

Standards-Setting and Other Multi-Party Collaborative Technology Consortia

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PART I

What are Technology Standards-Setting Organizations and Other Multi-Party Technology Consortia?

SSOs/Other Technology Consortia

- **Standards-setting organizations and other multi-party technology consortia (“SSOs” or “consortia”) are generally:**
 - ◆ Collaborative multi-party initiatives
 - ◆ Which seek to address/solve/achieve an
 - industry-wide technology need or
 - industry-wide technology goal

SSOs/Other Technology Consortia

(cont.)

- **The industry-wide technology need/goal varies industry to industry:**
 - ◆ Need for greater interoperability, compatibility and/or interface solutions:
 - typical in software, hardware, computer, information technology, wireless, internet and semiconductor industries
 - seek this greater interoperability, compatibility and/or interface solution
 - among various technologies and/or products
 - to create new products/processes
 - to ultimately increase industry + consumer use and adoption of these products/processes

SSOs/Other Technology Consortia (cont.)

- **Industry technology need/goals** *(cont.)*
 - ◆ Another need/goal may be to gather data and/or conduct research and then analyze and disseminate the same for wider industry use:
 - growing number of life sciences industry consortia
 - could include the creation of (for example):
 - standard test methodologies
 - standard test samples
 - standard measurement methodologies
 - standard evaluation processes
 - other critical research data

SSOs/Other Technology Consortia

(cont.)

- **Industry technology need/goals** *(cont.)*
 - ◆ Another need/goal may be to address and solve critical technology risks common in that industry
 - Need for common solution to provide secure transmission of data in global credit card payment transactions.

SSOs/Other Technology Consortia

(cont.)

- Various types of “deliverables” or “work products” can be developed by these SSOs/consortia:
 - ◆ “Specification” or “standard” or “protocol”:
 - common deliverable/work product
 - generally defined as:
 - a technical document that provides a common design, instructions or guidelines for the applicable products/processes.

SSOs/Other Technology Consortia

(cont.)

- **Various types of deliverables** *(cont.)*
 - ◆ Programming language or other particular software solution
 - Electronic design automation industry
 - ◆ “Guidelines”
 - terminology more commonly used in medical device and life sciences industry consortia
 - ◆ Database or other compilation of data
 - ◆ “White Paper”
 - ◆ Other written reports

SSOs/Other Technology Consortia

(cont.)

- **Terminology in this presentation:**
 - ◆ “SSO” or “Consortia” mean any of the above-described standards-settings organizations or other multi-party technology initiatives and consortia
 - ◆ “Spec” or “Specification” or “Work Product” mean any of the above-described deliverables and work products

SSOs/Other Technology Consortia

(cont.)

■ Forms of consortia:

- ◆ Government-sponsored organizations
 - Common in EU
 - Examples:
 - International Organization for Standardization (ISO)
 - European Telecommunications Standards Institute (ETSI)
- ◆ Well-established, large-scale national and international organizations
 - Examples:
 - American National Standards Institute (ANSI)
 - Institute of Electrical & Electronics Engineers (IEEE)

SSOs/Other Technology Consortia

(cont.)

- **Forms of consortia** *(cont.)*
 - ◆ Smaller, privately-formed, non-profit consortia:
 - Industry participants collaboratively address industry need/goal
 - Hundreds, possibly thousands, of Specifications/Work Products established by these consortia
 - These Specifications/Work Products could later be adopted by large national and global entities, particularly in areas of computers, consumer electronics, information and communications technologies

SSOs/Other Technology Consortia

(cont.)

- **Functions of these private consortia are evolving:**
 - ◆ In addition to collaboratively solving the industry need/goal and developing the Specifications/Work Products
 - ◆ Some Consortia establish a compliance/certification program to certify that the products/processes are compliant with the Specifications/Work Products
 - ◆ Consortia are also increasingly being formed to develop multiple, as opposed to single, Specifications/Work Products

PART II

More Private SSOs and Similar Consortia in Future

Proliferation of SSOs/Consortia

- **Increased need for SSOs and similar consortia to advance technology:**
 - ◆ Henry Chesbrough writes in “Open Innovation: The New Imperative For Creating and Profiting From Technology” that:
 - increased collaboration among industry players will be needed to continue to make innovative technological advancements in our increasingly complex technology environment.

Proliferation of SSOs/Consortia

(cont.)

- **Increased need for consortia** *(cont.)*
 - ◆ Increasing need to address interoperability, compatibility and interface solutions
 - Without participation in Consortia and other standard setting efforts, multiple and/or competing companies would develop and promote non-compatible technologies
 - Common agreement among multiple and/or competing companies through Consortia is essential to allow end users to use products from multiple technology vendors that “plug and play” together when they are assembled into a single system or network
 - As technologies increasingly converge in the 21st century the goals of Consortia (interoperability and compatibility) will become even more imperative
 - Thus, more Consortia will be formed in the coming years

Proliferation of SSOs/Consortia

(cont.)

- **Increased need for consortia** *(cont.)*
 - ◆ Increasing need for innovative collaborations in other industry sectors:
 - Medical device development
 - Biotechnology/life sciences industry
 - Critical Path Institute (Tucson, AZ and Rockville, MD)
 - Predictive Safety Testing Consortium
 - Diagnostic standards lab
 - Genomics/personalized medicine collaborative initiatives
 - FDA's vision for creating standards for various purposes

Proliferation of SSOs/Consortia

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- **Private, non-profit SSOs and similar consortia have proliferated to meet this need:**
 - ◆ Fast-paced high tech and biotech industry drives demand for more private SSOs/Consortia
 - Increasingly industry players are identifying need for wider industry collaborations to address and solve industry-wide needs and goals.
 - Industry players are demanding quicker ways to address these industry-wide needs/goals
 - Private SSOs/consortia increasingly viewed as rapid and efficient methods of addressing these industry-wide needs/goals

Proliferation of SSOs/Consortia

(cont.)

- **Rapid growth of SSOs and consortia in many technology industry sectors (for example):**
 - Computers/Software
 - Consumer electronics
 - Wireless/telecommunications
 - Media/entertainment
 - Internet/Web-Related
 - Semiconductors/EDA
 - Cable
 - Advanced television
 - Other hardware and software
 - Credit card/financial services
 - Medical Device/Biotechnology/Life Sciences

Proliferation of SSOs/Consortia

(cont.)

- **Could give hundreds of examples of consortia:**
 - Internet/Web-related
 - W3C
 - Oasis
 - Semiconductor/Electronic Design Automation
 - Open Core Protocol Int'l Partnership
 - Semantech
 - Credit Card Industry
 - PCISSC
 - Special Interest Group for IIAS Standards (SIGIS)
 - Medical Devices/Life Sciences/Biotech
 - Continua Health Alliance
 - BioAPI Consortium
 - Critical Path Initiatives

Proliferation of SSOs/Consortia

(cont.)

- **Computers/Software**
 - ◆ BlueTooth
 - ◆ UPNP
- **Wireless/Telecommunication**
 - ◆ WiFi Alliance
 - ◆ Open Mobile Alliance
 - ◆ WiMax Forum

Proliferation of SSOs/Consortia

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- **Typical consortia participants:**
 - ◆ Yes, Consortia often promoted by major industry players
 - ◆ However, Consortia also attract small/medium-sized entities/companies seeking opportunity to comment on Specifications and/or its development
 - ◆ Consortia are often viewed as “open forums” that encourage participation by more industry players, including smaller companies, to permit broader participation

PART III

Some Key Business Considerations for Participation in SSOs and Other Consortia

(the following are more typical of the issues associated with interoperability/compatibility consortia in the high tech industry)

Business Considerations

■ Potential benefits to participating in an SSO and other consortia:

- ◆ Piggyback: Potentially increase market acceptance of your product or technology by basing your product or technology on “winning” standard (i.e., a standard that gains the most industry and consumer acceptance)
- ◆ New Markets: Help to create new markets which would not exist “but for” broad industry agreement on a new standard (i.e., next generation wireless)
- ◆ Generate Public Interest: Help to generate public interest and demand in new technologies/products by using the aggregate resources of the SSO, which can exceed the resources of a single company
- ◆ Licenses: Readily access technology needed to develop and sell products

Business Considerations

(cont.)

- **Potential benefits to participating in an SSO** *(cont.)*
 - ◆ Cost Savings: Help spread substantial research and development costs across multiple partners
 - ◆ Guide Industry Direction: Influence the direction in which a standard may evolve, or which standards will be launched at all (to drive it toward company proprietary technology)
 - ◆ Product Markets: Help to establish favorable market for planned company product introductions/technologies
 - ◆ Monitoring: Gain understanding of the direction in which standards-setting efforts are heading, including what needs to be done to launch compliant products
 - ◆ Consumers Satisfaction: Compatibility/Interoperability makes products more useful to consumers
 - ◆ Branding: Where certification/branding is involved, possible branding advantages

Business Considerations

(cont.)

- **Potential risks for ignoring SSOs or participating in a losing SSO/specification:**
 - ◆ Loss of Market Share: Potential loss of market share if the company's products are based on out of date or losing standard
 - ◆ Expensive Strategic Mistakes: Potentially expensive strategic mistakes if company backs losing standard and then needs to catch-up with competition
 - ◆ Delays: Delay of company's market development for company's goods/services which are based on losing standard
 - ◆ Obsolescence: Rapid obsolescence of company's products which are based on losing standard

Business Considerations

(cont.)

- **Some key business questions regarding participation:**
 - ◆ Are there any competing SSOs with a competing standard?
 - ◆ If so, will the SSO end up creating a relevant or irrelevant standard? In other words:
 - Will you be participating in a “losing” industry standard?
 - Or will you be participating in an industry standard that gains wide industry acceptance (i.e., a “winner”)?
 - ◆ Battle for leading high-definition DVD technology:
 - Blue-Ray Disc Association (Sony)
versus
 - HD DVD Forum (Toshiba)

Business Considerations

(cont.)

- **Some key business questions regarding participation** *(cont.)*
 - ◆ Do the goals and purpose of the SSO conform to the company's business plans and strategies?
 - ◆ Can your company's products/processes still establish compatibility and interoperability or achieve the other industry goals by other means (i.e., "work arounds")?
 - ◆ What is the balance of "gives" and "gets" by participation?

PART IV

Overview of Key Legal Considerations

Overview of Key Legal Considerations

- **IP ownership of Specification/Work Product (Part V)**
 - ◆ Copyright ownership
 - ◆ Patent considerations
- **Major concerns about blocking patents (Part VI)**
- **Other legal considerations (Part VII)**
 - ◆ Confidentiality
 - ◆ Trademark
 - ◆ Compliance and Certification Programs
 - ◆ Organizational Structure of Consortia/SSO
 - ◆ How Your Company Can Become Bound to the IP Policy and Other Consortia Contracts
 - ◆ Antitrust

PART V

IP Ownership of Specification/Work Product

IP Ownership of Spec/Work Product

- **“Contributions” made by member to assist development effort:**
 - ◆ Option #1: Member grants copyright license to consortia/other members:
 - to use Contribution to develop and then incorporate into final Specification/Work Product
 - often Non-exclusive/royalty free
 - could be open source-type license if Specification/Work Product will be software/programming language

IP Ownership of Spec/Work Product

(cont.)

- **“Contributions” made by member to assist development effort:** *(cont.)*
 - ◆ Option #2: Member “assigns” copyright in Contribution to Consortia:
 - less frequent option because contributing Member surrenders copyright ownership
 - usually excludes any “blocking patents” of contributing Member
 - often done to reduce contributing Member’s liability
 - contributing Member often gets a copyright license back (royalty free)

IP Ownership of Spec/Work Product

(cont.)

- **“Contributions” made by member to assist development effort:** *(cont.)*
 - ◆ “Contributions” not incorporated into the final Specification/Work Product
 - are the other Members allowed to freely use?
 - Are they “tainted”?

IP Ownership of Spec/Work Product

(cont.)

- **Who owns the copyright in resulting in specification/work product?**
 - ◆ If Consortia/SSO is incorporated:
 - typically copyright owned by Consortia/SSO
 - Consortia/SSO grants copyright license to Members to use Specification/Work Product within “purpose” of Consortia/SSO
 - ◆ If Consortia/SSO not incorporated:
 - Typically jointly owned by all contributing Members
 - Contributing Members grant copyright license to other Members.

IP Ownership of Spec/Work Product

(cont.)

■ Patent Issues:

- ◆ Patent ownership/co-ownership is a key issue
- ◆ Members usually reluctant to transfer ownership of any patent rights to Consortia or to other Consortia members
- ◆ Terms of any patent cross licensing usually heavily negotiated
- ◆ High tech industry increasingly looking to “IP Policy/Patent Policy” to address this issue (Section VI)
- ◆ Biotech/Life Sciences Consortia taking various approaches to address this issue

PART VI

Concerns About Blocking Patents

(and how the treatment of blocking patents in high tech industry “standards-setting” entities could be a model for other industry consortia)

Patents

- **Major concern regarding blocking patents:**
 - ◆ To implement the SSOs Specification/Work Product, Members and other Adopters might need a license to “blocking patents” held by others (possibly held by a fellow Member)
 - ◆ For example:
 - In building a mobile telephone, there maybe up to 137 essential patents
 - Every time someone clicks an icon in a web application, potentially 30 patents are involved
- From Amici Curiae Brief by Consumer Electronics Association (CEA), et al, in Infineon Technologies v. Rambus, Inc. case*

Patents

(cont.)

- **What patents/claims are we talking about?**
 - ◆ SSOs seek to have a “Patent Policy” or “IP Policy” that addresses “blocking patents” of its Members (which can include those involved in the Specification/Work Product development process) and other Adopters.
 - SSOs increasingly want early notice of blocking patents
 - This way the SSOs can either:
 - Try to “design around” blocking patents in their development process
 - OR
 - Ensure that Members with “blocking patents” are willing to give patent licenses to other Members and Adopters

Patents

(cont.)

- **What patents/claims are we talking about?:** *(cont.)*
 - ◆ “Essential claims”/“necessary claims”
 - Necessary for Adopters to implement the final Specification/Work Product
 - May exclude optional implementation examples
 - ◆ “Technically Essential” versus “Commercially Reasonable”
 - ◆ Do “essential claims” include underlying/enabling technology of a Member company?
 - This issue is evolving
 - If all underlying/enabling technology of a company is included in “essential patents”, a Member’s patent obligations could be very broad

Patents

(cont.)

- **What patents/claims are we talking about?:** *(cont.)*
 - ◆ Licensing obligation is generally not limited to your Contributions
 - ◆ Thus, each Member must evaluate which patents in the company's portfolio are implicated by the meaning of "essential claims" and whether the company is comfortable with that inclusion

Patents

(cont.)

■ Patent Disclosure:

- ◆ Many SSOs mandate some level of patent disclosure under the IPR Policy
 - Increasingly, IPR Policies seek patent disclosure during, not simply at the end of, the Specification/Work Product development process
 - This assists the SSO if it wants to do any “design arounds”
- ◆ Disclosure of patent registrations versus patent applications:
 - Does a Member just disclose patent registrations?
 - What about still secret patent applications?
- ◆ Is disclosure mandatory or voluntary under IPR Policy?
 - If mandatory, at what time is disclosure required?
 - In either case, when does duty to disclose end?

Patents

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- **Patent Disclosure:** *(cont.)*
 - ◆ Does company have to conduct company-wide search?
 - Increasingly companies want to avoid this broad duty
 - ◆ If no duty to conduct company-wide search, then which individuals in Member company does company poll (if any) to fulfill company's patent disclosure obligations?
 - Just those involved in Working Group?
 - Is it limited to the person's actual, personal knowledge?
 - ◆ What does company actually state in its disclosure statement?
 - Simply state "We have essential claims"
 - Give patent registration number?
 - What do you say about applications?

Patents

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- **Patent Disclosure:** *(cont.)*
 - ◆ Rambus case is an example of what can happen when the IPR Policy of an SSO (i.e., JEDEC) is less than clear on these disclosure obligations
 - ◆ What are the consequences of improper patent disclosure?
 - SSO members may challenge an uncooperative member and seek unenforceability of its patent claims
 - Court could apply doctrine of equitable estoppel and not allow such member to enforce its patent rights based upon finding of bad faith
 - Potential FTC complaint

Patents

(cont.)

- **Duty to license essential claims:**
 - ◆ What happens if a published Specification/Work Product reads on a Member's "essential claims"?
 - ◆ Typically IPR Policy requires the Member to license its "essential claims" to Adopters/Members to allow them to implement the Specifications/Work Product
 - ◆ How is licensing done?
 - Typically, IPR Policy is not the license instrument
 - Typically, IPR Policy requires each Member to license – in the future – its "essential claims" to all Adopters/Members if needed by Adopters/Members to build non-infringing implementations

Patents

(cont.)

- **Licensing Duty:** *(cont.)*
 - ◆ How is licensing done? *(cont.)*
 - License agreement is typically a bilateral agreement between holder of the “essential claim” (licensor) and Member/Adopter (licensee)
 - These agreements are not necessarily identical
 - ◆ Typically, IPR Policy requires the license be on “RAND” terms
 - ◆ What is “RAND”?
 - “Reasonable and Nondiscriminatory” license terms
 - ◆ RAND does not automatically mean royalty-free
 - Can be royalty bearing and RAND
 - Likewise, requirement can be royalty-free but all other terms need to be RAND

Patents

(cont.)

■ Non-assertion claims

- ◆ Increasingly, SSOs/Consortia seek to include provisions in IP Policy stating:
 - Member agrees NOT TO ASSERT its patent rights in its “essential claims” against other Members/Adopters:
 - who are implementing/using the Specification/Work Product
 - provided such implementation/use is within the permitted scope of the IP Policy
- ◆ If Member Sues Another Member Anyway for Patent Infringement in Violation of Non-Assertion Clause:
 - The suing member typically loses all rights under the IP Policy
 - thus, suing Member’s right to use “essential claims” of others under IP Policy terminates

Patents

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- **Bottom Line: SSOs seek to create a patent policy/IPR policy up front to establish some level of certainty**
 - ◆ SSOs seek to attract Adopters to the SSOs Specification/Work Product by establishing a reasonable and uniform patent policy regarding disclosure, licensing and possibly non-assertion
 - ◆ The theory is, the greater the certainty regarding:
 - What are “essential patents” that a Member needs to be concerned with
 - A reasonable patent disclosure to allow possible “design arounds” to minimize the number of “essential patents”
 - A reasonable patent license requirement of “essential patents” to adopters on RAND terms (royalty free or royalty bearing)
- The greater the potential that the SSOs Specification/Work Product will be widely-adopted by the industry

PART VII

Other Legal Considerations

Other Legal Considerations

- Confidentiality
- Trademarks
- Compliance and Certification Programs
- Organizational Structure of Consortia/SSO
- How Your Company Can Become Bound to the IP Policy and Other Consortia Contracts
- Antitrust

PART VIII

Patent Pools

Patent Pools

■ Defining Patent Pools

- ◆ Aggregation of complementary technologies owned by multiple patent holders are “licensed out” to potential licensees through coordinated licensing effort
- ◆ Patents can be licensed to end users/licensees either:
 - Through new entity created by patent holders
 - New entity is initially licensed the IP rights from the patent pool members in order to administer the patent pool and then license to end users
 - By authorizing an entity to represent the interests of the patent holders
- ◆ This patent “administrator” acts as “clearinghouse” for licensing out the complementary patents to end users/licensees

Patent Pools

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- **Application of patent pools varies by industry sector**
 - ◆ Patent pools seem conducive to certain industries such as:
 - Digital media
 - Wireless/telecommunications
 - Software
 - Hardware
 - Internet technology
 - Biotechnology/Life Sciences (?)
 - ◆ Patent pools seem particularly conducive to technologies that have developed “standards”

Patent Pools

(cont.)

- **Holders of patents (“essential claims”) in SSOs increasingly looking to patent pools for the RAND licensing of these essential claims**
 - ◆ patent pools help facilitate the adoption of the standard
 - ◆ enable adopters/licensees to avoid negotiating multiple licenses

Patent Pools

(cont.)

- **Some commentators have suggested that SSOs may increasingly look to patent pools as a way of addressing the continued uncertainty over what the “RAND license” obligations really impose on its members**
 - ◆ See “Patent Pools Grow More Popular in Tech Sector”, IP Law 360, July 9, 2008

Patent Pools

(cont.)

- **Moving Pictures Experts Group (MPEG) is an example of successful use of patent pools by SSOs.**
 - ◆ SSO that develops digital video compression technology standards for the electronics industry
 - ◆ Scores of “blocking patents” required to implement the standard/specification held by MPEG members:
 - Columbia University, General Instrument, Lucent, Matsushita, Mitsubishi, Philips, and Sony

Patent Pools

(cont.)

■ MPEG, cont.

- ◆ MPEG LA, LLC was created:
 - It's a separate corporation which was granted a license by the patent holders to act as administrator to license the blocking patents to implementers/licensees
 - Thus, it's a common licensing administrator empowered to grant licenses, collect royalties and distribute back to each licensor/patent pool member
- ◆ Regarded as success:
 - At least 28 members have contributed patents to the pool
 - At least 500 patents administered
 - Generates US \$\$ millions in licensing revenue

Patent Pools

(cont.)

- **Open Patent Alliance (OPA) formed in June 2008 for WIMAX Standards:**
 - ◆ Intel, Alcatel-Lucent, Cisco and other technology companies created this patent pool
 - ◆ Aggregates essential patents needed to implement WIMAX standards

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Frank X. Curci is Chair of Jennings, Strouss & Salmon's Biotechnology & Life Sciences Industry Group as well as the Intellectual Property & Technology Practice Group. He advises clients in domestic and international intellectual property and technology matters. He provides this representation to clients in various industries, including companies in the software, semiconductor, biotechnology, medical device, and other technology-related industries, as well as to universities and research institutes. Frank has several years of experience representing technology companies and other entities in their participation in domestic and international technology standards consortia, standards-setting organizations, and other collaborative arrangements. He also represents entities in the life sciences/biotechnology industry in their creation and participation in life sciences consortia and similar multiparty collaborations.

He counsels these clients regarding the wide range of legal issues that arise during the various stages of involvement with these consortia including: formulating the Intellectual Property Rights/Patent Licensing Policy; evaluating business and legal ramifications associated with participating in the consortia; and developing internal corporate procedures to assist with educating employees about the appropriate ways to participate in the consortia. Frank is a frequent speaker concerning standards and other consortia. Since 1996 Frank has been an Adjunct Professor of Law teaching intellectual property courses at California, Oregon and Arizona law schools. Admitted to practice in Arizona, New York and Oregon.

This information is intended for general information purposes only and not as specific legal advice. You are urged to consult an attorney concerning your situation and any specific legal questions you may have.

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