or after the adoption of a standard.

II The Turbulent Present

A changing landscape: This placid picture began to deteriorate as the ICT industry evolved with increasing rapidity in the 1980s. During these years and after, ICT came to play an ever-larger role in the world economy, and new SSOs (mostly unaccredited organizations referred to generally as "consortia") began to proliferate to create the standards (and in particular, interoperability standards) demanded by these new technologies. The standards that these new SSOs created applied to technical areas that were often the subject of intense patent activity, although not uniformly so. For example, software was not yet patentable in the United States in the early years of this progression, and therefore SSOs setting standards for microprocessors and hardware had concerns not shared by the many consortia that sprang up to create software standards.[1]

The industries that filed these patents were also used to asserting them aggressively, in order to defend their right to recoup their often significant research and development costs, and to reap the profits they expected to earn on such investments. Many also had internal cultures that granted high status, and sometimes-large bonuses as well, to those that were successful in developing the largest number of patentable inventions.

In the 1990s, the convergence of technologies in local, and then wide, and ultimately global networks, as well as the proliferation of wireless and mobile devices, caused further problems, as standards broke out of their sectoral silos. Now, standards that required license fees to implement might be needed in situations where such costs were regarded as intolerable. To make matters worse, a new business model arose that involved the creation of patentable inventions for the sole purpose of generating license fees, rather than to protect the designs of products that the patent owners themselves manufactured. Companies adopting this model profit only from fees paid by third parties, and those license fees can increase dramatically if a patented invention, by accident or design, finds its way into a widely adopted standard. Moreover, since the patent owner (or "troll," as such a patent owners is often unaffectionately

[1] Perhaps this fact explains the two major models that arose to create ICT standards outside of the accredited process during these years: the "promoter-adopter" model that was very frequently employed (and still is) in the microprocessor industry, and the incorporated, nonprofit membership organization that was almost always employed in the software space. The former model can accurately be described as a "by invitation only" contractual arrangement, usually relating to a single standard. The contract entered into among the “promoters” includes a cross license to all patent claims needed to implement the standard, as well as the right to sublicense those claims to “adopters.” The latter is a more flexible creation that usually allows anyone to join, and is well suited to create many standards over time. The promoter-adopter model therefore allows close controls to be maintained over patent rights, while the structure of a consortium usually has a very simple membership application, and therefore must rely upon the adoption and administration of an IPR policy to address patent issues.

called) does not build anything that can infringe someone else's patent, there is no potential to resolve a dispute through negotiating a cross license.

As a result, private parties began to sue companies they believed to have abused the standard setting process by failing to disclose their patent claims, and to complain to government regulators as well. When this occurred, companies with large patent portfolios were at a loss to know whether to be more reassured or fearful, since the only way to be sure that they disclosed a relevant patent claim would be to conduct a search of their patent portfolios. Since some companies participate in hundreds of SSOs, institutionalizing such a practice would be prohibitively expensive. Not surprisingly, these companies strongly resisted any IPR policy change that might suggest that such a search should become a practical necessity. At the same time, they were concerned that they might inadvertently fail to disclose a patent, and either lose the ability to profit from it, or be fined if they tried to do so.

Small companies, or companies with few patents, had different concerns. Not only could they easily determine whether or not they had an essential patent, but they would rarely be able to negotiate a cost-free cross license with a large competitor that owned a patent infringed by a standard, although their large competitors often would. Accordingly, companies with few patents focused instead on the potential for someone to conceal a patent until a standard was widely adopted, and then extort high license fees after the industry had become "locked in," and unable to redesign the standard in order to avoid a commercial tax upon the sale of compliant implementations.

These issues first attracted wide concern in 1996, when Dell Computer entered into a consent decree with the United States Federal Trade Commission. That investigation was brought in response to private party complaints that Dell had participated in a standard setting process hosted by the Video Electronics Standards Association (VESA), and had failed to disclose that it owned a patent that it believed would be infringed by any implementation of the standard under consideration. Only after the adoption of that standard and its initial commercialization did Dell identify its patent and assert a right to require royalties. The FTC concluded that such behavior was a violation of the antitrust laws, and as part of the consent decree, Dell agreed that it would grant a royalty-free license to any implementer of the standard; it was also required to subject itself to FTC oversight in its standards-related activities for a period of ten years. Had Dell disclosed its patent during the course of the adoption process, it could have stated its intention to require a royalty from implementers, and the working group would have had the opportunity to decide whether to rewrite the standard in such a way as to avoid infringement, or to knowingly adopt the standard subject to the royalty requirement.

The impact of the Dell consent decree was substantial, as news of the facts and the significant penalty became widely known. This was less because the integrity of the standards development process had been upheld, but because Dell had contended that it's representative in VESA did not know of the patent in question, and that its failure to disclose was inadvertent.

Regardless of the truth or falsity of Dell's defense, the possibility of making an innocent mistake seemed all too real to large patent holders.[2] From the date the consent decree was announced until the present, SSO member scrutiny of IPR policies has steadily increased. In recent years,

[2] The Consent Decree itself is somewhat ambiguous, and does not clearly state that Dell knowingly withheld disclosure. Whether this vagueness is due to any uncertainty on the part of the FTC, or simply reflects negotiation between the parties, is unknown to this author. The practical effect, however, may have been to raise greater alarm among other standards process participants. For a brief summary of the case, see <http://www.consortiuminfo.org/laws/#dell>. For the full text of the Decision and Order, see <http://cyber.law.harvard.edu/seminar/internet-client/readings/Week10/ftc_complete.doc>.

litigation and investigations have again been launched, based upon similar patters of alleged conduct. The most prominent example involves a semiconductor design company called Rambus, Inc. Rambus has been mired in litigation with multiple semiconductor manufacturers for most of the current decade, and also been convicted of creating an illegal monopoly by the FTC. More recently, telecommunications giants QUALCOMM Incorporated and Broadcom Corporation have been locked in combat, in part over Broadcom's accusation that Qualcomm has engaged in conduct reminiscent of Rambus.[3]

Today, however, some owners of large patent portfolios are shifting their focus away from the possible consequences of an inadvertent failure to disclose an essential patent to a different concern: whether the products they hope to build will be taxed with such high levels of patent fees that they cease to be commercially viable. This is in response to a variety of current trends, including convergence, the increasing number of patent filings in some areas, the possibility that the troll business model will proliferate, and the rising importance of open source software. Several of these trends bear mention in greater detail:

Patent thickets: The number and density of "patent thickets" (i.e., areas of intense patent activity that focus on commercially important technologies) is increasing. When standards are created in areas that have thickets, it is almost impossible not to infringe upon one or more patents. One consequence is that such a standard may provide an economic advantage to companies that can cross license their essential patents at no cost among themselves, while those that do not hold relevant patents must pay royalties. Where the patent owner is a troll, the playing field is level as among all competitors, because all must pay, but the cost in license fees may impede adoption of the standard.

Convergence*:* A single device or service may now include many more standardized technologies than in the past. A mobile device that incorporates a camera, video, PDA functions, a Web browser, text messaging and wireless, for example, will implement hundreds of standards. If implementing even a small percentage of these standards bear requires the payment of royalties, the device may become uneconomical to produce. Where no royalties are involved, a manufacturer may still be forced to negotiate and enter into many license agreements, each with its own terms.

Open source software: The phrase "open source software" implies that the actual source code of the software will be available under one of a number of different licenses that have been accepted by the Open Source Initiative (OSI) as meeting its requirements for being designated as such. Those terms demand, at minimum, that the source code (i.e., code that can be easily understood by a developer, as compared to object code, which is readily "understood only by a computer) must be made available to the licensee. Many licenses, such as the GNU General Public License, or GPL, have additional requirements, such as requiring that someone that modifies and sells software received under that license must make those modifications available under the GPL as well. The GPL also prohibits including any license terms deemed to be inconsistent with its own.

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[3] Several of the microprocessor vendors claiming to have been victimized by Rambus, however, hardly had clean hands. They were prosecuted by U.S. regulators for engaging in a price fixing conspiracy involving chips complying with the same standards, and agreed to pay hundreds of millions of dollars in penalties for violating the antitrust laws in this fashion.

[3] The many private suits and public prosecutions involving Rambus would require thousands of words to summarize. For a short summary and the most recent developments in the FTC's action against Rambus, see Updegrove, Andrew, FTC Caps Rambus Royalties, ConsortiumInfo.org, Consortium Standards Bulletin, Vol. VI, No. 2, February , 2007, at <http://www.consortiuminfo.org/bulletins/feb07.php#update>, and sources sited therein. The most recent activity in the Qualcomm suit is summarized at Updegrove, Andrew, Federal Court Convicts Qualcomm in a "Son of Rambus" Suit, ConsortiumInfo.org, The Standards Blog, March 23, 2007, at <http://www.consortiuminfo.org/standardsblog/article.php?story=20070323094639964>.

When open source software needs to implement standards, parts of the resulting code may necessarily infringe upon patent claims that are essential to the standard. If the standard so implemented permits the patent owner to require license terms that are prohibited under the open source software license, a conflict occurs. As a result, open source community advocates, as well as those commercial entities that are increasingly basing their business models around open source software, do not wish standards that are important to open source implementations to be created under IPR policies that would permit license terms to be imposed that are incompatible with the requirements of popular open source software licenses. The only way to lessen the likelihood of that outcome is by adjusting the IPR policy of the SSO creating the standard to so provide.

For all of these reasons and more, the IPR rules and policies under which SSOs operate today are matters of line-by-line concern to many standard setting participants.

III IPR Policy Coverage and Implementation

While the members of different SSOs will take different paths in creating and deploying an IPR regime, the subject areas that each organization must face are common to all.

Coverage: Each IPR policy that provides comprehensive IPR protection needs to address the following subject areas:

Copyright: Copyright issues under IPR policies are comparatively simple. The near-universal practice is to provide that if a member contributes any material for inclusion in a standard, it retains ownership in that contribution, but irrevocably (a) licenses the SSO to make the contribution available to other members for purposes of considering its inclusion in a standard, (b) licenses the SSO to distribute the eventual standard with the contribution included, in whole or in part, and (c) agrees that the SSO will own the copyright in the derivative work represented by the final standard into which the contribution is incorporated.[4]

The main controversy involving copyright involves not the terms to be used, but the ability of an SSOs right to enforce its copyright when a standard has been referenced by, or incorporated into law. The issue is of significance to SDOs, and not consortia, because the great majority of the former derive significant, and in some cases the majority of their operating revenues from sales of their standards, while the latter rarely charge for their standards at all. In general, there is no question that those SSOs that wish to charge for access to their standards may do so. But in 2003, in a case called Southern Building Code Congress International v. Veeck, the U.S. Court of Appeals for the Fifth Circuit handed down a decision that caused a great deal of consternation among SDOs. In what has come to be simply referred to as "the Veeck case", a dispute arose when a Texas building code referenced a standard, and Veeck posted a copy of that standard on his public Web site. The SDO that had developed the standard thereupon sued Veeck, who defended himself by alleging that it was unjust to require a builder to purchase a standard it was legally obligated to implement.

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[4] Typical copyright license language in an IPR policy might read as follows (the example is taken from the current version of the policy template the author has used in assisting over 60 SSO clients create or upgrade an IPR policy):

> Each Submitter that contributes copyrighted materials to the Consortium shall retain copyright ownership of its original work, while at the same time granting the Consortium a non-exclusive, irrevocable, worldwide, perpetual, royalty-free license under the Submitter's copyrights in its Submission to reproduce, distribute, publish, display, perform, and create derivative works of the Submission based on that original work for the purpose of developing a Draft Specification, Specification or Other Work Product under the Consortium's own copyright.

The holding captured the immediate attention of the SDO community nationwide, despite the fact that it was binding only in the Fifth Circuit, and even though it related only to standards referenced, or incorporated into statute. Following the decision, the SDO sought the intercession of the Supreme Court, which declined to hear the case, despite the fact that at least two other Circuits had issued opinions that reached different conclusions.[5] The holding of the lower court therefore remains binding in the Fifth Circuit - as well as a precedent that courts in other circuits may decide to follow, even if they are not legally bound to do so. As a result of the Supreme Court deciding not to hear the appeal, it remains uncertain whether other courts will follow (or not) the Fifth Circuit's reasoning, and if so, whether they will do so in a more limited or comprehensive fashion.

Trademark: Trademark rules under IPR policies are also non-controversial. Virtually all policies that mention trademarks agree that members retain ownership of their trademarks, and SSOs retain ownership of theirs. Trademarks are particularly important to SSOs that conduct, or authorize the operation of, certification testing, because a license to a well maintained trademark must be obtained by a product or service provider as a precondition to holding its goods or services out as being in compliance with the trademarked standard.[6]

Patents: Simplicity ends with patents, and as a result 90% of the language, and almost 100% of the controversy, surrounds the rules that relate to so-called "essential claims" (i.e., claims that would be “necessarily infringed” by the implementation of the required portions of a standard). Patent issues will be dealt with in detail in Section IV below.

Confidentiality: IPR policies usually deal with confidentiality in one of two ways: by either establishing rules for describing what is entitled to be maintained in confidence, or by declaring that nothing is to considered confidential. The latter approach is more common, and is indicative of an organization that maintains "best practices" in creating what are understood to be "open standards."[7]

That said, there is often a distinction between whether information will be public, and if so, when it will be made so available. In part, this is a reflection of economic concerns, since early access to the text of an evolving standard can have commercial value, and thus provide an incentive to become a member. In addition, those that can view the text and direction of a standard under development could surreptitiously seek to file patent applications on inventions inspired by the evolving standard. If a draft standard is visible only to members that are bound to disclose any relevant patents or patent applications, then such a result can be avoided (at least to the extent that members abide by the rules).

But if the emerging text is available to all, then a non-member could file, or amend, a patent application to place it in the way of implementers without violating any rules at all. For this reason, many SSOs limit access to an evolving specification to members alone, and sometimes only to those that have enrolled in the working group that is producing it, until a later date. For some SSOs, that later date is after final adoption, while for most it is when the draft standard is in near-final form. At that point, many SSOs post the draft for public, as well as member,

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[5] As noted in the brief filed with the Supreme Court by the SDO in the Veeck case, "Does the government's decision to make the copyrighted proposals binding place the copyrighted material in the public domain? The First Circuit said maybe. The Second and Ninth Circuits said no. And nine of fifteen Fifth Circuit judges said yes."

[6] For a detailed examination of trademarks, certification and branding, see Updegrove, Andrew, Certification Testing and Branding, the Essential Guide to Standard Setting Organizations and Standard Setting, ConsortiumInfo.org, at <http://www.consortiuminfo.org/cb/>

[7] The question of what constitutes an "open standard" is at best an open question, upon which there are many opinions (and definitions). For more on this topic, see the Editorial, Feature Article and Trends Article in the March 2005 issue of the Consortium Standards Bulletin, titled What Does "Open" Mean? (Vol. IV, No. 3), at <http://www.consortiuminfo.org/bulletins/mar05.php>.

comment. Those comments will usually be technical, but may also include a warning by a patent owner that implementation may result in infringement of its patent, or an alert by someone that it is aware of a third party patent of possible concern.

Implementation: IPR policies are most often deployed in one of two ways: either by a Board (and sometimes member) adopted policy, or by inclusion in the application that each member must sign to become a member. In the former case, a member signs a much shorter application, but that application includes language that makes all Board-adopted policies binding upon each member.[8]

IPR policies, however deployed, tend to be high-level documents. As a result, a more detailed set of policies and procedures is also required, in order to provide the many procedural rules necessary to guide multiple standards working groups in creating and reconciling the standards being created, in setting rules of quorum and voting, and so on.[9]

As court cases have consistently indicated, it is essential that an IPR policy, once adopted, be consistently described and enforced.[10] Similarly, in order for commitments that members make to be of reliable use in the future, they must be clearly stated.[11] The documentation that instantiates an IPR regime must therefore be carefully drafted and maintained.

The final suite of documents to both institute and implement an IPR regime, and their functions, are commonly as follows:

Document	Function
Membership Application	A binding contract between the SSO and the member, that requires the member to obey the IPR Policy and all related rules and procedures
Bylaw language	A section of this document gives the Board the authority to adopt, amend and administer the IPR Policy and all related rules and procedures
IPR Policy	A set of high-level rules that address all crucial patent, copyright and trademark issues
Assertion Forms	A set of short forms used to disclose IPR and to commit to licensing choices. One form must be completed in connection with, and must accompany, any submission made by a member for possible inclusion in a standard, and a similar form must be completed by every member of a working group at the time that it votes to recommend a draft standard for adoption (some SSOs require non-working group members that vote to adopt a standard to complete a form as well). The forms contain language that tracks the IPR policy, and a member may only select which licensing statement it

[8] The author favors the former approach, in part because it makes the membership application less intimidating. The application provides that the Board can unilaterally amend the policy as required over time, but also provides that no such amendment may be retroactive, and can only go into effect after at least 60 days notice has been given to the membership. This allows any member that objects to the change to resign its membership.

[9] For much more on creating an SSO technical process, and the rules required to operate it, see Updegrove, Andrew, Creating a Standard Setting Organization Technical Process (a Practical Primer), ConsortiumInfo.org, The Essential Guide to Standard Setting Organizations and Standards, at < http://www.consortiuminfo.org/creating_an_sso_process/>

[10] Rambus was successful in some, but not all, of the suits in which it was involved largely as a result of convincing the finder of facts that the JEDEC IPR policy was vague and inconsistently described to JEDEC members.

[11] When asked to assist a new client in revising its existing IPR policies and procedures, the author has often found that members have been permitted to use whatever language they wished when disclosing patent claims that might be infringed by a standard, and in making licensing commitments. Frequently, those commitments were so vague and brief as to be legally unenforceable, whether by accident or design.

	chooses to make, and not change the language of the commitment itself. Exhibits are provided for the disclosure of essential patent claims, and the portion of a draft standard to which they relate
Rules of Procedure	The "bylaws" of the technical process
Trademark Guidelines	Rules of usage for SSO trademarks
Trademark License	As needed, if a compliance or certification mark program is put into place

IV Patent Issues[12]

By far and away the most difficult IPR issues that SSOs must address involve patent claims. Unlike other types of IPR, patent claims can often only be designed around with great difficulty. Sometimes, patent claims can represent complete roadblocks to a solution, either because no alternative approach is technically possible, or economically feasible, to implement.

As a result, most SSOs go to great lengths to avoid knowingly adopting specifications that infringe upon the patent claims of a member or third party that is not willing to cooperate. At worst, such a patent owner may be unwilling to provide a license to anyone that wishes to implement the standard, or may only be willing to provide a license to some, but not all would-be implementers. Almost as seriously, the patent owner may wish to charge a fee or impose other terms that would impede or preclude wide adoption.

Unfortunately, there are two reasons why it is impossible to totally avoid the potential for inadvertent patent infringement: first, conducting patent searches for every standard on a worldwide basis would be both prohibitively expensive, as well as ineffective in avoiding allegations of infringement, because patent owners will often have different opinions about the coverage of their patents than will third parties. Second, only a small percentage of the potential holders of affected patents will typically be members of a given SSO, or even implementers of its standards. Consequently, simply asking those members that are willing to act in good faith whether they have any patents of concern can reveal only some of the patents that may be infringed by any given standard. Even then, a response from an individual to the best of her knowledge regarding the reach of the patent portfolio of her multinational employer can provide minor comfort at best.

Nor can SSO members be required to conduct internal patent searches, since the companies that participate in the largest numbers of SSOs own thousands, and even tens of thousands, of patents. As already noted, no SSO would find itself politically able to impose such a requirement unless its membership included only those with few, or no, patents. Indeed, almost all IPR policies for this reason include a very specific term stating that no member shall ever be required to conduct a formal patent search by reason of its participation in the SSO.

Even if all of these problems could be resolved as to members under IPR policies and rules, non-member patent owners would still be free to act as they wished, and could therefore at best only be cajoled, rather than compelled, into providing license rights to all would-be implementers on RAND terms for any patent claims that might be infringed by a standard.

Despite this discouraging landscape, SSOs nevertheless do what they can to craft IPR policies intended to clear the field of problems involving at least member-owned patents, and in

[12] The text of this section has been adapted and updated from the oral and written testimony presented by the author before the Department of Justice and the Federal Trade Commission at hearings held on April 18, 2002 on the topics of consortia and standard setting, titled Is There a Need for Government Regulation of Standard Setting?. The original text of that testimony may be found at < http://www.ftc.gov/opp/intellect/020418updegrove1.pdf>.

particular to prevent any game playing by members that might otherwise seek to "plant" patent claims in a standard in order to reap future economic or strategic rewards.

Achieving consensus on the rules underlying such policies can be a daunting challenge, however, due to the great value that most companies associate with their patents, and the variety of opinions that they hold on how best to protect that value in the context of standard setting. As a result, and absent special concerns, it is usually sensible for an SSO to adopt as mainstream a policy as possible, since the middle ground represented by such a policy will likely be the only feasible meeting point for conflicting viewpoints. Where an SSO strays from this middle ground, it sometimes finds that its mission may be hampered, or even defeated, due to its inability to attract a broad membership.

Those who are tasked with drafting an IPR policy must therefore understand the positions that individual companies are likely to take on specific IPR policy terms, and the legal and practical concerns that underlie these positions. Sadly, after stating that all patent claims must be available on at least RAND terms, it becomes difficult to achieve consensus on almost everything else.

The issues that lead to this diversity of viewpoints may be usefully sorted and analyzed under the familiar headings of "Who", "What", "When", "Where" and "Why."

Who? Some SSO participants believe that it is sufficient to collect licensing commitments only from those members that directly participate in creating a standard, since these are the patent owners that are able to actively "game" the system, either passively, by failing to disclose their patent claims, or actively, by pushing the process towards adopting a standard that would entitle them to levy a royalty. This requirement to make a binding commitment to license, or to disclose the possibility that a RAND license might not be forthcoming, makes obvious sense from a practical perspective.[13] However, other SSO members may believe that a licensing commitment should be required of every member of the SSO, whether or not it chooses to participate directly in a given process. The practical effect of such a requirement is that the circle of safety is expanded simply by requiring the commitments of more potential patent owners. More significantly, if non-participating members have access to specification drafts as they mature, those non-participating members could file patent applications that track the evolving standard. Unless all members that have access to a draft standard are required to disclose such patent applications, those members that were acting in good faith could later be taken by surprise.

Other SSO members believe that the rules should reach still farther, and insist that any implementer of a standard - whether a member or not - should grant all other implementers a cross license of its own patent claims to the extent necessary to avoid infringement. The impact of this position may impede implementation of a standard, however, since most standards need promotion before they become pervasively adopted, and many implementers may have very low motivations to adopt a standard at all. Where a cross license is required, such non-member companies may choose not to implement the standard at all.

Of course, such a mandatory cross license is not likely to capture someone that has truly bad intentions in any event, as such a patent owner may expect that it can reap far higher returns from taxing all implementers than through implementing the standard itself. As a result, a

[13] While a typical IPR policy will require a member to make a binding commitment that it will license its essential claims on RAND terms if it is disposed to do so, it does not require a member to decide at that point in time that it definitively would *refuse* to do so. Instead, the policy will phrase a negative choice in terms of reserving the right to withhold a RAND license. The reason that a more definitive statement is not required is that, for all practical purposes, a "maybe" is as unhelpful as a "no."

standard may be unlikely to receive much benefit - but can be severely impaired - by a broad cross license requirement. In the case of standards that are relevant to software, such a mandatory cross license term would violate the terms of many open source licenses as well, and thus any standard that was created under an IPR policy that permitted patent owners to require such a cross license would be unacceptable to the developers of the open source software.

For all of these reasons, the most common method of addressing this concern under IPR policies is to permit what has come to be called a "defensive suspension" term in licenses of essential patent claims. Under this licensing term, a patent claim owner that has agreed to provide a license to implementers of a standard on RAND terms is entitled to revoke the license of any implementer that asserts its own patent under non-RAND terms. This levels the playing field for further negotiation, and is considered to be consistent with a RAND licensing commitment.

Who (II)? A related issue briefly alluded to above is whether an assertion by a member representative that she has no patent claims to disclose should be limited to the knowledge of the individual alone, or should extend to the deemed knowledge of her corporate employer (the actual member) as well. For a large multinational company with perhaps thousands of engineers participating in hundreds of standards working groups, this prospect represents an IPR manager's nightmare, unless a decision has already been made by the corporate member that it is willing to make all patents available on RAND terms – assuming that RAND terms are all that the IPR policy requires (and not royalty-free licensing). On the other hand, an assertion to the personal knowledge of a single employee that she is unaware of any potential for infringement is useful only to the extent that it helps preclude conscious misbehavior. While that is an important result, it is less useful than an undertaking that a member will never assert a patent at all on other than on RAND terms.

As a result, many IPR policies acknowledge that *disclosures* are made only to the knowledge of the individual participant, but may still require the member to *commit* to a given course of action, if it later becomes aware of a patent claim that might be infringed. Regardless of which approach is taken with respect to eventual disclosure, a well thought through IPR policy (or the procedural document supporting that policy) will contain a term stating that the member will become irrevocably bound to make a disclosure and licensing statement at the end of the process once it has participated in a working group for some period of time (e.g., 60 days). Otherwise, a member could attend a working group in public, and file patent applications in private, until just before the requirement to put its IPR cards on the table matured, and then drop out, only to reveal its "submarine patents" after the standard had become widely adopted.[14]

What? There is also a difference of opinion over what rights a patent holder must grant. Some believe that, in at least some situations, royalty free licenses should be required from every company that participates in the adoption process. The most fervent champions of free licensing would require every member of an SSO to agree to grant a license to whatever standards may be developed while they are a member (although most would permit a member to resign to avoid this result in a given situation). Not surprisingly, such a comprehensive rule would lead many technology companies to refuse to participate in an SSO with a broad development mission, unless participating in the work of that SSO was extremely important to their business.

While not uncommon, such a rule is found mostly in organizations with small memberships, comprising only companies that have much to gain by creating the standard. Unless the member companies control a large portion of the marketplace, however, the rule can be self-

[14] This is the specific behavior in which Rambus was found to have engaged.

defeating, since other stakeholders that are needed to support the standard, but who have less to gain from its adoption, are often unwilling to agree to so strict a term.

When? While most SSOs require that licensing commitments be made towards the end of the standards development process, others require commitments to be given earlier in order to clear the way for smooth final approval of the standard under development. This is a sensitive issue, because many companies are not willing to commit to grant a license until they have had the opportunity to conduct some degree of internal investigation to discover what, if any, valuable technology rights may be involved. Also, they may wish to assess whether the resulting standard will be highly favorable to their business, and therefore whether any lost licensing opportunity will be outweighed by the benefits anticipated from broad adoption. If a commitment to license, and especially a commitment to license on a royalty free basis, must be made at the time of joining a working group (or soon after), the right to evaluate probable benefits thus becomes limited. Finally, a company may fear that if it makes a licensing commitment in advance, its competitors may conspire to include valuable IPR owned by the first company in the resulting standard.

For companies with substantial patent portfolios and the desire to participate in many standard setting efforts, early decision making is therefore an issue of significance. Conversely, other companies (and particularly companies with small, easily searched patent portfolios) may be unwilling to spend months developing a draft standard, only to learn at the time that a vote to adopt is taken that a participant has a blocking patent, and is unwilling to make rights under that patent available on acceptable terms. Companies that endorse this viewpoint have concluded that the standards they helped developed are more important to them than maximizing the commercial return on their patent portfolios, so long as they can reserve the right to charge a royalty on any of their IPR that may eventually be found to be covered by a finally adopted standard.[15]

Where? Once a standard has been adopted that requires a vendor to obtain one or more licenses as a precondition to implementation, the question arises where and how an implementer can obtain those rights. In an ideal world, all of those rights could be obtained at the Web site of the SSO that developed the standard, along with the SSO's permission relating to the standard itself. In fact, patent owners rarely permit an SSO to sublicense patent claims, and the SSO therefore may grant rights only in the copyright that it owns in the standard itself. This is typically accomplished using a short and simple "clickwrap" license, which exists principally to exclude any warranties of any type (e.g., as to ownership, non-infringement, and so on).

Where any member or third party owner of essential patent claims has asserted the right to require a royalty and/or to precondition implementation upon other license terms (e.g., it may want a defensive suspension right), a would-be implementer must go directly to the patent owner to obtain the necessary rights. Typically, the standard setting body does not become directly involved with the terms of such licenses, and never takes a position as to whether an asserted patent claim is indeed essential. However, an SSO, will usually provide a list of those patent owners that claim that a license is required to implement a standard, together with contact information for such owners.

At times, there are so many patents that are asserted against a single standard (as can occur when a standard overlies one of the "patent thickets" referred to above), the owners of those patents will form a patent "pool." In such a case, an administrator is retained to manage the licensing and economic terms on behalf of all of the patent owners. This allows an implementer

[15] This has been the public position of IBM, the owner of one of the largest patent portfolios in the world, for some years.

to pay a single fee, and sign a single license, in order to obtain all required rights relating to the underlying patents. The fees are then divided among the pool participants, according to a mutually agreed upon formula.

Regardless of the licensing arrangements that relate to patents underlying a standard, a license that forbids the implementer to sublicense can have an adverse impact under many open source software licenses. Such a restriction will not be problematic for an implementer that wishes to build an application for internal use only. But if it is a vendor that wishes to sell that application, then the terms of many open source license agreements would be violated if its customers were obligated to return to the patent owner for their own license (and even if that license could be obtained free of charge).

How? The great majority of IPR policies in existence today still rely upon RAND licensing commitments. A reasonable and important question, therefore, is what exactly does "RAND" mean, and what terms would be considered to be acceptable under a license intended to meet such a commitment? Perhaps surprisingly, SSOs almost never try to define exactly what either "reasonable" or "non-discriminatory" is intended to mean. Even more surprisingly, until recently there have been relatively few disputes litigated between patent owners and implementers over these terms.[16] Most SSOs have shrunk from becoming involved in such disputes, since they lack the resources or the will to do so.

Despite this overall reluctance for any party involved to tackle the RAND definition issue, the popularity of the simple RAND rubric continues, giving rise not only to obvious questions (e.g., how high can a royalty be before it becomes "unreasonable?"), but to more subtle ones as well, such as whether it is discriminatory not to charge a competitor with whom the patent owner already has a cross license anything to implement a standard, while charging another competitor a meaningful royalty to implement the same standard, where there is no cross license already in place. Where this occurs, the second company will be at a price disadvantage to the first.[17]

Why? Another interesting question relates to why given companies take particular positions on certain issues. A simple explanation is that it is difficult for a company to step outside the realities of its familiar proprietary world and assume the mind-set necessary to give away something (i.e., implementation rights in valuable IPR underlying a standard) in order to gain something of greater commercial value. One often under-appreciated benefit of helping ensure the success of a standard is the luxury of making a safe strategic decision (e.g., for a manufacturer, knowing in advance that it is committing to what will prove to be the "VHS" rather than the "Betamax" standard). Thus enabled, it can compete with other SSO members in making better and more appealing products based on the adopted standard, and reap the

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[16] At least two disputes have been in the courts this year, however, involving the application of a RAND commitment to specific licensing terms. The first involves QUALCOMM Corporation, as licensor, and six mobile wireless technology companies, each of which has filed a complaint with the European Commission, alleging that Qualcomm is violating EU competition law by failing to meet the commitments it made to an international standards body to license its technology on fair, reasonable and non- discriminatory terms. See, Leading mobile wireless technology companies call on European Commission to investigate Qualcomm's anti-competitive conduct, at <http://www.broadcom.com/press/release.php?id=774809>. A second and similar suit was recently brought by Foundry Networks, Inc. against Alcatel, Inc., relating to an IEEE standard. See, Updegrove, Andrew, Foundry Networks Files "Son of Rambus" Suit Against Alcatel, ConsortiumInfo.org, The Standards Blog, August 8, 2006, at <http://www.consortiuminfo.org/standardsblog/article.php?story=20060808090427739>. The Alcatel case was settled and dismissed last week under an order of dismissal that binds both parties to keep the terms of the settlement confidential. No helpful guidance on the true meaning of RAND will therefore be forthcoming from this court, unfortunately.

[17] For further examples of problems with RAND usage, see Updegrove, Andrew, Microsoft, Adobe and the Murky World of "RAND," ConsortiumInfo.org, The Standards Blog, June 7, 2006, at <http://www.consortiuminfo.org/bulletins/jun06.php#blog>.

rewards of a more swiftly and surely developing market for those products. Even long-term participants in the standards process can sometimes catch themselves taking a position that is inconsistent with consortium goals, simply out of habit. The most enlightened and successful participants in standard setting (in this author's opinion) are therefore those that most thoroughly "get" the fact that they have far more to gain from the success of a standard than they could expect to gain in patent royalties on any underlying patents that they may own.

Another cause of confusion and insistence on unnecessary and counterproductive positions may arise from the superficial similarity between commercial joint ventures and SSOs. In the former, a small number of companies form an alliance under a joint development agreement to create a product or other deliverable that the participants can then sell, or otherwise exploit. In this type of activity, it is typical for all participants to cross license all patent claims to each other that would be infringed by a jointly created specification, and to permit each other to sublicense implementation rights to third parties as well. But the core cross-license rights are usually restricted to a small number of "by invitation only" participants, that wish to keep control of the design, as well as the most lucrative commercial benefits, to themselves.

In an SSO, however, the goal is to create a standard that is adopted and implemented by as many companies as possible. As a result, every implementer is given equal rights with every other implementer, as an incentive to participate in the ever-widening pool of adopters.

While both types of efforts involve multiple competitors gathering to agree on technology solutions, there are several significant differences. First, the participants in a commercial joint venture are highly motivated to achieve a carefully defined and limited common goal, and are therefore willing to share all IPR needed to achieve that goal. Similarly, their partners are highly motivated to gain access to the same rights, and are therefore willing to enter into sublicenses and agree to payment terms. The legal vehicle employed by the joint venture participants - a contract - is appropriate, since few or no new members are expected to join, and the founding members are not expected to leave until the goal has been achieved. Finally, there is no need to create a pretense of "openness."

In sharp contrast, an SSO needs to allow members to join and leave, and needs to make it as easy and attractive as possible for non-members of many stripes to adopt and implement its standards. A key component in achieving this goal is to structure itself and operate in as "open" a way as possible, to negate any appearance that one or more companies can unduly influence the eventual nature or availability of its standards, thus giving them a commercial advantage over other implementers.

Since most individuals who represent companies in SSO activities - and even those who are tasked with forming new consortia - have limited knowledge about the theory and practice of SSO formation and operation, it is easy for them to assume that whatever previous organization they have participated in represents the gold standard of structure and governance. One unfortunate outcome of this reality is the surprisingly large number of consortia that have been formed on the more restrictive commercial joint development model, even where the tight controls and high demands of that model were unnecessary. Where this has occurred, the result has usually been to hamper, rather than lead to, the success of the organization.[18]

[18] When this is later realized, such an organization often restructures itself, and adopts a more open model. I have assisted in several such latter day conversions, all of which were followed by increased success for the SSOs involved.

V Current Issues and Trends

Thus far, this article has described the general shape of IPR policies, positions and solutions that have prevailed over the past decade. Today, however, some participants in the standard setting community are calling for significant changes in IPR policies and practice. Topics currently under discussion include the following:

Ex ante disclosure: The basic concept behind *ex ante* disclosure is "earlier is better, and more is better." In practice, what that means is permitting or requiring those that are involved in creating a standard to state more than just whether they have patents, and whether they are willing to license them on RAND terms, but some or all of those terms (including pricing terms) are as well.

The very topic of *ex ante* disclosure causes alarm for some, due in part to antitrust concerns. For decades, those that participated in standard setting activities have been instructed by their lawyers to never make any mention of prices in a room populated with competitors. While certainly it is true that the actual negotiation of prices among competitors could have dire results, representatives of both the Federal Trade Commission as well as the Department of Justice have made statements in the last two years indicating that *ex ante* disclosure, properly undertaken, could be looked at favorably by the regulators, and in fact could have procompetitive, rather than anticompetitive, effects.

Recently, two ANSI accredited SSOs, the IEEE and VITA, have drafted amendments to their IPR policies that would permit (in the case of IEEE) and require (in the case of VITA) the disclosure of the terms upon which essential patent claims would be licensed under a draft standard, if finally adopted. Both organizations submitted requests to the DOJ for "business review letters," under which the SOJ would evaluate the SSOs proposed *ex ante* procedures. The DOJ has already responded favorably to the VITA request (the response to the IEEE request is pending, as of this writing). The guidance provided in those letters, as well as in any letters that may issued to other SSOs in the future, will be very useful to those SSOs that wish to consider similar amendments.

The IEEE and VITA policies will also be reviewed in the context of the rules of the American National Standards Institute (ANSI), the accreditor of each SSO. That review will be conducted by the ANSI Executive Standards Council (ExSC), the appointed body for the task under the ANSI Essential Requirements: Due Process Requirements for American National Standards.[19]

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[19] The review process for SSOs that develop American National Standards is described in Section 4.1.3 of the Essential Requirements, which provides in part as follows:

> Whenever any revision is made to a standards developer's procedures on record at ANSI, the ExSC shall be notified and provided with a detailed description of the changes. If the changes are considered by the ExSC to be non-substantive, the standards developer will be notified and, upon such notification, may begin to operate under the revised procedures. If the changes are considered by the ExSC to be substantive, notice of these changes shall appear in *Standards Action* with a call for comment. Copies of the revised procedures shall be made available by the applicant to any party, upon request. If a developer submits their procedures in an electronic format and authorizes ANSI to post them on *ANSI Online* for purposes of public review, then the associated call for comment period in ANSI's *Standards Action* shall be 30 days and shall be announced as such.

Essential Requirements (January 2007), Section 4.1.3, page 14, available at <http://publicaa.ansi.org/sites/apdl/Documents/Standards%20Activities/American%20National%20Standards/Procedures,%20Guides,%20and%20Forms/Essential%20Requirements%20Jan3107.doc>.

As with the DOJ business review letters, the results of these reviews will be instructive for other ANSI accredited SSOs that may wish to amend their own policies and procedures.

The overall topic of *ex ante* disclosure, however, is a difficult one, and there is a wide variety of opinion regarding the advisability of wide-scale adoption of changes to permit such disclosures. Some very large companies, particularly in the information technology sector, are strongly in favor of such changes, while others in the same market space are opposed. The reasons for such opposition range from concerns over antitrust exposure, to the belief that such disclosures will not prove to be useful, to a desire to retain as much freedom of movement as possible in order to maximize licensing returns.[20]

Royalty free licensing: There has long been a preference in many sectors for adopting standards that would successfully avoid infringing patents that would have price tags attached. With the advent of the Web, efforts to achieve this objective became more determined in some organizations, and in particular in the World Wide Web Consortium (W3C), an SSO with a broad technical program, a very large membership (including most of the largest IT companies in the world), and an important mission. Those who participated in the revision committee at the W3C endured a marathon, three-year process that eventually resulted (in May of 2003) in an amended IPR policy intended to make it nearly impossible to finally approve a standard that knowingly would result in the requirement of paying a royalty or other fee to a patent owner.[21]

The arduous process followed by the W3C involved the business and legal representatives of many of the largest technology companies in the world, and marked something of a watershed. Prior to the approval of the new policy, such an outcome would have been difficult to imagine, but afterwards, other SSOs could more seriously consider adopting policies that either mandated the same result, or permitted individual working groups to operate under a similar rule set. The Organization for the Advancement of Structured Information Standards (OASIS) took this approach in an amended policy (which itself took two and a half years to complete) that was adopted on April 15, 2005.[22]

Open source licensing: Many of the licenses under which "open source" software, and in particular "free and open source software" (FOSS), is developed prohibit certain types of conduct on the part of anyone that wishes to commercially redistribute a software product that includes the open source software, whether in whole or in part. As has already been mentioned, some of those prohibitions relate to terms that would be otherwise acceptable in licenses that apply to patents underlying the implementation of open standards.

The result has been not only a periodic clash between advocates of open source licensing and developers of open standards, but further complications for the already difficult process of

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[20] For a much longer analysis of ex ante issues and recent events, see Updegrove, Andrew, Ex Ante Disclosure: Risks, Rewards, Process and Alternatives, ConsortiumInfo.org, Consortium Standards Bulletin, Vol. V, No. 6 (June 2006), at < http://www.consortiuminfo.org/bulletins/jun06.php#feature>, and sources cited therein, as well as the other articles in the same issue.

[21] Section 2 of the W3C Patent Policy now provides as follows:

> In order to promote the widest adoption of Web standards, W3C seeks to issue Recommendations that can be implemented on a Royalty-Free (RF) basis. Subject to the conditions of this policy, W3C will not approve a Recommendation if it is aware that Essential Claims exist which are not available on Royalty-Free terms.

W3C Patent Policy 20 May 2003, at < http://www.w3.org/Consortium/Patent-Policy-20030520.html>. The current policy, incorporating minor changes, was adopted with insubstantial amendments on February 5, 2004, and can be found at < http://www.w3.org/Consortium/Patent-Policy-20040205/>.

[22] OASIS Intellectual Property Rights (IPR) Policy, adopted April 15, 2005, at < http://www.oasis-open.org/who/intellectualproperty.php>.

achieving consensus over IPR policy rules.[23] When OASIS adopted the new IPR policy noted above, it added a track under which a given working group could decide to create a standard under rules conducive to open source implementations (it also included tracks that allow only RAND-free implementations, and finally a third track, that would allow RAND-royalty assertions).[24]

Harmonization: Given the difficulty of achieving consensus on IPR policy terms and the great amount of effort that negotiations over such terms can consume, several recent initiatives have been directed at harmonizing, or at least better understanding, IPR terms.

One such effort has been underway in a subcommittee of the American Bar Association for over two and a half years. During this period, attorneys have been meeting regularly by telephone and in person to create an illustrative IPR policy, with annotations explaining the rationale behind common IPR policy terms. One important goal of this project is to permit new SSOs, as well as existing SSOs that wish to upgrade their IPR policies, to more easily achieve consensus over what their own IPR policy should state.

Another effort relates to making it less confusing and burdensome to participate in multiple SSOs. On March 19, 2007, the three "Big I's" of global standardization, the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU), jointly announced that they had "harmonized" and "aligned" their respective patent policies.[25]

RAND specificity: Although no specific efforts are known to this author to be underway to define RAND with precision, the vagueness of a RAND declaration is becoming the subject of increasing criticism, as well as litigation, as earlier noted. While mandatory *ex ante* disclosure requirements could moot the need for RAND declarations entirely in some SSOs, it is possible that other SSOs may someday decide to more precisely define exactly what RAND should mean instead, in order to narrow the scope for potential downstream surprises.

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[23] For more on the efforts to reconcile the needs of the open source and open standards communities, see the following prior issues of the Consortium Standards Bulletin: Bridging the Open Source- Open Standards Divide, Vol. V, No. 5 (May 2006), at < http://www.consortiuminfo.org/bulletins/may06.php> and What Does "Open" Mean?, Vol. IV, No. 3 (March 2005), at <http://www.consortiuminfo.org/bulletins/mar05.php>.

[24] In exchange for its troubles, open source advocates led by Larry Rosen issued a call to boycott OASIS standards, because OASIS had not converted its entire IPR policy to the open-source friendly rule set. This Call to Action may be viewed at < http://perens.com/Articles/OASIS.html>. While much in the news in 2005, this issue seems to have inexplicably faded from view more recently. Presumably, this is a temporary lull rather than a permanent truce, given that real issues underlying these concerns remain to be resolved.

[25] See the following ITU press release: IEC, ISO and ITU, the world's leading developers of international standards agree on common patent policy at <http://www.itu.int/newsroom/press_releases/2007/05.html>. The press release describes the action taken as follows:

> The world's leading international standards organizations have adopted a harmonized approach to address the inclusion of patented technology in standards. IEC (International Electrotechnical Commission), ISO (International Organization for Standardization) and ITU, under the banner of the World Standards Cooperation (WSC), have aligned their policies which allow for commercial entities to contribute the fruits of their research and development (R&D) activity safe in the knowledge that their intellectual property rights are respected.

VI Summary

It would be an extreme understatement to suggest that the technology industry has reached a state of clear consensus on what constitutes the ideal IPR Policy. A single example from the author's experience will demonstrate how elusive a goal such a state of universal enlightenment could prove to be. Not long ago, I spoke separately with two in-house attorneys from the same company, on the same day, relating to the IPR policies of two different consortia. In each case, the lawyer to whom I spoke was adamant in his contention that his company could not, and would not, join any SSO with an IPR policy that included the language in question. The problem was, of course, that the language under discussion in each case was essentially the same, while the positions taken by the two attorneys were diametrically opposed.

The good news is that awareness of the issues at stake in IPR policies has risen remarkably, in part due to the fact that several high-profile cases involving standard setting abuse have been recently litigated. While this increased attention has brought more stakeholders into the discussion, and therefore has slowed the process of achieving consensus, that same dialogue has served to make those participating in these discussions better versed regarding common IPR policy concerns, as well as better acquainted with the compromise terms upon which these concerns are most likely to be resolved.

Notwithstanding this relative progress, it will likely remain a challenge for each SSO to craft an IPR policy that all of its members can live with, and which can still facilitate the achievement of standard setting goals. While the process of promulgating a robust policy can hardly be described as recreational, it is a task that cannot be avoided by any new consortium that wishes to recruit members. Similarly, every existing SSO that has not reviewed its IPR policy in recent years would be well advised to subject its process and rules to a critical analysis, with the goal of purging it of ambiguities and to bring it up to date with current member expectations.

For an existing consortium, tackling an overhaul of current policies will inevitably be a challenge. But for the members of a new consortium, there is an advantage to be gained by tackling the process while their numbers are few, and consensus is therefore more easily achieved. Thus, the virtue of facing up to a rather thankless chore early on will be rewarded by an easier path to a successful conclusion. Those who shrink from that chore will inevitably face a much more difficult task down the road.

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FEDERAL COURT RULES AGAINST QUALCOMM IN A "SON OF RAMBUS" SUIT

Friday, March 23 2007
Views: 901

A Federal Court sitting in San Diego, California has upheld a jury's unanimous verdict that QUALCOMM Incorporated abused the standards process by failing to make timely patent disclosures during the process of developing a technical standard. The litigation arose when Qualcomm filed suit against arch-enemy

Broadcom Corporation, an implementer of the standard. The decision follows on the heels of a unanimous verdict by the Federal Trade Commission against memory technology company Rambus, inc. under similar factual circumstances.

Cases involving standards abuse are infrequent, but Qualcomm and Broadcom are currently involved in as many separate pieces of standards-related litigation as the entire industry usually indulges in over a period of years. In one suit (in which I helped draft and file a friend of the court brief on behalf of several standards organizations), Broadcom alleges that Qualcomm refused to honor its pledge to license its "essential claims" under a standard on "reasonable and nondiscriminatory terms." Other suits are continuing in multiple courts in several countries, including an antitrust suit that Broadcom lost –but perhaps not permanently – before the FTC issued it's verdict in Rambus. Ironically, the flurry of legal action is helping develop judicial guidelines for standards development and licensing on a more rapid basis than usual.

The current case was brought by Qualcomm in October 2005, and involved two patents that it later alleged would be infringed by implementing H.264, a video compression standard developed by the Joint Video Team (JVT), an effort supported by two global standard setting bodies, ITU-T, acting through its Video Coding Experts Group (VCEG)and the ISO/IEC, acting through its Moving Picture Experts Group (MPEG). The jury concluded that implementing the H/264standard would not result in infringement, but also indicated that it believed that Qualcomm had acted improperly before the United States Patent Office (USPTO) in obtaining the patents in question.

In affirming the jury's verdict, the federal judge found that Qualcomm's behavior was equivalent to that of Rambus, Inc., as determined by the FTC:

> Qualcomm waived its rights to enforce the…patents against H.264 products by its silence in the face of a "clear duty to speak" to identify to the JVT its IPR related to the development of the H.264 standard….The non-disclosure of a participant's core patents in such a program could put the participant in a position in which it could literally block the use of the published H.264 standard by any company unless the company obtained a separate license from the participant. Such an undesirable consequence is likely one factor behind the basis for the Federal Circuit ruling in Rambus, which the Court applies in this case.

But unlike the FTC, which recently decided to limit, rather than eliminate, Rambus's right to charge royalties to implementers of the SDRAM standards there at issue, the Qualcomm court has apparently decided to apply the penalty levied by the FTC in its prosecution of Dell

computer, a decade ago – and bar Qualcomm from enforcing the patents against implementers at all.

Broadcom, not surprisingly, is taking the verdict well. In a press release issued earlier today titled "Federal Court Rules that Qualcomm Abused Industry Standard Process," David A. Dull (unfortunate name, that), its Senior Vice President and General counsel, stated:

> We are pleased that the court agreed with the jury's recommendation on standards abuse and believe the evidence that came to light in this case is illustrative of Qualcomm's ongoing abuse of the rules of industry standards bodies. It confirms what the industry has long suspected: that Qualcomm does not shoot straight with standards bodies. We are continuing to examine their conduct before various cellular and other standards bodies.

Qualcomm, naturally, sees it a bit differently, especially for purposes of its own press release. Instead of focusing on the part of the opinion that held it had failed to disclose its patents, it directed the reader's attention to the fact that the USPTO decided that Qualcomm had not failed to disclose important "prior art" as required, when applying for the patents in question. As a result, while Qualcomm may not be able to assert the patents against implementers of the H. 264 standard, the patents themselves will stand, and can be used to economic advantage in other applications.

The press release in which Qualcomm made this point bears the following rather lengthy title: "Federal Judge Rules QUALCOMM's Conduct before U.S. Patent Office Lawful But Finds QUALCOMM Did Not Meet Unwritten IPR Disclosure Expectations of Standard Setting Group." That press release begins:

> A federal judge ruled today that "despite the jury's advisory verdict to the contrary, the Court finds no clear and convincing evidence of inequitable conduct" by QUALCOMM Incorporated…in obtaining two patents. …A 2005 suit filed by QUALCOMM in San Diego federal court accused Broadcom's video encoding chips of infringing the patents. At a trial in January 2007, Broadcom argued that QUALCOMM had deceived the Patent Office by withholding certain alleged prior art in order to obtain the patents. In today's ruling, Judge Rudi M. Brewster flatly disagreed, finding that QUALCOMM had disclosed the most relevant prior art to the patent office and that QUALCOMM was not guilty of any conduct before the Patent Office that would render the patents unenforceable.

The release goes on to more delicately admit that the judge also ruled that Qualcomm's patent disclosure "was not timely," and that disclosure, in any event was mandated only by:

> …the unwritten expectations of the group's members….Notably, the court did not find that QUALCOMM had violated any provision of the JVT's written intellectual property policy, but rather that a duty to make an earlier disclosure arose from his conclusion that the JVT members considered themselves obligated to make IPR declarations in circumstances not mandated by the written IPR policy.

Qualcomm's own general counsel, Lou Lupin, was "gratified" by the finding on the USPTO issues, but less happy about the disclosure ruling, stating:

> We are very troubled, however, by the judge's finding that an obligation to make IPR declarations may arise in the standard setting environment from members' 'understandings' not expressed in the standard setting organization's written IPR policy. Such a rule would leave companies whose businesses require them to participate in standardization efforts in the untenable position of having to guess what their disclosure obligations might be. We respectfully disagree with the court's reasoning that strict compliance with a standards body's written IPR policy is not enough. We also believe that, even if such an unwritten obligation could arise when the standards body members all considered themselves to be so obligated, all evidence here was that the JVT participants did not.

The court will reconvene on May 2, 2007 to consider the issue of damages, at which point, one assumes, further dueling press releases may be anticipated.

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RAMBUS UPDATE:

FTC GRANTS A PARTIAL STAY TO RAMBUS

March 20, 2007
Views: 442

Memory technology developer Rambus, Inc. secured an important, but not unexpected tactical victory on Friday, when the Federal Trade Commission released an order partially staying the sanctions that it imposed on February 2, 2007. In the earlier order, the FTC prohibited Rambus from charging royalties in excess of those the Commissioners determined Rambus could have charged to implement two standards, absent its abuse of the standards process that created those standards. Under the new order, Rambus will be permitted to continue to charge the rates it demanded prior to the FTC's intervention – but only if it causes the excess amounts to be paid by its licensees into a court-approved escrow account. The order is conditional, and will not become effective, unless Rambus files its anticipated appeal of the original decision in a Court of Appeals prior to April 12, the effective date of the February 2 decision.

The Commissioners' latest Order will be welcomed by Rambus' stockholders, because Rambus would otherwise have been required to either drop its rates on April 12, or seek to renegotiate all of its licenses in such a way as to require make-up payments from its licensees, should it ultimately succeed on appeal.

But the new Order will not be good news for Rambus licensees, who will be deprived of the near-term use of royalties that the FTC has already held to be excessive, and illegally obtained. Those funds may eventually be returned to the licensees – with interest, but minus the fees of the escrow agent – if Rambus loses its appeal at some yet to be determined point in the future.

Friday's Order denied Rambus's plea to stay the other terms of the Commission's original ruling, because (as noted in a footnote to last Friday's decision) Rambus did not "articulate any reasons for staying" these provisions. That Rambus would have failed to do so is not surprising, given that these other provisions bar Rambus from misrepresenting or failing to disclose its patents in standard setting organizations (e.g., in so many words, "thou shalt not cheat").

While the Commissioners called their decision "a difficult one" in the Conclusion of the Order, in fact the partial stay was not contested by the FTC's own Complaint Counsel, presumably because he believed the relief sought by Rambus to be reasonable under the FTC's own Rules of Practice and Procedure (16 C.F.R. Section 3.56(c)). Under those rules, the party asking for relief must address the following four factors:

1. The likelihood that the applicant will succeed on appeal

2. That it would suffer "irreparable harm" if the stay is not granted

3. The degree of injury that other parties would suffer if the stay is granted

4. Why the stay is in the public interest

As it happens, the first factor is rather easily addressed, given that there is precedent that the mere fact that a "complex factual record" is involved is sufficient to give rise to a chance that another court may come out differently.

The second factor is most obvious, given the possibility that Rambus might not find itself able to recover the excess funds by any other means.

The third factor is addressed by the escrow arrangement, which the FTC will review, and which the Commissioners describe at length in the order in an effort to ensure that the impact on licensees (other than the interim loss of use of their funds) will be as gentle as possible. Moreover, the Commissioners note that the damage to licensees will not be irreparable if Rambus loses its appeal, while the damage to Rambus might well be, if its appeal succeeds.

The Commissioners do not address the last "prong" of the test convincingly, or directly. Unlike the first two factors, which are addressed specifically, the Order discusses the last two tests together, balancing the relative harm to Rambus of one outcome, and to the public of the other. That analysis primarily addresses factor 3 – which addresses the negative impacts, but not factor 4 – which deals with the positive effects (e.g., not whether harm will result, but whether a positive result will obtain). The closest that the Order comes to addressing the fourth test head on is this simple statement:

> …we note that a blanket stay of the provisions prohibiting Rambus from collecting excess royalties would frustrate the Commission's efforts to restore competition to the relevant markets.

The Order also includes a further point of significance to the marketplace: a clarification (to the extent that any clarification was in fact necessary) that the Commissioners' February 2 order was intended to impose only a "forward-looking remedy." Rambus had rather implausibly asked for a total stay of the economic sanctions of the original Order, contending that it was unclear whether it might have to disgorge past royalties in excess of those now permitted. Not surprisingly, the Commissioners opted to clarify their intention instead.

While an appeals court will determine whether the Commissioners' February 2 Order stands or falls, the FTC will retain authority over the escrowed funds, and will oversee their distribution in one direction or the other, upon delivery of a final "mandate" by the appellate court.

Action will now turn, to an entirely new venue: the Court of Appeals in which Rambus brings its appeal. At that point, the seemingly endless merry-go-round of the Rambus saga will begin once again – more than a decade and a half after the occurrence of the events that gave rise to this never ending standards drama.

> *The new Order can be found here,. You can find past pleadings and orders, as well as track further action on the FTC's prosecution of Rambus here: FTC Docket 9302.*
>
> *A press release issued by Rambus on last Friday's order can be found here.*

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March 31, 2007

#47 Standards and Innovation (and Standards Degradation)

One canard that is occasionally thrown out by a vendor in a corner is that "standards stifle innovation." In fact, of course, nothing could be farther from the truth, because when vendors agree upon a standard at an appropriate level of detail, they help create a larger market. This increases the profit opportunity, and provides a growing incentive for more vendors to enter that market. Since all products must be identical at the level of the standard, vendors can only compete by adding additional desirable features, improving quality, and competing on price. The result is what is often referred to as a "virtuous circle" of incentives and results.

If that sounds like standards spin, consider your car, which implements thousands of standards, covering virtually every one of its parts, from the tires to the radio. And yet competition is relentless to upgrade the basic product ("car") by adding new features, and improving old ones, despite the fact that profit margins on most cars are quite slim.

The reality is that the great majority of standards help create meaningful choices, rather than limit them. True, some standards can restrict choice, and sometimes even in an arbitrary fashion, due to practical or economic reasons. But then again, you've probably never been heartbroken over your inability to buy a 42 watt light bulb.

No, the problem isn't standards imposed by consensus agreement among those that implement them, but *de facto* standards imposed by single product or service providers that accumulated the market power to mandate them. When a customer has no choice but to buy, then a vendor or service provider has little incentive to offer her any more than the bare minimum needed to separate the customer from the cash. Or, as Henry Ford famously observed when the only reliable, affordable car you could by was his Model T, "You can have any color you want, as long as it's black." Of course, when competition increased, every manufacturer – including Henry – offered multiple color choices.

In most cases, *de facto* standards – like the Model T – eventually lose out. Either competitors meet or beat the price, or the patents expire, or a better technology or idea enters the marketplace. *De facto* standards that do achieve relative immortality therefore tend to be arbitrary (e.g., the 24 hour day, and weights and measures) or utilitarian, with no commercial advantage to be gained by superseding them with anything different (like the dimensions of light sockets). But even in such cases, the standard must be doing a pretty good job, or even it will eventually be replaced, notwithstanding the huge inertia that may lie behind it.

As a result, it takes highly unusual circumstances for a really, really crummy standard to persist in the marketplace. But it does happen, and I expect you already know what the absolute worst, most inexcusable, most unconscionable most despicable example of such design negligence is.

Can't think what it is? Well then, let me help you out, as I once again invite you to *Consider this*:

I speak, of course, of that most detested excuse for a garment, the hospital "jammy."

Anyone that has ever had a physical exam, or spent time in a hospital, has become intimately acquainted with this miserable scrap of fabric, which for reasons unknown is identical and uniform in every examination room, clinic and hospital in the United States. In short, a standard, or more accurately, a standard implementation of a standard. And both the standard itself, as well as its implementation, are examples of what can only be regarded as standards and implementation malpractice, respectively.

Or, perhaps, as standards degradation. Perhaps, once upon a time, jammies walked the earth (or lay on shelves; whatever) that actually did a competent job. If so, both the standard as well as the implementation certainly went terribly, tragically wrong over time. Through lack of competition and innovation, the jammy eventually deteriorated into the sartorial equivalent of the appendix, offering little obvious benefit, but significant potential for unhappiness during a hospital stay.

How could this occur? The answer can be instructive, as it demonstrates why consensus based standards work, and why proprietary, *de facto* ones usually don't.

Let's find out by performing a simple thought exercise, and develop an appropriate standard that we'll call ***People Friendly Jammy (PFJ) 1.0***. As we all know, a consensus standard should be created through the input, and meet the needs, of all relevant stakeholders (i.e., those that will benefit from, or be affected by, the final standard). So of course we'll start by stating the requirements the standard should meet from the perspective of the two principle stakeholder groups that will need to interact with implementations of PFJ 1.0: the service provider, and the customer.

> ***Service provider goals:*** "One size fits all;" inexpensive; easily cleaned; able to render the subject (you) readily accessible for visual and instrumental examination, probing and other indignities.
>
> ***Customer goals:*** Easy to understand and put on; warm; capable of covering total body surface area when portion of same is not needed for examination, probing, etc.; capable of preserving human dignity, as compared to rendering the subject ridiculous; capable of providing comfort under stressful conditions; capable of reducing feelings of vulnerability and isolation in an alien environment.

Now let's do a sanity check: do we see any mutually exclusive requirements above? No? I don't, either. So we're good to go!

With this much accomplished, we should now be able to come up with the specific design elements of PFJ 1.0. Just for fun, though, also we'll see how the elements of the real world market implementations of the garment standard stack up (we'll call this one ***Jammy Piece of Crap (JPC) 1.0*** standard with which we are all, all too familiar. To make the effort appropriately scientific, we'll score the success of each element to meet the requirements of the service provider, on the one hand, and the customer on the other. Scoring is 1 – 10 (with 10 being highest). Finally, we'll underline and place in italics those elements of each standard that can actually be found in current market examples of examination room jammies. Those that have evidently not made their way into the *de facto* market standard will be found in plain text.

I think we're all ready, except to give our little thought experiment an appropriate title, which will be:

MARKET STUDY: *BATTLE OF THE JAMMIES*

Design Area	*Design Element*	*JPC 1.O Implementation Characteristics*	*Needs Fulfillment Score*	
			Service Provider	*Customer*
Service Provider criteria				
Cost	Materials	Uses minimal design, materials and workmanship	10	N/A (drop in the medical budget)
Utility	*One size fits all*	Nominally achieves goal, but is too small for most, and too big for some. Closures totally fail to meet one size fits all goal effectively	5	1
	Cleaning	Easily cleaned	5	N/A (drop in the medical budget)
	Visibility of you	No kidding, not only to the examiner, but to everyone in the hallway as well	10	1
Customer needs				
Design	Ease of understanding	Incomprehensible; typical subject struggles to come up with most-approximate solution to problem posed	N/A (not a cost item)	1
	Coverage	Ensures that a significant percentage of one's rear surface cannot be covered	N/A	1
	Cut	cannot be worn without looking totally ridiculous.	N/A	1
Closures	Snaps	randomly placed along the top edge, and scattered in such a way as to provide no clue as to the manner in which they are to be matched up. *Optional, but very popular feature:* one or more snaps should be broken or missing	N/A	1
	Cloth ties	Again, scattered in such a way as to (etc.), and placed in such a way as to be difficult, and ideally impossible, to tie without the assistance of someone who isn't there. *Optional, but very popular feature:* Missing ties, with the ideal total number of ties to be *one*	N/A	1

Fabric	Weight	Provides negligible insulation	N/A (except re cost of fabric)	1
	Privacy	As thin as possible, to the point of being semi-transparent; leaves large portions of anatomy visible	N/A	1
	Appearance	Like a well-used dustrag (when new)	N/A	1
Experience				
Service Provider		Empowered, through being able to order the customer to don something that no sentient organism would ever willingly wear, and then forcing the customer to interact while in the disadvantaged position	10	
Customer		Like a lab rat. Customer is made to feel helpless, ridiculous and totally at the mercy of the service provider		-10
Final Scores			***40***	***0***

How shall we analyze the results of this little exercise? The most important result to observe is that the standard implementation of the jammy that is in use today scores abysmally in every single design element that is important for the user, even though in most cases there is neither a corresponding benefit, nor an avoided disadvantage, to the service provider to explain this result.

From this, we can observe the following:

1. In order for a standard to meet the needs of all, its designers must first be aware of what those needs may be. This can best be accomplished by allowing all stakeholders to have input into the creation of the standard.

2. A standard can be flexible, as long as there is competition. Note that the jammy standard does not *require* that the customer gets the shaft, although it does *permit* it. If a patient knew that one hospital had a jammy that met her needs, she would at least express displeasure when she was handed the traditional offensive model by a competing service provider.

3. In the absence of choice, there is no incentive to honor the needs of the customer at all. Medical facilities and service providers do compete fiercely at other levels, and innovate and compete on price at those levels, in order to steer customers their way. But once the mouse (you) is in the trap (the examining room), the urge to please plummets.

4. Lock in (through the insurance provider or the physician that makes the referral) is powerful.

5. There is no correlation overall, and indeed rarely as to any individual element, between a high score for the service provider and a low score for the customer. What is most evident is

negligence and disregard for the recipient of the service, rather than sacrificing a desired benefit for a customer in order to satisfy a particular need of the service provider.

What our exercise demonstrates most dramatically is not that the control of a *de facto* standard will not automatically *cause* a vendor or service provider to consciously take advantage of its customers, but that it will *allow* it to become totally indifferent to its customers opinions and needs. Either way, the vendor-customer relationship has become totally one-sided, with the customer receiving only what the vendor or service provider chooses to offer. The vendor can take advantage of the power relationship that it enjoys at any time, even to the point of abusing its customer.

Right now, regular readers might be asking themselves if there is not in fact another product in the marketplace that I might be thinking of, one that represents an even more egregious and pernicious example of how a vendor can exploit a *de facto* standard to the detriment of its customer.

Could I be thinking of such a product?

I could. And in fact I am. I bet you can guess what that product is, too, but for the benefit of those that have stumbled into this site for the first time, I'll be willing to share it.

So here it is: Have you ever had to wear one of those blue paper, *disposable* jammies, with the squared off shoulders, that make you look like a Jack of Hearts in a pixie uniform wearing an apron?

No? Well, don't get me started….

Comments? updegrove@consortiuminfo.org

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