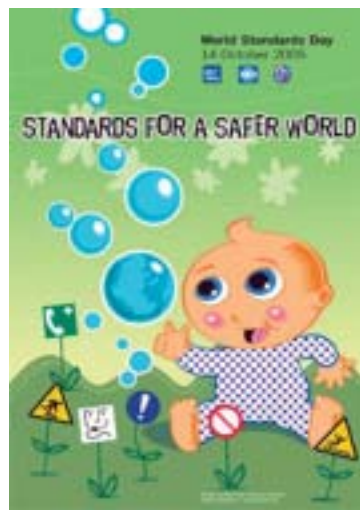


"It is virtually impossible today to develop an audio or video coding standard with a reasonable performance that does not require the use of one or, more likely, several patents," writes the ISO Bulletin.¹ The statement holds true for a number of other products, particularly in the fields of telecommunications and electronics. This means that companies wishing to manufacture products that comply with certain established industry standards may need to use patented technology associated with those standards, for which they will need prior authorization from the patent holder.

This article outlines how intellectual property (IP) issues are addressed during the standard-setting process, and the implications for businesses seeking to adopt technical standards. While this article deals only with patents, standards for products protected by copyright, such as those relating to computer programs, may also be important in this context.

The need for standards

Industry standards are present in almost every facet of our lives, in the production of the food we eat, in our means of communication, travel, work, play and so on. Almost every reputable product in the marketplace has been developed in compliance with one or more voluntary or mandatory standards. Mandatory standards generally pertain to health, safety or the



October 14 – World Standards Day

environment and are set by, or on behalf of, governments. Most standards, however, are voluntary.

The International Organization for Standardization (ISO) defines a formal standard as "a document, established by consensus that provides rules, guidelines or characteristics for activities or their results." A standard, therefore, is generally a set of agreed specifications and criteria to be met by a given type of product, process, service, interface or material.

In addition to health, safety and environmental concerns, standards are important for many reasons. Critically, the existence of standards makes it possible for different firms to develop compatible or interoperable products. Without standards, buying a nut to fit a bolt would be a nightmare; and CDs manufactured by different companies would not work in the same

player. Standards for interoperability are particularly important for network markets, such as railroads, electricity, telegraph/faxes, telephones, cellular phones and the Internet. Product standards are often critical to the effective functioning of markets and play an important role in international trade. For consumers/users, standards provide information and assure quality.

In today's competitive context, where companies invest significantly in the development – and protection – of new technologies, it is not uncommon that the best technology on which to base a particular technical standard is protected by one or more patents. Indeed many of the international standards developed by the ISO incorporate patented technology. The MPEG-2 standard for visual and audio compression, for example, requires the use of some 100 patents by companies implementing the standard.

The incorporation of patented technology in industry standards raises a number of questions for businesses that own such technology, for those involved in the standards-setting process and for the companies that adopt the standards.

How is IP treated in the creation of new technical standards?

Technical standards are generally developed and revised by the technical committees of Standard Devel-

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¹ ISO, "MPEG Strides Forward with ISO/IEC 14496-2" in ISO Bulletin May 2002. www.iso.ch/iso/en/commcentre/isobulletin/articles/2002/pdf/mpeg02-05.pdf

opment Organizations (SDOs), which include experts in the relevant fields, as well as stakeholders representing both industry and user interests. During the standard-setting process, the committee considers all technology that is essential to meet the proposed standard, including patented technology. However, most SDOs work on the principle that the use of proprietary or patented technology in standards should if possible be avoided unless – as is sometimes the case – it is clearly justified on technical grounds. Patented technology that must be included to meet the standard is referred to as **essential patents** (or more precisely “essential patent claims”).

How is blockage by patent-holders prevented?

It would, of course, be counter-productive to adopt a standard if an IP rights holder could block its implementation either by refusing to grant a license or by requiring excessively high royalties. To ensure that this does not happen, the SDO technical committee contacts the holders of the relevant patents in order to seek their agreement to negotiate licenses with users of the proposed standard on **reasonable and non-discriminatory terms and conditions** (generally referred to as RAND terms and conditions). If a patent holder refuses, the technical committee goes back to the drawing board. Some SDOs go beyond the RAND terms and conditions, requiring the rights holders to license their technologies on a **royalty-free** (or compensation-free) basis. This is true of certain consortia dealing with Internet standards (see box).



Industry standards are present in almost every facet of our lives

Web Standards



As the Internet became more commercially prominent and the number of software and business process patents increased, some patent holders sought license payments for use of patented technology which was necessary to implement Web standards. In some cases, these same patent holders had participated in the development of the standards. The World Wide Web Consortium (W3C), which develops interoperable technologies (specifications, guidelines, software, and tools) for the Web, concluded that it is essential to have a clear patent policy governing the development of standards. The patent policy they adopted was designed to safeguard the extraordinary dynamics of innovation and interoperability that made the Web successful.

One of the principles that guided the development of the W3C Patent Policy is that participants in the standards setting process benefit by working in an environment where intellectual property risks are known rather than hidden. The policy provides transparency with minimum burden: instead of requiring Working Group participants to disclose their patents, the participants all commit to license on a non-discriminatory and royalty-free basis any patents which are found to be essential for implementing the Web standards developed. Disclosure is only required if a participant wishes to exclude a patent from the royalty-free licensing obligation. Non-participants have a good-faith obligation to disclose patents of which they have knowledge. Thus any user who implements a W3C Recommendation gains royalty-free use of essential patented technology committed by the Members of the Working Group that authored the Recommendation.

Source: W3C Patent Policy www.w3.org/Consortium/Patent-Policy-20040205/

How are relevant patents identified?

SDOs follow different practices about if, when and how much information must be disclosed by those participating in the standards-setting process. However, the IP policies of many SDOs nowadays require companies to disclose any relevant patents or published patent applica-

tions. For large companies with thousands of patents and patent applications this may be a cumbersome task, and some such companies instead provide blanket statements in which they agree to RAND terms for the licensing of any of their proprietary technology that might prove essential for compliance with the standard under development.

While technical committee members are invited to participate in the standard-setting process because of their expertise in the specific technical field of the standard to be negotiated, they may also have vested interests, which makes the standard-setting process a delicate matter. For example, a participating company which owns relevant proprietary technology would not wish the adopted standard to render its own technology irrelevant. It may indeed be interested in ensuring that its own technology becomes the basis for the standard. The technical committee must ensure, therefore, that the new standard is created on the basis of purely technical considerations.

Participating companies should also bear in mind that contributions to a standards-setting process are generally not confidential; so any technical information revealed to the members of a standards-setting committee may be considered prior art for the purpose of examining or invalidating a future patent application.

What IP-related steps must a company take before adopting a standard?

Any company that plans to adopt a technical standard for its products, processes or services, must first verify whether a license is required for the use of any essential patented technology incorporated in the standard. If the SDO technical committee had detected any essential patents and obtained an agreement to

Case: Cellular Phone Standards

New technology has led to an explosion in mobile phone sales in the last few years. But although the sector counts a number of big players, none has established a dominant enough role for their own product specifications to become a *de facto* standard for the industry. The lack of international standards has created problems with interconnectivity, interoperability and billing, and makes it impossible for the mobile phone user to make calls with the same phone while traveling from continent to continent.

Industry experts claim that new 3G technology, which has made video reception possible on cellphone screens, will not break through until standards are set for the industry. Therefore, both operators and phone makers have potentially much to gain. In the immediate term, a number of different software solutions are being grafted on to manufacturer software – in rather complicated and messy ways – to resolve some of the problems. “As a result, an operator with 30 different phones will have 5 to 10 different platforms and will somehow have to manage all of them,” said Dean Bubleby of Disruptive Analysis, a British technology consultancy.

Open Mobile Terminal Platforms, an organization set up by a group of cellphone operators, is working at standardizing screen sizes and making sure that different applications, like Internet browsers, video calling and reception and e-mail software, work with each other. Some progress has been made. However, the technology in the phone, the manufacturer software and the software added to the phones by various operators are all protected by IP rights. Any standards set in the industry will probably include both patented and copyright-protected technology.

(Source: “Wireless: In search of breakthrough, 3G lacks simple standards” by Robert Clark International Herald Tribune, February 7, 2005)

issue licenses on RAND terms from the patent holder, then the necessary information on the patent and how to obtain a license is generally included in the standard itself. If the license is to be obtained directly

from the patent holder, then the licensing agreement should be negotiated and signed before the company takes any concrete steps to adopt the standard.

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In some instances, a company may have the option of choosing between a number of different technologies in order to comply with a given standard, only some of which may include patented technology. In such cases, the patents would not be considered essential but *useful* patents.

In certain cases, a number of essential patents may be pooled by the patent holders to facilitate dissemination of the standard. A "patent pool" of this sort enables companies to obtain licenses for a group of patents through a single agreement. This is the case for the previously cited MPEG-2. The patent holders may agree to grant royalty-free licenses, but this cannot be assumed to be the case.

Getting it right

A company planning to adopt the industry standards of any market sector must always obtain in advance the licenses for any essential patents or IP. A company which is considering actually participating in the standard-setting process, should first look carefully at the IP policy of the committee. Although a patent holder may have a vested interest in seeing a particular technology become part of a standard, there is also a risk that disclosure obligations could invalidate a future patent application.

For more information on various practical aspects of the IP system of interest to business and industry, please visit the website of the SMEs Division at www.wipo.int/sme.

The next article in the IP and Business series will discuss patent claims.

NEWS ROUNDUP

Lance Armstrong defeats cybersquatters

The American cycling champion, Lance Armstrong, who fought cancer with the same determination that made him a seven-time winner of the *Tour de France*, has notched up another victory – this time against cybersquatters.



Courtesy of Lance Armstrong Foundation

Lance Armstrong's cancer charity has sold over 50 million LIVESTRONG bracelets.

The California-based respondents had been cashing in on the popularity of LIVESTRONG bracelets. These distinctive yellow rubber bracelets are sold by the nonprofit Lance Armstrong Foundation, which the cycle champion set up in 1997 to fund cancer-related research and to support cancer survivorship. CSA Marketing and Chris Angeles had registered three domain names incorporating the term *livestrong*, from which they were selling the bracelets for commercial gain. The Lance Armstrong Foundation brought two cases before the WIPO Arbitration and Mediation Center for resolution under the fast, low-cost Uniform Domain Name Dispute Resolution Policy (UDRP) procedure.

The independent panel appointed by the Center ruled on October 13 that ownership of the domain names should be transferred to the Foundation. The panelists did not mince their words as they concluded: "There is nothing, in short, to persuade the Panel that the registration and use of the domain names was anything other than opportunistic and abusive conduct of a kind that the [UDRP] Policy was designed to correct."

The Foundation first registered LIVESTRONG as a trademark in 2004. Under the UDRP procedure, a trademark owner whose mark has been registered as a domain name by someone else can file a complaint with the WIPO Arbitration and Mediation Center. The panel can order the transfer of the domain name to the Complainant if it determines that the Complainant owns trademark rights, that the domain name is confusingly similar to the trademark, that the Respondent has no legitimate interest in the domain name, and that the domain name is registered and used in bad faith.

See <http://arbitrator.wipo.int> for more information on the Arbitration and Mediation Center, which specializes in cases arising out of intellectual property and technology transactions