

901 - IP Issues & Industry Standards

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Ron Moore

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E. Earle Thompson

Chief Intellectual Property Counsel SanDisk Corporation

Faculty Biographies

Eric Janofsky

Vice President And General Counsel Marvell Semiconductor, Inc.

Douglass Luftman

Douglas Luftman is associate general counsel of intellectual property at Palm, Inc., headquartered in Sunnyvale, California, the heart of Silicon Valley. Palm is renowned for its rich history of innovation, dating back to the original category-defining Palm Pilot personal digital assistant and more recently the TreoTM smartphone and the FoleoTM mobile companion.

Mr. Luftman's current areas of focus include strategic intellectual property counseling, patent portfolio development, intellectual property assertion and licensing strategy, IP asset acquisitions, standards development strategy, IP and technology licensing and open source management strategy. Prior to joining Palm, Mr. Luftman's roles have included vice president, general counsel and secretary of Caspian Networks, Inc., west coast counsel of CIENA Corporation and senior intellectual property counsel for Intel Corporation's communications group. Prior to working in-house, Mr. Luftman was an attorney at Fenwick & West LLP in Palo Alto, California.

Mr. Luftman has spoken at a variety of forums including professional trade organizations as well as a guest lecturer at the University of California, Hastings College of the Law and the University of California, Berkeley School of Law – Boalt Hall on topics relating to IP strategy for high technology companies.

Mr. Luftman received his J.D. with honors from the George Washington University Law School, Washington DC, where he was Technical Editor of the Law Review Mr. Luftman received his B.A. from the University of California, Los Angeles.

Ron Moore

Prior to joining Microsoft, Ron Moore held the position of director of business development for Dolby Laboratories' subsidiary Via Licensing Corporation where he was responsible for the formation and operation of patent licensing programs for technology incorporated in published standards. He has also held senior business and legal positions (vice president of business and legal affairs, and vice president general counsel) at RioPort.com, Diamond Multimedia, Truevision Inc., and SuperMac Technology.

E. Earle Thompson

E. Earle Thompson is the chief intellectual properties counsel for SanDisk Corporation in Milpitas, California, the world's largest supplier of flash memory data storage card

products. He is responsible for overseeing the acquisition and protection of SanDisk's intellectual property including licensing and litigation. Royalty income he is responsible for are in the multiple hundreds of millions of dollars per year.

Prior to joining SanDisk, Mr. Thompson retired from Texas Instruments Incorporated (TI) where he spent 25 years. His last position with TI was as the intellectual asset manager. During his time at TI, he was actively involved in the licensing and litigation of patents for personal computers and semiconductors, managed the legal aspects of TI's involvement in Standards organizations, and served as the primary counsel for multiple business units including DLP and Sun. As a holder of 26 U.S. patents himself, he also understands the intellectual property business from the inventor's side. He has been heavily involved in Standards organizations for more than 10 years, sitting on the intellectual property committees of such organizations as ANSI, TIA, and SDA as well as establishing multiple organizations such as MIPI and U3.

Mr. Thompson graduated with a B. S. from the University of South Carolina where he also did his graduate work in Computer Software Development. He obtained his J.D. from Southern Methodist University.



Types of Standards Bodies

- SDO vs. SSO
- Regulatory or Governmental
- "Open" Standards
- Traditional
- Consortia
- De Facto

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Where is the IP Policy

- Membership Agreement
- Bylaws
- Separate Agreement or Document

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What is the IP Policy: Disclosure

- What?
 - Patents, Patent Applications, or any IP
 - ⇒ Just notice or Applicability
 - Terms of Licensing
 - FRAND
 - * RAND
 - * RANDZ
 - Ex Ante Discussion

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What is the IP Policy: Disclosure

- Who?
 - Individual
 - Corporation
 - Imputed Knowledge
- Timing?
 - When do you know IP is applicable?
 - Patent Searching

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What is the IP Policy: Relevant IP

- Essentiality
 - Impossible to design around
 - Not "Commercially Feasible"
 - Not "Commercially Reasonable"
 - Relevant
- Scope
- Carve-outs

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What is the IP Policy: Penalties for Non-compliance

- Leave it up to the Courts
 - DOJ/FTC
 - Self-Policing
- Mandatory licensing
 - RAND
 - RANDZ
 - Implied License

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IP Policy Examples

- IEEE
- Serial ATA
- VITA

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Definitions of "Openness"

- "Open" is not a legal term
- "Open" is an adjective that can take on many meanings
 - Adjective can lead to use as a verb, with adverse impact on IP and innovation
- Traditional definition of an "open standard"
 - Standards developed or ratified through an open, consensus process
 - Covered by an open and transparent IPR policy
 - Contributors license essential IPRs to implementers on Reasonable and Non-Discriminatory (RAND) terms (with or without royalties/fees)

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"Open Standard"

- Traditional definition reaffirmed by:
 - Global Standards Collaboration (GSC) http://portal.etsi.org/docbox/Workshop/GSC12/GSC12 Final Resolutions/ Resolution GSC-12/05: Open Standards
 - ITU-T http://www.itu.int/ITU-T/othergroups/ipr-adhoc/openstandards.html
 - American National Standards Institute (ANSI) http://publicaa.ansi.org/sites/apdl/Documents/Standards%20 Activities/Critical%20Issues%20Papers/Griffin%20-%20Op en%20Standards%20-%2005-05.doc

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"Open Standard"

- New possible definitions are causing confusion
 - "Free to implement"
 - Very few standards bodies mandate a RANDZ approach
 - All essential patent claims may not be covered by such a policy
 - "Free to use freely"
 - Is there any standards body that mandates such an approach?
- Possible effects:
 - On contributions to standards bodies
 - On innovation

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IPR Policy Approaches

- Diversity of approaches is beneficial
 - Many puts and takes different impacts
 - Many have different pro-competitive effects and impacts on incentives to innovate
- RAND
 - Flexible and adaptable
 - History of successful balancing of interests
 - Encourages sharing of IP while preserving incentives to innovate

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Ex Ante Debate

- Many companies support the notion of greater disclosure of licensing information on a voluntary basis where supported by the standards body membership
 - No one-size-fits-all solution
- Debate sharpens over:
 - Mandatory ex ante approaches
 - Group discussion of licensing terms

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Ex Ante Debate

- Mandatory ex ante approaches
 - Implies necessity of patent searches
- Group discussion of licensing terms
 - Potential for anti-competitive conduct
 - Impact on incentives to innovate
- Many companies challenge whether the "solution" is either needed or scoped to address the perceived "problem"
 - Inefficiency trade-offs
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Impact of Business Models

- Virtually all of the companies engaged on both sides of the debates are patent holders
- Participants in the discussion largely are forprofit companies
- Viewpoints colored by business strategy, scope of patent portfolio and relevant business model?

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Business Models Drives IPR Policy Debates

- Companies are in business to maximize profits
- Different standards activities impact different business models and IP portfolios differently
 - IP licensing company seeking reasonable return on R&D investment
 - Product company monetize IP through products; defensive approach in standards
 - Services provider use loss leader business model to drive monetization of services
 - Consulting model seeking to transfer value quotient from product/licensed IP to bring value to consultant offerings

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Case Law / Trends

- Rambus
- Broadcom/Nokia/Qualcomm
- Nokia/InterDigital
- Microsoft / Alcatel-Lucent
- Federal Trade Commission / Department of Justice, Antitrust Division Guidelines
- Role of Patent Pools

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IEEE-SA Patent Material

Patent Materia

- Patent Slides for Standards Development Meetings (.ppt or .pdf) [To be shown at every standards-development meeting]
- Patent Policy Tutorial (.ppt or .pdf) [Aid to Working Groups and PatCom]
- IEEE-SA Standards Board Bylaws [Official IEEE-SA policy document]
- IEEE-SA Standards Board Operations Manual [Official IEEE-SA policy document]
- Understanding Patent Issues during IEEE Standards Development [Guide/FAO developed by PatCom]
- IEEE Standards Companion [Companion guide to official rules and procedures]
- IEEE Standards Style Manual [Editorial style guidelines]
- Patent Letter of Assurance (LOA) Form [The only acceptable LOA Form]
- Patent Letter of Assurance (LOA) Cover Letter [To be sent (along with LOA Form) to potential patent holders]
- IEEE-SA Records of IEEE Standards-Related Patents [Listing of LOAs received by IEEE-SA]
- Patent Letter of Assurance (LOA) Process Flowchart [Aid to Working Groups and PatCom]

IEEE-SA Standards Board Patent Committee (PatCom) main page

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URL: http://standards.ieee.org/board/pat/pat-material.html

IEEE ENHANCES STANDARDS PATENT POLICY TO PERMIT FULLER DISCLOSURE ON LICENSING

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IEEE ENHANCES STANDARDS PATENT POLICY TO PERMIT FULLER DISCLOSURE ON LICENSING

Calendar of Events

Logos and Trademarks

Karen McCabe, IEEE Senior Marketing Manager

IEEE-SA's new policy are permissible.

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> PISCATAWAY, N.J., USA, 30 April 2007 - The IEEE Standards Association (IEEE-SA) has enhanced its patent policy by permitting the disclosure of licensing terms associated with patents that might be included in its standards. The policy changes are intended to make the IEEE standards-setting process more transparent and go into effect May 1 at 12:01 p.m. EDT. On April 30, the U.S. Department of Justice issued a business review letter on the new policy in response to a request from IEEE-SA. The letter states that the policy has pro-competitive benefits and that the Justice Department has no intention of challenging the policy. IEEE-SA had sought the letter to address any concerns that exist on the new policy, even though the Justice Department and the Federal Trade Commission have made clear in the past two years that policies like the

In addition to permitting disclosure of licensing terms, the IEEE-SA clarified other aspects of its patent policy. The clarifications and other changes to the policy include several key elements. The policy: Encourages the optional disclosure of royalty rates and other license terms of a potentially essential patented technology early in the development of a draft standard. The patent holder may provide a not-to-exceed license fee or rate commitment, a sample license agreement, or one or more material licensing terms.

- 1. Makes a patent-holder's assurance irrevocable once accepted by the IEEE and requires the patent-holder to give notice of the existence of the assurance when transferring ownership of the patent rights.
- 2. Binds the patent-holder's affiliates to the terms of the given assurance, unless the patent holder explicitly identifies affiliates it does not wish to bind.
- 3. Requires individuals participating in developing a standard to disclose the name of the holder of patents that are potentially essential to the standard, based upon personal knowledge. This applies to patents held by the individual or their employer.

IEEE ENHANCES STANDARDS PATENT POLICY TO PERMIT FULLER DISCLOSURE ON LICENSING

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Clauses 6-7: IEEE-SA Standards Board Bylaws

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IEEE-SA Standards Board Bylaws

6. Patents

6.1 Definitions

The following terms, when capitalized, have the following meanings:

"Accepted Letter of Assurance" and "Accepted LOA" shall mean a Letter of Assurance that the IEEE-SA has determined is complete in all material respects and has been posted to the IEEE-SA web site.

"Affiliate" shall mean an entity that directly or indirectly, through one or more intermediaries, controls the Submitter, is controlled by the Submitter, or is under common control with the Submitter. For the purposes of this definition, the term "control" and its derivatives, with respect to for-profit entities, means the legal, beneficial or equitable ownership, directly or indirectly, of more than fifty percent (50%) of the capital stock (or other ownership interest, if not a corporation) of an entity ordinarily having voting rights. "Control" and its derivatives, with respect to nonprofit entities, means the power to elect or appoint more than fifty percent (50%) of the Board of Directors of an entity.

"Blanket Letter of Assurance" shall mean a <u>Letter of Assurance</u> that applies to all <u>Essential Patent Claims</u> for which a <u>Submitter</u> may currently or in the future (except as otherwise provided for in these Bylaws and in the <u>IEEE-SA Standards Board Operations Manual</u>) have the ability to license.

"Enabling Technology" shall mean any technology that may be necessary to make or use any product or portion thereof that complies with the [Proposed] IEEE Standard but is neither explicitly required by nor expressly set forth in the [Proposed] IEEE Standard (e.g., semiconductor manufacturing technology, compiler technology, object-oriented technology, basic operating system technology, and the like).

"Essential Patent Claim" shall mean any Patent Claim the use of which was necessary to create a compliant implementation of either mandatory or optional portions of the normative clauses of the [Proposed] IEEE Standard when, at the time of the [Proposed] IEEE Standard's approval, there was no commercially and technically feasible non-infringing alternative. An Essential Patent Claim does not include any Patent Claim that was essential only for Enabling Technology or any claim other than that set forth above even if contained in the same patent as the Essential Patent Claim.

"Letter of Assurance" and "LOA" shall mean a document, including any attachments, stating the <u>Submitter's</u> position regarding ownership, enforcement, or licensing of <u>Essential Patent Claims</u> for a specifically referenced IEEE Standard, submitted in a form acceptable to the IEEE-SA.

"Patent Claim(s)" shall mean one or more claims in issued patent(s) or pending patent application(s).

"Reasonable and Good Faith Inquiry" includes, but is not limited to, a <u>Submitter</u> using reasonable efforts to identify and contact those individuals who are from, employed by, or otherwise represent the Submitter and who are known to

who seeks to comply with IEEE standards." About the IEEE Standards Association

The IEEE Standards Association, a globally recognized standards-setting body, develops consensus standards through an open process that brings diverse parts of industry together. These standards set specifications and procedures based on current scientific and technological consensus. The IEEE-SA has a portfolio of over 900 active standards and more than 400 standards under development. For information on IEEE-SA see: http://standards.ieee.org/.

"IEEE standards policies and procedures must change as the world changes to ensure

our standards serve those who create and use them," says Judy Gorman, IEEE-SA

Managing Director. "Our new patent policy is a good example of this. We spent several years creating this policy and had strong participation from industry in doing

so. "Our new policy encourages voluntary disclosure of maximum royalty rates and other licensing terms and allows IEEE standards working groups to include these in

their comparison of relative costs for the technology alternatives they consider for a standard. As a result, our working groups will make choices based on more informed

cost-performance evaluations. This should encourage competition and benefit anyone

About the IEEE

The IEEE (Institute of Electrical and Electronics Engineers, Inc.) is the world's largest technical professional society. Through its more than 370,000 members in 160 countries, the organization is a leading authority on a wide variety of areas ranging from aerospace systems, computers and telecommunications to biomedical engineering, electric power and consumer electronics. Dedicated to the advancement of technology, the IEEE publishes 30 percent of the world's literature in the electrical and electronics engineering and computer science fields, and has developed over 900 active industry standards. The organization also sponsors or co-sponsors over 450 international technical conferences each year. Additional information about the IEEE can be found at http://www.ieee.org.

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(webmaster@standards.ieee.org)

URL: http://standards.ieee.org/announcements/stdspatpol.html

(Modified: 30-Apr-2007)

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the Submitter to be current or past participants in the development process of the [Proposed] IEEE Standard identified in a Letter of Assurance, including, but not limited to, participation in a Sponsor Ballot or Working Group. If the Submitter did not or does not have any participants, then a Reasonable and Good Faith Inquiry may include, but is not limited to, the Submitter using reasonable efforts to contact individuals who are from, employed by, or represent the Submitter and who the Submitter believes are most likely to have knowledge about the technology covered by the [Proposed] IEEE Standard.

"Statement of Encumbrance" shall mean a specific reference to an Accepted LOA or a general statement in the transfer or assignment agreement that the Patent Claim(s) being transferred or assigned are subject to any encumbrances that may exist as of the effective date of such agreement. An Accepted LOA is an encumbrance.

"Submitter" when used in reference to a <u>Letter of Assurance</u> shall mean an individual or an organization that provides a completed Letter of Assurance. A Submitter may or may not hold <u>Essential Patent Claims</u>.

6.2 Policy

IEEE standards may be drafted in terms that include the use of Essential Patent Claims. If the IEEE receives notice that a [Proposed] IEEE Standard may require the use of a potential Essential Patent Claim, the IEEE shall request licensing assurance, on the IEEE Standards Board approved Letter of Assurance form, from the patent holder or patent applicant. The IEEE shall request this assurance without coercion.

The <u>Submitter</u> of the <u>Letter of Assurance</u> may, after <u>Reasonable and Good Faith Inquiry</u>, indicate it is not aware of any <u>Patent Claims</u> that the Submitter may own, control, or have the ability to license that might be or become Essential Patent Claims. If the patent holder or patent applicant provides an assurance, it should do so as soon as reasonably feasible in the standards development process. This assurance shall be provided prior to the Standards Board's approval of the standard. This assurance shall be provided prior to a reaffirmation if the IEEE receives notice of a potential Essential Patent Claim after the standard's approval or a prior reaffirmation. An asserted potential Essential Patent Claim for which an assurance cannot be obtained (e.g., a Letter of Assurance is not provided or the Letter of Assurance indicates that assurance is not being provided) shall be referred to the <u>Patent Committee</u>.

A Letter of Assurance shall be either:

- A general disclaimer to the effect that the Submitter without conditions will not enforce any present or future Essential Patent Claims against any person or entity making, using, selling, offering to sell, importing, distributing, or implementing a compliant implementation of the standard; or
- A statement that a license for a compliant implementation of the standard will be made available to an unrestricted number of applicants on a worldwide basis without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination. At its sole option, the Submitter may provide with its assurance any of the following: (i) a not-to-exceed license fee or rate commitment, (ii) a sample license agreement, or (iii) one or more material licensing terms.

Copies of an Accepted LOA may be provided to the working group, but shall not be discussed, at any standards working group meeting.

The Submitter and all <u>Affiliates</u> (other than those Affiliates excluded in a Letter of Assurance) shall not assign or otherwise transfer any rights in any Essential Patent Claims that are the subject of such Letter of Assurance that they hold, control, or have the ability to license with the intent of circumventing or negating any of the representations and commitments made in such Letter of Assurance.

The Submitter of a Letter of Assurance shall agree (a) to provide notice of a Letter of Assurance either through a <u>Statement of Encumbrance</u> or by binding any assignee or transferee to the terms of such Letter of Assurance; and (b) to

require its assignee or transferee to (i) agree to similarly provide such notice and (ii) to bind its assignees or transferees to agree to provide such notice as described in (a) and (b).

This assurance shall apply to the Submitter and its Affiliates except those Affiliates the Submitter specifically excludes on the relevant Letter of Assurance.

If, after providing a Letter of Assurance to the IEEE, the Submitter becomes aware of additional Patent Claim(s) not already covered by an existing Letter of Assurance that are owned, controlled, or licensable by the Submitter that may be or become Essential Patent Claim(s) for the same IEEE Standard but are not the subject of an existing Letter of Assurance, then such Submitter shall submit a Letter of Assurance stating its position regarding enforcement or licensing of such Patent Claims. For the purposes of this commitment, the Submitter is deemed to be aware if any of the following individuals who are from, employed by, or otherwise represent the Submitter have personal knowledge of additional potential Essential Patent Claims, owned or controlled by the Submitter, related to a [Proposed] IEEE Standard and not already the subject of a previously submitted Letter of Assurance: (a) past or present participants in the development of the [Proposed] IEEE Standard, or (b) the individual executing the previously submitted Letter of Assurance.

The assurance is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal.

The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of those Patent Claims, or for determining whether any licensing terms or conditions are reasonable or non-discriminatory.

Nothing in this policy shall be interpreted as giving rise to a duty to conduct a patent search. No license is implied by the submission of a Letter of Assurance.

In order for IEEE's patent policy to function efficiently, individuals participating in the standards development process: (a) shall inform the IEEE (or cause the IEEE to be informed) of the holder of any potential Essential Patent Claims of which they are personally aware and that are not already the subject of an existing Letter of Assurance, owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents; and (b) should inform the IEEE (or cause the IEEE to be informed) of any other holders of such potential Essential Patent Claims that are not already the subject of an existing Letter of Assurance.

7. Modifications to the IEEE-SA Standards Board Bylaws

Proposed modifications to these bylaws may be submitted to the IEEE-SA Standards Board Procedures Committee (ProCom) for their consideration. Proposed modifications that have been agreed to by ProCom shall be submitted to the IEEE-SA Standards Board for recommendation to forward to the IEEE-SA BOG for approval (see clause 5.1 of the IEEE Standards Association Operations Manual).

Modifications to these bylaws and the reasons therefor shall be mailed to all members of the IEEE-SA Standards Board at least 30 days before the IEEE-SA Standards Board meeting where the vote on these modifications shall be taken. Two-thirds of the voting Board members present at the meeting shall be required to approve any modifications.

These bylaws shall be reviewed by legal counsel.

Clauses 6-7: IEEE-SA Standards Board Bylaws

7.1 Interpretations of the IEEE-SA Standards Board Bylaws

Requests for <u>interpretations</u> of this document shall be directed to the <u>Secretary of the IEEE-SA Standards Board</u>. The Secretary of the Board shall respond to the request within 30 days of receipt. Such response shall indicate a specified time limit when such an interpretation will be forthcoming. The time limit shall be no longer than is reasonable to allow consideration of and recommendations on the issue by, for example, the Procedures Committee of the IEEE-SA

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Standards Board. The interpretation shall be delivered by the Chair of the Procedures Committee after ProCom discussion provided that at least 75% of the committee agrees. The IEEE-SA Standards Board shall be notified of these results. If less than 75% of the committee agrees, or if any single committee member requests, the issue shall be deferred to the next regularly scheduled IEEE-SA Standards Board meeting for the full Board to decide.



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(d.ringle@ieee.org)

URL: http://standards.ieee.org/guides/bylaws/sect6-7.html



IEEE-SA Standards Board Operations Manual

6. Copyright, trademark, and patents

6.1 Copyright

All IEEE standards are copyrighted by the IEEE under the provisions of the US Copyright Act.

6.1.1 Project Authorization Request (PAR)

As part of the initial PAR procedure, the committee or working group shall appoint a chair who shall sign a Copyright Agreement acknowledging that the proposed standard constitutes a "work made for hire" as defined by the Copyright Act, and that as to any work not so defined, any rights or interest in the copyright to the standards publication is transferred to the IEEE. Except as noted below, the IEEE is the sole copyright owner of all material included in the standard

At the time of PAR completion, any previously copyrighted material intended for inclusion shall be identified. The working group is responsible for receiving written permission to use all copyrighted material prior to the start of ballot invitation or prior to the next recirculation ballot if the excerpted material is inserted during comment resolution. Sample form letters are available in the *IEEE Standards Style Manual*.

6.1.2 Drafts of proposed IEEE standards

All drafts of proposed IEEE standards shall contain the copyright statement provided in <u>subclause 4.2.2</u> of the *IEEE Standards Style Manual*.

6.2 Trademark

6.2.1 General

References to commercial equipment in a standard shall be generic and shall not include trademarks or other proprietary designations. Where a sole source exists for essential equipment or materials, it is permissible to supply the name of the trademark owner in a footnote. (See <u>clause 7</u> in the *IEEE Standards Style Manual*.)

6.2.2 PAR form

During the PAR procedure, the working group shall identify any possible trademark use for the forthcoming standard. The instructions in 6.2.1 shall be adhered to prior to RevCom submittal.

6.3 Patents

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The patent policy is set forth in <u>clause 6</u> of the *IEEE-SA Standards Board Bylaws* and is incorporated herein by reference.

Letters of Assurance are to be e-mailed (preferred), faxed, or mailed to the IEEE Standards Association (to the attention of the PatCom Administrator). The PatCom Administrator shall record both the date on which the IEEE receives and the date the IEEE accepts the Letter of Assurance. Completed Letters of Assurance are accepted by the PatCom Administrator or by PatCom upon referral from the PatCom Administrator. The IEEE may request a Letter of Assurance from Affiliates specifically excluded on another Letter of Assurance.

Unless the Letter of Assurance is received from an individual within the issuing organization who has clear authority for intellectual property and legal matters, the IEEE Standards Association (PatCom Administrator) shall send a certified letter, return receipt requested, to the General Counsel or other appropriate representatives of the issuing organization to confirm receipt of the Letter of Assurance and to ensure that the Letter of Assurance is factually correct and was submitted by an appropriate individual within the issuing organization. No response to this letter, other than the return receipt, is required.

Upon written request, the IEEE will make available copies of any <u>Accepted Letter of Assurance</u> and its attachments. Letters received after 31 December 2006 shall be posted on the <u>IEEE-SA website</u>.

6.3.1 Public notice

The following notice shall appear when the IEEE receives assurance from a claimed patent holder or patent applicant prior to the time of publication that a license will be made available to all applicants either without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.

Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. A patent holder or patent applicant has filed a statement of assurance that it will grant licenses under these rights without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination to applicants desiring to obtain such licenses. Other Essential Patent Claims may exist for which a statement of assurance has not been received. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims, or determining whether any licensing terms or conditions are reasonable or non-discriminatory. Further information may be obtained from the IEEE Standards Association.

If the IEEE has not received Letters of Assurance prior to the time of publication, the following notice shall appear:

Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims or determining whether any licensing terms or conditions are reasonable or non-discriminatory. Further information may be obtained from the IEEE Standards Association.

6.3.2 Call for patents

The chair or the chair's delegate of an IEEE standards-developing working group or the chair of an IEEE standards Sponsor shall be responsible for informing the members of the working group that if any individual believes that Patent Claims might be Essential Patent Claims, that fact should be made known to the entire working group and duly recorded in the minutes of the working group meeting. This request shall occur at every standards-developing meeting.

The chair or the chair's delegate shall ask any patent holder or patent applicant of a Patent Claim that might be or become an Essential Patent Claim to complete and submit a <u>Letter of Assurance</u> in accordance with <u>Clause 6</u> of the IEEE-SA Standards Board Bylaws. Information about the draft standard will be made available upon request.

6.3.3 Withdrawn standards

All active IEEE standards are subject to periodic review for reaffirmation, revision, stabilization, or withdrawal every five years. Thus, any standard that incorporates patented technology may at some point in time be withdrawn. Clause 6 of the IEEE-SA Standards Board Bylaws contains policies concerning the period of validity for any Letter of Assurance received from a party regarding an Essential Patent Claim.

6.3.4 Multiple Letters of Assurance and Blanket Letters of Assurance

A <u>Submitter</u> may provide the IEEE with a <u>Blanket Letter of Assurance</u> for a specific [Proposed] IEEE Standard that covers all <u>Essential Patent Claims</u> the Submitter may currently or in the future have the ability to license. A Submitter may submit separate Letters of Assurance providing different licensing positions for different potential Essential Patent Claims.

Over time, a Submitter may also provide multiple assurances for a given Patent Claim by submitting multiple Letters of Assurance for such claim. For Essential Patent Claims, each such Letter of Assurance shall be binding on the Submitter. Each potential licensee may choose to invoke the terms of any applicable Letter of Assurance accepted by the IEEE, with one exception: If a Submitter has signed and submitted a Letter of Assurance specifically identifying a Patent Claim before or concurrently with signing and submitting a Blanket Letter of Assurance, the Blanket Letter of Assurance cannot be invoked as to the specified Patent Claim. (The Submitter, however, may submit a separate specific Letter of Assurance offering the Blanket Letter of Assurance terms for the specified Patent Claim.) The intention of this paragraph is to permit the Submitter to offer alternative assurances, and to permit the potential licensee to choose from among the alternative assurances offered.

If, after providing a Blanket Letter of Assurance, the Submitter acquires an Essential Patent Claim or a controlling interest in an entity that owns or controls an Essential Patent Claim, the existing Submitter's Blanket Letter of Assurance shall apply to such acquired Essential Patent Claims unless the acquired entity or the prior holder of the acquired Essential Patent Claim has submitted a Letter of Assurance before the acquisition. Any Blanket Letter of Assurance submitted by the acquired entity or the prior holder of the acquired Essential Patent Claim before the acquisition shall continue to apply to acquired Essential Patent Claims covered by such assurance (but not to the acquirer's Essential Patent Claims). Letters of Assurance covering specified Essential Patent Claims shall continue to apply to specified Essential Patent Claims, whether acquired in the acquisition or held by the acquirer before the acquisition, as provided in this Operations Manual. Nothing in this paragraph shall prevent an acquiring party from asking a seller of an acquired Essential Patent Claim or an acquired entity to submit additional Letters of Assurance before closing of the acquisition.

6.3.5 Applicability of Letters of Assurance to Amendments, Corrigenda, Editions, or Revisions

An Accepted Letter of Assurance referencing an existing standard, amendment, corrigendum, edition, or revision will remain in force for the application of the Essential Patent Claim(s) to the technology specified in another amendment, corrigendum, edition, or revision of the same IEEE Standard but only if (a) the application of the technology required by the amendment, corrigendum, edition, or revision of the same IEEE Standard has not changed from its previous usage and (b) the same Essential Patent Claims covered by the prior Accepted Letter of Assurance remain Essential Patent Claims in the same IEEE Standard or revision thereof.

The Working Group Chair shall initiate a request for a new Letter of Assurance from a known <u>Submitter</u> when re-using portions of, or technologies specified in, an existing [Proposed] IEEE Standard, amendment, corrigendum, edition, or revision referenced in an Accepted Letter of Assurance in a different [Proposed] IEEE Standard.

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URL: http://standards.ieee.org/guides/opman/sect6.html



IEEE-SA Standards Board Bylaws

4. IEEE-SA Standards Board organization

4.1 Membership

As stated in the IEEE Standards Association Operations Manual, the IEEE-SA Standards Board shall consist of no fewer than 18 nor more than 26 voting members, who shall be of Member or higher grade of the IEEE and members of the IEEE Standards Association, including a chair, vice chair, and the most recent past chair available to serve. Voting members of the IEEE-SA Standards Board shall be appointed by the IEEE-SA BOG. In addition, a representative appointed by the IEEE Technical Activities Board (TAB) shall be a voting member. In addition, the IEEE-SA Standards Board may include nonvoting participants as described below:

Liaison representatives to provide coordination and communication between the IEEE-SA Standards Board and other IEEE entities, as well as other organizations involved in standards activities.

Members emeriti appointed for life by the IEEE-SA Standards Board and ratified by the IEEE-SA BOG, based on long years of prior distinguished service on the IEEE Standards Board and its committees. Only those members emeriti currently named to this position as of 31 December 1997 shall serve on the IEEE-SA Standards Board.

4.1.1 Officers

- Chair: The Chair of the IEEE-SA Standards Board shall be appointed for a term of one year by the IEEE-SA BOG.
- b) Vice Chair: The Vice Chair of the IEEE-SA Standards Board shall be appointed by the IEEE-SA Standards Board from among the voting members for a term of one year.
- Past Chair: The most recent Past Chair of the IEEE-SA Standards Board available to serve shall be an officer of the IEEE-SA Standards Board.
- Secretary: The Managing Director of Standards, a member of the IEEE staff as designated by the IEEE Executive Director, is the Secretary of the IEEE-SA Standards Board. The Secretary shall serve ex officio without vote.

4.1.2 Liaison representatives

The following persons serve as nonvoting (unless already voting members) <u>liaison representatives</u> to the IEEE-SA Standards Board and its standing committees to assist in coordinating standardization work with their respective organizations:

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- The chair of each IEEE Standards Coordinating Committee (SCC) appointed by the IEEE-SA Standards Board.
- Representatives of IEEE Societies and Councils (and their Technical Committees), appointed by the Presidents or Chairs of these bodies. Sponsor Committees may also designate liaison representatives where committee standards activity indicates the need for representation.
- Liaison representatives designated by other major IEEE Boards.
- Such other liaison representatives as the IEEE-SA Standards Board may authorize.

The responsibilities of the liaison representatives are given in the *IEEE-SA Standards Board Operations Manual*.

4.1.3 SCC Coordinator

The SCC Coordinator shall ensure oversight of the SCCs and shall facilitate the work of the SCCs. The SCC Coordinator shall be appointed by the Chair of the Standards Board for a term of one year.

4.1.4 Tenure

Members of the IEEE-SA Standards Board may serve up to three consecutive one-year terms, except that chairs of standing committees or members of the Administrative Committee may be appointed to additional terms to provide experience and continuity.

4.2 Standing committees of the IEEE-SA Standards Board

All members of the standing committees of the IEEE-SA Standards Board shall be members of the <u>IEEE Standards</u> Association.

4.2.1 Procedures Committee (ProCom)

4.2.1.1 Scope

This committee shall be responsible for recommending to the IEEE-SA Standards Board improvements and changes in its bylaws, procedures, and manuals to promote efficient discharge of responsibilities by the IEEE-SA Standards Board and its committees.

4.2.1.2 Organization

This committee shall be comprised of at least six members. The chair and other members of the committee shall be members of the IEEE-SA Standards Board and shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.2.2 New Standards Committee (NesCom)

4.2.2.1 Scope

This committee shall be responsible for ensuring that proposed standards projects are within the scope and purpose of the IEEE, that standards projects are assigned to the proper Society or other organizational body, and that interested parties are appropriately represented in the development of IEEE standards. The committee shall examine Project

Authorization Requests (PARs) and make recommendations to the IEEE-SA Standards Board regarding their approval.

4.2.2.2 Organization

This committee shall be comprised of at least 10 but not more than 15 members, at least four of whom, including the chair, shall be voting members of the IEEE-SA Standards Board. The chair and other members of the committee shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year. In making nominations, the nominations committee shall give consideration to attaining membership from various IEEE Technical Divisions.

IEEE-SA Standards Board members not appointed to NesCom may serve as ex officio members without voting privileges.

4.2.3 Standards Review Committee (RevCom)

4.2.3.1 Scope

This committee shall be responsible for reviewing proposals for the approval of new and revised <u>standards</u> and for the <u>reaffirmation</u> or <u>withdrawal</u> of existing standards to ensure that the proposals represent a <u>consensus</u> of the members of the official IEEE Sponsor balloting group. The committee shall routinely examine submittals to ensure that all applicable requirements of the <u>IEEE-SA Standards Board Operations Manual</u> have been met and make recommendations to the IEEE-SA Standards Board regarding their approval.

4.2.3.2 Organization

This committee shall be comprised of at least 12 but not more than 15 members, at least three of whom, including the chair, shall be voting members of the IEEE-SA Standards Board. The chair and other members of the committee shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year. In making nominations, the nominations committee shall give consideration to attaining membership from various IEEE Technical Divisions.

IEEE-SA Standards Board members not appointed to RevCom may serve as ex officio members without voting privileges.

4.2.4 Audit Committee (AudCom)

4.2.4.1 Scope

This committee shall provide oversight of the procedures used in the standards-development activities of IEEE Standards Sponsors as defined by 5.2.2 and review of the procedures used by the Accredited Standards Committees for whom the IEEE serves as (co-)secretariat. This committee shall also oversee the submission of Sponsor annual reports (See subclause 5.1.3 of the IEEE-SA Standards Board Operations Manual).

4.2.4.2 Organization

This committee shall be comprised of at least five members. Five of the committee members, including the chair, shall be current or former members of the IEEE-SA Standards Board. The chair and other members of the committee shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.2.5 Patent Committee (PatCom)

4.2.5.1 Scope

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This committee shall provide oversight for the use of any patents and patent information in IEEE standards. This committee shall review any patent information submitted to the IEEE Standards Department to determine conformity with patent procedures and <u>guidelines</u>.

4.2.5.2 Organization

This committee shall be comprised of at least four but not more than six voting members. A member of the IEEE Standards staff, as designated by the Managing Director of Standards Activities, shall be an ex officio, nonvoting member. The chair and additional voting members of the committee shall be voting members of the IEEE-SA Standards Board or the IEEE-SA Board of Governors, and shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.2.6 Administrative Committee (AdCom)

The Administrative Committee shall act for the IEEE-SA Standards Board between meetings and make recommendations to the IEEE-SA Standards Board for its disposition at regular meetings. AdCom shall comprise the officers of the IEEE-SA Standards Board, the chairs of each standing committee of the IEEE-SA Standards Board, and the SCC Coordinator. The Chair of the IEEE-SA Standards Board shall be the chair of AdCom.

4.3 Other committees and bodies

4.3.1 Standards Coordinating Committees (SCCs)

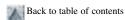
Proposed standards are normally developed in the technical committees of the IEEE Societies. There are occasions when the scope of a standards activity is too broad to be encompassed in a single Society, or a Society may find itself in a position where it is unable to carry out the work needed to meet an identified need. In such instances, the IEEE-SA Standards Board shall establish its own committees to perform the required functions. These committees shall be known as Standards Coordinating Committees (SCCs) and shall report to the IEEE-SA Standards Board.

There shall be two types of SCCs. The first (type 1) shall serve as a forum for the exchange of information between and among standards-developing activities of the IEEE. (Opportunities for sharing information about standards projects, trends, and Society directions will serve to minimize duplication among programs and will enhance the content of standards of interest to more than one Society.)

This type of SCC shall not develop standards. If this type of SCC is to take on a standards-development role, it shall apply for SCC type 2 status (see subclause 4.3.2 of the *IEEE-SA Standards Board Operations Manual*).

The second type of SCC (type 2) shall act as <u>Sponsor</u> for individual standards projects, in addition to having the coordination responsibilities of a type 1 SCC. It shall meet all the requirements of IEEE sponsorship (including clause 5 of the <u>IEEE-SA Standards Board Operations Manual</u>).

For information on the formation of SCCs, see 4.3 in the <u>IEEE-SA Standards Board Operations Manual</u>. For information on the organization of SCCs, see 4.4 in the <u>IEEE-SA Standards Board Operations Manual</u>.





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IEEE-SA Standards Board Bylaws

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4. IEEE-SA Standards Board organization

4.1 Membership

As stated in the *IEEE Standards Association Operations Manual*, the <u>IEEE-SA Standards Board</u> shall consist of no fewer than 18 nor more than 26 voting members, who shall be of Member or higher grade of the <u>IEEE</u> and members of the <u>IEEE Standards Association</u>, including a chair, vice chair, and the most recent past chair available to serve. Voting members of the IEEE-SA Standards Board shall be appointed by the IEEE-SA BOG. In addition, a representative appointed by the <u>IEEE Technical Activities Board (TAB)</u> shall be a voting member. In addition, the IEEE-SA Standards Board may include nonvoting participants as described below:

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- Vice Chair: The Vice Chair of the IEEE-SA Standards Board shall be appointed by the IEEE-SA Standards Board from among the voting members for a term of one year.
- Past Chair: The most recent Past Chair of the IEEE-SA Standards Board available to serve shall be an officer of the IEEE-SA Standards Board.
- Secretary: The Managing Director of Standards, a member of the IEEE staff as designated by the IEEE Executive Director, is the Secretary of the IEEE-SA Standards Board. The Secretary shall serve ex officio without vote.

4.1.2 Liaison representatives

The following persons serve as nonvoting (unless already voting members) <u>liaison representatives</u> to the IEEE-SA Standards Board and its standing committees to assist in coordinating standardization work with their respective organizations:

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- The chair of each IEEE Standards Coordinating Committee (SCC) appointed by the IEEE-SA Standards Board.
- b) Representatives of IEEE Societies and Councils (and their Technical Committees), appointed by the Presidents or Chairs of these bodies. <u>Sponsor</u> Committees may also designate liaison representatives where committee standards activity indicates the need for representation.
- c)
 Liaison representatives designated by other major IEEE Boards.
- Such other liaison representatives as the IEEE-SA Standards Board may authorize.

The responsibilities of the liaison representatives are given in the IEEE-SA Standards Board Operations Manual.

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4.2.1 Procedures Committee (ProCom)

4.2.1.1 Scope

This committee shall be responsible for recommending to the IEEE-SA Standards Board improvements and changes in its bylaws, procedures, and manuals to promote efficient discharge of responsibilities by the IEEE-SA Standards Board and its committees.

4.2.1.2 Organization

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4.2.2.1 Scope

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Authorization Requests (PARs) and make recommendations to the IEEE-SA Standards Board regarding their approval.

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4.2.3.1 Scope

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IEEE-SA Standards Board members not appointed to RevCom may serve as ex officio members without voting privileges.

4.2.4 Audit Committee (AudCom)

4.2.4.1 Scope

This committee shall provide oversight of the procedures used in the standards-development activities of IEEE Standards Sponsors as defined by 5.2.2 and review of the procedures used by the Accredited Standards Committees for whom the IEEE serves as (co-)secretariat. This committee shall also oversee the submission of Sponsor annual reports (See subclause 5.1.3 of the IEEE-SA Standards Board Operations Manual).

4.2.4.2 Organization

This committee shall be comprised of at least five members. Five of the committee members, including the chair, shall be current or former members of the IEEE-SA Standards Board. The chair and other members of the committee shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.2.5 Patent Committee (PatCom)

4.2.5.1 Scope

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This committee shall provide oversight for the use of any patents and patent information in IEEE standards. This committee shall review any patent information submitted to the IEEE Standards Department to determine conformity with patent procedures and guidelines.

4.2.5.2 Organization

This committee shall be comprised of at least four but not more than six voting members. A member of the IEEE Standards staff, as designated by the Managing Director of Standards Activities, shall be an ex officio, nonvoting member. The chair and additional voting members of the committee shall be voting members of the IEEE-SA Standards Board or the IEEE-SA Board of Governors, and shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.2.6 Administrative Committee (AdCom)

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4.3 Other committees and bodies

4.3.1 Standards Coordinating Committees (SCCs)

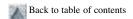
Proposed standards are normally developed in the technical committees of the IEEE Societies. There are occasions when the scope of a standards activity is too broad to be encompassed in a single Society, or a Society may find itself in a position where it is unable to carry out the work needed to meet an identified need. In such instances, the IEEE-SA Standards Board shall establish its own committees to perform the required functions. These committees shall be known as Standards Coordinating Committees (SCCs) and shall report to the IEEE-SA Standards Board.

There shall be two types of SCCs. The first (type 1) shall serve as a forum for the exchange of information between and among standards-developing activities of the IEEE. (Opportunities for sharing information about standards projects, trends, and Society directions will serve to minimize duplication among programs and will enhance the content of standards of interest to more than one Society.)

This type of SCC shall not develop standards. If this type of SCC is to take on a standards-development role, it shall apply for SCC type 2 status (see subclause 4.3.2 of the *IEEE-SA Standards Board Operations Manual*).

The second type of SCC (type 2) shall act as <u>Sponsor</u> for individual standards projects, in addition to having the coordination responsibilities of a type 1 SCC. It shall meet all the requirements of IEEE sponsorship (including clause 5 of the <u>IEEE-SA Standards Board Operations Manual</u>).

For information on the formation of SCCs, see 4.3 in the <u>IEEE-SA Standards Board Operations Manual</u>. For information on the organization of SCCs, see 4.4 in the <u>IEEE-SA Standards Board Operations Manual</u>.



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URL: http://standards.ieee.org/guides/bylaws/sect4.html

Holdup and Innovation in IT Standards Settings
Submitted by
Ron Moore
Director of Legal Services, Corporate Interoperabilty and Standards Group
Microsoft Corporation

Summary:

The issues of the structure of standards development organizations for information technologies, their intellectual rights policies, and their regulation by competition authorities are confused by a growing public debate by competing industry groups. Patent holdup and ex ante licensing disclosures are topics that have included a large amount of disinformation. Participants with different business models have vastly different opinions. Competition authorities have a huge impact, but only in some areas. This document is intended to address these issues in the context of "patent holdup" from both the perspective of the patent owner and the standards implementer and to present some of the practical effects of polices designed to resolve the "problem" of holdup.

Introduction:

Information technology (IT) standards are in some key ways much different from other types of standards. IT standards tend to be fixed methods of achieving a certain result whether that is compression of video or audio, transmission of data from one system to another, document formats, plugs and connectors and a myriad of other technical specifications. This is in contrast to many other types of standards which are more performance based such as safety, construction, materials and other standards where the standard describes a certain level of performance (strength, dimensions, fire resistance, etc.). For the purpose of this analysis, we will concentrate on IT related standards.

In this context, standards setting activities present a difficult challenge for government regulatory and policy agencies. Standards development activities can have an anticompetitive effect by bringing together a number of competitors within a market that can, in effect, limit competition through the selection of certain technologies and methods to the exclusion of others. This activity then establishes a standard that can limit competition with respect to certain features of their (and others) downstream products. This anticompetitive effect, in the view of competition authorities, is balanced by the procompetitive effects of standardization of increased efficiency in the market. In short they have decided that consumers benefit when properly constructed standards are available for implementation in the marketplace.

If the process were that simple, the analysis would stop there and everyone would be happy.

Unfortunately, it is not that simple. Even more unfortunate, is the illusion being created by some participants whose business models would be advantaged if they could convince others that it is that simple.

VITA Patent Policy

10.0 Patent Policy

All VSO members, including study and working group members, shall follow the procedures set forth in this Section 10.

10.1 Early Patent and FRAND License Disclosure Policy

This section implements an early patent and FRAND license disclosure policy.

10.2 Disclosure of Patents

10.2.1 Disclosure Obligations

Each working group member ("WG Member")¹ shall disclose to the working group ("WG") in writing the existence of all patents and patent applications owned, controlled, or licensed by the VITA member company ("VITA Member Company") the WG Member represents, which are known by the WG Member and which the WG Member believes contain claims that may become essential to the draft VSO specification ("Draft VSO Specification")² of the WG in existence at the time, after the WG Member has made a good faith and reasonable inquiry into the patents and patent applications the VITA Member Company (or its Affiliates³) owns, controls or licenses. An "essential" claim for this purpose means any claim the use of which is necessary to create a compliant implementation and for which there is no technically and commercially feasible non-infringing alternative. The WG Member must provide, on behalf of the VITA Member Company, all patent disclosure information to VSO by completing a "Declaration of VITA Member Company" ("Declaration"), which is set forth in Appendix 6.

10.2.2 Patent Information to be Disclosed

All patents or patent applications to be disclosed under Section 10.2.1 shall include the following information: (a) for issued patents and published patent applications, the patent or patent application number, the associated country and, as reasonably practicable, the relevant portions of the WG's Draft VSO Specification; and (b) in the case of unpublished patent applications, the existence of the unpublished patent applications and, as reasonably practicable, the relevant portions of the WG's Draft VSO Specification.

10.2.3 Timing of Patent Disclosure

A VSO member who proposes to VSO a specification for consideration to become a Draft VSO Specification must disclose all patents and patent applications owned, controlled, or licensed by the VSO member that contain claims that may become essential to the Draft VSO Specification prior to the date the study group or WG, as applicable, adopts the proposed specification as a Draft VSO Specification.

Upon formation of a WG, all WG Members must disclose, on behalf of the VITA Member Company he or she represents, all patents and patent applications owned, controlled, or licensed by the VITA Member Company that contain claims that may become essential to the Draft VSO Specification within sixty (60) days after the formation of the WG.

In anticipation of a ballot to adopt the Draft VSO Specification as a VSO or VITA Specification (including an IEC Industry Technical Agreement or an American National Standard), all WG Members must disclose, on behalf of the VITA Member Company he or she represents, all undisclosed patents and patent applications owned, controlled, or licensed by the VITA Member Company that contain claims that may become essential to the Draft VSO Specification no later than fifteen (15) days from the date of publication of a Draft VSO Specification.

In addition, at the commencement of all face-to-face WG meetings, the WG Chairperson shall ask WG Members to disclose, on behalf of the VITA Member Company he or she represents, any undisclosed patents or patent applications owned, controlled, or licensed by the VITA Member Company that contain claims that may become essential to the Draft VSO Specification in accordance with the requirements set forth in this Patent Policy. If any WG Member thereupon discloses such a patent or patent application, the WG Chairperson shall ask the WG Member to submit and the WG Member shall submit, on behalf of the VITA Member Company he or she represents, a Declaration with information regarding that patent or patent application within thirty (30) days of the meeting at which the disclosure is made.

10.2.4 Disclosure of Third Party Patent Claims

Each WG Member who becomes aware of patents or patent applications owned or claimed by a third party that the WG Member believes to contain claims that may become essential to the Draft VSO Specification of the WG in existence at the time, including but not limited to any such patents that are licensed to the VITA Member Company the WG Member represents, must disclose them, provided that such disclosure is not prohibited by any confidentiality obligation binding upon the WG Member or the VITA Member Company he or she represents. Any WG Member that discloses third party patent claims does not take a position on the essentiality or relevance of the third party claims to the Draft VSO Specification.

10.3 Disclosure of FRAND License

10.3.1 License Terms

Each WG Member agrees, on behalf of the VITA Member Company he or she represents, that it will grant to any WG Member, VITA Member Company, or third party a nonexclusive, worldwide, nonsublicensable (except to the extent necessary "to have made"), perpetual patent license (or equivalent non-assertion covenant) for its patent claims essential to the Draft VSO Specification on fair, reasonable and non-discriminatory terms to use, make, have made, market, import, offer to sell, and sell, and to otherwise directly or indirectly distribute products that implement the Draft VSO Specification. Such license need only extend to the portions of the Draft VSO Specification for which the license is essential to its implementation.

10.3.2 Declaration

Each WG Member must complete and execute a Declaration (Appendix 6) on behalf of its VITA Member Company. Each WG Member must declare the maximum royalty rate for all patent claims that the VITA Member Company he or she represents (or its Affiliates) owns or controls and that may become essential

¹ For purposes of Section 10, "WG Member" includes all three levels of membership described in Section 7.1.4 of VSO Policies and Procedures: sponsors, participants, and observers.

² For purposes of Section 10, "Draft VSO Specification" includes any eventual standard developed and adopted under Track 1 or Track 2 in Section 7.2 as an IEC Industry Technical Agreement, a VSO or VITA Specification, or an American National Standard.

³ For purposes of Section 10, an "Affiliate" is any entity that directly or indirectly controls, is controlled by, or is under common control with, another entity, so long as such control exists. For purposes of this definition, with respect to a business entity, control means direct or indirect beneficial ownership of or the right to exercise (i) greater than fifty percent (50%) of the voting stock or equity in an entity; or (ii) greater than fifty percent (50%) of the ownership interest representing the right to make the decisions for the subject entity in the event that there is no voting stock or equity.

to implement the Draft VSO Specification. WG Members are encouraged to attach to the Declaration a draft licensing agreement for all patent claims essential to implement the Draft VSO Specification. The failure to do so precludes the VITA Member Company from including in its final licensing agreement a grantback, reciprocal license, non-assert provision, covenant not to sue, or defensive suspension provision that is broader or more restrictive upon licensees than the following:

- A VITA Member Company may include in its final licensing agreement a term requiring the licensee to grant a license on fair, reasonable, and non-discriminatory terms to any of the licensee's patent claims on present or future improvements that are essential to the same Draft VSO Specification;
- A VITA Member Company may include in its final licensing agreement a term requiring the licensee to grant a reciprocal license to all the licensee's present or future patent claims essential to the same Draft VSO Specification;
- A VITA Member Company may include in its final licensing agreement a term under which the
 licensee commits not to assert or not to bring suit to enforce any of the licensee's present or
 future patent claims essential to the same final specification against the VITA Member Company
 based on its implementation of the Draft VSO Specification:
- 4. A VITA Member Company may include in its final licensing agreement a term providing that the license may be suspended with respect to the licensee if the licensee sues the VITA Member Company for infringement of any of the licensee's present or future patent claims essential to the same Draft VSO Specification.

License terms must in all other respects be fair, reasonable, and non-discriminatory.

The Declaration is irrevocable. If a subsequent Declaration covering previously disclosed information is submitted, the subsequent Declaration may only supersede the prior Declaration if the subsequent Declaration is less restrictive upon prospective licensees than the former Declaration. Otherwise, the former Declaration continues to apply. The Declaration will apply to the Draft VSO Specification and any reaffirmations or revisions to that Draft VSO Specification.

10.3.3 Record of Declarations

A record of all Declarations shall be placed and retained in the files of VSO.

10.3.4 Negotiation of License Terms

The negotiation or discussion of license terms among WG Members or with third parties is prohibited at all VSO and WG meetings.

10.4 Effect of Failure to Disclose Patents or License Terms

If a WG Member fails to adequately and timely disclose, on behalf of the VITA Member Company he or she represents, a patent claim or license terms for it as set forth in this Section 10, including at any of the times specified in Section 10.2.3, the VITA Member Company must license it to the extent it is essential to a Draft VSO Specification on a royalty free basis and in accordance with the license restrictions set forth in Section 10.3 for purposes of an implementation compliant with the Draft VSO Specification.

10.5 Arbitration Procedure

Any VSO member who believes a WG Member or the VITA Member Company that the WG Member represents has not complied with his/her or its obligations under this Patent Policy, including but not limited to obligations under Section 10.3 to grant licenses on terms that are fair, reasonable and non-discriminatory, may submit his/her claim in this respect to the applicable WG Chairperson. If the claim is

not thereupon resolved on an informal basis within fifteen (15) days of its submission, the WG Chairperson will commence an Arbitration Procedure in accordance with the provisions set forth below.

The Arbitration Panel will consist of three persons: one person selected by the party asserting noncompliance; one person selected by the party whose compliance or noncompliance is at issue; and a third person jointly selected by the other two selected persons. The first two selected persons cannot be affiliated with VITA members represented on the Working Group in question but may be affiliated with other VITA members if so desired. The third jointly selected person, who will act as Chair of the Panel, cannot be affiliated with any VITA member or with VITA. The entire panel must be selected within fifteen (15) days of the WG Chairperson's commencement of this Arbitration Procedure as referenced in the paragraph above. The VITA Technical Director will act as the non-voting Administrator of the Arbitration Procedure to convene, oversee and record the Panel's activity. The VITA General Counsel will specify and advise on the procedures to be followed, including procedures under which parties to the dispute and other interested parties asking to participate may be heard with respect to the dispute.

The Arbitration Panel will submit a Recommendation on the dispute to the VITA Executive Director within forty-five (45) days of commencement of the Arbitration Procedure. Within fifteen (15) days of receiving that Recommendation, the VITA Executive Director will consult with the VITA Board regarding the Recommendation and will then render a Decision on the dispute.

Any VSO member may request reconsideration of the Decision by notice to that effect to the VITA Board. Upon receiving any such notice, the VITA Board will reconsider the Decision and thereupon render a Final Decision on the dispute within thirty (30) days of that notice.

All VSO members and the VITA Member Companies they represent are expected to accept either the Executive Director's Decision or, if there is reconsideration, the Final Decision as a final and binding determination of the dispute subject to this Arbitration Procedure.

The VITA Board must approve any fees or other costs to be incurred in connection with an Arbitration Procedure, and will also specify the party or parties responsible for payment of all such costs. General principles to be followed are that (a) a party who initiates an Arbitration Procedure but whose claim is ultimately rejected will pay all costs; and (b) a party ultimately found to have not complied with its obligations will pay all costs.

Patent / Application No.:

Specification⁵ identified below in Section C and to all reaffirmations or revisions to such Draft VSO Specification. **VITA Member Company** Legal Name of Organization ____ WG Member Representing the VITA Member Company Name & Department: Telephone: _____ Fax: _____ URL: _____ **Draft VSO Specification** Disclosure of Patents Containing Essential Claims In accordance with Section 10 of the VSO Polices and Procedures, the undersigned WG Member shall disclose, on behalf of the VITA Member Company he or she represents, all patents or patent applications that the VITA Member Company (or its Affiliates⁶) may own or control and that it believes may contain claims essential to create an implementation compliant with the Draft VSO Specification identified above in Section C of this Declaration. Patent / Application No.: Title:

Appendix 6: Declaration of VITA Member Company

Section 10 of the VSO Polices and Procedures requires the undersigned WG Member⁴ to complete and execute this Declaration on behalf of the VITA Member Company he or she represents. The Declaration is irrevocable. Any subsequent Declaration covering information disclosed in this Declaration may only supersede this Declaration if the subsequent Declaration is less restrictive upon prospective licensees than the information set forth in this Declaration. This Declaration will apply to the Draft VSO

controlled by, or is under common control with, another entity, so long as such control exists. For purposes of this definition, with respect to a business entity, control means direct or indirect beneficial ownership of or the right to exercise (i) greater than fifty percent (50%) of the voting stock or equity in an entity; or (ii) greater than fifty percent (50%) of the ownership interest representing the right to make the

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⁴ For purposes of this Declaration, "WG Member" includes all three levels of membership described in Section 7.1.4 of the VSO Policies and Procedures: sponsors, participants, and observers. ⁵ For purposes of this Declaration, "Draft VSO Specification" includes any eventual standard developed and adopted under Track 1 or Track 2 in Section 7.2 of the VSO Policies and Procedures as an IEC Industry Technical Agreement, a VSO or VITA Specification, or an American National Standard. ⁶ For purposes of this Declaration, an "Affiliate" is any entity that directly or indirectly controls, is

decisions for the subject entity in the event that there is no voting stock or equity.

E.

Title:					
	Patent / Application No.:				
Title:					
Attach	additional pages if necessary.				
2.	Does the VITA Member Company the undersigned represents hold a license from another party to a patent that may include a claim essential to create an implementation compliant with the Draft VSO Specification identified above in Section C of this Declaration?				
	☐ Yes ☐ No				
	If yes, the undersigned shall disclose on behalf of the VITA Member Company all paten to which the VITA Member Company holds a license from another party that may includ a claim essential to create an implementation compliant with the Draft VSO Specification identified above in Section C.				
Patent	No.:				
Title:					
License	or:				
Attach	additional pages if necessary.				
VITA M	lember Company's Declaration regarding the Licensing of Essential Patents				
by and transfe control	ordance with Section 10 of the VSO Polices and Procedures, the VITA Member Company through the undersigned, hereby declares for itself, its Affiliates, successors, assigns, ar rees of its patent rights its licensing position with respect to all patents that it may hold or and that contain claims that may be essential to create an implementation compliant with aft VSO Specification identified above in Section C of this Declaration, as follows:				
1.	The VITA Member Company will grant to all interested parties a nonexclusive, worldwid nonsublicensable (except to the extent necessary "to have made"), perpetual patent license (or equivalent non-assertion covenant) for its patent claims essential to create a implementation compliant with the above-referenced Draft VSO Specification on fair, reasonable and non-discriminatory terms to use, make, have made, market, import, offe to sell, and sell, and to otherwise directly or indirectly distribute products that implement the Draft VSO Specification. (The license need only extend to the portions of the Draft VSO Specification for which the license is essential to its implementation. Any other intended condition or limitation on this commitment is stated in a letter accompanying the Declaration.)				
2.	The VITA Member Company will grant a license to all such claims to all interested partie with a royalty rate that will not exceed: USD \$, or% of product price, per unit.				

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3.	The VITA Member Company attaches to this Declaration a draft licensing
	agreement for any claims essential to create an implementation compliant with
	the Draft VSO Specification identified above in Section C (the final licensing
	agreement will not be more restrictive upon licensees than this draft): or

□ The VITA Member Company will not include in its final licensing agreement for all claims essential to create an implementation compliant with the Draft VSO Specification identified above in Section C a grantback, reciprocal license, non-assert provision, covenant not to sue, or defensive suspension provision that is broader and more restrictive upon prospective licensees than those specified in Section 10 of the current VSO Polices and Procedures.

F. Signature

By signing this Declaration, the undersigned represents that he or she is authorized to bind the VITA Member Company as stated herein. The undersigned acknowledges and agrees that this Declaration is a binding agreement between the VITA Member Company and VITA, and its terms are enforceable against the VITA Member Company, its Affiliates, successors, assigns, and transferees. The undersigned further acknowledges and agrees on behalf of the VITA Member Company that each licensee and prospective licensee of patent claims essential to implement the Draft VSO Specification identified above in Section C is an intended beneficiary of this agreement, and each such beneficiary is entitled to rely upon and enforce against the VITA Member Company the provisions set forth in this Declaration.

Signature:	
Print Name:	
Γitle:	
Organization:	
Date:	

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VSO Policies and Procedures

Jan 2007, Revision 2.2

ACC's 2007 ANNUAL MEETING

Enjoying the Ride on the Track to Success

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1.0 INTRODUCTION

The VITA Standard Organization (VSO) was formed in the fall of 1993 to provide VITA members with a method of developing and promoting open technology specifications. One of the first projects of the VSO was the development of a new specification for the VMEbus. That specification was based on the original VMEbus specification written by Motorola, Mostek, and Signetics and placed into the public domain in the early 1980's. Once the VSO completed its work, the specification was submitted to the ANSI ballot process and VITA 1, VME64, was recognized as an American National Standard in 1995. Since that time the VSO has continued to develop and promote open specifications for the bus and board industry.

The procedures to develop specifications within the VSO are outlined in this document. Once a document has completed the VSO process, its sponsors may decide to seek further recognition through any of a variety of national or international standards organizations or the sponsors may decide to leave the specification within the VSO.

These Policies and Procedures have been treated like a standards document and have been constructed by the group as a whole. Any rights given to any individuals or associated organizations have been given by a majority ballot of the VSO membership. It is the philosophy of the VSO that it starts with all the rights, and votes powers and rights away, shares rights, or maintains rights exclusively.

1.1 Changing this document

Changes to this document require a 2/3 majority vote of the votes cast at a duly called VSO meeting of VITA members who meet the voting eligibility requirements as stated in section 5.0.

1.2 References

- ANSI Essential Requirements: Due process requirements for American National Standards (http://www.ansi.org)
- Procedures for the Development of American National Standards within the VITA Standards Organization (http://www.vita.com)
- 3. Robert's Rules of Order Newly Revised (http://www.robertsrules.com)

1.3 Electronic Communications

Any reference to documents or communications in these procedures should be understood to include the use of electronic means unless stated otherwise. For example, a requirement that something be provided "in writing" may be submitted via electronic means such as email.

2.0 STRUCTURE AND MEMBERSHIP

The VSO is an independent organization within VITA that reports directly to the VITA Secretariat. The Secretariat is responsible for insuring due process, developing consensus, and providing administrative support. The technical director of VITA shall hold the position of VITA Secretariat.

2.1 Membership

Membership in the VSO is by individual and is open to any individual or consultant employed by an organization that is a VITA corporate member (regular, senior, or sponsor).

2.2 Non-VITA Members

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Individuals who are not employed by VITA member companies may attend VSO meetings at the discretion of the VSO Chair.

3.0 OFFICERS

All officers of the VSO shall be individuals from regular, senior, or sponsor members of VITA. The officer positions shall be:

- a. Chair
- b. Vice Chair
- c. Secretary

The chair and vice-chair are elected positions. The secretary may be appointed by the chair at each meeting. If the chair does not appoint a secretary, then it shall be the responsibility of the VITA technical director to take the meeting minutes and post the minutes after the meeting.

3.1.1 Term

The term of each elected officer shall be from April 1 until March 31 of the following year.

3.1.2 Vacancies

In the event that the chair position becomes vacant, the vice-chair will assume the chair position and serve out the remainder of the chair's term. In the event that the chair position becomes vacant and the vice-chair is not able to serve, the VITA Secretariat will appoint a nominating committee from the VSO membership and call an election at the next scheduled meeting to elect the chair position.

3.1.3 Officer Removal

The VITA Secretariat has the responsibility to monitor the performance of any of the officers of the VSO and, based on their inability to fulfill their roles in a manner that concurs with the stated goals of the VSO, terminate their term subject to 3/4 majority agreement of the voting membership.

3.1.4 Responsibilities of the Officers

The responsibilities and duties of the officers of the VITA Standards Organization shall include, but not be limited to:

Chair (elected position)

- Schedule meetings
- Prepare agenda
- Chair meetings
- Keep informed of technical status of all related standards activities
- Present status report for all activities at each meeting
- · Provide leadership and guidance to working groups in the development of standards
- · Accept appeals and serve on appeals board (See Section 13)
- · Coordinate activities with VITA office as required

Vice Chair (elected position)

- · Act in the absence of the Chair
- · Consult with Chair on all matters relevant to the VSO
- · Coordinate activities with VITA office as required

Secretary (appointed position)

- · Takes minutes of all VSO meetings
- Use appropriate means to provide a copy of the minutes to the members.
- Make revisions to the minutes as required.

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4.0 Election of Officers

A nominations committee composed of three VSO members shall be appointed by the chair at least 60 days prior to the election. The committee shall solicit candidates from the VSO membership and shall present one or more candidates for the offices of chair and vice-chair at least 45 days before the election.

Balloting for the election will start 31 days prior to the March VSO meeting or on March 1 if no VSO meeting is scheduled for March. The balloting for the election will conclude one day prior to the March VSO meeting or on March 30 if no VSO meeting is scheduled for March. The results will be tabulated and announced at the VSO meeting or on March 31 if no VSO meeting is held in March.

The balloting will be conducted via email. Eligible balloters will consist of VSO members who have attended two (2) out of the previous four (4) VSO meetings. The ballot will consist of the list of candidates put forth by the nominations committee and will contain a space for one write-in candidate. Balloters will be able to vote for one candidate each for each office presented.

In the case that no candidate receives a majority of the ballots cast, an immediate runoff election will be held at the March VSO meeting between the two candidates with the most votes. In the event that no meeting is held in March, a two week runoff election will be held via email starting on April 1 and finishing on April 14 between the two candidates with the most votes.

5.0 VOTING

5.1 Eligibility

VSO members are entitled to vote at a VSO regular or special meeting if they have attended at least two out of the previous four regular meetings. Those members attending a VSO regular or special meeting who meet the eligibility requirements for that meeting may by a 2/3rds majority vote grant a member voting privileges on a specific issue even though that member's attendance requirements are not met.

Only VSO attendees of VITA member companies can vote. Non-VITA members in attendance at VSO meetings cannot vote.

5.2 Majority Vote and 2/3 Majority Vote

Unless otherwise noted, a majority vote means more than half of the votes in the affirmative cast by persons legally entitled to vote, excluding abstentions, at any duly called meeting.

Likewise, unless otherwise noted, a 2/3 majority vote means 2/3rds of the votes in the affirmative cast by persons legally entitled to vote, excluding abstentions, at any duly called meeting.

5.3 Abstentions

Abstentions are a decision not to vote and are therefore not counted as votes cast.

5.4 The 75/75 Balloting Requirement

The 75/75 balloting requirement requires that 75% of the ballots from the official ballot list must be returned marked either APPROVE or DISAPPROVE and 75% of the returned ballots must be marked APPROVE. A ballot that is marked ABSTAIN is NOT considered a vote and will NOT be counted towards the 75% returned ballot requirement. A ballot marked REMOVE ME will result in the balloter being removed from the working group and from the ballot list. The 75% ballot return requirement will be calculated using the revised ballot list.

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6.0 VSO MEETINGS

6.1 Regular Meetings

The VSO will meet on a regular basis, typically from four to six times per year, or as determined by the membership. Meetings will be for the purpose of informing members of on-going developments, for providing working and study groups with time to work on standards development, and for conducting any other business as required. The date, time, and place of such meetings will be posted at least 30 days in advance on the VSO web page of the www.vita.com website.

6.2 Special Meetings

A special meeting of the VSO may be called by the technical director of VITA, by the chair of the VSO, or by the chair of the VSO upon written request of at least ten (10) eligible voting members of the VSO when it is necessary to take action on some item or items of urgency that cannot wait until a regular meeting. The date, time, place and reason for the special meeting must be transmitted to VSO members 15 days prior to the date of the meeting.

6.3 Duly Recognized Meeting

A duly recognized meeting of the VSO will be any regular or special meeting as defined in sections 6.1 and 6.2.

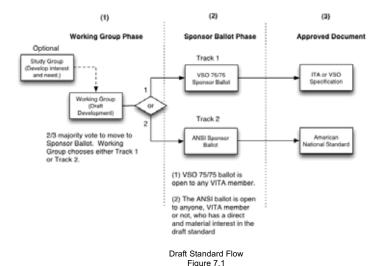
6.4 Conduct of the Meeting

The latest edition of "Robert's Rules of Order New Revised" (see www.robertsrules.com) shall be used to conduct VSO meetings. Where Robert's Rules of Order differ with specific provisions of these Policies and Procedures, these Policies and Procedures shall take precedence.

7.0 STANDARDS DEVELOPMENT

The development of a standard starts within the VSO in either a study group or a working group and moves through two distinct phases as shown in Figure 7.1. Prior to Phase 2 the standards committee chooses one of two tracks. Track 1 leads to either an IEC Industry Trade Agreement or a VSO Specification while track 2 leads to an American National Standard.

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7.1 Phase 1 - Standard Development

7.1.1 Study Groups

A study group may be formed by any VSO member that wishes to investigate the need and ascertain the interest in developing a standard. The VSO member requesting recognition of the study group is designated the chair of the study group. Membership in the study group is open to any VSO member. The study group chair is responsible for scheduling meetings, soliciting members, keeping minutes of meetings, and reporting activities to the VSO Chair.

A study group can move to working group status by meeting working group formation criteria as outlined in section 7.1.2 Working Groups. A study group would disband if interest in developing the standard was not achieved within a period deemed reasonable by the VSO membership.

Forming a study group is NOT a prerequisite for forming a working group. A standards activity can begin in a working group if the working group formation criteria are met.

7.1.2 Working Groups

The development of a draft standard takes place in a working group. Three (or more) organizations which are VITA members may form a working group to carry out the development of a specific standard. Working groups achieve official VSO recognition by meeting the following criteria.

- The development of the standard must be proposed by three (or more) organizations that
 are VITA members and wish to sponsor the development of the standard
- 2. The scope of the proposed standard must fall within the technical scope of the VSO.

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The sponsors must notify the VSO Chair of their intentions to form a working group and must submit a document with the purpose, scope, and an outline for the proposed standard.

To maintain formal working group status, the working group shall continue to have at least three sponsors as VITA members and shall continue to show forward progress in the development of the standard. If the number of sponsors falls below three, then the remaining sponsor(s) may recruit new sponsor(s), may return to study group status, or may disband the working group.

7.1.3 Working Group Officers

Working groups should have a chair, a draft editor, and optionally a vice-chair and secretary. The chair and the draft editor may be the same individual. All working group officers shall be initially appointed by the supporter organizations. After two meetings, the working group may hold elections to either reaffirm or elect new officers.

The working group chair is initially appointed by the supporter organizations and shall be responsible for the following:

- 1. Soliciting membership for the working group.
- Maintaining a working group membership list.
- 3. Scheduling meetings.
- 4. Leading working group meetings.
- 5. Keep meeting minutes unless the working group has a secretary
- 6. Reporting development status to the VSO Chair.
- 7. Completing development in a timely manner.
- 8. Submitting the draft for one or more working group ballots.

The working group vice-chair (optional position) is responsible for coordinating working group activities with the chair and acting in the chair's absence.

The working group secretary (optional position) is responsible for writing and keeping the minutes of the working group meetings.

The working group draft editor is responsible for maintaining and updating the official draft copy.

7.1.4 Working Group Membership

Any employee of or a consultant to a VITA member company may be a member of a working group. To become a member of a working group, the interested individual should formally register with the chair of the working group committee. Working groups have three levels of participation: sponsor, participant, and observer. Sponsors make a formal commitment to support the standards activity and put forth extra effort to achieve standardization. Participants attend meetings on a regular basis and are expected to cast votes on all working group ballots and any other committee matters. Observers may attend meetings, but do not have voting or balloting privileges. Members may change their status by submitting a notification in writing to the working group chair.

7.1.5 Working Group Meetings

Working group meetings may be held at VSO meetings or at other times as required. Meetings may be held in person or via teleconference or other electronic means.

The date, time, and place of such meetings, if held in person, must be transmitted to the working group members 15 days or more in advance. In the case of teleconference or other electronic media meetings, notice must be transmitted to the working group members 48 hours or more in advance. Complete meeting contact information must be included with each notice.

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Robert's Rules of Order Newly Revised shall be used to conduct VSO working group meetings. Where Robert's Rules of Order differ with specific provisions for working groups as outlined in these Policies and Procedures, these Policies and Procedures take precedence.

7.1.6 Working Group Balloting

Balloting is by individual. Before a formal working group ballot, the working group chair is responsible for compiling a working group balloting list. The list should consist of the sponsors and participant members of the working group. Observers in a working group do not have voting privileges.

The period for a working group ballot may be 14 to 30 days depending on the material to be reviewed. The length of the ballot period shall be determined by a majority vote. Ballots shall be marked with one of the following responses:

AFFIRMATIVE (with or without comment). Comments are informational only and are not considered in counting the vote as affirmative. Any changes considered necessary will require a negative vote. An affirmative ballot that is conditional on a change in the draft will be considered to be a negative ballot.

NEGATIVE (with reasons). Provide reason(s) for the negative vote and suggest an action that would change the negative vote to positive. A negative ballot shall be changed to a positive ballot if the requested change is made and approved by all affirmative balloters. Negative ballots without reasons may be discarded by the committee.

ABSTAIN (with or without comment). May provide reason for abstention such as lack of time, expertise, etc. Abstentions are not counted as returned ballots.

REMOVE ME. Please remove me from this working group.

Working group ballots shall be coordinated with the VITA technical director. VITA maintains a web based system for balloting.

7.1.7 Developing Consensus

The working group chair shall review all working group ballots with the working group and shall attempt to resolve the negative ballots. The results of working group ballots shall be reported to the VSO Chair.

No specific number of working group ballots is required. However, most draft standards require more than one before the draft is completed.

Either a working group ballot or a recirculation of a working group ballot is required when one or more significant changes are made to a draft. A significant change is any change which affects compliance with the draft.

If a significant change has been made to the draft, it is the responsibility of the chair of the working group to decide between a working group ballot or a re-circulation ballot.

7.1.8 Recirculation Ballot

A recirculation of a previous ballot should be held if significant changes have been made as a result of the resolution of negative comments or if unresolved negative comments remain. Recirculation ballots shall be 14 days in length

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During a recirculation ballot balloters are given the opportunity to change their previous ballot from affirmative to negative or negative to affirmative. Balloters may let their previous ballot response stand by taking no action in the recirculation ballot. Balloters who have abstained in the previous ballot may ballot in the recirculation ballot. Balloters shall consider only the changes from the previous ballot and any unresolved negative comments.

7.1.9 Moving to Phase 2

Once the draft has received a 2/3 majority vote in a working group ballot, the working group may decide to move to phase 2 and to select a track to pursue by a 2/3 majority vote.

7.1.10 Draft Availability

During phase 1, the draft will be made available through web posting or other means to working group members and other members of VITA. Requests for draft copies from non-VITA members during phase 1 shall be approved by the VITA Executive Director or his designee.

7.2 Phase 2 - Standards Development

Standards development takes place in one of two tracks during phase 2 as decided by the working group during phase 1.

7.2.1 Track 1 - IEC/ITA or VSO Specification

The end result of track 1 is either an IEC Industry Trade Agreement or a stand alone VSO Specification.

7.2.1.1 IEC Industry Trade Agreement

In March of 2001 VITA executed an agreement with the IEC to allow VSO approved specifications to be recognized as IEC ITA's (Industry Technical Agreements). To be recognized as an ITA, the specification must complete the VSO ballot with 75/75 consensus. That is, at least 75% of the pallots are returned and 75% of the returned ballots are affirmative. See section 5.4. The VSO ballot is open to both working group members and any other VSO member. Once approved by the VSO the candidate specification will be put into the proper format for an ITA document and submitted to the IEC to be posted as an ITA. No further balloting process is required.

7.2.1.2 VSO Specification

To be recognized as a standalone VSO specification, the draft must pass a 75/75 VSO ballot. At least 75% of the ballots must be returned and 75% of the returned ballots must be affirmative. See section 5.4. The VSO ballot is open to working group members and to any other VSO members. Once the ballot is completed and if the 75/75 criteria is met, the draft shall be considered a VSO specification.

7.2.2 Track 2 - American National Standard

The end result of track 2 is an American National Standard. The requirements and procedures for this track are detailed in the separate document title "Procedures for the Development of American National Standards with the VITA Standards Organization".

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7.3 Project Discontinuance

A project to develop a standard shall be discontinued:

- 1) if the number of sponsors falls below three (see Section 7.1.2), or
- 2) if the working group at a duly called meeting agrees by a majority vote to discontinue the project,
- if the VSO at a duly called meeting agrees by a 2/3 majority vote to discontinue the project due to a lack of action by the working group.

8.0 Appeals

Appeals shall be addressed promptly and a decision made expeditiously. Consideration of appeals shall be fair and unbiased and shall fully address the concerns expressed.

This section gives general criteria regarding the right to appeal, to whom appeals are made and what may be appealed.

8.1 Appeals at VITA

Right to Appeal: Persons who have directly and materially affected interests in the actions of the VITA Standards Organization (VSO) have the right to appeal. Person(s) wishing to appeal should submit their appeal in writing to the Chair of the VSO. The appeal should state the nature of the concern, any alleged adverse affects, and remedial action that would satisfy the concerns of the appellant.

The Chair of the VSO must convene an appeals board meeting within 30 days of receiving the appeal and will carry out the role of respondent.

The appeals board shall consist of three individuals who have not been directly involved in the matter in dispute, and who will not be materially or directly affected by any decision made or to be made in the dispute. At least two members shall be acceptable to the appellant and at least two shall be acceptable to the respondent. In the event that the appellant and respondent cannot agree on acceptable individuals, the Executive Director of VITA shall appoint three individuals to the appeals board that in his/her judgment meet the criteria stated in the first sentence of this paragraph.

The appeals board shall render a judgment in writing within 30 days of their first meeting. The judgment shall be agreed to by at least two out of the three appeals board members. In the event that at least two out of the three appeals board members cannot agree upon a judgment, each appeals board member shall submit their own opinion to the Executive Director of VITA who shall render a judgment within 30 days. All judgments by the appeals board or the Executive Director are final within the VSO.

8.2 Appeals at ANSI

Persons who have directly and materially affected interests and who have been or will be adversely affected by any procedural action or inaction by ANSI or by any ANS-related process have the right to appeal. ANSI will not normally hear an appeal of an action or inaction by a standards developer relative to the development of an American National Standard until the appeals procedures provided by the standards developer have been completed. Appeals of actions shall be made within reasonable time limits; appeals of inactions may be made at any time. Such appeals shall be directed to ANSI in accordance with the procedures of the appropriate ANSI board or council (e.g., Board of Standards Review, Executive Standards Council).

9.0 Liability

VITA and all companies and individuals who contribute to the development of a potential standard make no warranty for the use of the standard, and assume no responsibility for consequential damages nor for

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errors appearing in the standard. VITA will provide official interpretations (See Section 10.0) of its standards. However, VITA and any companies or individuals involved with such interpretations make no warranty and assume no responsibility for consequential damages as a result of such interpretations.

10.0 Patent Policy

All VSO members, including study and working group members, shall follow the procedures set forth in this Section 10.

10.1 Early Patent and FRAND License Disclosure Policy

This section implements an early patent and FRAND license disclosure policy.

10.2 Disclosure of Patents

10.2.1 Disclosure Obligations

Each working group member ("WG Member")¹ shall disclose to the working group ("WG") in writing the existence of all patents and patent applications owned, controlled, or licensed by the VITA member company ("VITA Member Company") the WG Member represents, which are known by the WG Member and which the WG Member believes contain claims that may become essential to the draft VSO specification ("Draft VSO Specification")² of the WG in existence at the time, after the WG Member has made a good faith and reasonable inquiry into the patents and patent applications the VITA Member Company (or its Affiliates³) owns, controls or licenses. An "essential" claim for this purpose means any claim the use of which is necessary to create a compliant implementation and for which there is no technically and commercially feasible non-infringing alternative. The WG Member must provide, on behalf of the VITA Member Company, all patent disclosure information to VSO by completing a "Declaration of VITA Member Company" ("Declaration"), which is set forth in Appendix 6.

10.2.2 Patent Information to be Disclosed

All patents or patent applications to be disclosed under Section 10.2.1 shall include the following information: (a) for issued patents and published patent applications, the patent or patent application number, the associated country and, as reasonably practicable, the relevant portions of the WG's Draft VSO Specification; and (b) in the case of unpublished patent applications, the existence of the unpublished patent applications and, as reasonably practicable, the relevant portions of the WG's Draft VSO Specification.

¹ For purposes of Section 10, "WG Member" includes all three levels of membership described in Section 7.1.4 of *VSO Policies and Procedures*; sponsors, participants, and observers.

² For purposes of Section 10, "Draft VSO Specification" includes any eventual standard developed and adopted under Track 1 or Track 2 in Section 7.2 as an IEC Industry Technical Agreement, a VSO or VITA Specification, or an American National Standard.

³ For purposes of Section 10, an "Affiliate" is any entity that directly or indirectly controls, is controlled by, or is under common control with, another entity, so long as such control exists. For purposes of this definition, with respect to a business entity, control means direct or indirect beneficial ownership of or the right to exercise (i) greater than fifty percent (50%) of the voting stock or equity in an entity; or (ii) greater than fifty percent (50%) of the ownership interest representing the right to make the decisions for the subject entity in the event that there is no voting stock or equity.

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10.2.3 Timing of Patent Disclosure

A VSO member who proposes to VSO a specification for consideration to become a Draft VSO Specification must disclose all patents and patent applications owned, controlled, or licensed by the VSO member that contain claims that may become essential to the Draft VSO Specification prior to the date the study group or WG, as applicable, adopts the proposed specification as a Draft VSO Specification.

Upon formation of a WG, all WG Members must disclose, on behalf of the VITA Member Company he or she represents, all patents and patent applications owned, controlled, or licensed by the VITA Member Company that contain claims that may become essential to the Draft VSO Specification within sixty (60) days after the formation of the WG.

In anticipation of a ballot to adopt the Draft VSO Specification as a VSO or VITA Specification (including an IEC Industry Technical Agreement or an American National Standard), all WG Members must disclose, on behalf of the VITA Member Company he or she represents, all undisclosed patents and patent applications owned, controlled, or licensed by the VITA Member Company that contain claims that may become essential to the Draft VSO Specification no later than fifteen (15) days from the date of publication of a Draft VSO Specification.

In addition, at the commencement of all face-to-face WG meetings, the WG Chairperson shall ask WG Members to disclose, on behalf of the VITA Member Company he or she represents, any undisclosed patents or patent applications owned, controlled, or licensed by the VITA Member Company that contain claims that may become essential to the Draft VSO Specification in accordance with the requirements set forth in this Patent Policy. If any WG Member thereupon discloses such a patent or patent application, the WG Chairperson shall ask the WG Member to submit and the WG Member shall submit, on behalf of the VITA Member Company he or she represents, a Declaration with information regarding that patent or patent application within thirty (30) days of the meeting at which the disclosure is made.

10.2.4 Disclosure of Third Party Patent Claims

Each WG Member who becomes aware of patents or patent applications owned or claimed by a third party that the WG Member believes to contain claims that may become essential to the Draft VSO Specification of the WG in existence at the time, including but not limited to any such patents that are licensed to the VITA Member Company the WG Member represents, must disclose them, provided that such disclosure is not prohibited by any confidentiality obligation binding upon the WG Member or the VITA Member Company he or she represents. Any WG Member that discloses third party patent claims does not take a position on the essentiality or relevance of the third party claims to the Draft VSO Specification.

10.3 Disclosure of FRAND License

10.3.1 License Terms

Each WG Member agrees, on behalf of the VITA Member Company he or she represents, that it will grant to any WG Member, VITA Member Company, or third party a nonexclusive, worldwide, nonsublicensable (except to the extent necessary "to have made"), perpetual patent license (or equivalent non-assertion covenant) for its patent claims essential to the Draft VSO Specification on fair, reasonable and non-discriminatory terms to use, make, have made, market, import, offer to sell, and sell, and to otherwise directly or indirectly distribute products that implement the Draft VSO Specification. Such license need only extend to the portions of the Draft VSO Specification for which the license is essential to its implementation.

10.3.2 Declaration

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Each WG Member must complete and execute a Declaration (Appendix 6) on behalf of its VITA Member Company. Each WG Member must declare the maximum royalty rate for all patent claims that the VITA Member Company he or she represents (or its Affiliates) owns or controls and that may become essential to implement the Draft VSO Specification. WG Members are encouraged to attach to the Declaration a draft licensing agreement for all patent claims essential to implement the Draft VSO Specification. The failure to do so precludes the VITA Member Company from including in its final licensing agreement a grantback, reciprocal license, non-assert provision, covenant not to sue, or defensive suspension provision that is broader or more restrictive upon licensees than the following:

- A VITA Member Company may include in its final licensing agreement a term requiring the licensee to grant a license on fair, reasonable, and non-discriminatory terms to any of the licensee's patent claims on present or future improvements that are essential to the same Draft VSO Specification:
- A VITA Member Company may include in its final licensing agreement a term requiring the licensee to grant a reciprocal license to all the licensee's present or future patent claims essential to the same Draft VSO Specification:
- 3. A VITA Member Company may include in its final licensing agreement a term under which the licensee commits not to assert or not to bring suit to enforce any of the licensee's present or future patent claims essential to the same final specification against the VITA Member Company based on its implementation of the Draft VSO Specification;
- 4. A VITA Member Company may include in its final licensing agreement a term providing that the license may be suspended with respect to the licensee if the licensee sues the VITA Member Company for infringement of any of the licensee's present or future patent claims essential to the same Draft VSO Specification.

License terms must in all other respects be fair, reasonable, and non-discriminatory.

The Declaration is irrevocable. If a subsequent Declaration covering previously disclosed information is submitted, the subsequent Declaration may only supersede the prior Declaration if the subsequent Declaration is less restrictive upon prospective licensees than the former Declaration. Otherwise, the former Declaration continues to apply. The Declaration will apply to the Draft VSO Specification and any reaffirmations or revisions to that Draft VSO Specification.

10.3.3 Record of Declarations

A record of all Declarations shall be placed and retained in the files of VSO.

10.3.4 Negotiation of License Terms

The negotiation or discussion of license terms among WG Members or with third parties is prohibited at all VSO and WG meetings.

10.4 Effect of Failure to Disclose Patents or License Terms

If a WG Member fails to adequately and timely disclose, on behalf of the VITA Member Company he or she represents, a patent claim or license terms for it as set forth in this Section 10, including at any of the times specified in Section 10.2.3, the VITA Member Company must license it to the extent it is essential to a Draft VSO Specification on a royalty free basis and in accordance with the license restrictions set forth in Section 10.3 for purposes of an implementation compliant with the Draft VSO Specification.

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10.5 Arbitration Procedure

Any VSO member who believes a WG Member or the VITA Member Company that the WG Member represents has not complied with his/her or its obligations under this Patent Policy, including but not limited to obligations under Section 10.3 to grant licenses on terms that are fair, reasonable and non-discriminatory, may submit his/her claim in this respect to the applicable WG Chairperson. If the claim is not thereupon resolved on an informal basis within fifteen (15) days of its submission, the WG Chairperson will commence an Arbitration Procedure in accordance with the provisions set forth below.

The Arbitration Panel will consist of three persons: one person selected by the party asserting noncompliance; one person selected by the party whose compliance or noncompliance is at issue; and a third person jointly selected by the other two selected persons. The first two selected persons cannot be affiliated with VITA members represented on the Working Group in question but may be affiliated with other VITA members if so desired. The third jointly selected person, who will act as Chair of the Panel, cannot be affiliated with any VITA member or with VITA. The entire panel must be selected within fifteen (15) days of the WG Chairperson's commencement of this Arbitration Procedure as referenced in the paragraph above. The VITA Technical Director will act as the nonvoting Administrator of the Arbitration Procedure to convene, oversee and record the Panel's activity. The VITA General Counsel will specify and advise on the procedures to be followed, including procedures under which parties to the dispute and other interested parties asking to participate may be heard with respect to the dispute.

The Arbitration Panel will submit a Recommendation on the dispute to the VITA Executive Director within forty-five (45) days of commencement of the Arbitration Procedure. Within fifteen (15) days of receiving that Recommendation, the VITA Executive Director will consult with the VITA Board regarding the Recommendation and will then render a Decision on the dispute.

Any VSO member may request reconsideration of the Decision by notice to that effect to the VITA Board. Upon receiving any such notice, the VITA Board will reconsider the Decision and thereupon render a Final Decision on the dispute within thirty (30) days of that notice.

All VSO members and the VITA Member Companies they represent are expected to accept either the Executive Director's Decision or, if there is reconsideration, the Final Decision as a final and binding determination of the dispute subject to this Arbitration Procedure.

The VITA Board must approve any fees or other costs to be incurred in connection with an Arbitration Procedure, and will also specify the party or parties responsible for payment of all such costs. General principles to be followed are that (a) a party who initiates an Arbitration Procedure but whose claim is ultimately rejected will pay all costs; and (b) a party ultimately found to have not complied with its obligations will pay all costs.

11.0 Interpretations

Issues requiring official interpretation of a standard or specification must be submitted in writing to the chair of the VSO. The chair of the VSO will submit the issue to three (3) technical experts for investigation and review. After review the technical experts will produce an opinion within 30 days. If the experts do not agree on a single interpretation, then a majority opinion and a minority opinion shall be issued. Such opinions shall be considered opinions only and shall not be legally binding. The working group responsible for the standard shall review split opinions to determine if a revision to the standard is appropriate.

12.0 Standard Project Designation

Each candidate VSO standards project shall carry a designation made up of three fields: project field, title field, Draft field.

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12.1 Project Field (35 characters max)

VITA n

n is the VSO project number which is assigned by the VSO administrator sequentially from a master list. n may be an integer digit such as 1, 2, 15, 35, etc to represent a core document. It may be a decimal number such as 1.1, 3.3, 7.12 to represent a related document.

12.2 Title Field (300 characters max.)

This is the title of the standard: for example, VME64; Raceway Interlink - Physical and Logical Standard; Board Level Live Insertion for VMEbus. The title should be concise but descriptive.

12.3 Draft Field

All projects shall start out as Draft 0.1. Minor changes such as typographical corrections and rewording should be designated as 0.1a, 0.1b, 0.1c, etc. Technical changes, additions, and deletions should move the draft designation to the next digit such as 0.2, 0.3, 0.4, etc. No special importance will be given to integer Drafts such as 1.0, 2.0, 3.0, etc. (For example, if a project is approved at Draft 0.8 within the VSO, it will not move to a Draft 1.0 due to approval.) The Draft field should also contain the month, day, and year that the Draft is released. For example, Draft 0.3, April 21, 2003.

12.4 ANSI Approval

VSO standards which achieve ANSI recognition will have the ANSI designation added to their project field and the Draft and date will be dropped. The year that the draft was approved by ANSI will be added to the designation.

13.0 Standards Distribution and Copyright Policy

Publication and sale of VSO specifications, IEC Industry Trade Agreements, and ANSI/VITA standards promotes open technology and also generates revenue to fund VITA activities. Through the publication and sale of standards VITA is able to keep members dues to a minimum while maintaining a high level of services to members.

Because publication and sale of VSO standards are important to promoting members' interests, VITA has established the following distribution policy covering standards in development, standards that have achieved VSO recognition, and standards that have achieved ANSI recognition.

13.1 Copyright

Draft standards developed by VSO working groups shall be considered the property of VITA and shall carry the following copyright notice.

Copyright © <current year> by VITA, the VMEbus International Trade Association.

The VSO membership at a duly called meeting may by $2/3^{\rm rd}$ majority approval transfer the copyright to another organization.

13.2 Notification

Every draft standard shall carry the following notification

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This document is an unapproved draft of a proposed standard. As such, this document is subject to change. Do not specify or claim conformance or compliance to this draft standard.

13.3 Publication Format

Standards and specifications are distributed in electronic formats such as Adobe Portable Document Format (PDF).

13.4 Specifications in Development

During the development of a specification, drafts in electronic form are available to VITA members. Drafts may be provided to non-VITA members with the approval of the VITA Executive Director or his designee.

13.5 VSO Specifications and IEC/ITA's

VSO approved specifications and VSO recognized IEC/ITA's will be entered into the VITA list of publications. Electronic copies will be provided to VITA members at no cost.

13.6 ANSI/VITA Standards

Specifications that achieve ANSI recognition will be entered into the VITA list of ANSI/VITA standard publications. Electronic copies will be provided to VITA members at no cost.

13.7 Pricing of Standards Philosophy

VITA's philosophy in pricing of standards publications is to establish a reasonable price which promotes the adoption of the standard while supporting on-going member activities.

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14.0 "Draft American National Standard for Trial Use" Process

A proposed standard that is intended for subsequent submittal for recognition as an American National Standard may be published as a "Draft American National Standard for trial use" set forth in Annex B of the ANSI Essential Requirements document.

Per ANSI policy draft standards for trial use shall not be issued to address a need for an emergency standard. In addition, draft standards for trial use must be in compliance with the ANSI Patent Policy.

14.1 Decision to Designate a "Draft Standard for Trial Use"

The decision to designate a draft standard that has passed a working group 2/3' majority ballot as a "Draft American National Standard for Trial Use" under ANSI procedures shall made by the working group in a 2/3rd majority vote and then shall be approved by a 2/3 majority vote in the VSO.

14.2 Right to Appeal

Persons who have directly and materially affected interests in a candidate draft standard for trial use have the right to appeal the decision to designate the standard for draft trial use. See Section 8.0 regarding appeals

14.3 Appeals Process

Refer to section 8

14.4 Statements in the Draft Standard

The right to appeal will be noted in the draft document.

The following statement, or equivalent, shall be included on the front cover of the draft standard for trial use:

"Publication of this draft standard for trial use and comment has been approved by (insert name of accredited standards developer). Distribution of this draft standard for comment shall not continue beyond () months from the date of publication. It is expected that following this

() month period, this draft standard, revised as necessary, will be submitted to the American National Standards Institute for approval as an American National Standard. A public review in accordance with established ANSI procedures is required at the end of the trial use period and before a draft standard for trial use may be submitted to ANSI for approval as an American National Standard. This draft standard is not an American National Standard. Suggestions for revision should be directed to ..."

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APPENDICES

[**Editor's Note**: Appendix 1 through Appendix 4 have been either removed or incorporated into the main document. The remaining appendix numbers were not revised so that the first appendix listed is appendix 5.]

Appendix 5 - Revision History

Date	Revision - Comments
25 Jan 94	1.0 - Document created
13 Dec 95	1.1 - Revised section 14 Appeals to bring into line with ANSI recommendations. Revised section 16 Patents to include early patent disclosure policy.
17 Sep 97	1.2 - Revised section 16 paragraph 2 to reflect change in ANSI policy. ANSI no longer requires that T&C be provided to ANSI.
18 Mar 98	1.3 - Added section 6.12.1 Absentee Voting
Mar 2001	1.4 – Major revisions to include IEC/ITA capability.
May 2001	1.5 – Submitted for VSO ballot.
July 2001	1.5 – Approved at the Salt Lake City VSO meeting.
Oct 2003	1.6 – Major revision to meet ANSI Essential Requirements
Dec 2003	1.6a – Clarified definition of meetings, balloting, and voting requirements.
Mar 2004	1.7 – Modified 5.1 to allow members to grant voting privileges to attending members who don't meet voting eligibility requirements. Added copyright requirements to section 12.
April 2004	1.8 – accepted all changes. Removed "draft" watermark and "draft" from header.
Nov 2004	1.9 – add meeting time notification requirements to 7.15
June 2005	2.0 – add section 13 re: Draft Standard for Trial Use
Sep 2006	2.1 – add section 7.3 Project Discontinuance, add section 8 Appeals, revised section 7.1.2 – removed ability of working group to continue with less than 3 sponsors via appeal to VSO, revised section 14.2 to point to section 8.0 Appeals.
Jan 2007	2.2 – replaced previous Patent Policy with "ex ante" Patent Policy approved at January 17, 2007 VSO meeting. See Section 10 Patent Policy. (Editor Note: in revision 2.0 Patent Policy was section 10. The proposed "ex ante" Patent Policy in draft status was labeled section 10. In revision 2.1 submitted as a result of the 2006 VITA ANSI audit, a new section "Interpretations" was added before the Patent Policy section causing the Patent Policy section to become section 11. In 2.2 I have switched the Patent Policy section with the Interpretations section so that Patent Policy is again labeled section 10 and Interpretations is section 11.)

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Appendix 6: Declaration of VITA Member Company

Section 10 of the VSO Polices and Procedures requires the undersigned WG Member ⁴ to complete and execute this Declaration on behalf of the VITA Member Company he or she represents. The Declaration is irrevocable. Any subsequent Declaration covering information disclosed in this Declaration may only supersede this Declaration if the subsequent Declaration is less restrictive upon prospective licensees than the information set forth in this Declaration. This Declaration will apply to the Draft VSO Specification ⁵ identified below in Section C and to all reaffirmations or revisions to such Draft VSO Specification.

A.	VITA	Member Company	
	Legal	Il Name of Organization	
В.	WG M	Member Representing the VITA Member Company	
	Name	e & Department:	
	Addre	ress:	
		phone: Fax:	
	E-Mai	ail:URL:	
C.	Numb		
D.	Disclo	losure of Patents Containing Essential Claims	
	1.	In accordance with Section 10 of the VSO Polices and Procedures, the undersigned WG Menshall disclose, on behalf of the VITA Member Company he or she represents, all patents or parapplications that the VITA Member Company (or its Affiliates ⁶) may own or control and the believes may contain claims essential to create an implementation compliant with the Draft Neptocification identified above in Section C of this Declaration.	atent at it
	⁴ For r	purposes of this Declaration, "WG Member" includes all three levels of membership described in	

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⁵ For purposes of this Declaration, "Draft VSO Specification" includes any eventual standard developed and adopted under Track 1 or Track 2 in Section 7.2 of the VSO Policies and Procedures as an IEC Industry Technical

⁶ For purposes of this Declaration, an "Affiliate" is any entity that directly or indirectly controls, is controlled by, or is under common control with, another entity, so long as such control exists. For purposes of this definition, with respect to a business entity, control means direct or indirect beneficial ownership of or the right to exercise (i) greater than fifty percent (50%) of the voting stock or equity in an entity; or (ii) greater than fifty percent (50%) of the ownership interest representing the right to make the decisions for the subject entity in the event that there is no

Section 7.1.4 of the VSO Policies and Procedures: sponsors, participants, and observers.

Agreement, a VSO or VITA Specification, or an American National Standard.

voting stock or equity.

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VSO Policies & Procedures –Revision 2.2 Patent / Application No.: Title: Patent / Application No.: Title: Patent / Application No.: Title: Attach additional pages if necessary.

2. Does the VITA Member Company the undersigned represents hold a license from another party to a patent that may include a claim essential to create an implementation compliant with the Draft VSO Specification identified above in Section C of this Declaration?

☐ Yes ☐ No

If yes, the undersigned shall disclose on behalf of the VITA Member Company all patents to which the VITA Member Company holds a license from another party that may include a claim essential to create an implementation compliant with the Draft VSO Specification identified above in Section C.

Patent No.:

Title:

Licensor:

Attach additional pages if necessary.

E. VITA Member Company's Declaration regarding the Licensing of Essential Patents

In accordance with Section 10 of the VSO Polices and Procedures, the VITA Member Company, by and through the undersigned, hereby declares for itself, its Affiliates, successors, assigns, and transferees of its patent rights its licensing position with respect to all patents that it may hold or control and that contain claims that may be essential to create an implementation compliant with the Draft VSO Specification identified above in Section C of this Declaration, as follows:

1. The VITA Member Company will grant to all interested parties a nonexclusive, worldwide, nonsublicensable (except to the extent necessary "to have made"), perpetual patent license (or equivalent non-assertion covenant) for its patent claims essential to create an implementation compliant with the above-referenced Draft VSO Specification on fair, reasonable and non-discriminatory terms to use, make, have made, market, import, offer to sell, and sell, and to otherwise directly or indirectly distribute products that implement the Draft VSO Specification. (The

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license need only extend to the portions of the Draft VSO Specification for which the license is essential to its implementation. Any other intended condition or limitation on this commitment is stated in a letter accompanying this Declaration.)

The VITA Member Company will grant a license to all such claims to all interested parties with a
royalty rate that will not exceed: USD\$ ______, or _____% of product price, per unit.

3. ☐ The VITA Member Company attaches to this Declaration a draft licensing agreement for any claims essential to create an implementation compliant with the Draft VSO Specification identified above in Section C (the final licensing agreement will not be more restrictive upon licensees than this draft); or

The VITA Member Company will not include in its final licensing agreement for all claims essential to create an implementation compliant with the Draft VSO Specification identified above in Section C a grantback, reciprocal license, non-assert provision, covenant not to sue, or defensive suspension provision that is broader and more restrictive upon prospective licensees than those specified in Section 10 of the current VSO Polices and Procedures.

F. Signature

By signing this Declaration, the undersigned represents that he or she is authorized to bind the VITA Member Company as stated herein. The undersigned acknowledges and agrees that this Declaration is a binding agreement between the VITA Member Company and VITA, and its terms are enforceable against the VITA Member Company, its Affiliates, successors, assigns, and transferees. The undersigned further acknowledges and agrees on behalf of the VITA Member Company that each licensee and prospective licensee of patent claims essential to implement the Draft VSO Specification identified above in Section C is an intended beneficiary of this agreement, and each such beneficiary is entitled to rely upon and enforce against the VITA Member Company the provisions set forth in this Declaration.

Signature:	
Print Name:	
Title:	
Organization:	
Date:	

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NEWS RELEASE

FOR IMMEDIATE RELEASE

For further information:

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JUSTICE DEPARTMENT WILL NOT OPPOSE PROPOSAL BY STANDARD-SETTING ORGANIZATION ON DISCLOSURE AND LICENSING OF PATENTS

VITA Proposes Changes to Patent Policy to Reflect Changes in Ex-Ante Disclosures

SCOTTSDALE, AZ, October 31, 2006 — VITA, the leading trade association in the critical embedded computing industry, and its Standards Organization (VSO), have received guidance from the US Department of Justice for new VITA patent policy procedures aimed at significantly improving the standards-setting capabilities within the VSO.

VITA requested guidance from the Department's antitrust authority regarding intentions with respect to a proposed patent policy designed to ensure that participants in the VSO standard-setting process disclose patents that are essential to implement a new standard and declare the most restrictive licensing terms that will be required to license any such patents.

"VITA members will benefit for many years to follow from the changes and improvements being made to the VITA patent policy," stated Ray Alderman, executive director of VITA. "This has been an effort for reform that is long over due in the world of technology-specification development. We look forward to the impact that these changes will have on future standards efforts."

VITA has been exploring more effective patent disclosure procedures for the past several years.

These explorations led to an inquiry by VITA to the Department of Justice as to how to proceed

in developing better procedures. During the first half of 2006, VITA and its board of directors developed new patent disclosure procedures for use by the VSO. This new patent policy was submitted to the Department of Justice on June 8 for their review. After numerous meetings to gain clarification, slight changes were made. The Department of Justice issued their business review letter on October 30, 2006.

The members of VITA are currently reviewing the proposed changes to the VITA patent policy. The changes are expected to be approved at the January VSO meeting held in conjunction with the annual VITA Bus&Board Conference in Long Beach, CA.

About VITA

VITA is an incorporated, non-profit organization of suppliers and users having a common market interest in critical embedded systems. Founded in 1984, VITA believes in and champions open system architectures as opposed to proprietary system architectures. VITA's activities are international in scope. The functions performed by VITA are technical, promotional and user related and are aimed at increasing the total market size, providing vendors with additional market exposure, and providing users with timely technical information. VITA has ANSI and IEC accreditation for the development of standards for embedded computers, including critical applications and harsh environments, to enable VITA to be the steward of VME technology.

Attachments

Department of Justice News Release, dated Monday, October 30, 2006 Business Review Letter, Department of Justice, dated Monday, October 30, 2006

These documents may also be downloaded from www.vita.com/disclosure

Source: VITA

-ends-

ACC's 2007 ANNUAL MEETING

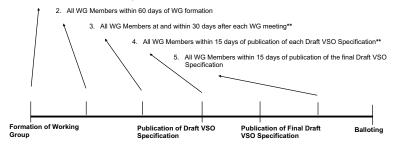
IMPLEMENTATION PLAN FOR VITA'S REVISED PATENT POLICY

Working Groups Formed After January 17, 2007:

Timing of IP Disclosure

Disclosure Timeline

1. VSO member who submits a specification for consideration



- ** These are continuing obligations to disclose after each meeting and after publication of each draft specification
- A VSO member who proposes to VSO a specification for consideration to become a Draft VSO Specification must disclose prior to formation of a WG.
- 2. All WG Members must disclose within 60 days of formation of a WG.
- At each WG meeting, the WG Chair will make a call for essential patents and those WG Members who respond must disclose at and within 30 days of the WG meeting.
- All WG Members must disclose within 15 days of the date of each publication of a Draft VSO Specification.
- All WG Members must disclose for balloting within 15 days of the date of publication of the final Draft VSO Specification.

Method of Disclosure

- Each time patent information is required to be disclosed, WG Members must complete the Declaration form and timely submit it to the WG Chair.
- There is no need to submit new Declaration forms for previously disclosed patents, patent applications, or licenses.
- If a WG Member wants to amend license information on a previously-submitted Declaration form, he or she can do so only if the subsequent Declaration is less restrictive upon prospective licensees than the former Declaration.
- WG Members must submit a Declaration form for each new or otherwise previously undisclosed patent or patent application the VITA Member Company owns, controls, or licenses that contains claims essential to implement a Draft VSO Specification.

Good Faith and Reasonable Inquiry Obligation

 Disclosures must be based on the WG Member's good faith and reasonable inquiry into the patents and patent applications the VITA Member Company he or she represents

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- owns, controls, or licenses. The scope of this inquiry is limited to those patents, patent applications, or licenses that contain claims essential to the Draft VSO Specification.
- A good faith and reasonable inquiry includes the WG Member using reasonable efforts to identify, contact, and discuss the Draft VSO Specification with: (1) individuals at the VITA Member Company who are experts in the relevant subject area; and (2) the company's attorneys responsible for the patent work in the relevant subject area.
- For example, a WG Member could satisfy his or her good faith and reasonable inquiry obligation by: (1) discussing the Draft VSO Specification with his or her manager and contacting team members involved in the relevant subject matter of the Draft VSO Specification; and (2) contacting the company's inside or outside attorneys, as appropriate, responsible for the patent work in the relevant subject area to determine if there are patents, patent applications, or licenses the company owns or controls that may contain claims essential to implement the Draft VSO Specification.
- This obligation does not require a WG Member to search the VITA Member Company's patent databases.

Failure to Meet Disclosure Obligations

- If any WG Member does not adequately and timely disclose, the VITA Member Company
 must license any undisclosed patents or patent applications to the extent essential to
 implement a Draft VSO Specification on a royalty free basis and in accordance with the
 license restrictions in Section 10.4 of the Patent Policy.
- Any VSO member that believes a WG Member or the VITA Member Company he or she represents has not fulfilled his/her or its obligations under the Patent Policy terms may submit his/her complaint to the WG Chair.
- If the complaint is not resolved within 15 days of notifying the WG Chair, the WG Chair will commence the Arbitration Procedure in Section 10.5 of the Patent Policy.

Working Groups Formed Before January 17, 2007:

The Patent Policy will apply to WGs formed before January 17, 2007, but with the following limitations:

- . For WGs that will not conclude before March 18, 2007, the following applies:
 - All WG Members have 60 days from January 17, 2007 to make the required disclosures and to submit the required Declaration form.
- 2. For WGs that will conclude before March 18, 2007, the following applies:
 - All WG Members have 30 days from January 17, 2007 to make the required disclosures and to submit the required Declaration form.
 - If WG Members in a WG believe that 30 days is not enough time to satisfy their good faith and reasonable inquiry obligation, as described immediately above, the WG can elect to extend the disclosure deadline an additional 30 days, but, if it does so, the Draft VSO Specification cannot be voted on until all WG Members' disclosures are made and Declarations are submitted to the WG Chair.

In both instances, if any WG Member does not adequately and timely disclose and submit Declaration forms, the VITA Member Company must license any undisclosed patents or patent applications to the extent essential to implement a Draft VSO Specification on a royalty free basis and in accordance with the license restrictions in Section 10.4 of the Patent Policy.



Department of Justice

FOR IMMEDIATE RELEASE MONDAY, OCTOBER 30, 2006 WWW.USDOJ.GOV AT (202) 514-2007 TDD (202) 514-1888

JUSTICE DEPARTMENT WILL NOT OPPOSE PROPOSAL BY STANDARD-SETTING ORGANIZATION ON DISCLOSURE AND LICENSING OF PATENTS

WASHINGTON — The Department of Justice announced today that it will not oppose a proposal by the VMEbus International Trade Association (VITA) to implement a policy on the disclosure and licensing of patents. The policy requires the disclosure of essential patents, commitments to license essential patent claims on fair, reasonable, and non-discriminatory terms, and declarations of the most restrictive licensing terms that patent holders will require. The Department said that the proposed policy will enable VITA to make better informed decisions and thereby formulate standards that will benefit consumers.

The Department's position was stated in a business review letter from Thomas O. Barnett, Assistant Attorney General in charge of the Department's Antitrust Division, to counsel for VITA and its standards development subcommittee, VITA Standards Organization (VSO). VSO is a non-profit organization that develops and promotes standards for VMEbus computer architecture, i.e., robust pathways through which information travels within a computer system. VMEbus systems are found in a wide range of products, including ultrasound and magnetic resonance imaging machines, semiconductor manufacturing equipment, industrial control equipment, and advanced avionics and radar systems.

VITA requested a business review letter from the Antitrust Division expressing its enforcement intentions regarding a proposed patent policy that will impose two requirements on holders of essential patents who participate in VSO standard-setting activities. First, the policy requires that patent holders make early disclosures of patents and patent applications that may be essential to implementing VITA standards once they are adopted. Second, the policy requires that patent holders declare the maximum royalty rate and most restrictive non-price licensing terms they will require from those who must take a patent license in order to implement the eventual VITA standard. These declarations are irrevocable, but patent holders may submit subsequent declarations with less restrictive licensing terms.

Barnett said in the letter that the proposed licensing policy "should preserve, not restrict, competition among patent holders." Requiring the disclosure of a patent holder's most restrictive licensing terms increases competition by enabling VSO to choose between technologies based not only on technical terms, but also licensing terms.

Under the Department's Business Review Procedure, an organization may submit a

New VITA Patent Policy

From: Ray Alderman
For: All Working Group Chairs

December 2006 (Revised: January 22, 2007)

Background/Reasons for New Policy

- VSO working groups may consider patented solutions for standard specifications to enhance technical merits of adopted standards.
- But use of patented inputs is consistent with open standards objectives only if patent holders license their patents on RAND terms.
- Traditional reliance on generalized RAND commitments has failed to protect against patent ambush/holdup conduct due to the lack of timely disclosures regarding essential patent claims and intended license terms.
- Post-standards-adoption assertions of patent claims and excessive license demands have stalled implementation of final standards, threatened to exclude many parties from affected markets and thereby undermine open standards effort.

The New Policy in a Nutshell:

- Required disclosures of essential patents and patent applications
- Required disclosures of key license terms
- Enforceability of disclosed information
- Prohibition on negotiation or discussion of license terms at VSO or WS meetings.

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Information To Be Disclosed:

- All patents and pending patent applications believed to contain claims that may become essential to a draft specification.
- Based on good-faith and reasonable inquiry into patents and applications that the member company controls.
- Any third-party patents or applications that come to member's attention and that the member believes to contain claims that may become essential to a draft specification (unless precluded by confidentiality obligation).

Information Disclosures (Continued):

- Maximum royalty rate for all disclosed claims that may become essential to implement a draft specification.
- Members "encouraged" to provide draft license agreement containing all material license terms for all essential claims.
- Failure to provide draft agreement will preclude member from imposing a grantback, reciprocal license requirement, nonassert provision, covenant not to sue or defensive suspension provision broader or more restrictive upon licensees than "model" provisions specified in the new policy.
- All license terms must be fair, reasonable and nondiscriminatory ("FRAND").

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Times for Disclosures:

- Any member proposing to initiate new proceeding by proposing a specification for development must make the disclosures prior to formation of a working group.
- Upon WG formation, all WG members must make the disclosures within 60 days.
- All WG members must make the disclosures (to the extent not previously made) no later than 15 days after publication of a draft specification.
- At commencement of every WG meeting, chair must ask all members to disclose any previously undisclosed essential patents/applications with other required information submitted within 30 days thereafter. (See last slide for approved announcement).

Enforcement Mechanisms:

- All information must be submitted at prescribed times on the prescribed Declaration Form.
- Failure to disclose when and as required results in member company required to license affected essential claims on a royalty-free basis.
- Arbitration procedure under which any member that believes another member has not complied with requirements may submit a complaint to WG chair who then arranges for a neutral arbitration panel to adjudicate the dispute.

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Enforcement Mechanisms (Continued):

- Declaration form includes representations that signer "acknowledges and agrees" that the Declaration "is a binding agreement between the VITA Member Company and VITA, and its terms are enforceable against the VITA Member Company, its Affiliates, successors, assigns and transferees."
- Declaration form also requires signer to acknowledge and agree on behalf of member company that "each licensee and prospective licensee" of essential claims "is an intended beneficiary of this agreement, and each such beneficiary is entitled to rely upon and enforce against the VITA Member Company the provisions" set forth therein.
- New Membership Agreement commits all members to comply with this new Patent Policy.

Prohibition on Discussions/Negotiations:

- Policy states that "negotiation or discussion of license terms among WG Members or with third parties is prohibited at all VSO and WG meetings."
- WG Chairs will enforce this prohibition and report any violations to VITA Executive Director.

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Further Information and Guidance on Policy:

- All WG members should read the entire policy and Declaration Form prior to first WG meeting.
- Questions and concerns can be directed to WG Chairs and/or to VITA Executive Director.

Meeting Announcement

This Working Group Meeting must comply with all aspects of the published VITA Policies and Procedures including disclosure requirements regarding patent claims as specified in the VITA Patent Policy. As prescribed by that policy, I am now asking everyone in attendance to disclose the existence of any patents or patent applications owned, controlled or licensed by the company you represent that contain claims that may become essential to the Draft VSO Specification that this Working Group is considering. So, if you know of any such patents or applications that have not been previously disclosed to this Working Group, please disclose them at this time. You need not be the inventor or owner in order to be required to make the requested disclosure at this time. Each Working Group Member who makes a new disclosure is requested and required to follow up with submission of the prescribed Declaration form providing more specific information regarding the disclosed patent or application within 30 days of this meeting.

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(An Oregon Nonprofit Corporation)

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BYLAWS OF SERIAL ATA INTERNATIONAL ORGANIZATION

(An Oregon Nonprofit Corporation)

ARTICLE 1. DEFINITIONS

SECTION 1.1 "Affiliate" or "Affiliates" shall mean an entity that directly or indirectly controls another entity via beneficial ownership of more than fifty percent (50%) of the voting power or equity in another entity ("Control"), or is Controlled by another entity, or is under common Control with another entity, so long as such Control exists.

SECTION 1.2 "Corporation" shall mean SERIAL ATA INTERNATIONAL ORGANIZATION.

SECTION 1.3 "Director" shall mean an individual person serving on the Board of Directors of the Corporation. While Directors will be individuals, the Member represented by that individual shall control each Director's seat on the Board of Directors. Member's controlling a seat on the Board of Directors shall be free to replace the individual Director upon notice to the Corporation and compliance with Article 4.

SECTION 1.4 "Executive Director" shall mean an officer of the Corporation whose duties and responsibilities are set forth in Section 5.9 below. The term "Executive Director" shall not designate a member of the Board of Directors.

SECTION 1.5 "**Member**" shall mean a general reference to all individuals and entities granted membership in the Corporation. Member shall not mean a "member" as that term is defined under ORS 65.001(23), since the Corporation shall not be deemed to have members as defined under the Oregon Nonprofit Corporation Act.

ARTICLE 2. OFFICES

SECTION 2.1 PRINCIPAL OFFICE

The principal office of the Corporation shall be located at 5440 SW Westgate Drive, Suite 217, Portland, Oregon, USA 97221, attn: Vital Technical Marketing. The Corporation may change its principal office upon notice to the Members.

SECTION 2.2 CHANGE OF ADDRESS

The designation of the Corporation's principal office may be changed from time to time by the Board of Directors.

SECTION 2.3 OTHER OFFICES

The Corporation may also have offices at such other places, within or without its state of incorporation, where it is qualified to do business, as its business and activities may require and as the Board of Directors may, from time to time, designate.

SECTION 2.4 PURPOSE

The Corporation and its Members are committed to defining, enhancing and promoting the development of the Serial ATA technology and to promoting Serial ATA products. The Corporation was formed to achieve this purpose by among other matters (1) defining and maintaining the Serial ATA specifications as a high-volume storage interface, including revisions, addenda, errata and new specifications, (2) striving for compatibility of all Serial ATA specifications as well as interoperability between Serial ATA products, (3) contributing to the establishment of Serial ATA as an industry standard and (4) maintaining the technical longevity of the Serial ATA architecture.

SECTION 2.5 DURATION

The duration of the Corporation shall be perpetual, but may be dissolved at any time upon a two-thirds (2/3) majority vote of all members of the Board of Directors.

SECTION 2.6 COMPLIANCE WITH ANTITRUST LAWS

The Members of the Corporation understand that in certain lines of business they are direct competitors and that it is imperative that they and their representatives act in a manner which does not violate any state, federal, or international antitrust laws and regulations.

Without limiting the generality of the foregoing, the Members of the Corporation acknowledge that the Corporation prohibits any discussion on costs, prices, quantity or quality of production levels, methods or channels of distribution, markets, customers, or any other topic that may be construed as a violation of antitrust laws. Accordingly, each Member will counsel its representatives on the importance of limiting the scope of their discussions to the topics which relate to the purposes of the Corporation, whether or not such discussions take place during formal meetings, informal gatherings, or otherwise.

ARTICLE 3. NONPROFIT PURPOSES

SECTION 3.1 IRC SECTION 501(c)(6) PURPOSES

The Corporation is organized exclusively for one or more of the purposes as specified in Section 501(c)(6) of the Internal Revenue Code, including, for such purposes, the making of distributions to organizations that qualify as exempt organizations under Section 501(c)(6) of the Internal Revenue Code.

SECTION 3.2 SPECIFIC OBJECTIVES AND PURPOSES

The Corporation is a nonprofit corporation formed for the specific objectives and purposes stated in Section 2.4, above, and such other purposes as may be permitted under the laws of the State of Oregon.

$2-BYLAWS\ OF\ SERIAL\ ATA\ INTERNATIONAL\ ORGANIZATION \ PDX/111890/137638/TFH/1201525.4$

ARTICLE 4. DIRECTORS

SECTION 4.1 NUMBER AND SPECIAL DUES

The Initial Board of Directors of the Corporation shall consist of five (5) persons. The number of Directors of the Corporation may vary between a minimum of five (5) Directors and a maximum of nine (9) Directors, the exact number to be fixed from time to time by resolution of the Board of Directors, but no decrease in the number of Directors shall have the effect of shortening the term of any incumbent Director. Intel Corporation, Dell Computer Corporation, Maxtor Corporation, Seagate Technology LLC, and Vitesse Semiconductor Corporation shall each be entitled to appoint one Director to the Board of Directors so long as that company remains a Member of the Corporation. The remaining four (4) seats on the Board of Directors shall be elected from among the Members of the Corporation pursuant to Section 4.4, below. The number of Directors of the Corporation may be changed by unanimous approval of the Board of Directors. All Members with representatives on the Board of Directors shall be assessed Special Dues, above and beyond regular membership dues and work group assessments, in an amount to be determined by the Board of Directors. Once paid, such Special Dues shall be non-refundable.

SECTION 4.2 POWERS

Subject to the provisions of the Oregon Nonprofit Corporation Law and any limitations in the Articles of Incorporation and these Bylaws relating to action required or permitted to be taken or approved by the Members, if any, of this Corporation, the activities and affairs of this Corporation shall be conducted and all corporate powers shall be exercised by or under the direction of the Board of Directors.

SECTION 4.3 DUTIES

It shall be the duty of the Directors to:

- (a) Perform any and all duties imposed on them collectively or individually by law, by the Articles of Incorporation, or by these Bylaws;
- (b) Appoint and remove, employ and discharge and, except as otherwise provided in these Bylaws, prescribe the duties and fix the compensation, if any, of all officers, agents and employees of the Corporation;
- (c) Supervise all officers, agents and employees of the Corporation to assure that their duties are performed properly;
 - (d) Meet at such times and places as required by these Bylaws;
- (e) Register their addresses with the Executive Director of the Corporation and notices of meetings given in accordance with Section 4.10 shall be valid notices thereof;
- (f) Elect annually a Chairman to preside over the Board of Directors' meetings or to take such action as may be agreed upon by the Board of Directors;
- 3 BYLAWS OF SERIAL ATA INTERNATIONAL ORGANIZATION PDX/111890/137638/TFH/1201525.4

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(g) Establish, charter and disband committees, including Work Groups, as appropriate to conduct the work of the Corporation;

- (h) Establish policies and procedures for the consideration of Engineering Change Requests ("ECRs"), Engineering Change Notices ("ECNs") and other changes or refinements to SERIAL ATA architectural standards;
- (i) Consider for approval or rejection any public statement, press release or similar public materials concerning the SERIAL ATA standards or the business of the Corporation prior to making such materials public;
- (j) Consider for approval or rejection the Corporation's annual budget. If the annual budget is not approved at the start of each calendar year, the Corporation shall operate based on the prior yearly budget, to the extent practical, until an annual budget is approved;
 - (k) Establish annual dues for Members:
 - (l) Make a yearly evaluation of the Corporation's fulfillment of its purposes;
 - (m) Establish or revise the rights and privileges of Members; and
- (n) Such other duties as are customary for the Directors of a Nonprofit Business League organized under Section 501(c)(6) of the Internal Revenue Code.

SECTION 4.4 ELECTION OF DIRECTORS

Directors must be employees of a Member of the Corporation and that Member must have demonstrated a commitment to the activities and purposes of the Corporation either during its formation or otherwise prior to nomination of their representative for election to the Board of Directors. Except for the (5) permanent seats referenced in Section 4.1, above, the positions shall be elected by the Members from among not more than twelve (12) candidates, nominated by majority vote of the current Board of Directors.

Members wishing to have an employee nominated must provide written notice of the same to the Board thirty (30) days prior to the quarterly meeting of the Board of Directors immediately preceding the next Annual Meeting of the Members. Such notice shall include certification that that Member or its representative has actively participated in the activities of the Corporation during the prior twelve (12) month period. The notice shall also include evidence of and that: (1) the Member possesses and will contribute sufficient technical and marketing resources to invest in the Corporation's activities; (2) the Member is committed to producing SERIAL ATA products; and (3) the Member is ready, willing and able to pay the Special Dues referenced in Section 4.1, above. No Member may have more than one (1) employee or representative elected to the Board of Directors at any given time. For purposes of these Bylaws, a Member and its Affiliates shall be deemed as one (1) Member.

At such time as all nominees for the Directors are known, but in no event later than the date specified for notice of the Annual Meeting of the Members as set forth in Section 13.4, below, the Executive Director shall provide each Member with a written slate containing the

 $4-BYLAWS\ OF\ SERIAL\ ATA\ INTERNATIONAL\ ORGANIZATION \ PDX/111890/137638/TFH/1201525.4$

names of all nominees. Voting for the election of Directors shall be exclusively by written or electronic ballot completed prior to or at the time of the Annual Meeting of the Members. Each Member may cast one (1) vote per candidate and may vote for as many candidates as the number of candidates to be elected to the new Board. The candidates receiving the highest number of votes shall be elected, up to the number of Directors to be elected.

In the event of a tie between two (2) or more individuals seeking election to the Board of Directors, the existing members of the Board of Directors who are not otherwise tied for reelection to the Board of Directors shall, via majority vote, break any and all ties in the election of the new Board of Directors.

The newly elected Board of Directors shall elect a Chairman of the Board from among the representatives of the five (5) permanent seats referenced in Section 4.1, above, by majority vote at the first Meeting of the Board of Directors convened following their election. The Chairman of the Board may also act as the President of the Corporation. In the event that the Chairman steps down for any reason, the Board of Directors shall elect a new Chairman of the Board.

The Initial Board of Directors and Chairman of the Board shall be appointed by the incorporator and shall be composed of the individual representatives of the entities making up the Steering Committee of the Corporation's predecessor, unincorporated entity. Said members of the Initial Board of Directors shall serve until the first Annual Meeting or until their successors are elected.

SECTION 4.5 TERM OF OFFICE

Except as set forth herein regarding permanent seats on the Board of Directors, all other Directors shall be elected and serve until the next Annual Meeting or when their successors are elected.

SECTION 4.6 COMPENSATION

Directors shall serve without compensation.

Nothing herein contained shall be construed to preclude any Director from serving the Corporation in any other capacity as an officer, agent, employee, or otherwise, and receiving compensation therefor so long as such compensation is approved by a majority of disinterested Directors. As used herein, the term "disinterested Directors" shall mean Directors not seeking compensation for such services, or whose Member organization is not seeking compensation for such services.

SECTION 4.7 PLACE OF MEETINGS

Board of Directors' meetings shall be held at places and times as may be agreed to by a majority of the Board of Directors. Meetings may be held in person or by any combination of audio, document or videoconferencing techniques or any other means permitted under ORS Chapter 65, as that chapter may, from time to time, be amended.

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SECTION 4.8 ANNUAL MEETINGS

Annual Meetings of the Board of Directors shall be held as soon as practical following the election of the new members of the Board of Directors in conjunction with the Annual Meeting of Members.

SECTION 4.9 SPECIAL MEETINGS

Special Meetings of the Board of Directors may be called by any three (3) Directors, or, if different, by the persons specifically authorized under the laws of the State of Oregon to call Special Meetings of the Board.

SECTION 4.10 NOTICE OF MEETINGS

Unless otherwise provided by the Articles of Incorporation, these Bylaws, or provisions of law, the following provisions shall govern the giving of notice for meetings of the Board of Directors:

- (a) Annual Meetings. The Executive Director of the Corporation shall give at least sixty (60) days' prior notice to each Director.
- (b) Special Meetings. The Executive Director of the Corporation shall give at least fourteen (14) days' prior notice to each Director.

The primary means for the provision of notice shall be via electronic mail to the Director at the electronic mail address as it appears on the records of the Corporation, provided that the Director to be contacted shall acknowledge personal receipt of the electronic message by a return electronic message or telephone call within three (3) working days of the first notification. If notification is provided by mail, such notice shall be deemed to be delivered when deposited in the mail addressed to the Director at his or her address as it appears on the records of the Corporation, with postage prepaid. Personal notification may also include notification by telephone, facsimile, or other electronic means; provided, however, such notification shall be subject to any and all acknowledgment requirements as may be set forth in ORS Chapter 65, as that chapter may, from time to time, be amended.

SECTION 4.11 QUORUM FOR MEETINGS

A quorum shall consist of two-thirds (2/3) of the members of the Board of Directors.

In the absence of a continued quorum at any meeting of the Board of Directors already in progress, a majority of the Directors present may adjourn the meeting.

SECTION 4.12 BOARD ACTION

Unless the Articles of Incorporation, these Bylaws, the Membership Agreement or provisions of law require a greater voting percentage or different rules for approval of a matter by the Board, every act or decision done or made by two-thirds (2/3) of the Directors present at a meeting duly held at which a quorum is present is the act of the Board of Directors; provided,

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however, that no act or decision may be made by less than one-half (1/2) of the total number of Directors entitled to vote on a matter.

SECTION 4.13 CONDUCT OF MEETINGS

Meetings of the Board of Directors shall be presided over by the Chairman of the Board of Directors, elected at the Annual Meeting of the Board of Directors to serve until the next Annual Meeting of the Board of Directors or until their successors are elected, or in his or her absence, by an acting Chairperson chosen by a majority of the Directors present at that meeting. The Secretary of the Corporation shall act as secretary of all meetings of the Board, provided that, in his or her absence, the presiding officer shall appoint another person to act as Secretary of the Meeting.

To the extent permitted by applicable law, a Director may designate an alternate representative from the same Member entity to attend a Board of Directors' meeting and vote in place of said absent Director pursuant to a proxy signed by said Director.

Meetings shall be governed by such procedures as may be approved from time to time by the Board, insofar as such rules are not inconsistent with or in conflict with the Articles of Incorporation, these Bylaws, or with provisions of law. Where practical, *Robert's Rules of Order* shall be used as a guide in the conduct of meetings.

Directors may participate in a regular or Special Meeting through use of teleconference, videoconference, or similar communications, so long as all people participating in such meeting can hear one another during such meeting. Participation in a meeting pursuant to this Section 4.13 constitutes presence in person at such meeting.

SECTION 4.14 VACANCIES, RESIGNATIONS

Vacancies on the Board of Directors shall exist, (1) whenever the number of authorized Directors is increased; (2) whenever a Director resigns from the Board of Directors; (3) whenever a Director resigns from or is terminated from employment by the Member organization employing the Director at the time of the Director's election; and (4) whenever a Director's Member organization terminates its membership in the Corporation.

Any Director may resign effective upon giving written notice to the President, the Secretary, Executive Director or the Board of Directors, unless the notice specifies a later time for the effectiveness of such resignation. No Director may resign if the Corporation would then be left without a duly elected Director or Directors in charge of its affairs, except upon notice to the Office of the Attorney General or other appropriate agency of this state. The Member employing the resigning Director may replace that Director with another employee by providing the Executive Director with written notice of the same within thirty (30) days after the effective date of the Director's resignation. Except as otherwise herein provided, a Director shall be conclusively deemed to resign if the Director's employment with the Member organization is for any reason terminated.

Directors may be removed from office, with or without cause, as permitted by and in accordance with the laws of the State of Oregon. Removal of a Director without cause shall require a unanimous vote of all Directors except for the Director being considered for removal.

If the Member or Members who have the right under this Section 4.14 to appoint a replacement Director to the Board fails to appoint such Director within the prescribed time period, or if the vacancy has occurred because the Member employing the Director has terminated its membership in the Corporation, the vacancy may be filled by approval of a majority of the Directors then in office or by a sole remaining Director. A person elected to fill a vacancy on the Board shall hold office until the next election of the Board of Directors or until his or her death, resignation or removal from office.

In the event that two (2) or more Directors' Member organizations are merged or a Director's Member organization is acquired by another Director's Member organization, the resulting or acquiring Member shall designate which of the Directors is to remain on the Board and the other Director or Directors will be removed from the Board immediately upon the closing of the acquisition or merger.

SECTION 4.15 NONLIABILITY OF DIRECTORS

To the extent permissible under Oregon and Federal law, Directors shall not be personally liable for the debts, liabilities, or other obligations of the Corporation.

SECTION 4.16 INDEMNIFICATION BY THE CORPORATION OF DIRECTORS AND OFFICERS

To the fullest extent not prohibited by the Oregon Nonprofit Corporation Act, as it exists on the date hereof or is hereafter amended, the Corporation:

Shall indemnify any person who is made, or threatened to be made, a party to an action, suit or proceeding, whether civil, criminal, administrative, investigative, or otherwise (including an action, suit or proceeding by or in the right of the Corporation), by reason of the fact that the person is or was a Director of the Corporation and acting on behalf of the Corporation; and

This Section 4.16 shall not be deemed exclusive of any other provisions or insurance for the indemnification of Directors, officers, employees, or agents that may be included in any statute, bylaw, agreement, resolution of Members or Directors or otherwise, both as to action in any official capacity and action in any other capacity while holding office, or while an employee or agent of the Corporation.

SECTION 4.17 INSURANCE FOR CORPORATE AGENTS

Except as may be otherwise provided under provisions of law, the Board of Directors, in its sole discretion, may adopt a resolution authorizing the purchase and maintenance of insurance on behalf of any particular agent of the Corporation (including a Director, officer, employee or other agent of the Corporation) against liabilities asserted against or incurred by the agent in such capacity or arising out of the agent's status as such, whether or not the Corporation would have

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the power to indemnify the agent against such liability under the Articles of Incorporation, these Bylaws or provisions of law

SECTION 4.18 BOARD ACTION WITHOUT A MEETING

Any Action that the Board of Directors is required or permitted to take may be taken without a meeting if all members of the Board consent in writing to that action. Such action by signed consent shall have the same force and effect as any other validly approved action of the Board. All consents shall be filed with the minutes of the proceedings of the Board.

ARTICLE 5. OFFICERS

SECTION 5.1 DESIGNATION OF OFFICERS

The officers of the Corporation shall be a President, a Vice President, a Secretary, a Treasurer and an Executive Director. The Corporation may also have one or more Vice Presidents, Assistant Secretaries, Assistant Treasurers and other such officers with such titles as may be determined from time to time by the Board of Directors. With the exception of the President and Vice President, no other officer need be an employee of a Member. The President and Vice President shall be Directors at the time of their election.

SECTION 5.2 ELECTION AND TERM OF OFFICE

Officers shall be elected by majority vote of the Board of Directors, at each Annual Meeting of the Board of Directors, and each officer shall hold office until he or she resigns or is removed or is otherwise disqualified to serve, or until his or her successor shall be elected and qualified, whichever occurs first.

SECTION 5.3 REMOVAL AND RESIGNATION

The Board of Directors may remove any officer from their elected office, either with or without cause, at any time upon unanimous vote of the members of the Board of Directors, minus one (1). An officer who is also an employee of a Member shall automatically be removed if the employer of the officer terminates its membership. Any officer may resign at any time by giving written notice to the Board of Directors or to the President, Secretary or Executive Director of the Corporation. Any such resignation shall take effect at the date of receipt of such notice or at any later date specified therein and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective. The above provisions of this Section 5.3 shall be superseded by any conflicting terms of a contract which has been approved or ratified by the Board of Directors relating to the employment of any officer of the Corporation.

SECTION 5.4 VACANCIES

Any vacancy caused by the death, resignation, removal, disqualification, or otherwise, of any officer shall be filled by the Board of Directors. In the event of a vacancy in any office other than that of President, such vacancy may be filled temporarily by appointment by the President

until such time as the Board shall fill the vacancy. Vacancies occurring in offices of officers appointed at the discretion of the Board may or may not be filled as the Board shall determine.

SECTION 5.5 DUTIES OF PRESIDENT

The President shall be the chief executive officer and may also be the Chairman of the Board of Directors of the Corporation. The President, acting in the capacity of the President, shall, subject to the control of the Board of Directors, supervise and control the affairs of the Corporation and the activities of the officers. He or she shall perform all duties incident to his or her office and such other duties as may be required by law, by the Articles of Incorporation, or by these Bylaws, or which may be prescribed from time to time by the Board of Directors, including presiding as chairperson at all meetings of the Members.

Except as otherwise expressly provided by law, by the Articles of Incorporation, or by these Bylaws, the President shall, in the name of the Corporation, execute such deeds, mortgages, bonds, contracts, checks, or other instruments which may from time to time be authorized by the Board of Directors.

SECTION 5.6 DUTIES OF VICE PRESIDENT

In the absence of the President, or in the event of his or her inability or refusal to act, the Vice President shall perform all the duties of the President and when so acting shall have all the powers of, and be subject to all the restrictions on, the President.

The Vice President shall have other powers and perform such other duties as may be prescribed by law, by the Articles of Incorporation, or by these Bylaws, or as may be prescribed by the Board of Directors.

SECTION 5.7 DUTIES OF SECRETARY

The Secretary shall:

Certify and keep at the principal office of the Corporation the original, or a copy, of these Bylaws as amended or otherwise altered to date.

Keep at the principal office of the Corporation or at such other place as the Board may determine, a book of minutes of all meetings of the Directors and, if applicable, meetings of committees of Directors and of Members, recording therein the time and place of holding, whether regular or special, how called, how notice thereof was given, the names of those present or represented at the meeting and the proceedings thereof, including all ballots and proxies.

See that all notices are duly given in accordance with the provisions of these Bylaws or as required by law. Advise the Members in writing of all results of any election of Directors.

Be custodian of the records and of the seal of the Corporation and affix the seal, as authorized by law or the provisions of these Bylaws, to duly executed documents of the Corporation.

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Keep at the principal office of the Corporation a membership book containing the name and address of each and any Members and, in the case where any membership has been terminated, he or she shall record such fact in the membership book together with the date on which such membership ceased.

Exhibit at all reasonable times to any Member of the Corporation, or to the Member's agent or attorney, on request therefor, the Bylaws, the membership book and the minutes of the proceedings of the Members of the Corporation.

In general, perform all duties incident to the office of Secretary and such other duties as may be required by law, by the Articles of Incorporation, or by these Bylaws, or which may be assigned to him or her from time to time by the Board of Directors.

SECTION 5.8 DUTIES OF TREASURER

The Treasurer shall:

Have charge and custody of, and be responsible for, all funds and securities of the Corporation and deposit all such funds in the name of the Corporation in such banks, trust companies, or other depositories as shall be selected by the Board of Directors.

Receive, and give receipt for, monies due and payable to the Corporation from any source whatsoever.

Disburse, or cause to be disbursed, the funds of the Corporation as may be directed by the Board of Directors, taking proper vouchers for such disbursements.

Keep and maintain adequate and correct accounts of the Corporation's properties and business transactions, including accounts of its assets, liabilities, receipts, disbursements, gains and losses.

Exhibit at all reasonable times the books of account and financial records to any Director of the Corporation, or to his or her agent or attorney, on request therefor.

Render to the President and Directors, whenever requested, an account of any or all of his or her transactions as Treasurer and of the financial condition of the Corporation.

Prepare, or cause to be prepared, and certify, or cause to be certified, the financial statements to be included in any required reports.

In general, perform all duties incident to the office of Treasurer and such other duties as may be required by law, by the Articles of Incorporation of the Corporation, or by these Bylaws, or which may be assigned to him or her from time to time by the Board of Directors.

SECTION 5.9 EXECUTIVE DIRECTOR

The Executive Director of the Corporation agrees to perform such undertakings as are necessary to manage the day-to-day needs of the Corporation, including:

Scheduling and setting up meetings.

Facilitating communication between Members, including providing timely notices of meetings.

Acting as the liaison to other consortiums or associations with which the Corporation may choose to associate.

Providing Members with timely minutes, summaries and other reports with respect to the activities of the Corporation as may be prepared by the Secretary or the Executive Director.

Receiving and processing Membership Agreements.

In general, performing all duties incident to the office of Executive Director and such other duties as may be required by law, by the Articles of Incorporation, or by these Bylaws, or which may be assigned to him or her from time to time by the Board of Directors.

Subject to Board approval, the Executive Director may engage third parties to undertake such activities, provided that the Executive Director enters into appropriate contracts protective of the Corporation and ensures compliance with terms and conditions of this Agreement including confidentiality obligations.

SECTION 5.10 COMPENSATION

With the exception of the Executive Director, whose services shall be provided pursuant to a consulting and services agreement between the Corporation and an outside contractor, the officers shall serve without compensation, unless the Board of Directors authorizes compensation.

Nothing herein contained shall be construed to preclude any officer from serving the Corporation in any other capacity as an agent, employee, or otherwise, and receiving compensation therefor as long as such compensation is approved by a majority of disinterested Directors as defined in Section 4.6. above.

ARTICLE 6. COMMITTEES

SECTION 6.1 SPECIAL COMMITTEES AND WORK GROUPS

The Corporation shall have such committees as may from time to time be designated upon vote of the Board of Directors. These committees shall be Work Groups and Special Committees. Members with representatives on any Work Group or Special Committee shall be assessed one Committee Membership Fee (as determined by the Board of Directors), regardless of how many Work Groups or Special Committees in which the Member is a participant. The Board of Directors shall appoint the chairperson of each committee, including replacements.

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SECTION 6.2 MEETINGS AND ACTION OF SPECIAL COMMITTEES

Meetings and actions of the Special Committees shall be governed by, noticed, held and taken in accordance with such Committee Procedures as the Board of Directors may adopt. The Board of Directors from time to time may amend such Committee Procedures, via action of the Board of Directors. Upon establishment of a Work Group, the Work Group may, through its Chairperson, propose Work Group Specific Procedures, for adoption via action of the Board of Directors. Work Group Specific Procedures not otherwise incorporated into the general Committee Procedures adopted by the Board of Directors shall apply only to the Work Group proposing such procedures.

SECTION 6.3 MEETINGS AND ACTION OF WORK GROUPS

SECTION 6.3.1 FORMATION

The Members may propose to the Board of Directors the establishment of one (1) or more Work Groups to carry out the work of the Corporation. Such proposal shall include the purposes of such Work Group and the Members that initially desire to participate in such Work Group. The Board of Directors shall (i) approve or disapprove the formation of each Work Group and (ii) appoint the initial and any replacement chairperson of such Work Group. The Board of Directors shall provide timely notice of the formation and chairperson of each Work Group to all Members as well as the then-current Committee Procedures which will govern the actions of such Work Group.

SECTION 6.3.2 COMPOSITION

Subject to the approval of the Work Group chairperson and the Board of Directors, a Member may propose candidates for membership in the Work Group. The Board of Directors may, from time to time, develop and publish general minimum standards for membership in Work Groups as part of its Committee Procedures or Work Group Specific Procedures.

SECTION 6.3.3 RECORD OF ACTIVITIES

The Work Group shall elect a secretary or other person to document and record the Work Group's activities.

SECTION 6.3.4 MEETINGS

Work Groups shall hold regular meetings on a schedule as determined by such Work Group and approved by the Board of Directors. The noticing of meetings of the Work Group and the governance thereof shall be subject to the Committee Procedures or Work Group Specific Procedures adopted by the Board of Directors. Where practical, *Robert's Rules of Order* shall be used as a guide in the conduct of meetings.

SECTION 6.3.5 REMOVAL FROM WORK GROUPS

The then-current Committee Procedures or Work Group Specific Procedures shall govern the removal of any member of a Work Group.

ARTICLE 7. EXECUTION OF INSTRUMENTS, DEPOSITS AND FUNDS

SECTION 7.1 EXECUTION OF INSTRUMENTS

The Board of Directors, except as otherwise provided in these Bylaws, may by resolution authorize any officer or agent of the Corporation to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances. Unless so authorized, no officer, agent, or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable monetarily for any purpose or in any amount.

SECTION 7.2 CHECKS AND NOTES

Except as otherwise specifically determined by resolution of the Board of Directors, or as otherwise required by law, checks, drafts, promissory notes, orders for the payment of money and other evidence of indebtedness of the Corporation with a value of less than One Hundred Thousand Dollars (\$100,000) shall be signed by the President, Treasurer or Executive Director. Checks, drafts, promissory notes, orders for the payment of money and other evidence of indebtedness in excess of One Hundred Thousand Dollars (\$100,000), shall require the signatures of two (2) or more of the above-listed officers and a special resolution of the Board of Directors.

SECTION 7.3 DEPOSITS

All funds of the Corporation shall be deposited from time to time to the credit of the Corporation in such banks, trust companies, or other depositories as the Board of Directors may select

ARTICLE 8. CORPORATE RECORDS AND REPORTS

SECTION 8.1 MAINTENANCE OF CORPORATE RECORDS

The Corporation shall keep at its principal office:

- (a) Minutes of all meetings of the Board of Directors, all meetings of committees of the Board of Directors, minutes of all meetings of any Work Group or Special Committee and all meetings of Members, indicating the time and place of holding such meetings, whether regular or special, how called, the notice given and the names of those present and the proceedings thereof including all proxies;
- (b) Adequate and correct books and records of account, including accounts of its properties and business transactions and accounts of its assets, liabilities, receipts, disbursements, gains and losses;
- (c) A record of its Members, if any, indicating their names and addresses and, if applicable, the class of membership held by each Member and the termination date of any membership; and

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(d) A copy of the Corporation's Articles of Incorporation and Bylaws as amended to date, which shall be open to inspection by the Members, if any, of the Corporation at all reasonable times during office hours.

SECTION 8.2 INSPECTION RIGHTS

Subject to such confidentiality and nondisclosure requirements as the Board may reasonably deem appropriate, or restrictions imposed via any confidentiality and nondisclosure agreement concerning any particular record, book or document, every Member and Director shall have the absolute right at any reasonable time to inspect and copy all books, records and documents of every kind and to inspect the physical properties of the Corporation and shall have such other rights to inspect the books, records and properties of this Corporation as may be required under the Articles of Incorporation, other provisions of these Bylaws and provisions of law.

SECTION 8.3 RIGHT TO COPY AND MAKE EXTRACTS

Unless otherwise restricted pursuant to confidentiality and nondisclosure limitations, any inspection under the provisions of this Article 8 may be made in person or by agent or attorney and the right to inspection shall include the right to copy and make extracts.

SECTION 8.4 PERIODIC REPORT

The Board shall cause any annual or periodic report required under the laws of the State of Oregon to be prepared and delivered to an office of the State of Oregon or to the Members, if any, of this Corporation, to be so prepared and delivered within the time limits set by law.

ARTICLE 9. IRC 501(C)(6) TAX EXEMPTION PROVISIONS

SECTION 9.1 LIMITATION ON ACTIVITIES

Notwithstanding any other provisions of these Bylaws, the Corporation shall not carry on any activities not permitted to be carried on by a Corporation exempt from Federal income tax under Section 501(c)(6) of the Internal Revenue Code (the "Code").

SECTION 9.2 PROHIBITION AGAINST PRIVATE INUREMENT

No part of the net earnings of the Corporation shall inure to the benefit of, or be distributable to, its Members, Directors or trustees, officers, or other private persons, except that the Corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes of the Corporation.

SECTION 9.3 DISTRIBUTION OF ASSETS

In the event of liquidation, dissolution, termination, or winding up of the Corporation (whether voluntary, involuntary, or by operation of law), the Board of Directors shall, after paying or making provisions for the payment of all of the liabilities of the Corporation, transfer

all of the property and assets of the Corporation to one or more "Qualified Organizations," as defined below, as the Board of Directors shall determine. For purposes of this Section 9.3 "Qualified Organization" shall mean a corporation or other organization organized and operated exclusively for religious, charitable, educational or other purposes meeting the requirements for exemption provided by Oregon Revised Statute Section 317.080, as shall at the time qualify either (i) as exempt from Federal income tax under Section 501(a) of the Code by reason of being an organization described in Section 501(c)(6) of the Code, or (ii) as a corporation or other organization to which contributions are deductible under Section 170(c)(1) of the Code.

ARTICLE 10. AMENDMENT OF BYLAWS

Except where otherwise provided for in individual Articles herein, these Bylaws, or any of them, may be altered, amended, or repealed and new Bylaws adopted by approval of two-thirds (2/3) of the Board of Directors of the Corporation.

ARTICLE 11. CONSTRUCTION AND TERMS

If there is any conflict between the provisions of these Bylaws and the Articles of Incorporation of the Corporation, the provisions of the Articles of Incorporation shall govern.

Should any of the provisions or portions of these Bylaws be held unenforceable or invalid for any reason, the remaining provisions and portions of these Bylaws shall be unaffected by such holdings.

All references in these Bylaws to the Articles of Incorporation shall be to the Articles of Incorporation, Articles of Organization, Certificate of Incorporation, Organizational Charter, Corporate Charter, or other founding document of the Corporation filed with an office of this state and used to establish the legal existence of the Corporation.

All references in these Bylaws to a section or sections of the Code shall be to such sections of the Internal Revenue Code of 1986, as amended from time to time, or to corresponding provisions of any future federal tax code.

ARTICLE 12. MEMBERSHIP PROVISIONS

SECTION 12.1 DETERMINATION AND RIGHTS OF MEMBERS

The Corporation shall have Members and classes of membership ("Membership Classifications") as defined by the Board of Directors. No Member shall hold more than one (1) membership in the Corporation. For purposes of this Section a Member and its Affiliates shall be deemed one (1) Member. Except as expressly provided in or authorized by the applicable Member Agreements, the Articles of Incorporation, the Bylaws of this Corporation, or provisions of law, all Members shall have the rights, privileges, restrictions and conditions established by resolution of the Board of Directors.

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Among the benefits generally to be afforded to the Members are:

- (1) The right to attend and participate in Compliance Workshops conducted by the Corporation;
- (2) The right to submit proposed revisions and addendum proposals for the Corporation's Specifications (as defined in Section 15.1(e) below) and design guides to the Board of Directors:
- (3) The right to participate, upon appointment by the Board of Directors, in the activities of Special Committees and Work Groups, subject to the payment of a Committee Membership Fee;
- (4) With the exception of the Initial Board, the right to vote on the composition of the Board of Directors of the Corporation;
- (5) The right to technical support with regard to then-supported Specifications and design guides of the Corporation;
- (6) The right to receive support documentation and materials concerning the Corporation's Specifications and design guides;
- (7) Subject to such procedures as may be adopted by the Board of Directors, the right to review and comment on new Specifications and design guides of the Corporation prior to their adoption by the Corporation; and
- (8) The right, during the term of their membership, a fully paid, nontransferable, nonsublicensable, worldwide license to make use of the Corporation's trademarks, service marks and logo types in compliance with the then current Trademark and Logo Usage Guidelines, which may be amended from time-to-time by the Corporation. Upon expiration or termination of membership, a Member's license granted hereunder shall automatically terminate. The Corporation shall retain the right to restrain a Member's use of the Corporation's trademarks, service marks and logos in violation of the Trademarks and Logo Usage Guidelines.

With the exception of the right to vote on the election of the Board of Directors, all other matters put forward to a vote of the Members shall be advisory in nature and not binding upon the Corporation or its Board of Directors.

SECTION 12.2 QUALIFICATIONS FOR MEMBERSHIP

The qualifications for membership in this Corporation are as follows:

Any for-profit corporation, nonprofit corporation, government organization, educational institution or other enterprise or individual supportive of this Corporation's purposes and not otherwise prohibited by treaty, law or regulation from abiding by the terms of these Bylaws is qualified to become a Member of the Corporation.

Enjoying the Ride on the Track to Success

SECTION 12.3 ADMISSION TO MEMBERSHIP

Applicants qualified under Section 12.2 above, shall be admitted to membership upon affirmation of the Articles of Incorporation and these Bylaws; the execution of a Membership Agreement; and payment of the applicable annual dues as specified on the Membership Agreement.

SECTION 12.4 FEES AND DUES

The annual dues payable to the Corporation by each class of Members shall be established and may be changed from time to time by resolution of the Board of Directors. Initial dues shall be due and payable upon written commitment to join the Corporation. Thereafter, yearly dues shall be due and payable on the anniversary of such initial written commitment. If any Member is delinquent in the payment of dues, such Member's rights shall be deemed suspended upon written notice from the Corporation until all delinquent dues are paid.

SECTION 12.5 NUMBER OF MEMBERS

There is no limit on the number of Members the Corporation may admit.

SECTION 12.6 MEMBERSHIP ROLL

The Corporation shall keep a membership roll containing the name and address, including electronic mail addresses, of each Member, the date upon which the applicant became a Member and the name of one (1) individual from each Member organization who shall serve as a primary contact for the Corporation, receive all correspondence and information, distribute this information within his or her organization and vote on all issues submitted to a vote of the Members. Termination of the membership of any Member shall be recorded in the roll, together with the date of termination of such membership. Such roll shall be kept at the Corporation's principal office. Membership in the Corporation is a matter of public record; however, membership lists will not be sold or otherwise be made available to third parties.

SECTION 12.7 NONLIABILITY OF MEMBERS

No Member of this Corporation shall be, as such, individually liable for the debts, liabilities, or obligations of the Corporation.

SECTION 12.8 NONTRANSFERABILITY OF MEMBERSHIPS

All rights of membership cease upon the Member's dissolution. No membership may be assigned without the prior written consent of the Corporation and any purported assignment without such written approval shall be null and void.

SECTION 12.9 TERMINATION OF MEMBERSHIP

The membership of a Member shall terminate upon the occurrence of any of the following events:

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- (1) Upon a failure to initiate or renew membership by paying dues on or before their due date, such termination to be effective thirty (30) days after a written notification of delinquency is given personally or mailed to such Member by the Secretary of the Corporation. A Member may avoid such termination by paying the amount of delinquent dues within a thirty (30) day period following the Member's receipt of the written notification of delinquency.
 - 2) Upon fifteen (15) calendar days' written notice from the Member.
- (3) Upon unanimous vote of all disinterested Directors when such Directors determine, after affording the Member in question the right to be heard on the issue, that the Member has violated the policies, procedures and duties of Membership herein.
 - (4) Upon a Member's dissolution.
- (5) Upon a breach of any confidentiality and/or nondisclosure agreement within the Corporation by a Member.

In the event that two (2) or more Member organizations are merged or a Members organization is acquired by another Member organization, the resulting entity shall have only one (1) Membership and one (1) vote in all Membership votes thereafter. The former voting Member may, however, upon written notice to the Board, be permitted to continue attendance at Meetings on a nonvoting basis and be provided with notices thereof. So long as the resulting entity shall remain a Member in good standing of the Corporation, the vendor identification number or numbers of the former Member shall be transferred to the resulting entity who shall be entitled to use that vendor identification number in addition to such other vendor identification numbers that the Member already may have the right to use.

All rights of a Member in the Corporation shall cease on termination of membership as herein provided. A Member terminated from the Corporation shall not receive any refund of dues already paid for the current dues period.

ARTICLE 13. MEETINGS OF MEMBERS

SECTION 13.1 PLACE OF MEETINGS

Meetings of Members shall be designated from time to time by resolution of the Board of Directors, which resolution shall specify the meeting place and time. At the discretion of the Board of Directors, meetings may be held in person or by any combination of audio, document or videoconferencing techniques or any other means permitted under ORS Chapter 65, as that chapter may, from time to time, be amended.

SECTION 13.2 REGULAR MEETINGS

The Annual Meetings of Members shall be held for the purpose of conducting the election of the Board of Directors and transacting other business as may come before the meeting. The Annual Meeting of Members shall be deemed a regular meeting.

Other regular meetings of the Members shall be held on dates and at times to be determined by the Board of Directors, with the expectation that there will be at least one (1) additional meeting of Members each year.

SECTION 13.3 SPECIAL MEETINGS OF MEMBERS

Special Meetings of the Members for any purpose shall be called by the Board of Directors, or by written request of three-quarters (3/4) of the Members.

SECTION 13.4 NOTICE OF MEETINGS

Unless otherwise provided by the Articles of Incorporation, these Bylaws, or provisions of law, notice stating the place, day and hour of the meeting of the Annual Meeting shall be provided not less than sixty (60) days in advance thereof. In the case of a Special Meeting, notice, specifying the purpose or purposes for which the meeting is called, shall be provided not less than fourteen (14) calendar days before the date of the meeting.

The primary means for the provision of notice shall be via electronic mail to the Member at the electronic mail address as it appears on the records of the Corporation, provided that the Member to be contacted shall acknowledge personal receipt of the electronic message by a return electronic message or telephone call within three (3) working days of the first notification. If notification is provided by mail, such notice shall be deemed to be delivered when deposited in the mail addressed to the Director at his or her address as it appears on the records of the Corporation, with postage prepaid. Personal notification may also include notification by telephone, facsimile, or other electronic means; provided, however, such notification shall be subject to any and all acknowledgment requirements as may be set forth in ORS Chapter 65, as that chapter may, from time-to-time, be amended.

Whenever any notice of a meeting is required to be given to any Member of this Corporation under provisions of the Articles of Incorporation, these Bylaws, or the law of this state, a waiver of notice in writing signed by the Member, whether before or after the time of the meeting, shall be equivalent to the giving of such notice.

SECTION 13.5 OUORUM FOR MEETINGS

Pursuant to ORS 65.241, those Members present, either in person, via telephonic or video conference connection, at a properly noticed meeting of the Members shall constitute a quorum.

SECTION 13.6 MEMBERSHIP ACTION

Every act or decision done or made by a majority of Members present in person at a duly held meeting at which a quorum is required is the act of the Members.

SECTION 13.7 MEMBER ACTION AT MEETINGS

Each Member in Membership Classifications entitled to vote shall have one (1) vote on each matter submitted to a vote by the Members. Except as provided for in Section 13.8, the Member's designated employee shall do all voting in person, not by proxy. Voting at meetings

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shall be by a show of hands if held in person, or by voice ballot if held by audio, videoconferencing or teleconferencing, unless otherwise required. Results of all ballots shall duly be distributed to all Members within thirty (30) days of each ballot. Written confirmation of any and all ballots shall be maintained with the Corporation's minutes.

SECTION 13.8 ACTION BY WRITTEN BALLOT

Except as otherwise provided under the Articles of Incorporation, these Bylaws, or provisions of law, any action which may be taken at any regular or Special Meeting of Members may be taken without a meeting or in conjunction with a meeting if the Corporation distributes a written ballot to each Member entitled to a vote.

The ballot shall:

- 1. Set forth the proposed action;
- 2. Provide an opportunity to select individuals or specify approval or disapproval of each proposal, as appropriate;
- 3. Indicate the number of responses needed and the percentage of approvals necessary to pass the measure submitted; and
- 4. Specify the date by which the ballot must be received by the Corporation in order to be counted. The date set shall afford Members a reasonable time within which to return the ballots to the Corporation.

Ballots shall be mailed or delivered in the manner required for giving notice of membership meetings as specified in these Bylaws.

Approval of action by written ballot shall be valid only when the number of votes cast by ballot within the time period specified equals or exceeds the quorum, if required, to be present at a meeting authorizing the action, and the number of approvals equals or exceeds the number of votes that would be required to approve the action at a meeting at which the total number of votes cast was the same as the number of votes cast by ballot.

SECTION 13.9 CONDUCT OF MEETINGS

Meetings of Members shall be presided over by the President of the Corporation or, in his or her absence, by the Vice President of the Corporation or, in the absence of all of these persons, by a Chairperson designated by the Board of Directors, or in the absence of a timely designation by the Board of Directors, by a majority of the Members present. The Secretary of the Corporation shall act as Secretary of all meetings of Members, provided that, in his or her absence, the presiding officer shall appoint another person to act as Secretary of the Meeting.

Meetings shall be governed by such procedures as may be approved from time to time by the Board, insofar as such rules are not inconsistent with or in conflict with the Articles of Incorporation, these Bylaws, or with provisions of law. Where practical, *Robert's Rules of Order* shall be used as a guide in the conduct of meetings.

With the exception of the election of the Board of Directors, all votes and other resolutions of the Members shall be advisory in nature unless adopted by resolution of the Board of Directors.

ARTICLE 14. DISCLOSURE OF INFORMATION AND CONFIDENTIALITY

SECTION 14.1 LIMITATION ON THE SCOPE OF DISCLOSED INFORMATION

The Members acknowledge that they will not disclose or exchange information as part of Corporation activities among themselves unless such disclosure is necessary in order to achieve the lawful purposes of the Corporation. All information disclosed as a part of the Corporation's activities shall be deemed nonconfidential except as may be provided below or as otherwise agreed to in a written agreement between the affected parties.

SECTION 14.2 CONFIDENTIAL INFORMATION

From time to time a Member may deem it necessary to disclose information to the other Members which such Member considers confidential or proprietary ("Confidential Information"). In such instances the relevant information may be disclosed in confidence and shall be considered Confidential Information of the disclosing party if, and only if, the information is specifically designated as Confidential Information by the disclosing party at the time of disclosure; provided, however, that information shall be deemed confidential if a Member inadvertently discloses Confidential Information which was not identified as confidential at the time of disclosure but notifies all Members to whom such Confidential Information has been disclosed (in accordance with the notification process in this Article 14) of the disclosing Member's intention to maintain the confidentiality of such previously disclosed Confidential Information and the receiving Members have not disseminated the subject information outside of their Member organization prior to receiving such notice. Any such designation shall be effected by (1) marking any information disclosed in writing in a manner which indicates it is the Confidential Information of the disclosing party; or (2) by orally indicating that any information disclosed orally is the Confidential Information of the disclosing party and then within ten (10) days providing all other Members with a written summary of the orally disclosed Confidential Information so that such Confidential Information is more easily identified. By disclosing Confidential Information a Member agrees that should any such Confidential Information be necessarily or inferentially disclosed by a Specification or design guide adopted by the Corporation, such Member shall allow publication of such comment or recommendation. All information disclosed by Members prior to the date of this Agreement directly for the purposes of the Corporation shall be governed by the provisions of this Section 14.2. All information developed by the Corporation shall be deemed the Confidential Information of the Corporation until made publicly available. All works in progress, minutes of Board of Directors' meetings, minutes of Work Groups and Special Committees and attorney work product shall in all cases be deemed Confidential Information of the Corporation.

SECTION 14.3 NONDISCLOSURE

With respect to Confidential Information, the receiving party agrees, for a period of three (3) years, to use the same care and discretion to avoid disclosure, publication and dissemination

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outside the receiving party and its Affiliates, contractors and consultants as the receiving party employs with its own Confidential Information, but no less than reasonable care. Any disclosure by a receiving party to its Affiliates, contractors and consultants should be subject to an obligation of confidentiality at least as restrictive as those contained in this Article 14. The foregoing obligation shall not apply to any information which is: (1) already known by the receiving party prior to disclosure; (2) publicly available through no fault of the receiving party; (3) rightfully received from a third party without a duty of confidentiality; (4) disclosed by the disclosing party to a third party without a duty of confidentiality on such third party; (5) independently developed by the receiving party; (6) disclosed pursuant to the order of a court or other authorized governmental body, or as required by law, provided that the receiving party provides reasonable prior written notice to the disclosing party, and cooperates with the disclosing party, so that the disclosing party has the opportunity to oppose any such order; or (7) disclosed by the receiving party with the disclosing party's prior written approval. Notwithstanding anything to the contrary herein, any Member shall be free to use the residuals of Confidential Information for any purpose including use in the development, manufacture, marketing and maintenance of its products and services, subject only to the obligations herein with respect to disclosure of such Confidential Information. The term "residuals" means that Confidential Information in nontangible form, which may be retained in the memories of individuals who have had rightful access to such Confidential Information under this provision of these Bylaws. It is understood that receipt of Confidential Information under these Bylaws shall not create any obligation in any way limiting or restricting the assignment and/or reassignment of any employees of a Member within Member's organization. However, this Section 14.3 shall not be deemed to grant to any party a license under the other party's copyrights or patents.

Nothing contained herein shall preclude the Corporation from entering into Nondisclosure Agreements with third party non-Members.

SECTION 14.4 CORPORATION INFORMATION

All public disclosures regarding the existence, membership and activities of the Corporation must be approved by the Board of Directors. Public disclosure of any version or revision of SERIAL ATA, or another Specification or design guide of the Corporation shall be subject to the approval by the Board of Directors pursuant to terms hereof. However, the Corporation's general policy shall be to comply with reasonable request for information relating to the Corporation and its activities. If a Member shall be required to disclose any Confidential Information relating to the Corporation pursuant to a valid order of a court or other government body or any political subdivision thereof, the Member shall first give notice to the Board of Directors and make a reasonable effort to obtain a protective order requiring that any such Confidential Information so disclosed be used only for the purposes for which the order was issued.

SECTION 14.5 EFFECT OF MEMBER WITHDRAWAL

After withdrawal from the Corporation for any reason, a former Member has a continuing duty under this Article 14.

ARTICLE 15. INTELLECTUAL PROPERTY LICENSING POLICY

SECTION 15.1 DEFINITIONS

The following definitions shall apply to this Article 15:

- (a) "Compliant Portion" means only those specific portions of products (hardware, software or combinations thereof) that: (i) implement and are compliant with all relevant portions of a Specification and (ii) are within the bounds of the Scope.
- (b) "Contribution" means a submission to or for a Work Group or the Board of Directors proposing an addition to or modification of an existing Specification or a new Specification or portion thereof, or a submission proposing changes or modifications to reference design documents provided that the submission is either (i) submitted in writing (including a writing in electronic medium) or (ii) stated orally, memorialized with specificity in the written minutes of a Work Group and attributed in the meeting minutes to the submitting Member, provided that the minutes are promptly provided to the individual representing the Member, unless the submitting Member withdraws its submission in writing as soon as practicable and in any event, no later than forty-five (45) days of receipt of such written minutes.
- (c) "Necessary Claims" means those claims of all patents and patent applications, other than design patents and design registrations, throughout the world which a Member or its Affiliates has the right, any time during the term of this Agreement, to grant licenses of the nature agreed to be granted herein without such grant resulting in payment of royalties or other consideration to third parties (except for payments to Affiliates or employees), which claims are necessarily infringed by an implementation of a Specification adopted and approved for release by the Corporation and which are within the bounds of the Scope, where such infringement could not have been avoided by another commercially reasonable noninfringing implementation of such Specification. Necessary Claims do not include any claims other than those set forth above even if contained in the same patent as Necessary Claims.
- (d) "Scope" means the protocols, electrical signaling characteristics, mechanical requirements for connectors, cards and cabling, register models, data structures and verbs software interface solely to the extent disclosed with particularity in a Specification where the sole purpose of such disclosure is to enable products to interoperate, interconnect or communicate as defined within a Specification. Notwithstanding the foregoing, the Scope shall not include (i) any enabling technologies that may be necessary to make or use any product or portion thereof that complies with a Specification, but are not themselves expressly set forth in a Specification (e.g., semiconductor manufacturing technology, compiler technology, object oriented technology, basic operating system technology); (ii) the implementation of other published specifications not developed by or for the Corporation but referred to in the body of a Specification; or (iii) application programming interfaces, device drivers, device driver models, peripheral control languages and peripheral devices, except for the portions of peripheral devices that are required by an interconnect that is compliant with a Specification.
- (e) "Specification" means a document adopted and approved for release by the Corporation and any updates or revisions adopted and approved for release by the Corporation.

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SECTION 15.2 SPECIFICATION NOTICE, REVIEW AND MEMBER WITHDRAWAL

- (1) **Notice.** The Corporation shall provide the Members with not less than thirty (30) days' prior notice of the adoption of a new or revised Specification. Such notice shall include a complete draft of the Specification as approved by the Board of Directors and state the effective date when the Specification, and all Necessary Claims therein, shall be subject to the licensing provisions of Section 15.3, below.
- (2) **Review.** Upon receipt of the notice and Specification, the Member, on behalf of itself and its Affiliates, may review the same for any Necessary Claims that may be contained therein. While there is no requirement for a Member to review their patent portfolio for Necessary Claims, Members are put on notices that unless they withdraw from the Corporation in accordance with the provisions of Section 15.2 and 15.10, below, before the end of the period referenced in Section 15.2(3) below, the Member is committing to the licensing provisions of Section 15.3, below.
- (3) Withdrawal. Any Member may withdraw from membership in the Corporation pursuant to this subsection, if that Member determines that the Specification contains Necessary Claims which that Member is unwilling to license to the other Members pursuant to Section 15.3, below. A Member wishing to exercise the right to withdraw under this provision, must deliver notice of withdrawal the later of forty-five (45) calendar days prior to the effective date of the Specification stated in the notice provided pursuant to Section 15.2(1), above, or fifteen (15) days after the adoption of the Specification. A Member timely exercising this right of withdrawal shall be entitled to continue the use of any Vendor Identification Numbers issued to prior to that Member's date of withdrawal for the time period remaining in that Member's current membership year and to renew that right of use subject to such terms, conditions and consideration as the Corporation may elect to charge non-Members for the same.
- (4) New Members. If, during the review period stated in Section 15.2(1) above, a prospective Member shall apply for Membership in the Corporation, then subject to the execution of such confidentiality and/or nondisclosure agreements as the Corporation may determine necessary, such prospective Member shall be permitted not less than forty-five (45) days to review the Specification then under review for any and all Necessary Claims and to agree in separate affirmative writing to be committed to the licensing provisions of Section 15.3, below, as to such pending Specification if it is adopted by the Corporation. Failure to provide such written affirmation shall be deemed a withdrawal of the prospective Member's application for membership.

SECTION 15.3 LICENSING OF MEMBER INTELLECTUAL PROPERTY RIGHTS

When the Member or its Affiliate makes a Contribution to a Specification of the Corporation, including revisions thereto, or when the Corporation adopts and approves for release a Specification after providing notice as set forth in Section 15.2, above, the Member and its Affiliates hereby agree to grant to other Members and their Affiliates under reasonable terms and conditions that are demonstrably free of any unfair discrimination, a nonexclusive,

nontransferable, worldwide license under its Necessary Claims to allow such Members to make, have made, use, import, offer to sell, lease and sell and otherwise distribute Compliant Portions, provided that such agreement to license shall not extend to any part or function of a product in which a Compliant Portion is incorporated that is not itself part of the Compliant Portion. Each Member agrees that they will not transfer, and have not transferred, patents having Necessary Claims for the purpose of circumventing this Section 15.3. Subject to Section 15.2(4), Each Member further agrees that this licensing commitment shall apply to any and all Specifications adopted by the Corporation prior to the date that the Member joins the Corporation.

SECTION 15.4 RECIPROCITY

The provisions of Section 15.3, above, concerning the grant of patent licenses between Members shall not be effective as to any other Member or that other Member's Affiliates, if that Member or its Affiliates do not, in fact and practice, make the patent license grant of Section 15.3 available to the other Members and their Affiliates.

SECTION 15.5 RETENTION OF RIGHTS

Nothing contained in this Article 15 shall be deemed as requiring a Member or its Affiliates to grant or withhold a nonexclusive license or sublicense of an individual Member's patents containing Necessary Claims to non-Members on such terms as the Member or its Affiliates may determine.

SECTION 15.6 NO OTHER LICENSE

The Members agree no patent license, immunity or other right is granted under these Bylaws by any Member or its Affiliates to any other Members or their Affiliates or to the Corporation, either directly or by implication, estoppel or otherwise, other than the agreements to grant licenses expressly set forth in this Article 15.

SECTION 15.7 TRANSFER OF NECESSARY CLAIMS

Any transfer by Member or its Affiliates to a third party of a patent having Necessary Claims shall be subject to: (i) the terms and conditions of these Bylaws and (ii) the agreement to grant licenses by the Member to other Members and their Affiliates pursuant to Section 15.3 and Section 15.4 of these Bylaws.

SECTION 15.8 COPYRIGHTS

The Members grant to the Corporation a worldwide, irrevocable, nonexclusive, nontransferable copyright license to reproduce, create derivative works, distribute, display, perform and sublicense the rights to reproduce, distribute, display and perform the Contributions of the granting Member solely for the purposes of developing, publishing and distributing Specifications and related materials, as well as products based on such documents.

SECTION 15.9 TRADEMARKS

In the event that the Corporation proposes to adopt any other name or logo as a trademark or trade name (collectively "Trademarks"), the Corporation shall notify the Members in writing of the proposal. The Corporation shall take such steps as the Board of Directors deems necessary and proper to protect its rights under such Trademarks adopted for use by the Corporation. In furtherance thereof, the Board of Directors shall establish and disseminate reasonable conditions and procedures for the licensing and use of such Trademarks, demonstrably free of any unfair discrimination among the Members.

SECTION 15.10 SURVIVAL OF AGREEMENT TO GRANT LICENSE

Notwithstanding the dissolution of the Corporation or a Member's termination or nonrenewal of its membership in the Corporation and except as provided in Section 15.11, a Member's agreement to grant a license as provided in Sections 15.3 and 15.4 shall remain in full force and effect for: (a) any Necessary Claim to a Contribution made to a later adopted Specification or any Necessary Claim to a Specification adopted before the effective date of dissolution or before the effective date of a Member's termination or expiration of membership; and (b) any Necessary Claims to a Specification adopted by the Corporation after the effective date of the Member's termination or expiration of membership that (i) are necessary for the future Specification to be backwards compatible with the prior Specifications and (ii) are used in a substantially similar manner and to a substantially similar extent with a substantially similar result as the same Necessary Claims were used in a prior Specification for which the Member is obligated to grant licenses. In no event is a withdrawn Member obligated to license any additional Necessary Claims under this Article 15. A withdrawn Member shall remain entitled to reciprocity pursuant to Section 15.3 so long as that withdrawn Member remains obligated to license any Necessary Claims under this Article 15. This agreement to the survival of reciprocal licensing shall extend to all Members, including Members who become Members after the effective date of a departing Member's termination or expiration.

SECTION 15.11 EXCEPTION IN THE EVENT OF NONCOMPLIANCE

The agreement to license, which survives under Section 15.10, shall terminate completely as to any Specification which does not include all applicable requirements for interoperating, communicating or connecting with or to products that comply with Specifications that were in effect thirty (30) days prior to the effective date of the Member's termination or expiration or Membership or thirty (30) days prior to the effective date of dissolution of the Corporation.

CERTIFICATE OF SECRETARY

I hereby certify:	
That I am the duly elected and act DRGANIZATION, an Oregon Nonprofit	ing Secretary of SERIAL ATA INTERNATIONAL Corporation; and
	y adopted by the Board of Directors of said
IN WITNESS WHEREOF, I have	hereunder subscribed my name this day
	Name
	Signature

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ACC's 2007 ANNUAL MEETING

Enjoying the Ride on the Track to Success

To General Counsel - Patents.

I am the Chair of the IEEE Standards Association (IEEE-SA) Working Group [______]. Through the course of development of IEEE Pnnn (standard title), it has come to my attention that your organization may have "Essential Patent Claims" with respect to this standard. Essential Patent Claims, as defined by the IEEE, are any Patent Claims the use of which was necessary to create a compliant implementation of either mandatory or optional portions of the normative clauses of the [Proposed] IEEE Standard when, at the time of the [Proposed] IEEE Standard's approval, there was no commercially and technically feasible non-infringing alternative.

According to the IEEE-SA Standards Board Operations Manual, Working Group Chairs to whom patent issues have been raised shall solicit Letters of Assurance for Essential Patent Claims (Letters of Assurance) from patent holders having potential Essential Patent Claims. As the individual within your organization having authority for intellectual property rights management, the IEEE would appreciate your completing and signing the attached Letter of Assurance and returning it to the IEEE Standards Association at:

Administrator, IEEE-SA Standards Board Patent Committee

IEEE

445 Hoes Lane

Piscataway, NJ 08855 USA

Fax: +1-732-875-0524 Email: patcom@ieee.org

As Working Group Chair, I would appreciate a copy for my records as well.

All published IEEE Standards include the following disclaimer at the beginning of the standard:

"Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims or determining whether any licensing terms or conditions are reasonable or non-discriminatory. Further information may be obtained from the IEEE Standards Association."

Additionally, when a Letter of Assurance is received from a known patent holder prior to publication of the specified standard, the following language is included in the front matter of the standard:

"Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this

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standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. A patent holder or patent applicant has filed a statement of assurance that it will grant licenses under these rights without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination to applicants desiring to obtain such licenses. Other Essential Patent Claims may exist for which a statement of assurance has not been received. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims, or determining whether any licensing terms or conditions are reasonable or non-discriminatory. Further information may be obtained from the IEEE Standards Association."

The *IEEE-SA Standards Board Bylaws* state that the assurance is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal. For your reference, the complete *IEEE* standards patent policy, including definition of terms, can be found in:

- ◆ IEEE-SA Standards Board Bylaws, Clause 6
 [http://standards.ieee.org/guides/bylaws/sect6-7.html#6]
- IEEE-SA Standards Board Operations Manual, Clause 6.3 [http://standards.ieee.org/guides/opman/sect6.html#6.3]

Please address questions to the Administrator, IEEE-SA Standards Board Patent Committee [patcom@ieee.org].

Sincerely,	
Working Group [] Chair
Mailing Address	

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IEEE-SA Standards Board Patent Committee

2007 IEEE-SA Patent Policy

Introduction and guide to IEEE-SA patent policy effective 1 May 2007

Inclusion of Potential Essential Patent Claims

∲IEEE

1 May 2007

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Inclusion of Essential Patent Claims in standard

IEEE standards may be drafted in terms that include the use of Essential Patent Claims. If the IEEE receives notice that a [Proposed] IEEE Standard may require the use of a potential Essential Patent Claim, the IEEE shall request licensing assurance, on the IEEE Standards Board approved Letter of Assurance form, from the patent holder or patent applicant. The IEEE shall request this assurance without coercion.

"Essential Patent Claim" shall mean any Patent Claim the use of which was necessary to create a compliant implementation of either mandatory or optional portions of the normative clauses of the [Proposed] IEEE Standard when, at the time of the [Proposed] IEEE Standard's approval, there was no commercially and technically feasible non-infringing alternative. An Essential Patent Claim does not include any Patent Claim that was essential only for Enabling Technology or any claim other than that set forth above even if contained in the same patent as the Essential Patent Claim.

"Patent Claim(s)" shall mean one or more claims in issued patent(s) or pending patent application(s).

1 May 2007



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Inclusion of Essential Patent Claims in standard

- Essential Patent Claim
 - In issued or pending patent applications
 - Either mandatory or optional portions of standard
 - Determined as of time of the standards approval
 - Necessary to create compliant implementation
 - · No commercially and technically feasible non-infringing alternative
 - Doesn't include Enabling Technology
 - Unless functionally necessary or a normative requirement of the standard
 - · Patent claims related to C language compiler are an example
- Assurance only applies to Essential Patent Claims
 - · Some claims in a patent may be essential, some not
- Potential Essential Patent Claims can be included
 - But DO NOT discuss

1 May 2007

- · Interpretation, validity, or essentiality of patents/patent claims
- For these purposes, essentiality is based on assertion of holder
- Letter of Assurance form is now only acceptable template
 - Modified Letter of Assurance form will not be accepted
 - Filling in the form is not considered a modification
 - 'Free form' letters will no longer be accepted



Call for patents

The chair or the chair's delegate of an IEEE standards-developing working group or the chair of an IEEE standards Sponsor shall be responsible for informing the members of the working group that if any individual believes that Patent Claims might be Essential Patent Claims, that fact should be made known to the entire working group and duly recorded in the minutes of the working group meeting. This request shall occur at every standards-developing meeting.

The chair or the chair's delegate shall ask any patent holder or patent applicant of a Patent Claim that might be or become an Essential Patent Claim to complete and submit a Letter of Assurance in accordance with Clause 6 of the *IEEE-SA Standards Board Bylaws*. Information about the draft standard will be made available upon request.

IEEE-SA Standards Board Operations Manual Subclause 6.3.2

- Call shall be made at every standards-development meeting
 - Working Group, Task Force, Task Group, Study Group, Ad Hocs, conference calls
 - Working Group chair or designee makes the call
 - State that if an individual believes a patent claim might be an Essential Patent Claim, such individual should make the Working Group aware of this
 - Record in minutes that call for patents was made
 - Record in minutes any response
- When informed, Working Group chair shall contact holder requesting an LOA
 - Sample letter provided in Standards Companion
 - [http://standards.ieee.org/guides/companion/index.html]



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Duty on participants

In order for IEEE's patent policy to function efficiently, individuals participating in the standards development process: (a) shall inform the IEEE (or cause the IEEE to be informed) of the holder of any potential Essential Patent Claims of which they are personally aware and that are not already the subject of an existing Letter of Assurance, owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents; ...

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 14

- If you personally know of a potential Essential Patent Claim that is not covered by an existing LOA
 - Then if the potential Essential Patent Claim is owned by you or the entity you are affiliated with, you have a duty to ensure that the IEEE is informed of the holder
 - See IEEE-SA Standards Board Operation Manual subclause 5.3.3.1
 'Disclosure of affiliation' from more on the definition of Affiliation
 - This includes corporate affiliates

♦IEEE

Third party claims

In order for IEEE's patent policy to function efficiently, individuals participating in the standards development process: ... (b) should inform the IEEE (or cause the IEEE to be informed) of any other holders of such potential Essential Patent Claims that are not already the subject of an existing Letter of Assurance.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 14

- If you personally know of a potential Essential Patent Claim that is not covered by an existing LOA:
- Participants are not required to notify the IEEE that they are aware of any potential Essential Patent Claims held by a third party. Participants may make such disclosure at their own discretion.
- Although there is no obligation to notify the IEEE of third party patent holders, the IEEE encourages participants to do so.
- This encouragement is particularly strong as the third party may not be a participant in the standards process.
- To inform the IEEE of the holder you could for example
 - Inform the Working Group chair
 - Ensure that IEEE receives an LOA



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Timing

If the patent holder or patent applicant provides an assurance, it should do so as soon as reasonably feasible in the standards development process. This assurance shall be provided prior to the Standards Board's approval of the standard. This assurance shall be provided prior to a reaffirmation if the IEEE receives notice of a potential Essential Patent Claim after the standard's approval or a prior reaffirmation.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 2

- Early assurance is encouraged and expected
 - The more information the better when selecting between proposals
- Identification can be made at any time
 - Just inform the Working Group chair
 - Whether in the meeting or otherwise
- Delivery of assurance
 - Prior to Standards Board approval of standard
 - Prior to Standards Board approval of reaffirmation



What if an LOA cannot be obtained

An asserted potential Essential Patent Claim for which an assurance cannot be obtained (e.g., a Letter of Assurance is not provided or the Letter of Assurance indicates that assurance is not being provided) shall be referred to the Patent Committee.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 2

- If there is no LOA for an asserted potential Essential Patent Claim:
 - Inform IEEE-SA Standards Board Patent Committee (PatCom)
 - · PatCom will consider
 - May make recommendation to IEEE-SA Standards Board
 - Ultimately IEEE-SA Standards Board will decide



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Distribution of LOAs

Copies of an Accepted LOA may be provided to the working group, but shall not be discussed, at any standards working group meeting.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 6

Upon written request, the IEEE will make available copies of any Accepted Letter of Assurance and its attachments. Letters received after 31 December 2006 shall be posted on the IEEE-SA website.

IEEE-SA Standards Board Operations manual Subclause 6.3, Para 3

- Accepted LOA can be distributed in meetings
- · But remember:
 - Don't discuss interpretation, validity, or essentiality of patents/patent claims
 - Don't discuss specific license rates, terms, or conditions
- LOAs received after 31 Dec 2006 will be made available on web
- · Existing LOAs available by contacting PatCom Administrator
 - Activity underway to add these to web as well



Legal compliance and other issues

5.3.10 Legal compliance and other issues

5.3.10.1 Compliance with laws

All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws. In the course of IEEE standards development, participants shall not engage in fixing product prices, allocating customers, dividing sales markets, or other conduct that violates antitrust or competition laws.

5.3.10.2 Discussion of litigation, patents and licensing

No discussions or other communications regarding the following topics shall occur during IEEE-SA working group standards-development meetings or other duly authorized IEEE-SA standards-development technical activities:

- The status or substance of ongoing litigation
- The essentiality, interpretation, or validity of patent claims
- Specific patent license terms or other intellectual property rights, other than the distribution of Accepted Letters of Assurance as permitted under the IEEE-SA patent policy (see section 6.2 of IEEE-SA Standards Board Bylaws)

5.3.10.3 Discussion of relative cost/benefit analyses

When comparing different technical approaches in IEEE-SA standards development technical activities, participants may discuss the relative costs (in terms, for example, of percentage increases or decreases) of different proposed technical approaches in comparison with the relative technical performance increases or decreases of those proposals. The relative costs may include any potentially Essential Patent Claims, but not the price at which compliant products may or will be sold. Technical considerations should be the main focus of discussions in IEEE-SA standards development technical activities.

IEEE-SA Standards Board Operations Manual Subclause 5.3.10



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Legal compliance and other issues

- All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws
- Don't discuss fixing product prices, allocation of customers, or dividing sales markets
- · Don't discuss the status or substance of ongoing or threatened litigation
- · Don't discuss specific license rates, terms, or conditions
- Don't be silent if inappropriate topics are discussed... do formally object
- Relative costs of different technical approaches may be discussed in standards development meetings.
 - May include licensing costs of Essential Patent Claims, but only on a relative basis
 - This shall not be used to coerce those patent holders who have chosen not to disclose maximum licensing fees into disclosing such information
 - A comparison, however, may state that costs of a particular technology approach are not known
 - Technical considerations remain primary focus
 - For more information see "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy"

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Assurance

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Letters of assurance

- 'A Letter of Assurance shall be either:
 - a) A general disclaimer to the effect that the Submitter without conditions will not enforce any present or future Essential Patent Claims against any person or entity making, using, selling, offering to sell, importing, distributing, or implementing a compliant implementation of the standard; or
 - b) A statement that a license for a compliant implementation of the standard will be made available to an unrestricted number of applicants on a worldwide basis without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination. At its sole option, the Submitter may provide with its assurance any of the following: (i) a not-to-exceed license fee or rate commitment, (ii) a sample license agreement, or (iii) one or more material licensing terms. licensing terms.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 3, 4 & 5

- Shall be one of the following:
 - Assurance that Essential Patent Claims will not be enforced
 - Assurance that Essential Patent Claims will be licensed
 - · Reasonable and nondiscriminatory
 - With or without monetary compensation
 - · At its sole option, Submitter may include
 - Not-to-exceed rates
 - Sample license agreement
 - Material licensing terms
 - A statement that Submitter is unable or unwilling to grant license

♦IFFF

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Assurance of non-awareness

'The Submitter of the Letter of Assurance may, after Reasonable and Good Faith Inquiry, indicate it is not aware of any Patent Claims that the Submitter may own, control, or have the ability to license that might be or become Essential Patent Claims.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 2

"Reasonable and Good Faith Inquiry" includes, but is not limited to, a Submitter using reasonable efforts to identify and contact those individuals who are from, employed by, or otherwise represent the Submitter and who are known to the Submitter to be current or past participants in the development process of the [Proposed] IEEE Standard identified in a Letter of Assurance, including, but not limited to, participation in a Sponsor Ballot or Working Group. If the Submitter did not or does not have any participants, then a Reasonable and Good Faith Inquiry may include, but is not limited to, the Submitter using reasonable efforts to contact individuals who are from, employed by, or represent the Submitter and who the Submitter believes are most likely to have knowledge about the technology covered by the [Proposed] IEEE Standard.

IEEE-SA Standards Board Bylaws Subclause 6.1, Para 9



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Assurance of non-awareness

- Submitter may state in LOA that it is not aware of any Patent Claims that might be or become Essential Patent Claims.
- After 'Reasonable and Good Faith Inquiry'
 - For example, reasonable efforts to identify and contact
 - If Submitter has participants in project identified in the LOA
 - Current and past participants
 - » This includes, but is not limited to, WG and Sponsor ballots
 - If the Submitter doesn't have participants in project identified in the
 - Those of its employees that the Submitter believes likely to have knowledge of the technology

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Affiliates

The Submitter and all Affiliates (other than those Affiliates excluded in a Letter of Assurance) shall not assign or otherwise transfer any rights in any Essential Patent Claims that are the subject of such Letter of Assurance that they hold, control, or have the ability to license with the intent of circumventing or negating any of the representations and commitments made in such Letter of Assurance.

[EEE-SA Standards Board Bylaws Subclause 6.2, Para 7]

This assurance shall apply to the Submitter and its Affiliates except those Affiliates the Submitter specifically excludes on the relevant Letter of Assurance.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 9

- Assurance shall not intentionally be circumvented through sale or transfer
- Assurance shall apply to Affiliates unless explicitly excluded
 - Those excluded may be contacted by the IEEE with a request for LOA



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Durability of assurance

The Submitter of a Letter of Assurance shall agree (a) to provide notice of a Letter of Assurance either through a Statement of Encumbrance or by binding any assignee or transferee to the terms of such Letter of Assurance; and (b) to require its assignee or transferee to (i) agree to similarly provide such notice and (ii) to bind its assignees or transferees to agree to provide such notice as described in (a) and (b).

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 9

"Statement of Encumbrance" shall mean a specific reference to an Accepted LOA or a general statement in the transfer or assignment agreement that the Patent Claim(s) being transferred or assigned are subject to any encumbrances that may exist as of the effective date of such agreement. An Accepted LOA is an encumbrance.

IEEE-SA Standards Board Bylaws Subclause 6.1, Para 10

- Submitter agrees to:
 - Notify assignees/transferees of the existence of assurance
 - · Either through stating in the agreement to assign/transfer
 - The existence of a specific LOA
 - Or by a general statement
 - Or binding assignees/transferees to LOA
 - Require the assignee/transferee to agree to similarly provide notice to subsequent assignee/transferee
 - · Sets up a cascading notice requirement



Duty to update assurance

If, after providing a Letter of Assurance to the IEEE, the Submitter becomes aware of additional Patent Claim(s) not already covered by an existing Letter of Assurance that are owned, controlled, or licensable by the Submitter that may be or become Essential Patent Claim(s) for the same IEEE Standard but are not the subject of an existing Letter of Assurance, then such Submitter shall submit a Letter of Assurance stating its position regarding enforcement or licensing of such Patent Claims. For the purposes of this commitment, the Submitter is deemed to be aware if any of the following individuals who are from, employed by, or otherwise represent the Submitter have personal knowledge of additional potential Essential Patent Claims, owned or controlled by the Submitter, related to a [Proposed] IEEE Standard and not already the subject of a previously submitted Letter of Assurance: (a) past or present participants in the development of the [Proposed] IEEE Standard, or (b) the individual executing the previously submitted Letter of Assurance.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 10

- If after submitting an LOA the Submitter becomes aware of other Patent Claims, the first LOA commits the Submitter to submit a new LOA
 - Aware is either (a) past or present participants or (b) the individual executing the previously submitted Letter of Assurance

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Acceptance and validity of LOA

The assurance is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 11

"Accepted Letter of Assurance" and "Accepted LOA" shall mean a Letter of Assurance that the IEEE-SA has determined is complete in all material respects and has been posted to the IEEE-SA web site.

IEEE-SA Standards Board Bylaws Subclause 6.1, Para 2

Completed Letters of Assurance are accepted by the PatCom Administrator or by PatCom upon referral from the PatCom Administrator. Unless the Letter of Assurance is received from an individual within the issuing organization who has clear authority for intellectual property and legal matters, the IEEE Standards Association (PatCom Administrator) shall send a certified letter, return receipt requested, to the General Counsel or other appropriate representatives of the issuing organization to confirm receipt of the Letter of Assurance and to ensure that the Letter of Assurance is factually correct and was submitted by an appropriate individual within the issuing organization. No response to this letter, other than the return receipt, is required.

IEEE-SA Standards Board Operations Manual Subclause 6.3, Para 2



Acceptance and validity of LOA

- · LOA irrevocable once submitted and accepted
 - Accepted by
 - Either PatCom Administrator
 - · Or PatCom if referred by PatCom Administrator
 - Accepted when

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- · IEEE-SA determines LOA form is complete in all material respects
- And LOA has been posted to web site http://standards.ieee.org/db/patents/index.html
- LOA must be signed by person with clear authority
 - If not, Submitter will be contacted for confirmation
- · LOA applies at a minimum from Standards approval to withdrawal



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IEEE Public Notice Disclaimer

The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of those Patent Claims, or for determining whether any licensing terms or conditions are reasonable or non-discriminatory.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 12

- IEEE-SASB Operations Manual subclause 6.3.1 'Public notice'
- Two different versions of front matter text
 - One for when no LOA on file, one where there are one or more
 - Added by IEEE-SA publications editor during publication
- And remember:
 - The working group is not responsible for the above



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Patent searches and no licenses by LOA

Nothing in this policy shall be interpreted as giving rise to a duty to conduct a patent search. No license is implied by the submission of a Letter of Assurance.

IEEE-SA Standards Board Bylaws Subclause 6.2, Para 13

- No duty
 - But nothing prevents somebody from doing a search if they want to
- No license is granted by submitting an LOA



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Instructions for the WG Chair

The IEEE-SA strongly recommends that at each WG meeting the chair or a designee:

- Show slides #1 through #5 of this presentation
- Advise the WG attendees that:
 - The IEEE's patent policy is consistent with the ANSI patent policy and is described in Clause 6 of the IEEE-SA Standards Board Bylaws;
 - Early identification of patent claims which may be essential for the use of standards under development is encouraged;
 - There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- Instruct the WG Secretary to record in the minutes of the relevant WG meeting:
 - That the foregoing information was provided and the five slides were shown;
 - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard;
 - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.
 - It is recommended that the WG chair review the guidance in the *Standards Companion* on inclusion of potential Essential Patent Claims by normative reference.

Note: WG includes Working Groups, Task Groups, and other standards-developing committee

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(Optional to be shown)

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Highlights of the *IEEE-SA Standards Board*Bylaws on Patents in Standards

- Participants have a duty to tell the IEEE if they know (based on personal awareness) of potentially Essential Patent Claims they or their employer own
- Participants are encouraged to tell the IEEE if they know of potentially Essential Patent Claims owned by others
 - This encouragement is particularly strong as the third party may not be a participant in the standards process
- Working Group required to request assurance
- Early assurance is encouraged
- Terms of assurance shall be either:
 - Reasonable and nondiscriminatory, with or without monetary compensation; or,
 - A statement of non-assertion of patent rights
- Assurances
 - Shall be provided on the IEEE-SA Standards Board approved LOA form
 - May optionally include not-to-exceed rates, terms, and conditions
 - Shall not be circumvented through sale or transfer of patents
 - Shall be brought to the attention of any future assignees or transferees
 - Shall apply to Affiliates unless explicitly excluded
 - Are irrevocable once submitted and accepted
 - Shall be supplemented if Submitter becomes aware of other potential Essential Patent Claims
- A "Blanket Letter of Assurance" may be provided at the option of the patent holder
- A patent holder has no duty to perform a patent search
- Full policy available at http://standards.ieee.org/guides/bylaws/sect6-7.html#6



Slide #1

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IEEE-SA Standards Board Bylaws on Patents in Standards

6.2 Policy

IEEE standards may be drafted in terms that include the use of Essential Patent Claims. If the IEEE receives notice that a [Proposed] IEEE Standard may require the use of a potential Essential Patent Claim, the IEEE shall request licensing assurance, on the IEEE Standards Board approved Letter of Assurance form, from the patent holder or patent applicant. The IEEE shall request this assurance without coercion

The Submitter of the Letter of Assurance may, after Reasonable and Good Faith Inquiry, indicate it is not aware of any Patent Claims that the Submitter may own, control, or have the ability to license that might be or become Essential Patent Claims. If the patent holder or patent applicant provides an assurance, it should do so as soon as reasonably feasible in the standards development process. This assurance shall be provided prior to the Standards Board's approval of the standard. This assurance shall be provided prior to a reaffirmation if the IEEE receives notice of a potential Essential Patent Claim after the standard's approval or a prior reaffirmation. An asserted potential Essential Patent Claim for which an assurance cannot be obtained (e.g., a Letter of Assurance is not provided or the Letter of Assurance indicates that assurance is not being provided) shall be referred to the Patent Committee.

A Letter of Assurance shall be either:

- a) A general disclaimer to the effect that the Submitter without conditions will not enforce any present or future Essential Patent Claims against any person or entity making, using, selling, offering to sell, importing, distributing, or implementing a compliant implementation of the standard; or
- b) A statement that a license for a compliant implementation of the standard will be made available to an unrestricted number of applicants on a worldwide basis without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination. At its sole option, the Submitter may provide with its assurance any of the following: (i) a not-to-exceed license fee or rate commitment, (ii) a sample license agreement, or (iii) one or more material licensing terms.

Slide #2

1 May 2007



IEEE-SA Standards Board Bylaws on Patents in Standards

Copies of an Accepted LOA may be provided to the working group, but shall not be discussed, at any standards working group meeting.

The Submitter and all Affiliates (other than those Affiliates excluded in a Letter of Assurance) shall not assign or otherwise transfer any rights in any Essential Patent Claims that are the subject of such Letter of Assurance that they hold, control, or have the ability to license with the intent of circumventing or negating any of the representations and commitments made in such Letter of Assurance.

The Submitter of a Letter of Assurance shall agree (a) to provide notice of a Letter of Assurance either through a Statement of Encumbrance or by binding any assignee or transferee to the terms of such Letter of Assurance; and (b) to require its assignee or transferee to (i) agree to similarly provide such notice and (ii) to bind its assignees or transferees to agree to provide such notice as described in (a) and (b).

This assurance shall apply to the Submitter and its Affiliates except those Affiliates the Submitter specifically excludes on the relevant Letter of Assurance.

If, after providing a Letter of Assurance to the IEEE, the Submitter becomes aware of additional Patent Claim(s) not already covered by an existing Letter of Assurance that are owned, controlled, or licensable by the Submitter that may be or become Essential Patent Claim(s) for the same IEEE Standard but are not the subject of an existing Letter of Assurance, then such Submitter shall submit a Letter of Assurance stating its position regarding enforcement or licensing of such Patent Claims. For the purposes of this commitment, the Submitter is deemed to be aware if any of the following individuals who are from, employed by, or otherwise represent the Submitter have personal knowledge of additional potential Essential Patent Claims, owned or controlled by the Submitter, related to a [Proposed] IEEE Standard and not already the subject of a previously submitted Letter of Assurance: (a) past or present participants in the development of the [Proposed] IEEE Standard, or (b) the individual executing the previously submitted Letter of Assurance.



Slide #3

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IEEE-SA Standards Board Bylaws on Patents in Standards

The assurance is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal.

The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of those Patent Claims, or for determining whether any licensing terms or conditions are reasonable or non-discriminatory.

Nothing in this policy shall be interpreted as giving rise to a duty to conduct a patent search. No license is implied by the submission of a Letter of Assurance.

In order for IEEE's patent policy to function efficiently, individuals participating in the standards development process: (a) shall inform the IEEE (or cause the IEEE to be informed) of the holder of any potential Essential Patent Claims of which they are personally aware and that are not already the subject of an existing Letter of Assurance, owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents; and (b) should inform the IEEE (or cause the IEEE to be informed) of any other holders of such potential Essential Patent Claims that are not already the subject of an existing Letter of Assurance.

- ♦IEEE

Slide #4

1 May 2007

DEPARTMENT OF JUSTICE

Antitrust Division

THOMAS O. BARNETT

Assistant Attorney General

Main Justice Building 950 Pennsylvania Avenue, N.W. Washington, D.C. 20530-0001 (202) 514-2401 / (202) 616-2645 (Fax) E-mail: antitrust@usdoj.gov Web site: http://www.usdoj.gov/atr

April 30, 2007

FACSIMILE TRANSMITTAL

Michael A. Lindsay, Esq. Dorsey & Whitney LLP 50 South Sixth Street Suite 1500 Minneapolis, Minnesota 55402-1498

Dear Mr. Lindsay:

This letter responds to your request on behalf of the Institute of Electrical and Electronics Engineers, Inc. ("IEEE") and its Standards Association ("IEEE-SA") for a business review letter from the Department of Justice pursuant to our Business Review Procedure, 28 C.F.R. § 50.6. You have requested a statement of the Department's antitrust enforcement intentions with respect to a proposed patent information policy that will allow patent holders to publicly commit to specific restrictions on their future licensing terms and conditions for the use of patents that are essential to IEEE standards. This proposed change in IEEE's patent information policy is designed to better ensure that any willing licensee can implement IEEE standards and that IEEE standards will become widely adopted.

IEEE and IEEE-SA

IEEE is a non-profit professional association with over 385,000 members whose technical interests cover the fields of aerospace systems, computers, telecommunications, biomedical engineering, electric power, and consumer electronics. IEEE has long been involved with technological collaborative standard-setting activities in the United States. IEEE was formed in

Other Guidelines for IEEE WG Meetings

- All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
- Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
- Don't discuss specific license rates, terms, or conditions.
 - Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.
 - Technical considerations remain primary focus
- Don't discuss fixing product prices, allocation of customers, or dividing sales markets.
- Don't discuss the status or substance of ongoing or threatened litigation.
- Don't be silent if inappropriate topics are discussed... do formally object.

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit http://standards.ieee.org/board/pat/index.html

See IEEE-SA Standards Board Operations Manual, clause 5.3.10 and "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy" for more details.

This slide set is available at http://standards.ieee.org/board/pat/pat-slideset.ppt



¹ IEEE, About the IEEE, http://www.ieee.org/web/aboutus/home/index.html (last visited Feb. 21, 2007).

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1963 as a result of a merger between the American Institute of Electrical Engineers, formed in 1884, and the Institute of Radio Engineers, formed in 1912. Standards development was a major part of both of IEEE's predecessor institutions, and IEEE-SA has continued that tradition by establishing more than 900 standards, with more than 400 standards currently in development. The standards issued by IEEE-SA are used in fields and industries including information technology, power and energy, instrumentation and measurement, mobile and stationary batteries, nanotechnology, organic electronics, telecommunications, and transportation safety.² Many IEEE standards have been developed to enhance the interoperability of communications products. One important example is the 802® series of standards for local and metropolitan area wireless and wired networks. Ethernets, token rings, wireless local area networks ("LANs,"), and bridging and virtual bridged LANs, for example, are widely used today because they allow users to reliably access and share information over communications systems by interconnecting many compatible products manufactured by different producers.

Two processes for developing standards are used within IEEE-SA. The first involves all interested qualified individuals who each may vote on the decisions made in the standard-setting process. More recently, IEEE-SA has set some standards using a corporate-based program in which each materially interested participating corporation, educational institution, or government agency has one vote on the decisions made in the standard-setting process.

The IEEE-SA standards-setting proess begins when a member of an IEEE Technical Society or Council sponsors a new standardization project.³ After determining that there is sufficient interest among IEEE members for such a standard, the sponsor appoints a study group chair who submits a project authorization request ("PAR") to the IEEE-SA Standards Board.⁴ If the project is approved, an official working group is formed and is given four years to draft a standard.⁵ When the draft standard is complete, it must be approved by a balloting group made up of interested IEEE members.⁶ At least seventy-five percent of the balloting group must vote

Enjoying the Ride on the Track to Success

Michael A. Lindsay, Esq. April 30, 2007 Page 3

on the draft standard and seventy-five percent of these votes must be affirmative. A failed ballot may be recirculated after addressing negative comments in order to gain the required approval. Even after the 75/75 requirement has been met, the working group must respond to all negative comments. A ballot-approved draft standard is then submitted to the IEEE-SA Standards Board which approves the standard after confirming that the draft standard is within the scope of the PAR and that the working group has followed the procedural rules designed to achieve consensus. 10

In order to "produce standards that any willing implementer can use and that will become widely adopted," IEEE seeks to ensure that licenses for patent claims that are essential to implement an IEEE standard are broadly available on reasonable terms. If IEEE-SA's current patent policy is found in the IEEE-SA Standards Board Bylaws and its Standards Board Operations Manual. This policy requires working group chairs to begin every working group meeting to develop IEEE standards by informing participants that they should disclose any patent claims or patent applications that might be essential to implement the standard they are drafting. The working group chair asks those who may hold potentially essential patents to state, in writing, either (1) that they will not enforce their essential patent claims used to implement the standard, or (2) that they will license the essential patent claims to implement the standard on reasonable and nondiscriminatory ("RAND") terms. The IEEE-SA Standards Board will

sends out an invitation to join a balloting group to those IEEE members or participants it thinks may be interested in voting on the draft standard. Those that respond affirmatively to this request comprise the balloting group. IEEE-SA STANDARDS BOARD OPERATIONS MANUAL, supra, § 5.4.2.

² Id.

³ INST. OF ELEC. & ELECS. ENG'RS, INC., IEEE-SA STANDARDS BOARD BYLAWS § 5.2.2(a)—(e) (2007), available at http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf [hereinafter IEEE-SA STANDARDS BOARD BYLAWS]; IEEE Standards Association, IEEE Standards Companion, http://standards.ieee.org/guides/companion/part1.htm//sponsor (last visited Feb. 21, 2007).

 $^{^4}$ IEEE Standards Companion, supra note 3; see IEEE-SA STANDARDS BOARD BYLAWS, supra note 3, \S 5.2.3.

⁵ IEEE Standards Companion, supra note 3; see IEEE-SA STANDARDS BOARD BYLAWS, supra note 3, § 5.2.3.

⁶ INST. OF ELEC. & ELECS. ENG'RS, INC., IEEE-SA STANDARDS BOARD OPERATIONS MANUAL § 5.4.3.1 (2007), available at http://standards.ieee.org/guides/opman/sb-om.pdf [hereinafter IEEE-SA STANDARDS BOARD OPERATIONS MANUAL]; IEEE Standards Companion, supra note 3. The sponsor

⁷ IEEE-SA STANDARDS BOARD OPERATIONS MANUAL, supra note 6, § 5.4.3.1.

 $^{^8}$ IEEE Standards Companion, supra note 3; see IEEE-SA STANDARDS BOARD OPERATIONS MANUAL, supra note 6, \S 5.4.3.1–2.

⁹ See IEEE-SA STANDARDS BOARD OPERATIONS MANUAL, supra note 6, § 5.6.2.4.

¹⁰ There are several opportunities for appeal. Working group members may appeal to the sponsoring committee if they believe the process has been unfair and members of the balloting group may appeal to the Standards Board. IEEE-SA STANDARDS BOARD BYLAWS, *supra* note 3, § 5.4.

¹¹ Letter from Michael A. Lindsay, Dorsey & Whitney LLP, to Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice 2 (Nov. 29, 2006) [hereinafter IEEE-SA Business Review Request].

¹² IEEE-SA STANDARDS BOARD OPERATIONS MANUAL, supra note 6, 8 6,3.2.

¹³ IEEE-SA STANDARDS BOARD BYLAWS, supra note 3, § 6.

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consider these commitments, or lack thereof, when deciding whether to approve a draft standard. 14

IEEE-SA represents that it has encountered two difficulties in relying on patent holders' commitments to license on RAND terms. First, commitments to license essential patent claims on RAND terms are inherently vague. Such ambiguities in RAND commitments can lead to litigation that can delay the introduction of standardized products. Patent holders may also demand higher licensing fees than they could have profitably demanded before the standard was set, and such higher royalty payments could result in higher prices for consumers. ¹⁵ Second, IEEE-SA is concerned that its current prohibition of any discussion related to licensing terms within working groups prevents its members from making "sensible cost-benefit comparisons" when voting on competing technological proposals. ¹⁶ IEEE-SA believes that the uncertainty about future licensing terms impedes the ability of IEEE-SA working group members to make decisions on a consensus basis, as is required by IEEE-SA procedures. ¹⁷

II. The Proposed IEEE-SA Patent Information Policy

IEEE-SA has decided to change its policy to give patent holders the option to publicly disclose and commit to the most restrictive licensing terms (which may include the maximum royalty rate) they would offer for patent claims¹⁸ that are found to be essential to the standard.¹⁹

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In addition, IEEE working group members will be allowed to discuss within certain limits the relative costs and benefits of alternative technologies within technical standard-setting meetings.

Commitments to licensing terms for potentially essential patent claims will be made using an IEEE-SA Letter of Assurance ("LOA") form. The proposed policy specifies that the licensing commitments made in a LOA will bind future holders of the patent as well as affiliates of the patent holder, unless they are specifically excluded from the LOA. Each LOA will also apply to amendments, corrigenda (corrections to printing errors), editions, or revisions of the existing standard. IEEE-SA anticipates that the proposed policy changes will have positive effects. Creating greater clarity about a patent holder's future licensing requirements may decrease the chances that litigation will delay the implementation of an IEEE standard and improve the ability of working groups to reach consensus, thus allowing standardized products to reach consumers more quickly. IEEE-SA states that these changes also may result in lower prices for consumers of standardized products.²⁰

A. Patent Licensing Commitments

If the working group chair learns that access to a patent claim might be necessary to implement a proposed standard, it must request a licensing assurance from the patent holder or the patent applicant.²¹ A patent holder can choose to respond to a request from IEEE in one of five ways.²² First, it may either choose not to provide any licensing information, by not submitting an LOA or submitting a letter stating that it is unwilling or unable to make any commitment about its future licensing intentions. Choosing this option, however, results in a

STANDARDS BOARD BYLAWS].

¹⁴ IEEE-SA Business Review Request, supra note 11, at 2. Based on conversations with you, it is our understanding that the Standards Board will defer approval of a draft standard until some response has been received from the patent holder.

¹⁵ IEEE-SA Business Review Request, supra note 11, at 2-3.

¹⁶ Id. at 5.

¹⁷ Id.; IEEE-SA STANDARDS BOARD OPERATIONS MANUAL, supra note 6, § 5.3.3; IEEE-SA STANDARDS BOARD BYLAWS, supra note 3, § 2.1 ("The approval and publication of an IEEE standard implies that the document represents a consensus of the parties who have participated in its development and review. Since every attempt is made to involve all interests in the activity, it can be presumed that the document represents a consensus of interests concerned with the scope of the standard. Consensus is established when, in the judgment of the IEEE-SA Standards Board, substantial agreement has been reached by directly and materially affected interest categories. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution."); IEEE, Imperative Principles of the Standards Process (n.d.), http://standards.ieee.org/faqs/ImperativePrinciples.ppt.

¹⁸ Patent claims are defined as "one or more claims in issued patent(s) or pending patent application(s)." INST. OF ELEC. & ELECS. ENG'RS, INC., IEEE-SA STANDARDS BOARD BYLAWS § 6.1 (rev. 2006), *in* Letter from Michael A. Lindsay, Dorsey & Whitney LLP, to Frances Marshall, Special Counsel for Intellectual Prop., U.S. Dep't of Justice (Feb. 21, 2007) [hereinafter IEEE-SA PROPOSED

¹⁹ A patent claim is essential if its use is "necessary to create a compliant implementation" of the proposed standard when "there was no commercially or technically feasible non-infringing alternative." IEEE-SA PROPOSED STANDARDS BOARD BYLAWS, supra note 18, § 6.1.

²⁰ See IEEE-SA Business Review Request, supra note 11, at 5.

²¹ IEEE-SA PROPOSED STANDARDS BOARD BYLAWS, *supra* note 18, § 6.2; INST. OF ELEC. & ELECS. ENG'RS, INC., IEEE-SA STANDARDS BOARD OPERATIONS MANUAL § 6.3.2 (rev. 2006), *in* Letter from Michael Lindsay to Frances Marshall, *supra* note 18 [hereinafter IEEE-SA PROPOSED STANDARDS BOARD OPERATIONS MANUAL I]. It is our understanding that a patent holder also may submit an LOA on its own accord. The term "patent holder" as used in this letter refers to an individual or organization that has, or will have, the legal right to license a patent claim that is potentially essential to an IEEE standard.

²² See IEEE-SA PROPOSED STANDARDS BOARD BYLAWS, supra note 18, § 6.2.

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referral to the Patent Committee.²³ At the time the draft standard is published, IEEE will announce that essential patent claims may exist for which no LOA has been received.²⁴

Second, after a reasonable and good faith inquiry, a putative patent holder may submit an LOA stating that it is not aware that it owns, controls, or otherwise has the ability to grant a license to any patent claims that might become essential to the IEEE standard. ²⁵ Such a reasonable and good faith inquiry does not require a patent holder to search its patent portfolio. Rather, it involves contacting individuals associated with the company who have been involved with the development of the standard. ²⁶

Third, a patent holder may submit an LOA stating that it will not assert any claims against anyone who uses its essential patented technology to implement the standard. Such a nonassertion LOA may not include any conditions.²⁷

Fourth, a patent holder may submit an LOA stating that it has patents that might be essential to the IEEE standard and that it is willing to license the essential claims of those patents to those seeking to implement the standard either "without compensation" or under "reasonable rates" with all other terms and conditions on a RAND basis.²⁸

Fifth, if a patent holder commits to license its essential patent claims under RAND terms, it may voluntarily augment its LOA by including details about those terms for each essential claim. Such details may include a not-to-exceed license fee or rate commitment, other material licensing terms, or a sample licensing agreement.²⁹

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The patent holder may choose to provide a blanket LOA that covers all patent claims that are potentially essential to the proposed standard. Or, the patent holder may provide different LOAs for each potentially essential patent claim. A patent holder may also submit multiple LOAs for each potentially essential patent claim, each of which will be binding. Thus, a patent holder may offer alternative assurances to potential licensees and each potential licensee may choose to invoke whichever LOA it finds most advantageous during subsequent bilateral licensing negotiations. Having submitted one LOA, a submitter is obliged to submit additional LOAs if it learns during the standard-setting process that it owns, controls, or has the ability to license any other patent claims that might be essential to the same IEEE standard.

B. Timing

If an individual or organization chooses to submit an LOA, it must do so before the proposed standard is approved by the Standards Board, although the Standards Board requests that LOAs be submitted as soon as it is "reasonably feasible" to do so.³³

C. Submission and Acceptance

To submit an LOA, a patent holder simply mails the completed LOA form to the IEEE-SA's Patent Committee Administrator, who then records the date the LOA is received and ensures that the LOA is materially completed on the appropriate IEEE form. The Patent Committee Administrator also determines whether the signatory to an LOA has authority to bind the patent holder. Once the Patent Committee Administrator has approved an LOA, it is posted on the IEEE-SA website.³⁴

D. Duration of the LOA Commitment

After an LOA is accepted by IEEE-SA, it is irrevocable and applies from the date the standard is approved by the IEEE-SA Standards Board to the date the standard is withdrawn. The commitments in an LOA are binding on the patent holder and all of its affiliates, except those that have been specifically excluded, and on any assignees or transferees of the underlying

²³ Inst. of Elec. & Elecs. Eng'rs, Inc., Letter of Assurance for Essential Patent Claims § D.1.d (2006), *in* IEEE-SA Business Review Request, *supra* note 11, at exhibit B [hereinafter Letter of Assurance]; IEEE-SA Proposed Standards Board Bylaws, *supra* note 18, § 6.2.

²⁴ IEEE-SA STANDARDS BOARD OPERATIONS MANUAL, supra note 6, § 6,3,2.

²⁵ IEEE-SA PROPOSED STANDARDS BOARD BYLAWS, *supra* note 18, § 6.2 ("The Submitter of the Letter of Assurance may, after Reasonable and Good Faith Inquiry, indicate it is not aware of any Patent Claims that the Submitter may own, control, or have the ability to license that might be or become Essential Patent Claims.").

²⁶ Id. § 6.1.

²⁷ Id. § 6.2(a).

²⁸ Id. § 6.2(b).

²⁹ *Id.* § 6.2(b)(i)–(iii).

³⁰ IEEE-SA PROPOSED STANDARDS BOARD OPERATIONS MANUAL I, *supra* note 21, § 6.3.4. A potential licensee may not invoke a blanket LOA if an LOA specific to that claim was filed on the same date. Blanket LOAs will apply to after-acquired essential patent claims unless the prior patent holder had already submitted an LOA for those claims. *Id.*

³¹ Id.

³² IEEE-SA PROPOSED STANDARDS BOARD BYLAWS, supra note 18, § 6.2.

³³ *Id*.

³⁴ IEEE-SA PROPOSED STANDARDS BOARD OPERATIONS MANUAL I, supra note 21, § 6.3.

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patent claims.³⁵ If the application of the technology remains the same and the patent claims remain essential, the LOA will also apply to amendments, corrigenda, editions, or revisions of the existing standard.³⁶

E. Use of the Licensing Information in the LOA During the Standard-Setting

IEEE-SA working group members will have access to all accepted LOAs, but working group members will not discuss specific licensing terms at standards-development meetings. ³⁷ Working group members, may, however, discuss the relative costs of the proposed technological alternatives, and these costs may include the relative costs of licensing the essential patent claims needed to implement the technologies under consideration. ³⁸

F. Enforcement of an LOA

By signing an LOA, the submitter "acknowledge[s] that users and implementers" of the proposed standard "are relying or will rely upon and may seek enforcement of the terms of th[e]

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LOA." 39 The IEEE-SA's policy does not provide for any enforcement role for IEEE-SA or IEEE.

III. Agency Analysis

The Department analyzes the competitive effects of standard-setting activities under the rule of reason unless the standard-setting process is being "used as a sham to cloak naked price fixing or bid rigging." We examine both the expected competitive benefits of IEEE's proposed patent policy and its potential to restrain competition.

The Department recently announced through a business review letter that it did not intend to take enforcement action against the proposed patent policy of another standards-development organization ("SDO")—VMEbus International Trade Association ("VITA"). In that letter the Department recognized the potential competitive benefits of collaborative standard setting:

Interoperability standards can enable consumers to share information with each other and to interconnect compatible products from different producers. In addition, the collaborative standard-setting process can enable industry participants to share knowledge and develop a "best-of-breed" product or process. Especially in industries with network effects, the collaborative standard-setting process can enlarge markets by overcoming coordination failures among those interested in developing and using the standard so that the products are available to, and used, by more consumers. ⁴²

The Department noted that working group members may be able to choose among various technological options during the standard-setting process, but once the technological choice is made, and particularly once the standard has been commercially adopted, it can be time consuming and expensive to adopt a different technology. As a result, the owner of a technology incorporated in a final standard may be able to negotiate licensing terms more favorable to itself than it could have negotiated before the standard was set when competitive alternatives may have been available without "the expense and delay of developing a new standard around a different technology."

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³⁵ IEEE-SA PROPOSED STANDARDS BOARD BYLAWS, supra note 18, § 6.2. IEEE may request an LOA from excluded affiliates. IEEE-SA PROPOSED STANDARDS BOARD OPERATIONS MANUAL I, supra note 21, § 6.3.

³⁶ IEEE-SA PROPOSED STANDARDS BOARD OPERATIONS MANUAL I, *supra* note 21, § 6.3.5. A new LOA must be requested when technologies are used in different proposed standards. *Id.*

³⁷ IEEE-SA PROPOSED STANDARDS BOARD BYLAWS, supra note 18, § 6.2 ("Copies of an Accepted LOA may be provided to the working group, but shall not be discussed, at any standards working group meeting."); INST. OF ELEC. & ELECS. ENG'RS, INC., IEEE-SA STANDARDS BOARD OPERATIONS MANUAL § 5.3.8.2 (rev. 2006), in Letter from Michael A. Lindsay, Dorsey & Whitney LLP, to Frances Marshall, Esq., U.S. Dep't of Justice (Dec. 12, 2006) [hereinafter IEEE-SA PROPOSED STANDARDS BOARD OPERATIONS MANUAL II] ("No discussions or other communications regarding the following topics shall occur during IEEE-SA working group standards-development meetings or other duly authorized IEEE-SA standards-development technical activities: The status or substance of ongoing litigation[, t]he essentiality, interpretation, or validity of patent claims[, s]pecific patent license terms or other intellectual property rights, other than distribution of accepted letter of assurance as permitted under the IEEE-SA patent policy (see section 6.2 of IEEE-SA Standards Board Bylaws)."). Although section 5.3.8 of the Proposed IEEE Standards Board Operations Manual is not officially part of the revised patent policy, it informs our understanding of how the proposed policy will be implemented. Section 5.3.8 was revised by the IEEE-SA Procedures Committee to be consistent with the changes to the patent policy. These changes were adopted in December 2006 and will take effect on April 30, 2007. In that document, section 5.3.8 will be renumbered as section 5.3.10.

³⁸ IEEE-SA PROPOSED STANDARDS BOARD OPERATIONS MANUAL II, supra note 37, § 5.3.8.3.

³⁹ LETTER OF ASSURANCE, supra note 23, at § F.

⁴⁰ Coo id

⁴¹ Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq., Drinker, Biddle & Reath, LLP 8 (Oct. 30, 2006), *available at* http://www.usdoj.gov/atr/public/busreview/219380.pdf.

⁴² Id. at 7.

⁴³ Id. at 8.

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The Department concluded that a policy that requires patent holders to disclose and commit to their most restrictive licensing terms would permit SDO members to make more informed decisions when setting a standard because they would be able to compare alternative technologies based on differences in cost in addition to technical merit. The Department stated:

Requiring patent holders to disclose their most restrictive licensing terms in advance could help . . . preserv[e] the benefits of competition between alternative technologies that exist during the standard-setting process. Currently, VITA working group members choose between alternative technologies primarily based on technical merit. They generally have little information about how eventual licensing terms for alternative technologies are likely to differ. Under the proposed policy, each working group member also will be able to compare the most restrictive licensing terms associated with each alternative technology, including freely-available public domain technologies, when deciding which technology to support for inclusion in the draft VSO specification. Disclosure of this information, enforced by the requirement that nondisclosed patents be licensed royalty-free, permits the working group members to make more informed decisions when setting a standard. . . .

The disclosure of each patent holder's most restrictive licensing terms would allow working group members to evaluate substitute technologies on both technical merit and licensing terms. Working group members are likely to use this information when deciding which technologies to include in the standard. This use likely will create incentives for each patent holder to compete by submitting declarations that will increase the chances that its patented technology will be selected.⁴⁴

Although the proposed IEEE-SA policy does not require patent holders to publicly commit to their most restrictive licensing terms during the standard-setting process, the ability to make such commitments could generate similar benefits as patent holders may compete to offer the most attractive combination of technology and licensing terms.

In addition, IEEE-SA working group members may make better informed decisions by considering potential licensing fees when weighing the relative costs of technological alternatives in addition to their technical merits. Moreover, the increased predictability of licensing terms, created by LOA commitments and the knowledge that such commitments bind the patent holder's affiliates and any future patent assignees, could lead to faster development, implementation, and adoption of a standard as well as fewer litigated disputes after a standard is set.

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The proposed patent information policy permits voluntary commitments to most restrictive licensing terms, but prohibits discussion of specific licensing terms within IEEE-SA standards development meetings.⁴⁵ Based on your statements, we understand that this prohibition extends to joint negotiations of licensing terms within standards development meetings.⁴⁶ The Department observes in this regard that IEEE's current policies permit limited discussions of costs related to proposed standards. Such discussion, could, in certain circumstances, rise to the level of joint negotiation of licensing terms. You have not requested, and we are not providing, the Department's views on joint negotiations that might take place inside or outside such standards development meetings or IEEE sponsored meetings.⁴⁷

The proposed IEEE-SA policy will prohibit standard setters from discussing the prices at which standardized products would be sold.⁴⁸ The Department likely would challenge under section 1 of the Sherman Act any activities that reduced competition by using IEEE-SA's proposed patent policy as a cover to fix the prices of downstream standardized products. The Department would also be likely to challenge efforts by patent holders to rig their LOAs by agreeing on the licensing terms they will disclose to IEEE-SA. IEEE-SA should continue its efforts to educate those who set standards under its auspices about the consequences of such activities.⁴⁹

IV. Conclusion

IEEE-SA has an important role in setting many standards in a vast array of technical fields. These standards promote and enable competition in the products and services that conform to IEEE-SA standards. IEEE-SA's proposed patent information policy is a sensible effort to preserve competition between technological alternatives before the standard is set in order to alleviate concern that commitments by patent holders to license on RAND terms are not

⁴⁴ Id. at 9.

⁴⁵ See IEEE-SA PROPOSED STANDARDS BOARD BYLAWS, supra note 18, § 6.2; supra note 37 and accompanying text; see also IEEE-SA PROPOSED STANDARDS OPERATIONS MANUAL II, supra note 37, § 5.3.8.2.

⁴⁶ IEEE-SA Business Review Request, supra note 11, at 6, 8.

⁴⁷ The Department has indicated that it would typically apply a rule-of-reason analysis to joint negotiations of licensing terms in the standard-setting context. *See* U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 54 (2007), *available at* http://www.usdoj.gov/atr/public/hearings/ip/222655.pdf.

⁴⁸ IEEE-SA Business Review Request, *supra* note 11, at 6; IEEE-SA PROPOSED STANDARDS BOARD OPERATIONS MANUAL II, *supra* note 37, §§ 5.3.8.2, 5.3.8.3.

⁴⁹ See IEEE, Instructions for the WG Chair (Feb. 2006), http://standards.ieee.org/board/pat/pat-slideset.ppt.

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sufficient to avoid disputes over licensing terms or litigation that may delay the implementation of IEEE-SA's future standards.

Practical consideration may lead some SDOs to prefer not to implement patent polices like those proposed by IEEE-SA or by VITA. Some SDOs, for example, may conclude that required or voluntary disclosure of and commitments to most restrictive licensing terms before a standard is set would decrease participation in standard-setting activities by patent holders. Experimentation and competition among SDOs regarding the breadth and depth of member licensing commitment obligations or options should help SDOs and their members determine which methods ultimately provide the best platforms for collaborative standard setting. ⁵⁰

The Department has no present intention to take antitrust enforcement action against the conduct you have described. This letter expresses the Department's current enforcement intention. In accordance with our normal practices, the Department reserves the right to bring an enforcement action in the future if the actual operation of the proposed conduct proves to be anticompetitive in purpose or effect.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. § 50.6. Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data you submitted will be made publicly available within thirty days of the date of this letter, unless you request that part of the material be withheld in accordance with paragraph 10(c) of the Business Review Procedure.

Yours sincerely,

Thomas O. Barnett

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SAMPLE IP INDEMNITY PROVISIONS WITH SOMEWHAT REASONABLE TERMS $$\operatorname{for}$$

ACC's 2007 Annual Meeting

These excerpts have been generated solely for educational purposes to illustrate various positions and issues that can be confronted in an IP indemnity negotiation. These provisions should not be used in its current form in commercial agreements. Use at your own risk.

IP Indemnity for sale of components- reasonable, but favorable to Buyer

Except as stated below. Seller will at its expense, indemnify, hold harmless, and defend any claim brought against Buyer (including its officers, employees, and subsidiaries) and will pay all costs and damages, court judgments or awards finally awarded against Buyer (including direct damages and damages for willful infringement) and all reasonable associated costs and expenses (including without limitation, reasonable attorney's fees, expert fees, and costs and expenses related to any appeal (such as bond) to the extent the proceeding is based on a claim that a Product delivered to Buyer infringes a copyright, trade secret, trademark, mask work, other proprietary right of a third party (excluding patents, which are addressed immediately below), or any United States, European Union, Japanese, Canadian or Australian patent (a "Covered Claim"). Such indemnity is conditioned upon Buyer promptly (i) notifying Seller of the Covered Claim, (ii) giving Seller a copy of each communication relating to the Covered Claim it receives from the claimant (except that, with respect to confidential communications, Seller and Buyer will mutually agree on an appropriate non-disclosure agreement and such disclosure is subject to the prior approval of the third party claimant) and (iii) giving Seller the authority, information and assistance necessary to defend or settle the Covered Claim at Seller's sole expense, provided however, that Seller agrees to provide complete indemnification with respect to such Covered Claim and provided further, that in no event will Seller have the right to enter into a settlement which would involve any payment of consideration by Buyer without Buyer's prior written consent. If the litigation involves claims other than the Covered Claim, then Seller agrees to negotiate in good faith with Buyer matters relating to the direction of the defense and sharing the cost of defense; provided, however, that nothing in this paragraph shall limit Seller's ability and authority to defend in its sole discretion any Covered Claim for which Seller agrees to provide complete (subject to the limits of liability specified herein) indemnification and nothing herein shall alleviate Seller's responsibilities and liabilities hereunder.

Seller will not be obligated to defend or be liable for costs or damages to the extent the infringement arises out of and, but for the following, there would be no infringement:

(a) required compliance with Buyer provided technology or Buyer provided specifications which are not substantially the same as or included in Seller's specification for its comparable part prior to receiving the Buyer provided specifications (if there is no commercially reasonable way to implement such Buyer provided technology or specifications without such infringement),

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⁵⁰ See Gerald F. Masoudi, Deputy Assistant Attorney Gen., U.S. Dep't of Justice, Efficiency in Analysis of Antitrust, Standard Setting, and Intellectual Property, Remarks at the High-Level Workshop on Standardization, IP Licensing, and Antitrust 15 (Jan. 18, 2007), available at http://www.usdoj.gov/atr/public/speeches/220972.pdf ("There certainly is no affirmative requirement in antitrust law that businesses must create a RAND, disclosure, or ex ante licensing system. Doing nothing remains an option, and may be a viable option in view of the fact that there are many self-correcting mechanisms within traditional standard setting approaches. It may be reasonable to conclude that reputational constraints are enough to prevent hold-up strategies in some industries, or that simple economic incentives – those who hold up a standard too much could delay or kill the standard, which would deprive them of royalties – would suffice. Or perhaps an SDO may recognize the benefits of a policy like VITA's, yet conclude that those benefits are not enough to compensate for the additional personnel, costs, and delays that such a policy may require.").

- (b) Modification of the Product (except modifications provided by Seller);
- (c) Buyer's combination of the Product with hardware, software or other materials not provided by Seller except where:
 - (i) Required by Seller to meet specifications or otherwise,
 - (ii) There is no substantial use for the Product absent such combination, or
 - (iii) required in order to be able to use functionality resident in the Product which is not merely enabled in the Product and which is identified in Seller's specifications or features list, but only if there is no possible, commercially reasonable, non-infringing alternative to such combination that would permit use of such functionality;
- (d) Buyer's failure to use reasonable materials or instructions provided by Seller which would have rendered the Product non-infringing after sufficient time, following receipt by Buyer, for Buyer to reasonably implement them, but only provided that (i) use of such materials and instructions are communicated in writing to Buyer and identified as required to be implemented to avoid loss of IP indemnification (ii) no substantial material or labor cost addition, or qualification or re-tooling costs shall be incurred as a result of using such materials or carrying out such instructions (unless Seller reimburses such costs) and (iii) the implementation of such instructions or use of such materials can be completed in a commercially reasonable timeframe and do not materially and adversely affect the performance and specifications of the Product; or
- (e) use of the Product not in accordance with required specifications, which have been communicated to Buyer in writing and which have been clearly marked as required prior to its ordering its first production order for such Product.

SAMPLE IP INDEMNITY FOR LICENSE OF CUSTOM DEVELOPED HARDWARE DESIGN

Licensor will defend, at Licensee's request and option, or settle any claim, suit or proceeding brought against Licensee based upon a claim that Licensee's use or distribution of any of the Deliverables as authorized hereunder and in the forms permitted hereunder infringes or misappropriates the Intellectual Property rights of a third party, and Licensor will pay the damages and costs (including reasonable attorney's fees) finally awarded against Licensee a, so long as: (i) Licensor is notified promptly in writing of such claim, suit or proceeding; and (ii) Licensee cooperates reasonably, and gives all necessary authority, information and assistance to Licensor in Licensor's control of the claim, suit or proceeding at Licensor's expense.

If Licensor agrees that such claim or suit is fully covered by this indemnity provision, then Licensor shall be permitted to direct the defense or settlement of such claim except that Licensor may not enter into a settlement arrangement which would result in a significant adverse affect on Licensee or any payment by Licensee without Licensee's prior written consent. If Licensor does not agree that the claim or suit is fully covered by this indemnity provision, then the parties agree to negotiate in good faith an equitable arrangement regarding the defense of the claim or suit and any settlement thereof consistent with Licensor's obligations hereunder.

Notwithstanding the foregoing, Licensor is not obligated to defend or settle any such claim, suit or proceeding and is not obligated to pay any such damages or costs, to the extent such claim, suit or proceeding would be Licensee's responsibility pursuant to Section xx or arises out of:

- (x) a combination of the Deliverables with technology not supplied by Licensor, except where the Deliverables have no non-infringing use other than in such combination;
- (y) A modification, alteration or amendment of the Deliverables by Licensee, if such infringement would not have occurred but for such modification, alteration or amendment by Licensee; or,
- (z) A change to the Deliverables requested, directed or required by Licensee, if such infringement would not have occurred but for such requested, directed or Licensee-required change and there was no commercially reasonable non-infringing way to make such change.

LICENSE OF STANDARD PRODUCT DESIGN-Control of Litigation vs. Limitation of Liability

Licensee agrees to defend, including any costs, bond expenses and the like incurred with respect to an appeal, and indemnify LICENSOR, at Licensee's expense, and to pay costs and damages finally awarded in any such suit or amounts agreed upon in settlement, subject to the limitations of this Clause XXX, provided that Licensee is notified promptly in writing of the suit, and at Licensee's request and at its expense is given control of the suit and all requested reasonable assistance to defend the same at Licensee's expense. However, in no event will Licensee have the right to enter into a settlement which would involve any payment of consideration by LICENSOR or restrict LICENSOR from performing its obligations under this Agreement without LICENSOR's prior written consent. Upon LICENSOR's request, LICENSOR shall have the right to monitor Licensee's defence of such claim or suit, including reasonable contact and discussions with Licensee and Licensee's counsel: however, this shall not entitle LICENSOR to participate in Licensee's sole control of the defense prior to Licensee expending the Maximum Dollar Amount of Liability, as defined below, and electing in writing to withdraw from LICENSOR's defense. Licensee shall notify LICENSOR in writing on or before the time that Licensee expends YYY Million Dollars in defending LICENSOR from a claim or suit under this Clause 16.2 and shall specify in such notice whether or not Licensee will continue the defense beyond the

Maximum Dollar Amount of Liability, or whether it will be withdrawing from the defense. In addition, in the event Licensee fails to provide the required notice, including its decision as to whether it will continue to defend LICENSOR or will withdraw from the defense, Licensee shall continue to be responsible for all fees and expenses incurred and for the defense of LICENSOR for fourteen (14) calendar days from receipt of such notice or up to ZZZ Hundred Thousand Dollars (US\$200,000), whichever is greater. Upon LICENSOR's receipt of notice from Licensee that Licensee is withdrawing from LICENSOR's defense and upon Licensee's reaching the Maximum Dollar Amount of Liability, LICENSOR shall have the right to exercise sole control of LICENSOR's defense of the suit at LICENSOR's sole expense. In that event, Licensee agrees to provide all requested reasonable assistance in the defense of the same at Licensee's sole expense. For the avoidance of doubt, Licensee shall have the right to continue to defend itself, and LICENSOR shall have no right or obligation to defend Licensee in any fashion whatsoever for claims under this Clause XXX.

4
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SERIAL ATA INTERNATIONAL ORGANIZATION Membership Agreement

By the signature of its authorized representative below, Applicant (including its Affiliates as defined in the Bylaws) agrees to be bound by the terms hereof as well as the terms and conditions stated in the Articles of Incorporation, and Bylaws ("Organizational Documents") of SERIAL ATA INTERNATIONAL ORGANIZATION (hereafter referred to as "SERIAL ATA"), copies of which are available for review at www.sata-io.org. Applicant is encouraged to review these materials prior to the execution of this Agreement.

No Membership Agreement is binding on SERIAL ATA unless accompanied by the initial membership fee of \$1,500.00 and unless accepted by SERIAL ATA. By signing below, the individual executing this Agreement on behalf of Applicant warrants that he or she has all requisite signing authority for and on behalf of the entity seeking membership.

The term of membership shall be on a year-to-year basis, expiring on the 365th day from the date of acceptance of this application. SERIAL ATA will invoice the then-current renewal fee to Members ninety (90) days prior to the expiration of the pending term and a Member's payment thereof shall constitute a renewal of membership. Failure to make a timely renewal payment shall be cause for suspension and termination of membership and member benefits.

The undersigned, on behalf of the Applicant, agrees that once accepted, all membership fees are nonrefundable for any reason, including termination of membership. There is no duty to renew any membership and renewal may only be accomplished as set forth above. The undersigned, on behalf of the Applicant, further agrees that once accepted, all Committee Membership Fees or Special Dues, as those terms are provided for in the Bylaws, are nonrefundable for any reason, including termination of membership, termination of participation in Committees or Work Groups, or termination of representation on the Board of Directors.

Company Name:	Date:
Contact Name:	
	(Name/Title)
Company Address:	2
Telephone Number:	Fax Number:
	(Please Include Country Code where appropriate)
Email Address:	Web Page URL:
Signature:	Date:
Name/Title:	

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^{*}Payments may be made by check, draft or money order (no purchase orders) payable to the order of the "SERIAL ATA INTERNATIONAL ORGANIZATION." For credit card processing, contact the administrator at the phone number listed on the following page.