



DEPARTMENT OF JUSTICE
Antitrust Division

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FACSIMILE TRANSMITTAL

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Dear Mr. Skitol:

This letter responds to your request on behalf of VITA, an international trade association, and its standards development subcommittee, VSO, 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 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.

I. VITA and VSO

VITA is a non-profit standards development organization ("SDO") accredited by the American National Standards Institute ("ANSI"). VITA is comprised of developers, vendors, and users of real-time modular embedded computing systems originally based on the VMEbus computer architecture.¹ This architecture enables engineers to design application-specific

¹ A bus is generally defined as a data path within a computer system. VME stands for VERSAmodule Eurocard, a bus system first developed in 1981 that "would be microprocessor independent, easily upgraded from 16 to 32-bit data paths, implement a reliable mechanical standard and allow independent inventors to build compatible products." VITA, VME Technology FAQ,

computer systems that can be embedded in a wide range of high-performance and mission critical systems such as ultrasound and magnetic resonance imaging machines, semiconductor manufacturing equipment, and industrial control equipment. Since the mid 1990s, VME-based computers have also been increasingly embedded in the advanced avionics and radar systems of space exploration and weapons systems. In such applications, the components must be rugged enough to survive and operate under harsh environmental conditions.

The VME architecture is essentially a standard set of physical plugs that allow the various components of a computer to be physically connected together as well as logical protocols that allow the components to communicate with each other. The VME architecture is designed to allow computer engineers to mount a wide variety of components (processors, memory, and peripheral devices) on VME cards. Those cards can then be plugged into a VME backplane to form a VME computer system. Since its founding in 1981, VITA has promoted the development of standardized physical connectors and logical protocols that make such integration possible. It has finalized thirty-two standards and is currently developing twenty-six more. As the industry undergoes a major technology transition from parallel to serial data transport mechanisms, VITA management anticipates that VSO will actively develop many new standards for serial buses.

VITA standards developed by VSO enable competition in the VME industry. Many firms can and do produce VME hardware (cards, chips, backplanes) because the VME architecture is defined in a series of open VITA standards. Embedded systems developers value the flexibility of being able to integrate a variety of components into a single system and they benefit from competition among manufacturers of both the components and the connecting VME hardware. In addition, VITA's standards are backward compatible, meaning that VME systems can be upgraded with the next generation of technology. Without such industry standards, the developers and users of high-performance application-specific computer systems, such as defense contractors and the military, likely would be unable to purchase off-the-shelf products from an array of vendors and instead likely would be locked in to a proprietary system from one supplier, which may not develop upgrades.

The VSO standard-setting process generally begins when a member proposes work on a new standard. If at least two other members are interested, they can form a working group and begin to draft a specification in a series of face-to-face meetings, teleconferences, and electronic communications. When the working group members are satisfied with the draft specification, the draft is published. Then the draft specification can be formally accepted as a VITA specification or an International Electrochemical Commission Industry Technical Agreement (IEC ITA) by the full VITA membership, or it can be approved as an ANSI standard through a

slightly different process.² To simplify the terminology used in this discussion, this letter will refer to an adopted VSO draft specification as a VITA standard.

VSO develops standards in an open process and invites all interested parties to participate. VSO also seeks to encourage the success of its standards by ensuring that industry is able to implement the open VME architecture. To facilitate implementation, VITA makes the actual specifications of the VITA standards easily available to interested parties. Sometimes, however, VSO working groups knowingly incorporate patented technologies when drafting specifications even though the owner of such a patent could impose licensing terms that would significantly restrict the use of a standard. VITA believes that incorporating patented technologies into its standards is consistent with its goal of designing an open VME architecture only “if patent holders agree to license their patents on terms that permit the use of those patents in commercially viable products.”³ VSO has tried to achieve this goal by incorporating patented technology only when the patent holder commits to license on reasonable and non-discriminatory (“RAND”) terms.⁴ Recent experience, however, has led VITA to conclude that the RAND requirement is insufficient to ensure that its standards remain open.

You represent that several firms in the recent past have claimed to have patents that were essential to the implementation of a VITA standard and have demanded royalties that were significantly higher than expected. In two cases, the VITA member patent holders had previously committed to license on RAND terms. In these cases, developing new standards that did not infringe the asserted patent claims was not a viable option because of the significant cost and delays that would result. Instead, VITA persuaded the patent holders not to assert their patents by developing evidence of prior art that would invalidate the patent claims essential to implement the VITA standard.⁵ These challenges were costly and delayed adoption of the standards. In another case, according to VITA, a standard was rendered commercially infeasible

² To be approved as an IEC ITA or as a VITA specification, the draft specification is made available to all VSO members. Seventy-five percent of them must vote on the draft and seventy-five percent of the votes must be affirmative. VITA STANDARDS ORG., VSO POLICIES AND PROCEDURES § 7.2.1.1 (rev. 2.0 June 2005), *available at* <http://www.vita.com/VOS-pp-draft2do.pdf>. To become an ANSI-approved standard, the draft specification must be available for public comment and two-thirds of ANSI qualified votes must approve the draft. VITA STANDARDS ORG., PROCEDURES FOR THE DEVELOPMENT OF AMERICAN NATIONAL STANDARDS WITHIN THE VITA STANDARDS ORGANIZATION §§ 2-4 (drft. 0.4 2005), *available at* <http://www.vita.com/VSO-ansi-process-0d4.pdf>.

³ Letter from Robert A. Skitol to Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep’t of Justice 2 (June 15, 2006) [hereinafter VITA-VSO Letter].

⁴ *Id.*

⁵ *Id.* at 2-3.

by the licensing terms demanded by the patent owner.⁶

VITA anticipates that future standards, such as those needed to facilitate the technology transition to serial buses, will likely incorporate more patented technologies. It has decided to revise its patent policy to enable its members to make better informed decisions in developing and adopting standards. VITA believes that this policy will reduce the likelihood of unexpected hold-up by patent owners that can threaten the openness and commercial viability of future VITA standards.

II. The Proposed VITA Patent Policy

To reduce the likelihood of unexpected licensing terms that threaten the success of future VITA standards and to expand the scope of competition between alternative technological solutions during the standard-setting process, VITA management plans to propose that its membership adopt a new patent policy (the “proposed policy”). The proposed policy is designed to elicit more information from those participating in VSO working groups about patented technologies essential to implementing the standard as well as more specific commitments regarding the fair, reasonable, and non-discriminatory (“FRAND”) licensing terms that patent holders will charge once the standard has been set.

Under the proposed policy, each member of a working group must identify all patents or patent applications⁷ that he knows about and that he believes may become essential⁸ to the implementation of the future standard.⁹ In addition, working group members must declare the maximum royalty rates and most restrictive non-royalty terms that the VITA member company he or she represents will request for any such patent claims that are essential to implement the eventual standard. These licensing commitments apply to the implementation of the particular draft VSO specification being developed, and any reaffirmations or revisions of that VITA standard, but they do not apply to other uses of the technology.¹⁰ Although disclosure declarations are irrevocable, patent holders may submit subsequent declarations with less

⁶ *Id.*

⁷ For the purposes of this letter, the word “patents” also includes “patent applications.”

⁸ The patent policy defines “essential” to mean “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.” VITA PROPOSED POLICIES AND PROCEDURES § 10.2.1 (2006).

⁹ The members of a working group are *individuals* who *represent* a VITA member company. For purposes of the proposed patent policy, VITA defines “working group members” to include “all three levels of membership described in Section 7.1.4 of the VSO Policies and Procedures: sponsors, participants, and observers.” *Id.* § 10.2.1 n.1.

¹⁰ *Id.* § 10.3.2.

restrictive licensing terms (including lower royalties). Working group members may consider the various declared licensing terms when deciding which technology to support during the standard-setting process, but the proposed policy forbids any negotiation or discussion of specific licensing terms among working group members or with third parties at all VSO and working group meetings.¹¹ Finally, the policy provides an arbitration procedure to resolve any disputes over compliance with the patent policy requirements.¹²

A. Disclosure of Patents

The proposed policy requires each working group member to make a “good faith and reasonable inquiry” into the patents owned, controlled, or licensed by the company she represents¹³ and to disclose all patents or patent applications that the company owns, controls, or has a license to, that she believes may become essential to the VSO specification the working group is developing.¹⁴ Each working group member also must disclose any known third-party patents or patent applications that he believes may become essential to a draft VSO specification unless doing so would violate a binding confidentiality agreement.¹⁵

Appendix 6 of the proposed policy contains the declaration form a working group member must use to disclose all essential patents and to declare the associated most restrictive licensing terms.¹⁶ The working group member must disclose the patent number(s) and published patent application number(s), the existence of unpublished patent applications, and the country in which each patent has been granted or application has been made. When practical, for each disclosed patent or patent application, the working group member is to identify the relevant portions of the working group’s draft VSO specification that infringes or would require infringing the patented technology.¹⁷ The working group member must commit the VITA member company he or she

¹¹ *Id.* § 10.3.4. The proposed policy does not expressly address communications outside the context of VSO and working group meetings. Accordingly, this business review letter also does not address such potential communications.

¹² *Id.* § 10.5

¹³ The patent policy requires the working group member to search the member company and its affiliates, which the patent policy defines as “any entity that directly or indirectly controls, is controlled by, or is under common control with, another entity, so long as such control exists.” *Id.* § 10.2.1 n.3.

¹⁴ *Id.* § 10.2.1.

¹⁵ *Id.* § 10.2.4. In disclosing a third party patent, a working group members does not take a position on the “essentiality or relevance of the third party claims.” *Id.*

¹⁶ *Id.* app. 6.

¹⁷ *Id.* § 10.2.2.

represents to license essential patent claims on defined FRAND terms by specifying the maximum royalty rate (either in terms of dollars or as a percentage of the sale price) as well as the most restrictive non-price licensing terms the VITA member company he or she represents will request for patent claims that are essential to implement the draft VSO specification.¹⁸

B. Timing of Disclosures

Because the contents of a draft specification and the knowledge of working group members (of essential patents and patent applications) change over time, the proposed policy identifies three specific periods during the standard-setting process when working group members must identify any previously undisclosed essential patents, patent applications, and third-party patents.

First, a VITA member that proposes a new specification must make a patent declaration before a working group is formed to begin drafting the specification. Second, all working group members must make declarations within sixty days after the working group is formed. Third, all working group members must make declarations within fifteen days after the draft specification is published. In addition to these three specific periods, the proposed policy requires each working group member to disclose any previously undisclosed essential patents at the beginning of all face-to-face meetings of the working group. Any such disclosures made at face-to-face meetings must be followed by a declaration within thirty days.¹⁹

C. Consequences of Failing to Make Disclosures

If the working group member's declaration specifies a maximum royalty rate but does not include draft non-price licensing terms, the VITA member company he or she represents must accept specific limits on any grantback, reciprocal license, non-assert, covenant not to sue, or defensive suspension provisions in its licenses.²⁰ A working group member who fails to disclose a known essential patent, and/or fails to declare the associated most restrictive licensing terms according to the timing process described above, commits the VITA member company he or she represents to license the essential claims of the undisclosed patent for implementation of the VITA standard to all interested parties on a royalty-free basis and with the restricted non-price

¹⁸ *Id.* §§ 10.3.1, 10.3.2 & app. 6.E.2.

¹⁹ *Id.* § 10.2.3.

²⁰ *Id.* § 10.3.2. Under the proposed patent policy a licensor may do no more than: (1) require a licensee to grant a FRAND license for any of the licensee's current or future patents claims needed to implement the VITA-VSO standard; (2) require a licensee to grant a reciprocal license to such patent claims; (3) require a licensee not to assert or bring suit to enforce any such patent claims against the licensor; and (4) suspend the license if the licensee sues the licensor for infringement of any such patent claims. *Id.*

terms.²¹

D. Arbitration Procedures for Alleged Noncompliance

Section 10.5 of the proposed policy sets forth specific procedures which may be used if a VSO member believes that a working group member has breached any obligation under the proposed policy.²² Complainants may file a claim with the chairperson of the applicable working group. If the working group is unable informally to resolve a claim within fifteen days, the chairperson must form an arbitration panel.²³ Once formed, the arbitration panel has forty-five days to gather information and submit a recommendation to the VITA Executive Director on how the dispute should be resolved. The Executive Director must consult with the VITA Board and render a decision on the claim within fifteen days of receiving the panel's recommendation. Finally, if a VSO member calls on the Executive Director to reconsider the decision, the Executive Director must render a final decision within thirty days. The Executive Director may require one or both parties to pay for the costs of the arbitration process.

III. Historical Background Regarding Licensing Discussions Within SDOs

Collaborative standard setting can produce many procompetitive benefits. Performance standards can improve the health and safety of consumers and improve consumers' confidence in a product's quality. 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.

The collaborative standard-setting process can also result in exclusionary and collusive practices that have been found to harm competition and violate the antitrust laws. In *American Society of Mechanical Engineers v. Hydrolevel Corp.*, for example, antitrust liability arose when SDO members drafted, revised, and interpreted a safety code for water boilers in an exclusionary way. The members injured competition by conspiring to discourage customers from purchasing one competitor's water boiler safety device by stating that it did not comply with the safety code,

²¹ *Id.* § 10.4.

²² *Id.* § 10.5.

²³ The arbitration panel must consist of three people: one chosen by the complainant, one chosen by the patent holder, and a panel chair chosen by the first two. The arbitrators chosen by the parties cannot be affiliated with any VITA member represented on the working group in question, and the chair cannot be affiliated with any VITA member or VITA. The VITA Technical Director will act as a non-voting administrator to monitor the panel's progress. *Id.* § 10.5.

even though, in fact, it did.²⁴ And in *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, steel conduit producers were found to have violated the Sherman Act because they manipulated the standard-setting process by stacking a vote in order to prevent the use of equally viable plastic conduit in the building industry.²⁵

In the wake of these cases, many SDOs implemented rules that strictly forbid all activities that could potentially result in antitrust liability, including restrictions on discussions about the terms and conditions of licenses to patents that are essential to a standard. VITA's proposed policy would relax these restrictions somewhat by requiring patent holders to declare the most restrictive terms they will require for licensing the essential claims of the patents they have been required to disclose as part of the VSO standard-setting process.²⁶ The proposed policy, however, maintains VSO's current prohibition on joint negotiation and discussion of patent licensing terms by working group members (or with third parties) at all VSO and working group meetings.

IV. Agency Analysis

Unless the standard-setting process is used as a sham to cloak naked price-fixing or bid rigging, the Department analyzes action during the standard-setting process under the rule of reason. The Department's analysis of VITA's proposed patent policy under the rule of reason examines both the policy's expected competitive benefits and its potential to restrain competition.

Early in the standard-setting process, VITA working group members often can choose among multiple substitute technological solutions, some of which may be patented. Once a particular technology is chosen and the standard is developed, however, it can be extremely expensive or even impossible to substitute one technology for another. In most cases, the entire standard-setting process would have to be repeated to develop an alternative standard around a different technology. Thus, those seeking to implement a given standard may be willing to license a patented technology included in the standard on more onerous terms than they would have been prior to the standard's adoption in order to avoid the expense and delay of developing a new standard around a different technology.

²⁴ 456 U.S. 556, 571 (1982), *aff'g*, 817 F.2d 938 (2d Cir. 1987); *see also Radiant Burners, Inc. v. Peoples Gas Light & Coke Co.*, 364 U.S. 656, 659-60 (1961) (holding agreement by American Gas Association members to refuse to sell gas to customers using a non-Association certified product states a claim of a *per se* violation of section 1 of the Sherman Act).

²⁵ 486 U.S. 492, 509-10 (1988).

²⁶ The purpose of both these types of disclosure is to avoid inefficient outcomes and to foster competition between available substitute technologies. Requiring the disclosure of essential patents and patent applications is common among SDOs and raises no antitrust concern.

Requiring patent holders to disclose their most restrictive licensing terms in advance could help avoid this outcome by preserving 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. They might decide, for example, that a cheaper, less technologically elegant solution would be best or they might determine that it is worth including the proffered technological elegance even on the most restrictive terms declared by the patent holder. At a minimum, the disclosure of most restrictive licensing terms decreases the chances that the standard-setting efforts of the working group will be jeopardized by unexpectedly high licensing demands from the patent holder.

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.

The proposed policy should not permit licensees to depress the price of licenses for patented technologies through joint action because it prohibits any joint negotiation or discussion of licensing terms among the working group members or with third parties at all VSO and working group meetings.²⁷ Moreover, working group members will not set actual licensing terms. The patent holder and each prospective licensee will negotiate separately, subject only to the restrictions imposed by the patent holder's unilateral declaration of its most restrictive terms.²⁸

Any efforts to reduce competition by using the declaration process as a cover to fix

²⁷ If the proposed policy did allow such negotiations and discussions, the Division likely would evaluate any antitrust concerns about them under the rule of reason because such actions could be procompetitive.

²⁸ When it agrees to license on nondiscriminatory terms as is usually required by SDOs, a patent owner relinquishes its right to restrict the number of licenses it will grant, and its right to require more restrictive terms in exchange for an exclusive license. Requiring patent holders to disclose the most restrictive limits to their FRAND commitment should not further reduce competition between licensees for patent licenses needed to implement the standard.

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downstream prices of VME products would be a *per se* violation of section 1 of the Sherman Act, and the Department would not hesitate to condemn such activity. The same would be true of efforts by patent owners to rig their declarations of licensing terms. Thus, VITA, VSO, and its member companies vigilantly should continue to educate working group participants about the severe consequences of such activities.

V. Conclusion

The standards set by VSO are a critical element of the growth and continued innovation in the VME industry. VITA's proposed patent policy is an attempt to preserve competition and thereby to avoid unreasonable patent licensing terms that might threaten the success of future standards and to avoid disputes over licensing terms that can delay adoption and implementation after standards are set. The proposed policy does so by requiring working group members to disclose patents and patent applications that may become essential to implement a draft VSO standard, to commit to license on FRAND terms, and unilaterally to declare the most restrictive licensing terms that will be required. In addition, the proposed policy establishes an arbitration process which may be used to resolve compliance disputes. Adopting this policy is a sensible effort by VITA to address a problem that is created by the standard-setting process itself. Implementation of the proposed policy should preserve, not restrict, competition among patent holders. Any attempt by VITA or VSO members to use the declaration process as a cover for price-fixing of downstream goods or to rig bids among patent holders, however, would be summarily condemned.

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 30 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