EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ALCATEL USA RESOURCES, INC., a Delaware Corporation, and ALCATEL INTERNETWORKING, INC., a California Corporation,	)	
Plaintiffs,	)	Civil Action No. 1:05 CV 418
v.	)	
FOUNDRY NETWORKS, INC., a Delaware Corporation,	)	(JURY TRIAL DEMANDED)
Defendant.	)	

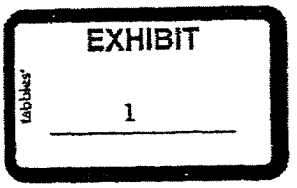
DECLARATION OF JOHN BERRES

I, John Berres , hereby declare and state as follows:

1. I reside in Arlington, Virginia, USA. I have personal knowledge of the facts stated herein and am competent to testify to those facts at a hearing or trial.

2. Since June 1996, I have been employed as an attorney for the parent company of Alcatel USA Resources, Inc. and Alcatel Internetworking, Inc. ("Alcatel"). As part of my responsibilities, I supervise the work of outside counsel retained by Alcatel in a variety of matters.

3. In early 2002, Alcatel began discussing the licensing of certain Alcatel patents to Microsoft Corporation. Those discussions included the potential licensing of U.S. Patent No. 6,339,830 (the "'830 patent").



4. In June, 2002, Alcatel hired the law firm now known as Howrey LLP (then called Howrey, Simon, Arnold & White) to assist it with the Microsoft negotiations.

5. Alcatel's primary contacts at Howrey were attorneys Joseph Lavelle and Vivian Kuo.

6. To aid Howrey in understanding the patents involved in the Microsoft negotiations, Alcatel prepared a 34 page primer describing the documents and personnel considered to be highly relevant to the inventions of the '830 patent. The primer, which was designated as privileged and confidential on every page, candidly expresses Alcatel's perspective on a variety of issues related to the prosecution and enforcement of Alcatel's rights in the '830 patent.

7. The Howrey attorneys had access to Alcatel's executive and legal staff for any additional technical or legal information needed to prepare a thorough evaluation of the '830 patent.

8. By October, 2002, the Howrey attorneys had prepared a report responding to issues raised by Microsoft at the beginning of our negotiations.

9. At no time since October, 2002 have I ever been informed by Howrey that it no longer represents Alcatel in this matter. Also, the confidential background documents Alcatel provided to Howrey have not been returned.

10. In June, 2005, I was contacted by Mr. Lavelle who requested that Alcatel give its consent to Howrey's representation of Foundry Networks, Inc. in this case. I informed Mr. Lavelle that, since Howrey has advised Alcatel on material issues regarding the '830 patent and has worked closely with Alcatel on licensing the patent, which is in this case, the conflicts are too serious to be waived.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Dated: Sept 7, 2005

John Berres

EXHIBIT 2

HOWREY SIMON ARNOLD & WHITE HOWREY LLP ATTORNEYS AT LAW

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October 25, 2002

FEDERAL EXPRESS

Mr. Daniel Christen
Corporate Attorney
Microsoft Corporation
Redmond, WA 98052

Re: *U. S. Patent No. 6,339,830*

Dear Mr. Christen:

We have been asked by our client, ALCATEL, to inform you of our analysis of whether Alcatel's membership with the IEEE's Standards Association ("IEEE-SA") and its limited contact with the standard-setting process for the IEEE Specification, 802.1X, the *Port Based Network Access Control* ("the IEEE 802.1X standard"), constrain in any way Alcatel's right to enforce U.S. Patent No. 6,339,830 ("the '830 patent").[1] In conducting this analysis, we have reviewed (a) the '830 patent, (b) the prosecution history of the '830 patent and its parent application, including the references cited during prosecution, (c) the IEEE-SA standard setting process, including the applicable IEEE-SA patent policies, and (d) IEEE 802.1X standard and industry application of the standard.

For the reasons set forth below, it our conclusion that a reasonable and well-informed judge or jury would find that Alcatel is not precluded from enforcing the '830 patent against a party adopting the IEEE 802.1X standard because the '830 patent is not essential to the IEEE 802.1X standard.

[1] A copy of the '830 patent is attached hereto as Exhibit A.

EXHIBIT
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I. INTRODUCTION

Much has been written recently regarding a patentee's right to enforce its patents covering industry standards. A few cases have found or suggested that a patentee's conduct before a standard-setting organization can constrain the patentee's ability to enforce patents that cover the standard adopted by the organization. The alleged infringers in these cases challenge the enforceability of the patents under various patent doctrines as well as affirmative claims for relief under federal antitrust laws. Of the reported standard-setting cases, equitable estoppel has been the doctrine most frequently applied by the courts.[2] Standards related conduct has also been the subject a number of FTC investigations under Section 5 of the Federal Trade Commission Act.[3]

In what follows, we first review the legal theories that have been applied to evaluate the conduct of patentees before standard setting organizations.[4] Thereafter, we review the 802.1X standard, the '830 patent, and the relation between the two.

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[2] *See Wang Labs. Inc. v. Mitsubishi Elec. Am. Inc.*, 860 F. Supp. 1448, 1449-52, 30 U.S.P.Q.2d (BNA) 1241, 1247-50 (C.D. Cal. 1993) (denying Wang's summary judgment on equitable estoppel defense); *Wang Labs. Inc. v. Mitsubishi Elecs. Am. Inc.*, 29 U.S.P.Q.2d (BNA) 1481, 1493 (C.D. Cal. 1993) (denying Wang's motion for preliminary injunction in part on equitable estoppel defense); Findings of Fact & Conclusions of Law at 11-15, *Wang Labs. Inc. v. Mitsubishi Elecs. Am. Inc.*, Nos. 92-4698-JGD & 92-3891-JGD (C.D. Cal. Oct. 24, 1994) (ruling for Wang on equitable estoppel defense following trial); *Stambler v. Diebold, Inc.*, 11 U.S.P.Q.2d (BNA) 1709, 1714-15 (E.D.N.Y. 1988); *Potter Instrument Co. v. Storage Tech. Corp.*, 207 U.S.P.Q.2d (BNA) 763, 765 (E.D. Va. 1980), *aff'd*, 641 F.2d 190, 21 U.S.P.Q. (BNA) 493 (4th Cir. 1981); Compl., and Decision & Order, *In re Dell Computer Corp.*, FTC Docket No. C-3658 (May 20, 1996).

[3] 15 U.S.C. § 45 (2000).

[4] *See generally*, Michael G. Cowie and Joseph P. Lavelle, *Patents Covering Industry Standards: The Risk to Enforceability Due to Conduct Before Standard-Setting Organizations*, 30 AIPLA Q. J. 95 (2002).

A. **Equitable Doctrines**[5]

1. **Equitable Estoppel**

The defense of equitable estoppel precludes the recovery of patent damages, both past and accruing and any injunctive relief.[6] Equitable estoppel is a judge-made doctrine, the elements of which are well established. For an estoppel to exist, a defendant must prove that: (1) the patent owner's misleading conduct, either by words or silence, lead the alleged infringer reasonably to conclude that the patent owner did not intend to enforce its patent, (2) the alleged infringer relied on this conduct; and (3) due to the reliance, the alleged infringer will be materially prejudiced if the patent owner is allowed to proceed on its claim.[7] Although it is unnecessary to prove a specific intent to mislead or deceive in order to establish the misleading conduct element, the Federal Circuit has stated that the conduct must be "sufficiently misleading as to constitute bad faith" in order to preclude enforcement of the patent.[8]

In the standard-setting context, a patentee's failure to disclose a patent or patent application when there is a duty to do so under the standard-setting organization's patent disclosure policy has been found to constitute the requisite misleading conduct for purposes of establishing equitable estoppel.[9]

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5 Laches may also be applicable to some fact settings that can arise in the standard-setting context. The elements of laches are (1) unreasonable and inexcusable delay in the assertion of the claim and (2) prejudice or injury resulting from the delay. *A.C. Aukerman Co. v. R. L. Chides Constr. Co.*,960 F.2d 1020, 1032, 22 U.S.P.Q.2d (BNA) 1321, 1328 (Fed. Cir. 1992); *Stamler v. Diebold Inv.*, 11 U.S.P.Q.2d at 1711. There does not appear to be a reasonable basis for asserting laches in this case, as the '830 patent was just issued this year, on January 15, 2002.

6 *Potter Instrument*, 641 F.2d at 192, 211 U.S.P.Q. at 495.

7 *See Hemstreet v. Computer Entry Sys. Corp.*, 972 F.2d 1290, 1295, 23 U.S.P.Q.2d (BNA) 1860, 1864 (Fed. Cir. 1992); *A.C. Aukerman Co.*, 960 F.2d at 1041, 22 U.S.P.Q.2d at 1335.

8 *A. C. Aukerman*, 960 F.2d at 1028; *see also Hemstreet*, 972 F.2d at 1295, 23 U.S.P.Q.2d at 1684; *see also Hottel Corp. v. Seaman Corp.*, 833 F.2d 1570, 1574, 4 U.S.P.Q.2d (BNA) 1939, 1941 (Fed. Cir. 1987) ("some evidence must exist to show that the silence was sufficiently misleading to amount to bad faith").

9 *A. C. Aukerman*, 960 F.2d at 1043, 22 U.S.P.Q.2d at 1337; *see also Hemstreet*, 972 F.2d at 1294 n.5; 23 U.S.P.Q.2d at 1864 n.5.

The remaining two elements, reliance and material prejudice, "are frequently combined [and analyzed under] a single 'detrimental reliance' requirement."[10] In the standard-setting context, defendants have alleged that the patentee's silence, or its failure to disclose its patents, led the members of the standard-setting organization to believe that the proposed standard does not infringe any patents[11] or that the standards participants would have adopted a different standard if the patentee had disclosed its patents during the standard-setting process.[12]

2. Patent Misuse

The doctrine of patent misuse is analogous to the equitable doctrine of unclean hands.[13] The doctrine is predicated on the notion that a court will not lend its support to enforcement of a patent that has been used in a manner contrary to public policy.[14] Conduct before standard-setting organizations normally does not relate to the few practices that the Supreme Court has held to constitute patent misuse per se—such as unlawful tie-ins, and the like. Therefore, the Federal Circuit's two-step patent misuse analysis applies to most cases related to standard setting.[15] Under this test, the challenged conduct must first be outside of the scope of the

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10 *A.C. Aukerman Co.*, 960 F.2d at 1041; 22 U.S.P.Q.2d (BNA) at 1336.

11 *See, e.g., Rambus Inc. v. Infineon Techs. AG*, 164 F. Supp. 2d 243, 757-58 (E.D. Va. 2001).

12 *See Townshend v. Rockwell Int'l Corp.*, 55 U.S.P.Q.2d (BNA) 1011, 1013 (N.D. Cal. 2000). For example, in *Dell*, the FTC alleged that "there is evidence that the association would have implemented a different non-proprietary design had it been informed of the patent conflict[.]" Statement of the FTC, at 1. The FTC further asserted that "had VESA [the SSO] known of the Dell patent, it could have chosen an equally effective, non-proprietary standard." *Id.* at 2; *see also Townsend*, 55 U.S.P.Q. at 1021 (contrasting facts alleged with Dell where "the standard-setting body was choosing among options, and there was a possibility that they could have adopted a standard which did not incorporate Dell's patent").

13 *See, e.g.* Defendant's Answer & Counterclaim ¶¶ 45, 46, *Sun Microsystems, Inc. v. Kingston Tech. Co.*, No. C99-03610 (N.D. Cal. Feb. 7, 2000); Defendant's Answer and Counterclaims ¶¶ 22, 26, *Motorola, Inc. v. Rockwell Int'l Corp.*, No. 95-575 (D. Del. Nov. 13, 1995).

14 *See generally Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 494, 52 U.S.P.Q. (BNA) 30, 33 (1942).

15 *See Virginia Panel Corp. v. MAC Panel Co.*, 133 F.3d 860, 869, 45 U.S.P.Q.2d (BNA) 1225, 1232 (Fed. Cir. 1997). The per se illegal licensing practices identified by the Supreme Court include tying, imposition of post-expiration royalties and resale price fixing of patented goods. *See Morton Salt Co.*, 314 U.S. at 491, 52 U.S.P.Q. at 33 (tying); *Brulotte v. Thys Co.*, 379 U.S. 29, 33, 143 U.S.P.Q. (BNA) 264, 266 (1964) (post-expiration); *Bauer & Cie v. O'Donnell*, 229 U.S. 1 (1913) (resale price fixing).

patentee's legitimate right to exclude.[16] Second, the challenged conduct must have an anticompetitive effect under the rule of reason.[17]

In the modern version of the misuse doctrine, courts focus on the effect of the patentee's conduct on competition. Concealment of a patent generally does not to give rise to a viable patent misuse claim.[18] Thus, a patentee's failure to disclose a patent before a standard-setting organization alone has been found insufficient to state a patent misuse claim.[19] To date, alleged infringers have yet to succeed in asserting the patent misuse defense in the standard-setting context.

A finding of misuse renders the patent unenforceable only until the misuse is purged.[20] There are, however, two limitations on the patentee's ability to purge the misconduct. First, it is generally held that for the purge to be effective, the purge must occur before a lawsuit is filed. Secondly, to purge the misconduct, abandonment of the misconduct is generally required in addition to negation of the anticompetitive effects of the misuse in the market.[21]

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16 *Virginia Panel*, 133 F.3d at 868-69, 45 U.S.P.Q.2d at 1232.

17 *Id.* at 869, 45 U.S.P.Q.2d at 1232 (citing Supreme Court antitrust decision on the rule of reason analysis).

18 *See SanDisk Corp. v. Lexar Media, Inc.*, 91 F. Supp. 2d 1327 (N.D. Cal. 2000) (alleging that patent holder "schemed to have the CFA and PCMCIA adopt standards that could not be met without infringing... do not provide a factual basis" for the misuse defense).

19 *Townshend*, 55 U.S.P.Q.2d at 1024.

20 *Morton Salt Co.*, 314 U.S. at 493, 52 U.S.P.Q.2d at 33. In its application of the patent misuse doctrine on the basis of equity principles, the US Supreme Court stated that "[e]quity may rightly withhold its assistance from such a use of the patent by declining to entertain a suit for infringement, and should do so at least until it is made to appear that the improper practice has been abandoned and that the consequences of the misuse of the patent have been dissipated." *Id.*

21 *Morton Salt Co.*, 314 U.S. at 493; 52 U.S.P.Q.2d at 33; *B. B. Chems. Co. v. Ellis*, 314 U.S. 495, 498, 52 U.S.P.Q. (BNA) 33, 35 (1942).

B. Antitrust Claims

1. Sherman Act § 1 – Restraint of Trade

Section 1 of the Sherman Act provides that "[e]very contract, combination ..., or conspiracy, in restraint of trade or commerce ... is hereby declared to be illegal."[22] As established by the Supreme Court long ago, Section 1 only prohibits agreements that "unreasonably restrain trade."[23] A Section 1 claim requires a showing of concerted action, *i.e.*, agreements that, on balance, have an anticompetitive effect on competition.[24] To recover damages, a private plaintiff must also show antitrust injury, *i.e.*, that the plaintiff was injured in fact by the concerted action and the injury was the type of injury that the antitrust laws were intended to protect.[25]

As Section 1 requires a concerted action, a patentee's *unilateral conduct* cannot violate Section 1, even where the unilateral conduct is alleged to have an effect in a collaborative forum of the standard-setting organization.[26]

2. Sherman Section 2 - Monopolization

Section 2 of the Sherman Act prohibits monopolization of a relevant market as well as attempts and conspiracies to monopolize. The essential elements of a monopolization claim are: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen or historic accident.[27] Attempted monopolization under the

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22 15 U.S.C. § 1 (2000).

23 *Chicago Bd. of Trade v. United States*, 246 U.S. 231, 238 (1918).

24 *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 768 (1984); *American Tobacco Co. v. United States*, 328 U.S. 781, 810 (1946).

25 *Brunswick Corp. v. Pueblo Bowl-O-Matic, Inc.*, 429 U.S. 477 (1977).

26 *Hyundai Elecs. Indus. co. v. Rambus Inc.*, No. C 00-20905 RMW, at 3-4 (N.D. Cal. Jan. 19, 2001).

27 *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966).

Sherman Act requires (1) predatory or anticompetitive conduct with (2) specific intent to monopolize and (3) dangerous probability of success in achieving monopoly power.[28]

A claim of monopolization under Section 2 requires proof of both monopoly power and the willful acquisition or maintenance of that power.[29] Monopoly power is traditionally defined as "the power to control market prices or exclude competition."[30] The mere presence of lawfully acquired monopoly power does not, by itself, satisfy "the willful acquisition or maintenance" element unless it confers, protects or extends monopoly power.[31] Recent decisions have generally recognized that not all conduct that confers monopoly power on a firm or that enhances a monopolist's market position necessary satisfies the "willful acquisition or maintenance" element of Section 2.[32] The conduct must be predatory such that it is considered economically irrational for the monopolist but for its adverse impact on competition.[33] In contrast, mere vigorous competition or the aggressive pursuit of legitimate business objectives is not improper even for a monopolist and even where the conduct disadvantages the monopolist's rivals.[34]

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28 *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 456 (1993); *see also TV Communications Network, Inc. v. Turner Network Television, Inc.*, 964 F.2d 1022, 1026 (10th Cir. 1992).

29 *Grinnell Corp.*, 384 U.S. at 570-71.

30 *United States v. E.I. DuPont de Nemours & Co.*, 351 U.S. 377, 391 (1956).

31 *Grinnell Corp.*, 384 U.S. at 570-71.

32 *See, e.g.*, Timothy J. Muris, *The FTC and the Law of Monopolization*, 67 Antitrust L. J. 693 (2000).

33 *See, e.g., Advanced Health-Care Servs. v. Radford Cmty. Hosp.*, 910 F.2d 139, 148 (4th Cir. 1990) ("if a plaintiff shows that a defendant has harmed consumers and competition by making a short-term sacrifice in order to further its exclusive, anti-competitive objectives, it has shown predation by that defendant"); *Instructional Sys. Dev. Corp. v. Aetna Cas. & Sur. Co.*, 817 F.2d 639, 649 (10th Cir. 1987) ("conduct constituting an abnormal response to market opportunities").

34 *See, e.g., Endsley v. City of Chicago*, 230 F.3d 2746, 283-84 (7th Cir. 2000) (price increase by monopolist is not an act of monopolization), *cert. denied*, 532 U.S. 972 (2001); *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1062 (8th Cir. 1999) ("[plaintiffs] have not shown that Brunswick's superior market share was achieved or maintained 'by means other than the competition on the merits.'") (citation omitted); *Sterns Airport Equip. Co. v. FMC Corp.*, 170 F.3d 518, 522 (5th Cir. 1999) ("Exclusionary conduct under section 2 is the creation or maintenance of monopoly by means other than the competition on the merits embodied in the *Grinnell* standard."); *Abcor Corp. v. AM Int'l, Inc.*, 916 F.2d 924, 927 (4th Cir. 1990) ("A desire to increase market share or even to drive a competitor out of business through vigorous competition on the merits is not sufficient"); *United States v. Syufy Enters.*, 903

Moreover, with respect to attempted monopolization, the specific intent requirement under Section 2 of the Sherman Act is more demanding than the general intent requirement of Section 1 claims.[35] Typically, the heightened intent element requires the alleged offender to have a specific intent to achieve a monopoly, *i.e.*, "something more than willing, voluntary, and knowing participation" for the specific purpose of maintaining a monopoly.[36] While knowledge or awareness of anticompetitive effect may be a prerequisite to prove specific intent, knowledge or awareness of such an effect, by itself, is insufficient to establish the intent to monopolize.[37]

In the standard-setting context, a court found allegations that the patentee failed to disclose its patent rights to a standards-setting organization and its subsequent assertion of those rights against other members of the organization were sufficient to survive a motion to dismiss.[38] The court reasoned that the patentee's conduct called into question whether those patent rights were lawfully acquired.[39]

3. FTC Act

Section 5 of the FTC Act declares as unlawful "unfair methods of competition."[40] The FTC Act does not provide for private actions. Instead, enforcement under the FTC Act resides solely in the FTC. The FTC may prohibit, as "unfair method of competition" under Section 5 of

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F.2d 659, 668-69 (9th Cir. 1990) (stating that "an efficient, vigorous, aggressive competitor is not the villain antitrust laws are aimed at eliminating").

35 *See, e.g., In re Microsoft, Corp. Antitrust Litig.*, 127 F. Supp. 2d 728, 730 n.4 (D.Md. 2001); *Wagner v. Magellan Health Servs., Inc.*, 121 F. Supp. 2d 673, 681 (N.D. Ill. 2000) ("A conspiracy to monopolize under Section 2 is somewhat different from its Section 1 counterpart because of its heightened intent element, *i.e.*, concerted action by knowing participants who have a specific intent to achieve a monopoly.").

36 *In re Microsoft, Inc.*, 127 F. Supp. 2d at 731.

37 *United States v. GE*, 1997-1 Trade Cas. (CCH) ¶ 71,765 (D. Mont. 1997).

38 *Hyundai Elec. Indus. Co. v. Rambus, Inc.*, No. C 00-20905 RMW at 3-4 (N.D. Cal. Jan. 19. 2001).

39 *Id.*

40 15 U.S.C. § 45 (2000).

the FTC Act, conduct that violates the Sherman Act.[41] Recent cases, including those of the FTC, have defined the scope of Section 5 as requiring a showing of actual anticompetitive effect from the challenged conduct[42] or at least "a dangerous probability" of such an effect.[43]

In the standard-setting context, the FTC invoked Section 5 in an administrative complaint against Dell Computer Corp, which proceeding was resolved by entry of a consent decree.[44] In *Rambus Inc.*,[45] the FTC has charged *Rambus* with violating Section 5 by deliberately engaging in a pattern of anticompetitive acts and practices that served to deceive an industry-wide standard-setting organization, resulting in adverse effects on competition and consumers. In particular, the complaint alleged three separate but related legal counts. Through the pattern of anticompetitive and exclusionary acts detailed in the complaint's allegations, the agency charges that *Rambus*, "through deliberate and intentional means, has illegally monopolized, attempted to monopolize, or otherwise engaged in unfair methods of competition in certain markets relating to technological features necessary for the design and manufacture of [SDRAM]" in violation of Section 5 of the FTC Act.[46]

C. Common Law Fraud and Other State Causes of Actions

1. Fraud

The failure to disclose a patent to a standard-setting organization could constitute common law fraud. In this context, the proof required consists: (1) a duty to disclose patents and patent application; (2) patentee violated that duty with an intention to mislead members of the

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41 *See, e.g., FTC v. Motion Picture Adver. Serv. Co.*, 344 U.S. U.S. 392, 394-95 (1953).

42 *See, e.g., Boise Cascade Corp. v. FTC*, 637 F.2d 573 (9th Cir. 1980).

43 *See, e.g., Spectrum Sports, Inc.* 506 U.S. at 447, 459; *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp*, 509 U.S. 209, 255 (1993).

44 Compl., *In re* Dell Computer Corp., FTC Docket No. C-3658 (May 20, 1996).

45 Compl., *In re* Rambus Inc., FTC Docket No. 9302 (June 18, 2002).

46 *Id.* at 1.

standard-setting organization; (3) reasonable reliance by the members of organization; and (4) as a result of the reasonable reliance, the members suffered damages.[47]

In *Rambus Inc. v. Infineon Technologies, AG*, a jury found that Rambus' conduct before a standards body constituted fraud.[48] This case involved standards relating to SDRAM and DDR SDRAM adopted and published by JEDEC. Rambus attended JEDEC standard-setting meetings from 1991 through the end of 1995. During this time, Rambus had pending patent applications with a 1990 filing date. Infineon presented evidence during trial that "if a member had a pending patent application relating to the standardization effort, the member had a duty to disclose the pending [application]."[49] Moreover, "JEDEC policy always required the disclosure of pending patent applications notwithstanding the absence of language to that effect in the JEDEC manual before 1993."[50] Further, the jury credited evidence that while Rambus was at JEDEC, it had the intent to secure patents covering the standard and that it worked with its patent attorneys to write claims to cover the relevant standards and that such intent was never disclosed.[51] Based on the above, the jury found that Rambus was guilty of actual and constructive fraud and awarded both actual and punitive damages.[52]

II. IEEE-SA AND THE 802.1X STANDARD

The IEEE-SA is the standard setting branch of the IEEE. The IEEE-SA develops and publishes standards adopted by its members through their voluntary participation in various Working Groups. The approval and publication of an IEEE standard generally signifies that the

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47 *See, e.g., Rambus, Inc. v. Infineon Techs. AG*, 164 F. Supp. 2d 743, 750-51 (E.D. Va. 2001).

48 *Id.*

49 *Id.* at 751.

50 *Id.*

51 *Id.* at 747.

52 *Id.*

particular standard is the consensus reached among IEEE-SA members and is therefore regarded by IEEE as an authoritative reference to the state of the art.[53]

A. IEEE Standards Association's General Policies on Patents

The over-arching goal of the standard-setting process at the IEEE-SA is to design and "develop the best technical standard, as independent of marketing and intellectual property rights issues as possible."[54] The standard-setting practice of the IEEE-SA is accredited by the American National Standards Institute ("ANSI").[55] There is no general prohibition against the incorporation of patents and patent applications in standards adopted by the IEEE-SA.[56] The IEEE-SA patent policy is set forth in clause 6 of its Standards Board Bylaws, which provides as follows:[57]

> IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard. This assurance shall be provided without coercion and prior to approval of the standard (or reaffirmation when a patent becomes known after initial approval of the standard). This assurance shall be a letter that is in the form of either
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> a) A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement the proposed IEEE standard

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53 *See,* IEEE-SA Standards Board Bylaws, Clause 2, a copy of which is attached as Exhibit B; *see also* http://standards.ieee.org/guides/bylaws/sect1-3.html.

54 *See* IEEE Comments to FTC/DOJ at 6 (Apr. 17, 2002), a copy of which is attached as Exhibit C ("FTC/DOJ Comments"); *see also* http://www.ieeeusa.org/forum/POLICY/02april17.pdf.

55 *Id.* at 3.

56 *See,* IEEE-SA Standards Board Bylaws, Clause 6, a copy of which is attached as Exhibit D; *see also* http://standards.ieee.org/guides/bylaws/sect6-7.html#6; FTC/DOJ Comments at 3.

57 IEEE-SA Standards Board Bylaws, Clause 6.

against any person or entity using the patent(s) to comply with the standard or

b) A statement that a license will be made available without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of nay unfair discrimination.

This assurance shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal and is irrevocable during that period.

A letter of assurance is directed only to patents and patent applications that are "essential for compliance" with the standard once it is approved.[58]

The IEEE-SA defines "essential patents" as those "patents, including patent applications, whose infringement is unavoidable in a compliant implementation of a standard and where there is no other reasonable technical implementation available."[59] In other words, the IEEE-SA patent disclosure policy applies only to patents that must be infringed to implement the standard. Similarly, in discussing "essential patents" in its Comments to the FTC/DOJ, submitted on April 17, 2002, the IEEE-SA stated that the "patents of relevance during the standard-setting process are those whose infringement is unavoidable in the implementation or practice of the standard."[60] Additionally, "where the standard can be practiced without the use of patented technology, there is no need to obtain a letter of assurance from the patentee, even if the use of patented technology is desirable or preferable or the best mode."[61]

Moreover, unlike some of the other standard-setting organizations, disclosure of patents to the IEEE-SA is a voluntary matter, not one compelled by IEEE rules. "[D]isclosure of patents

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58 *Id.*

59 *See* Understanding Patent Issues During IEEE Standards Development, a copy of which is attached as Exhibit E; *see also* http://standards.ieee.org/board/pat/guide.html.

60 FTC/DOJ Comment at 4.

61 *See* T. Wettach, IEEE Patent Policy (presentation to IEEE802, July 5, 1999) at 4 ("IEEE Patent Policy"), a copy of which is attached as Exhibit F.

is based on the willingness of the individual participants to disclose any known patents whose use would be required in the practice of the standard."[62] In its Comments to the FTC/DOJ, the IEEE stated:[63]

> [P]articipants in IEEE-SA standards committees are expected to disclose known patents but are not required to perform patent searches as part of the standards-setting process.
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> ***
>
> IEEE-SA does not require participants to certify the applicability of their patents or that all related patents, or those which might relate, have been identified. The activity is performed on a voluntary and reasonable best effort basis. To do otherwise would impose time delays unacceptable to industry and the international community, increase the cost to industry of participating in the standards development process and otherwise burden the process of developing IEEE standards.

B. Patent Disclosure and the IEEE-SA Standard Setting Process

There are currently various societies within the IEEE-SA organized by technical areas of interests.[64] Within these societies are committees that undertake the work of standards development. IEEE standard setting efforts are generally initiated when either a proposal for a new standard or a portion of an existing standard warranting further development is provided to a particular committee by a Sponsor. A Sponsor is the organization that assumes responsibility for a particular standards idea within the IEEE.[65] A project authorization request ("PAR") officially initiates the development of a new standard and the formation of a working group for developing the proposed standard. Typically, however, a potential working group will have gathered to work

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62 FTC/DOJ Comment at 2.

63 *Id.* at 3.

64 IEEE Standards Companion – *Lessons Learned About the Standards Process* at 3 ("IEEE Standards Companion"), a copy of which is attached as Exhibit G.

65 *Id.* at 2

on the PAR and to gain the support of a potential sponsor.[66] The PAR typically sets forth the purpose of the proposed standard and names the working group chair.

In an effort to seek adoption standards that represent the consensus of the industry, IEEE working groups are open to anyone who is interested in participating and is not based on membership in the IEEE.[67] In addressing potential patent issues, "standards developing committees encourage early disclosure of essential patents during consideration of a pending standard."[68] To minimize the possibility that published standards are covered by unknown essential patents, "proactive encouragement is accomplished by periodically asking the standards committee participants, based on their own individual knowledge, to disclose any essential patents whose infringement is unavoidable in the implementation of the standard."[69]

C. Overview of the IEEE Project 802

The IEEE Project 802, also known as the LAN/MAN Standards Committee ("LMSC"), is charged with the responsibility to develop Local Area Network ("LAN") and Metropolitan Area Networks ("MAN") standards, mainly for the lowest two layers of the Reference Model for Open Systems Interconnection ("OSI").[70] IEEE Project 802 is organized with a number of Working Groups and Technical Advisory Groups as well as a Sponsor Executive Committee ("SEC").[71] The various Working Groups of the IEEE Project 802 and their corresponding areas of focus are shown below:[72]

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66 *Id.* at 6.

67 *Id.*

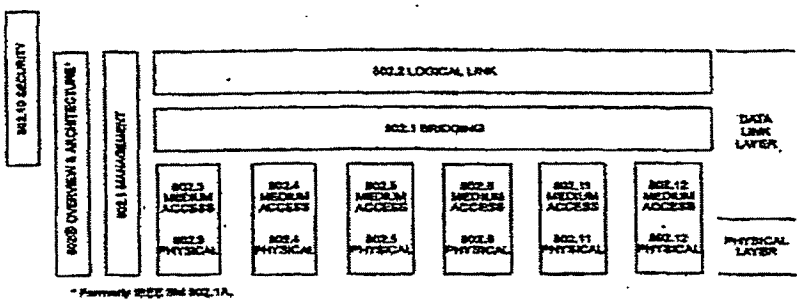
68 FTC/DOJ Comments at 4

69 *Id.*

70 Overview and Guide to the IEEE 802 LMSC at 8-9 ("IEEE 802 Overview"), a copy of which is attached as Exhibit H.

71 IEEE 802 Overview at 6.

72 IEEE Standard for Local and Metropolitan Area Networks – Port Based Network Access Control, IEEE 802.1X –2001 (IEEE 802.1X Std."), a copy of which is attached as Exhibit I.



Each standard within IEEE Project 802 starts when a sufficient number of people within a working group show interest in developing the standard. A PAR is developed and submitted to the SEC for approval. Once a project is approved within an existing Working Group it is assigned a letter, *i.e.*, IEEE 802.1X for Port Based Network Access Control for Local and Metropolitan Area Networks, and a subcommittee is formed with the Working Group for developing the standard set forth in the PAR.

According to the Overview and Guide to the IEEE Project 802, there are currently three "types" of affiliations with an active standard-setting committee in IEEE Project 802: one may be involved as (1) an observer, (2) being on a Working Group E-Mail Reflector, and (3) a Working Group Member.[73] Each type of affiliation has different degrees of responsibility within the working groups. To be a Working Group member with voting rights, one must pay the applicable fees and attend a minimum number of Working Group Meetings.[74] Additionally, within IEEE 802.1 Working Groups, there appears a formal process in which one needs to declare "an intention to become a Voting Member."[75]

With respect to patent disclosure, the current IEEE Project 802.1 patent policy is to solicit from working group "participants" disclosures of essential patents that "cover" technology

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73 IEEE 802 Overview at 8-9.

74 *Id.*

75 Tony Jeffree, *Useful Information on current 802.1 projects and activities*, 11 (September 11, 1999), a copy of which is attached as K; *see also* http://www.ieee802.org/1/mirror/8021/docs99/8021-index-sep99.pdf.

described in the standard.[76] The current patent policy was adopted during the July 10-14, 2000 Plenary Meeting held in La Jolla, CA. Relevant portion of the current patent policy states:

> In support of the patent policy of the IEEE [sic] the 802.1 Working Group has the policy to solicit submissions from participants in 802 who or whose affiliated organizations may hold patents (U.S. or foreign) that have been granted or are under application and who feel that such patents cover technology described in an 802.1 standard that is under development or has been approved.

The July 10-14, 2000 meeting minutes for IEEE 802.1 Working Group further provided that "802.1 do [sic] not intend to actively perform patent searches, or to actively solicit patent information from non-participants at the 802 meetings."[77] There is also evidence that prior to July, 2000, the patent policy specific to the IEEE 802.1 Working Group did not include disclosure of patent applications. In particular, the meeting minutes from the March 1999 Working Group Plenary Meeting stated that the "802.1 patent policy does not cover in progress patents."[78]

D. IEEE 802.1X – Port Based Network Access Control for Local and Metropolitan Area Networks

1. Introduction

The IEEE 802.1X standard is entitled, Port Based Network Access Control for Local and Metropolitan Area Networks, and was adopted on June 14, 2001.[79] The overview clause of the standard summarizes the standard as follows:

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[76] IEEE 802.1 Patent Policy, a copy of which is attached as Exhibit J.

[77] A copy of the meeting minutes from the July 10-14, 2000 IEEE 802 Plenary Meeting in La Jolla, CA is attached as Exhibit K.

[78] A copy of the meeting minutes for the March 1999 Working Group Plenary Meeting is attached as Exhibit L.

[79] IEEE 802.1X Std.

> Port based network access control makes use of the physical access characteristics of IEEE 802 LAN infrastructures in order to provide a means of authenticating and authorizing devices attached to a LAN port that has point-to-point connection characteristics, and of preventing access to that port in cases in which the authentication and authorization process fails. A port in this context is a single point of attachment to the LAN structure.

More particularly, IEEE 802.1X standard addresses authentication for Supplicants connected to networks via Local Area Networks ("LAN") connections. A supplicant is a generic entity associated with a LAN-attached system that supplies credentials for verification.[80] The credentials may be, for example, an identity of a LAN-attached system or of a user of a LAN-attached system. Thus, the IEEE 802.1X authentication mechanism creates a security barrier to traffic of an unauthorized LAN until verification is obtained.[81]

2. The IEEE 802.1X Standard Allows Authenticated of Persons, Computers or Both

IEEE 802 LAN are often deployed in environments that permit unauthorized devices to be physically attached to the LAN infrastructure or permit unauthorized users to attempt to access the LAN through equipment already attached.[82] Thus, the purpose of the IEEE 802.1X standard is to provide a protocol for communicating authentication information between a Supplicant, attached to a Port of an Authenticator System, and an Authentication Server, and for controlling the state of the Authenticator System's Port, depending on the outcome of the protocol exchange. In this respect, the scope of the IEEE 802.1X standard "does not specify the nature of the authentication information that is exchanged, nor the basis upon which the Authentication Server makes its authentication decisions."[83]

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80 IEEE Stds. 802.1X, Clauses 3.1.5, 6.1(b), and 8.3.2.

81 *Id.* at Clause 8.3.3.

82 *Id.* at Clause 1.1 at 1.

83 *Id.* at Clause 8.2 at 21-22.

It is noted in the IEEE 802.1X standard that "[t]he nature of a user of a system and the process used for logging the user on/off is system dependent and is outside the scope of this standard."[84] As an example, the IEEE 802.1X standard considers systems that do not have "human" users, such as bridges and systems that have "human" users, which users in turn use services provided by their operating system to perform user logon/logoff.[85] Moreover,[86]

> [t]he identity presented by the end station may either correspond to a user, group, or machine identify. End station implementations supporting use of a machine identity will typically authenticate once at startup, and will remain authenticated until a "Port down" even occurs or the end station or Bridge reinitialization or reauthentication occurs. In such implementations, accounting data will indicate a single long-lived session for [the] end station. Thus, it will not be possible to account for usage by user. In contrast, implementations support user or group identity may authenticate with each user login. In such implementations, accounting data will provide per-user information.

Thus, the IEEE 802.1X standard is applicable to authenticate identity that may correspond to a user, computer or a combination of both.

Consistent with the above, the IEEE 802.1X standard does not reference the nature of the authentication information that is exchanged in the "mandatory requirement" section of the standard. Specifically, Clause 5 of the IEEE 802.1X standard sets forth the requirements and options of the standard for which the details are described in the remaining clauses of the standard.[87] Clause 5.1 is directed to the "static conformance requirements" and lists all the requirements that "a device for which conformance to this standard is claimed *shall*"

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[84] *Id.* at Clause 8.5.10.1.1 at 52.

[85] *Id.* at Clause 8.5.10.1.1 at 52.

[86] *Id.* at C.3.1.

[87] *Id.* at Clause 5.

implement.[88] As provided, the requirements set forth in Clause 5.1 are the "mandatory requirements strictly to be followed in order to conform to the standard and from which no deviation is permitted" and is the only clause in the standard explicitly listing the mandatory requirements for compliance implementation of the IEEE 802.1X standard.[89] In contrast, Clause 5.2 is directed to "options" and lists the options that "a device for which conformance to this standard is claimed *may*" implement.[90] As provided, the options set forth in clause 5.2 are the options "permitted within the limits of the standard."[91] Clause 5.2 is the only clause within the standard providing the "options" that may be included in an IEEE 802.1X compliant device. Clauses 5.1 and 5.2 are respectively directed to supporting the operation of the PAE and protocol entities other than the PAE over the uncontrolled Port.[92] Neither Clause 5.1 nor Clause 5.2 mentions the nature of the authentication information that is exchanged, providing further support that the IEEE 802.1X standard is applicable to authenticate identity that may correspond to a user, computer or a combination of both.[93]

3. Example – Windows XP and Windows 2000

Microsoft's Windows XP and Windows 2000 provide illustrative examples of how products implement the IEEE 802.1X standard. In Microsoft's support literature, Enterprise

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88 *Id.* at Clause 5.1 (emphasis added).

89 Clause 13.1 of the IEEE Standards Style Manual defines the usage of the terms "shall" and "may" as respectively indicating mandatory and optional portions of a standard. Relevant excerpts from the IEEE Standards Style Manual are attached as Exhibit M.

90 IEEE Sts. 802.1X, Clause 5.2 (emphasis added).

91 *Id.*

92 IEEE 802.1X Standard Clauses 5.1 and 5.2.

93 With respect to Clause 8.4.5 directed to "retransmission of messages between the Supplicant PAE and the Authenticator PAE," special consideration was made to address the reference to adjustments that may be necessary for retransmission strategies and authentication timeouts in certain cases. In particular, Clause 8.4.5 states that "when a token card is used, additional time may be required to allow the user to find the card and enter the token." While this clause discusses user entry of tokens, it hardly requires or mandates that the standard utilize tokens or authentication of users. Hence, this sentence does not render the '830 patent essential to the standard.

Deployment of IEEE 802.11 Using Windows XP and Windows 2000 Internet Authentication Service (October 2001), the terms "user" and "computer" are incorporated to distinguish between the implementations of the IEEE 802.1X standard that authenticates a person from one that authenticates a computer.[94]

Microsoft recommends that its customers implement the IEEE 802.1X standard by providing authentication of users.[95] However, Microsoft also supports an implementation that authenticates computers, instead of users. For example, a "user certificate" provides the authentication information to authenticate users[96] and a "computer certificate" provides the authentication information to authenticate computers.[97] Microsoft states that "[w]ithout an installed user certificate, all wireless access is based on the computer certificate."[98] Moreover, to provide the highest level of security, the Microsoft support literature recommends using both computer certificates and user certificates.[99]

As shown, the Microsoft Windows XP and Windows 2000 products support authentication of users, computers and a combination of both. Thus both the IEEE 802.1X standard and an exemplary product that is compliant with the standard clearly demonstrate the flexibility of the standard in providing authentication of users, computers and a combination of both.

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94 Enterprise Deployment of IEEE 802.11 Using Windows XP and Windows 2000 Internet Authentication Service (October 2001) at 1-2 ("Microsoft October 2001 Support Literature"), a copy of which is attached as Exhibit N.

95 Microsoft October 2001 Support Literature at 2.

96 *Id.* at 14.

97 *Id.* at 6.

98 *Id.*

99 *Id.* at 2.

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95 Microsoft October 2001 Support Literature at 2.

96 *Id.* at 14.

97 *Id.* at 6.

98 *Id.*

99 *Id.* at 2.

III. '830 PATENT IS NOT ESSENTIAL TO COMPLIANCE WITH THE IEEE 802.1X STANDARD

As stated above, IEEE-SA patent disclosure policy is directed only to patents that are "essential" to the practice of the standard. Moreover, "essential" patents are those "patents, including patent applications, whose infringement is unavoidable in a compliant implementation of a standard and where there is no other reasonable technical implementation available."[100] Thus, a determination as to whether the '830 patent is essential to the practice of IEEE 802.1X standard requires a determination whether infringement of the '830 patent is "unavoidable in a compliant implementation of" the 802.1X standard and whether "there is no other reasonable technical implementation available."[101]

A. Applicable Law

A patent claim is infringed when someone "makes, uses, offers to sell, or sells any patented invention" without authorization from the patent holder.[102] In order to determine whether an accused device or process has infringed a patent, a two-step analysis is employed.[103] First, the allegedly infringed claims must be construed to determine their proper scope and meaning.[104] After a claim is properly construed, the second step in determining infringement is to compare the accused device to the properly constructed claims.[105]

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100 *See supra* notes 59-65 and accompanying text.

101 *Id.*

102 35 U.S.C. § 271(a).

103 *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1581-82, 39 U.S.P.Q. 2d (BNA) (Fed. Cir. 1996); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976, 34 U.S.P.Q. 2d (BNA) 1321, 1327 (Fed. Cir. 1995), aff'd, 517 U.S. 370, 38 U.S.P.Q 2d (BNA) 1461 (1996).

104 *Vitronics Corp.*, 90 F.3d at 1582, 39 U.S.P.Q. 2d at 1576-77.

105 *Id.*

1. Claim Interpretation

To interpret a claim, a court will look to the plain meanings of the terms in the claims, the specification, the prosecution history, and if necessary, extrinsic evidence.[106] To start, a court looks at the words of the claims themselves to determine their ordinary meaning as it would appear to a person experienced in the relevant field.[107]

Courts also review the specification to determine whether the inventor used any terms in a manner inconsistent with the ordinary meaning.[108] Although it is improper to limit claims to a preferred embodiment of an invention that has been more broadly disclosed or to limit claims to immaterial details of a broader invention, a claim cannot be construed to cover an invention broader than the disclosed invention.[109]

In addition, courts consider the prosecution history of the patent. The prosecution history contains a complete record of all the negotiations between the patentee and the United States Patent and Trademark Office that ultimately resulted in the issuance of the patent.[110] During these negotiations, the patentee may make express statements or representations regarding the scope of the claims.[111] The statements made by an applicant during prosecution to distinguish a claimed invention may serve to narrow the scope of a claim for the applicant cannot claim protection for subject matter disclaimed during prosecution.[112] Moreover, any arguments made

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106 *See Vitronics Corp.*, 90 F.3d at 1582, 39 U.S.P.Q. 2d at 1577.

107 *Id.*

108 *Id.*

109 *Toro Co., v. White Conso. Indus., Inc.*, 199 F.3d 1295, 1300-01, 53 U.S.P.Q. 2d (BNA) 1065, 1068-69 (Fed. Cir. 1999); *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479, 45 U.S.PQ. 2d (BNA) 1498, 1502-03 (Fed. Cir. 1998).

110 *Vitronics*, 90 F.3d at 1582-83, 39 U.S.PQ. 2d at 1577.

111 *Id.*

112 *Spectrum Int'l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, ___ , 49 U.S.P.Q. 2d (BNA) 1065, (Fed. Cir. 1998).

with respect to a claim term during the prosecution of a parent application are equally relevant to any continuation application claiming priority from the parent of a similar claim term.[113]

2. Direct Infringement

After a claim is properly construed, the patentee has the burden of showing that each and every element recited in the claim is found in the accused device in order to establish that the claim is literally infringed.[114] The absence of a single claim element in the accused device is sufficient to preclude a finding of literal infringement, since each element is material and essential.[115]

If an accused device does not literally infringe a claim, it may still infringe under the "doctrine of equivalents."[116] Equivalency requires that the accused product have an equivalent of every element of the claim, *i.e.*, the so-called "all elements" rule, because each element of the claim is material and essential.[117] Thus, the doctrine of equivalents cannot be used to vitiate an element from the claim in its entirety.[118] Moreover, "[i]f a theory of equivalence would vitiate a claim limitation ... then there can be no infringement under the doctrine of equivalents as a matter of law."[119]

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113 *Wang Lab., Inc. v. America Online, Inc.*, 197 F.3d 1377, 1384, 53 U.S.P.Q. 2d (BNA) 1161, 1166 (Fed. Cir. 1999); *Jonsson v. Stanley Works*, 903 F.2d 812, 818, 14 U.S.P.Q. 2d 1863, 1868-69 (Fed. Cir. 1990).

114 *Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1575, 34 U.S.P.Q. 2d (BNA), 673, 1676 (Fed. Cir. 1995).

115 *Wolverine World Wide, Inc. v. Nike, Inc.*, 38 F.3d 1192, 1199, 32 U.S.P.Q. 2d (BNA) 1338, 1341 (Fed. Cir. 1994).

116 *Warner-Jenkinson Co.*, v. Hilton Davis Chem. Co. 520 U.S. 17, 18, 41 U.S. P.Q. 2d (BNA) 1865, 1866-67 (1997).

117 *Id*; see also *Graver Tank & Mfg. Co. v. Linde air Prods. Co.* , 339 U.S. at 605, 608-09, 85 U.S.P.Q. (BNA) 328, 330-31 (150); *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1532-33, 3 U.S.P.Q. 2d (BNA) 1321, 1324-25 (Fed. Cir. 1987).

118 *Warner-Jenkinson Co.*, 520 U.S. at 18, 41 U.S.P.Q. 2d at 1866-67.

119 *Tronzo v. Biomet, Inc.*, 156 F. 3d. 1154, 1160, 47 U.S.P.Q. 2d (BNA) 1829, 1834 (Fed. Cir. 1998).

There are a number of legal principles that can preclude a finding of infringement under the doctrine of equivalents.[120] For example, there can be no infringement if the theory of equivalence would vitiate a claim term in its entirety or would permit the patentee to claim subject matter that was already in the prior art and was thus unpatentable.[121] Also, because every claim limitation or its substantial equivalent must be present in the accused product to find an infringement, it is only necessary to identify one missing limitation to establish that a claim is not infringed.[122]

Moreover, under the theory of prosecution history estoppel, statements, claim amendments, and arguments made during prosecution of a patent application can create an estoppel that prevents the patentee from recovering through equivalents the concessions made during prosecution.[123] For example, prosecution history estoppel will exclude from the doctrine of equivalents any subject matter that was relinquished either by amendment or argument during prosecution.[124]

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120 *Warner-Jenkinson*, 520 U.S. at 39 n.8, 41 U.S.P.Q. 2d at 1875 n.8.

121 *Wilson Sporting Goods Co. v. David Geoffrey & Assocs.*, 904 F.2d 677, 683 14 U.S.P.Q. 2d (BNA) 1942, 1947-48 (Fed. Cir. 1990).

122 *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 935, 4 U.S.P.Q. (BNA) 1737, 1740 (Fed. Cir. 1987).

123 *Loctite Corp. v. Ultraseal, Ltd.*, 781 F.2d 861, 870, 228 U.S.P.Q. (BNA) 90, 95-96 (Fed. Cir. 1985).

124 *Sextant Avionique, S.A. v. Analog Devices, Inc.*, 172 F.3d 817, 832, 49 U.S.P.Q. (2d) 1865, 1875 (Fed. Cir. 1999). As explained in a recent Supreme Court decision on the doctrine of prosecution history estoppel, any "narrowing amendment made to satisfy any requirement of the Patent Act" creates a rebuttable presumption of "a general disclaimer of the territory between the original claim and the amended claim." *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 122 S. Ct. 1831, 1839 1842, 62 U.S.P.Q. 2d (BNA) 1705, 1711, 1713 (2002). The patent owner "bear[s] the burden of showing that the amendment does not surrender the particular equivalent in question." F.2d at 1842, 62 U.S.P.Q. 2d at 1713. This is the so-called "flexible bar". To rebut the presumption, "[t]he patentee must show that at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent." *Id.* As some examples of what might be used to show that an amendment did not surrender a particular equivalent, the Court largely adopted the rationale of the Government's Brief: (1) "[t]he equivalent may have been unforeseeable at the time of the application"; (2) "the rationale underlying the amendment may bear no more than a tangential relation to the equivalent in question"; or (3) "there may be some other reason suggesting that the patentee could not reasonably be expected to have described the insubstantial substitute in question." *Id., 62 U7.S.P.Q. 2d at 1713.*

B. The Subject Matter of the '830 Patent

The '830 patent is entitled *Deterministic User Authentication Service for Communication Network*. The patent issued on January 15, 2002 from U.S. Application No. 09/525,506, filed on March 15, 2000. The '830 patent claims priority from U.S. Patent No. 6,070,243 ("the '243 patent") issued on May 30, 2000.

The '830 patent describes a user authentication service for a communication network that authenticates local users before granting access to protected network resources. More particularly, the '830 patent addresses an authentication method for local users connected to networks via a Local Area Network ("LAN") connection, which may be referred to as "local edge user authentication." Local edge user authentication creates a security barrier to communication traffic of an unauthorized LAN-attached user at the first point of attachment to a network, such as the LAN edge node. Once in place, the securing barrier blocks all traffic before the LAN-attached user is authenticated. Subsequent to proper authentication, the security barrier is removed.

Generally, the preferred embodiment of the patent describes a local edge user authentication method and system that is preferably carried out using three hardware nodes. The three nodes are: (1) a LAN-attached user's end-station; (2) a LAN edge node; and (3) a network management station. The authentication process involves a client, an agent and a server. The authentication client resides on a user's end-station. The authentication agent resides on the LAN edge node. The authentication server resides either in an institution network backbone or on the LAN edge node.

Authentication is performed in an authentication protocol exchange in which the authentication client communicates directly with the authentication agent and the authentication agent communicates directly with the authentication server. In other words, the authentication agent acts as a "go between" for the authentication client and the server to ensure that user traffic does not "leak" into the institutional network backbone prior to the completion of the authentication process in which the user is authenticated. As described in the Summary section

of the '830 patent, the "invention combines the user-specific advantages of log-in challenges and the flexibility of VLANs into a deterministic user-based authentication and tracking service for local users of institutional communication networks."[125]

C. The Claim Term "User" in the '830 Patent Means a Person not a Computer

As issued, the '830 patent contains 40 claims, of which, claims 1, 2, 6, 9, 12, 15, 16, 17, 23, 24, 28, 32, 35, 37 and 40 are independent. All of the independent claims are directed generally to either a user authentication method or a user authentication system that authenticates local users before granting them access to protected network resources. This is accomplished, for example, through authentication agents on intelligent edge devices presenting users of associated systems with login challenges. Information supplied by the users is thereafter forwarded to an authentication server for verification.

1. Plain Meaning of the Claim Term "User" Means a Person

All of the claims of the '830 patent provide for authentication by requiring a user to enter "user identification information,"[126] "unique user key,"[127] "log-in response"[128] or otherwise requiring some form of user authentication protocol exchange with the user. Claim 1 is illustrative:[129]

> 1. A user authentication method for communication network having a plurality of nodes, the method comprising:
>
> *entering* on a first node first *user identification information*;

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125 Col. 3, lines 43-47.

126 The claim term "user identification information" is recited in independent claims 1, 2, 15, 16, 17, 24, 37, and 40.

127 The claim term "unique user key" is recited in independent claims 6, 9, and 12.

128 The claim term "log-in response" is recited in independent claims 23.

129 Col. 1, lines 17-31. (emphasis added).

transmitting to a second node the first user identification information, the second node having second user identification information;

comparing for a match on the second node the first user identification information with the second user identification information; and

authorizing communication between the first node and a group of nodes on the communication network in response to a match, wherein the group of nodes is represented by a virtual local area network identifier.

The plain meaning of the term "user" as recited in these claim terms refers to "one that uses" or one that "puts into service... for a purpose."[130] In this context, the ordinary meaning of the claim term "user identification information" as recited in claim 1, refers to the identification information of the person that uses or puts into service information for the purpose of authentication and to obtain access to protected network resources and not the computer that receives and performs the functions requested by the user.

2. Specification of the '830 Patent Supports the Plain Meaning of the Term "User" as a Person

A review of the specification of the '830 patent reveals that the term "user" is used in a manner consistent with its plain meaning. First and foremost, the Background section of the '830 patent states that prior security solutions have been realized by policy-based VLANs wherein the VLAN membership has generally been assigned to end systems without reference to the identity of the users of such systems.[131] The deficiency of these prior systems in its failure to authenticate the identity of the user who sent the traffic has caused network security issues.[132] "Particularly, a person not authorized to use the resources of a VLAN may be able to gain access

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130 AMERICAN HERITAGE® COLLEGE DICTIONARY 1066 (3d. ed 1997).

131 Col. 2, lines 1-12.

132 *Id.*

to its resources by transmitting data packets which the configured rules will classify into the VLAN, either by communicating over a member end-system or by spoofing the required identifiers."[133] To resolve these network security issues, the invention of the '830 patent is directed to a user authentication service for a communication network that specifically authenticates the users before granting them access to protected network resources.[134]

Additionally, the specification further defines the term "user" as directed to a person accessing the network as opposed to a workstation.[135] In one preferred embodiment, system 40 is stated as having a user interface 350,[136] and with respect to the performance of the requisite authentication exchange, the specification states that an Agent 400 also includes ID REQ means 420, which serves to obtain log-in responses from the users of the associated systems.[137] Further, Client 360 includes an ID INIT means 610. When system 40 is booted-up by a user, ID INIT means 610 serves to request and establish an authentication session with agent 400. Alternatively, ID INIT means 610 can be activated by a direct action from the user of system 40.[138]

The specification additionally states that Client 360 includes ID RPLY means 620, which serves to enable users to reply to log-in prompts received from agent 400 by supplying "a textual or graphical display to a user interface of system 40 operative to accept log-in responses."[139] Client 360 also includes VER DSPL means 630, which serves to convey to users whether log-in attempts were successful or unsuccessful by supplying a textual or graphical display to a user

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133 Col. 2, lines 12-18.

134 *See* Abstract; Col. 2, line 50 to col. 3, line 4.

135 Col. 6, line 17; col. 6, line 22; col. 6, lines 33-34; col. 6, liens 58-59.

136 Col. 5, lines 25-27.

137 Col. 5, line 66 to col. 6, line 2.

138 Col. 9, lines 14-18.

139 Col. 9, lines 25-30.

interface of system 40 operative to display user status information.[140] Client 360 also includes an ID OFF means 640, which serves to initiate the log-off process by which authenticated users log-off the network by supplying a textual or graphical display to a user interface of system 40 operative to accept log-off commands.[141]

The specification of the '830 patent further states that "when a user boots-up device 40 (910), client 360 activates."[142] Thereafter, "[t]he user enters a log-in response and the response is transmitted to agent 400."[143] Moreover, "[t]he user is denied network access until such time as the user reboots system 40."[144] As such, the '830 patent is clearly directed to a user authentication services that authenticates a person to provide access to protected network resources accessible to that person once authentication process has been verified.

Thus, the specification supports the plain meaning construction of the term "user" as referring only to the person attempting to gain access to the network, *i.e.*, the specification clearly supports the meaning of the term "user" as referring to a person and not a computer.

3. Prosecution History of the '830 and Related Patents Support the Plain Meaning of the Term "User" as a Person

The prosecution histories of the '830 and '243 patents further validates this interpretation of the term "user" as used in the authentication service of the '830 patent. In fact, a broader construction of this claim term may be irreconcilable with the position taken by the applicant during the prosecution of these related patents. The claim term "user" was first included in the claims as filed in the application for the '243 patent. During the prosecution of '243 patent, the

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140 Col. 9, lines 31-35.

141 Col. 9, lines 38-42.

142 Col. 11, lines 10-11.

143 Col. 11, lines 16-17.

144 Col. 11, ll. 41-43.

terms "user identification information" was exclusively used in reference to information that is provided to the authentication service by a user to obtain and verify access to the network.

In the First Office Action issued on December 24, 1998 during the prosecution of the application that resulted in the '243 patent, the claims as submitted were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,774,551 to Wu ("the Wu patent") in view of U.S. Patent No. 5,721,780 to Ensor ("the Ensor patent"). In rejecting the claims, the Examiner stated:

> Wu discloses (col. 3, liens 20-67) an application programming interface that mediates between the system entry services and the account management services on a computer, and a facility that stores service association between each system entry service and selected ones of the account management services.
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> ***
>
> [Wu] further teaches (col. 13, lines 35-67) an authenticate user method that tests the name or address of the remote computer against a list of trusted remote computers. Wu does not explicitly discloses [sic] means for comparing for a match the accepted log-in responses in the stored user identification information.
>
> ***
>
> Ensor teaches (col. 2, lines 15-52) a method for securing access to a computer network by comparing a password previously stored in the memory against a newly generated password and matching the two for authentication.

Based on the teachings of the Wu and Ensor references, the examiner concluded that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to "authenticate user method which tests the name or address of the remote computer against a list of trusted remote computers."

In response, the applicants submitted an amendment on February 2, 1999, arguing that the claims are patentable over the cited prior art because the recited art did not teach or suggest

providing access to protected network resources upon verifying user identify. In particular, the applicant stated:[145]

> Ensor addresses a user-transparent authentication service for a telecommunications network. ....[W]hen a user requests access to the network from a network terminal, a network control system, such as a server, receives from the network a coupling identifier, such as a network address. The network control system encrypts the coupling identifier to form an encrypted password. The password is retained by the network control system and is also downloaded into the user's terminal, unbeknownst to the user. On subsequent requests for access from the terminal, the password is transmitted to the network control system and compared with the password retained on the network control station for a match. If there is a match, it is assumed that the same terminal is requesting access. If not, it is assumed that the password or coupling to the network has been tampered with. Through these comparisons, a measure of protection against unauthorized access is purportedly achieved independent of any user identification.
>
> ****
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> While Ensor addresses security at the network level, albeit crudely, there is no teaching or suggestion to authenticate users. Ensor's security service relies instead on recognizing the identity of terminals. There is no [sic] consideration for who is using the terminals to gain access to the network.

These express arguments made during the prosecution of the '243 clearly confine the scope of the invention claimed in both the '243 and '830 patents to an authentication service that is directed to "user" authentication as opposed to "terminal" or "computer" authentication.

On December 17, 1999, the Examiner issued a Notice of Allowance, allowing the pending claims. In the Reason for Allowance, the examiner stated that:[146]

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145 February 2, 1999 Amendment at 18-19.

146 Notice of Allowability at 2 (emphasis added).

> The prior art of record teach a system and method that uses a unified login through a [sic] authentication token mapping process. It utilizes a user's primary authentication token for a primary authentication service, such as a password, Private key, or other unique data, to encrypt user's other authentication tokens for other secondary authentication services. It also teaches methods that tests the name or address of the remote computer against a list or trusted remote computers. Wu et al., U.S. Patent No. 5,774,551 is one such example of prior art. The prior arts or record, however, fails to teach, singly or in combination, *a user authentication service* that includes plurality of nodes each having a different network interface *that establishes authentication using comparison of user identification* and establishes communication between the system and a selectable group of nodes. In Examiner's opinion, the subject matter sought to be patented as recited in the claims in this application has practical applications in the field of establishing personalized network communicability.

Accordingly, based on the plain meaning, specification and prosecution history, all of the claims of the '830 patent should be construed to require the authentication of a person based on that person's user identification information not the authentication of a remote computer.

D. Proper Construction of the Claims Establishes the '830 Patent is Not Essential To Compliance with the IEEE 802.1X Standard

As shown above, the authentication service recited in the claims of the '830 patent all require authentication of persons not computers. Also shown above, both the "mandatory" and "optional" portions of the IEEE 802.1X standard are agnostic to the authentication entity, *i.e.*, authentication is accomplished through verification either of users, computers or both.

The IEEE-802.1X standard can be practiced with the use of the patented technology as set forth in the '830 patent. There are clearly other alternatives provided in the IEEE 802.1X standard, *i.e.*, authentication of computers, that do not infringe the '830 patent, either literally or under the doctrine of equivalents. As such, the '830 patent is not essential to either the "mandatory" and "optional" portions of the IEEE 802.1X standard, and, accordingly, the IEEE-SA patent disclosure policies do not apply to the '830 patent. Even if the use of the patented

technology of the '830 patent is desirable or preferably as the best mode, such use does not trigger the disclosure obligation required by IEEE-SA, which apply only to essential patents, as described above.[147]

Nor is the '830 patent rendered essential because an end user has the "option" to implement the standard by authenticating user information. While the disclosure rules apply to "optional" portions of a standard, the term "optional" is something of a term of art.[148] It refers to portions of the standard that are denominated as "optional," *e.g.*, Clause 5.2 of the IEEE 802.1X standard, and relate generally to features that may, but need not, be implemented to comply with the standard. Here, authenticating users is not specified or mandated by either of the "mandatory" or the "optional" portions of the IEEE 802.1X standard. Rather, user authentications is an implementation detail outside the scope of the standard and not embraced by the term "optional" as it is used in IEEE (and general standard setting) parlance.[149]

E. Because the '830 Patent Is Not Essential to the 802.1X Standard, Alcatel May Enforce the Patent Without Constraints Arising from the Standards Process.

The various legal theories that may render a patent unenforceable due to the patentee's conduct before a standard-setting organization are all predicated on some wrongful act of the patentee. As the '830 patent is not essential to the implementation of the IEEE 802.1X standard, there was no expectation of disclosure of the patent either during the standard-setting process or after the standard was adopted. As a result, the failure to disclose the patent is not wrongful, and the various challenges that may be leveled against standards-related patents should fail here.

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147 The analysis presented in the section is directed to the application of IEEE's patent disclosure policy based solely on the determination of whether the '830 patent is "essential" to the implementation of the IEEE 802.1X standard. Consideration of the application of IEEE's patent disclosure policy with respect to an "essential" patent based on the conduct of Alcatel employees is addressed in Section IV.

148 IEEE-SA standards Board Bylaws, Clause 6.

149 *See* supra note 88 and accompanying text.

For example, the doctrine of equitable estoppel requires as a predicate misleading conduct or silence on the part of the patentee.[150] In the standard-setting context, the alleged misconduct is normally predicated on the patentee's failure to disclose a patent when there is an obligation to do so. As the `830 patent was not essential to the 802.1X standard, Alcatel had no obligation to disclose that patent under IEEE's rules. Thus, a properly instructed court should find that Alcatel has not committed conduct that could create an estoppel.

The analysis under Section 2 of the Sherman Act is similar. Under modern antitrust jurisprudence, in both the courts and the enforcement agencies, anticompetitive or other wrongful conduct is a *sine qua non* of a claim of claim of monopolization. Competitive conduct, and even aggressively competitive conduct, does not rise to the level of a violation of Section 2.[151] Similarly, it is well established that the good faith assertion of a patent is not a violation of Section 2, irrespective of the patent owner's market share or market position.[152]

Thus, for the assertion of the `830 patent to rise to the level of a violation of Section 2, it is essential that there be some wrongfulness in the enforcement of the patent.[153] If Alcatel had no

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150 *Aukerman*, 960 F.2d at 1043, 22 U.S.P.Q. 2d at 1337.

151 *See, e.g., Sterns Airport Equip. Co*, 170 F.3d 518 at 522 ("Exclusionary conduct under Section 2 is the creation or maintenance of monopoly by means other than the competition on the merits embodied in the *Grinnell* standard."); *Abcor Corp.*, 916 F.2d at 924, 927 ("A desire to increase market share or even to drive a competitor out of business through vigorous competition on the merits is not sufficient"); *Syufy Enters.*, 903 F.2d at 659, 669 (stating that "an efficient, vigorous, aggressive competitor is not the villain antitrust laws are aimed at eliminating").

152 *See, e.g., Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576 14 U.S.P.Q. 2d (BNA) 1034, 1036-37 (Fed. Cir. 1990) ("Congress has specifically granted patent owners the right to commence a civil suit in order to protect their inventions,"); *Handgards, Inc. v. Ethicon, Inc.*, 743 F.2d 1282, 1289, 223 U.S.P.Q. (BNA) 214, 218 (9th Cir. 1984) ("[a]ll that is required for a finding of bad faith in the context of an infringement suit is that the patent holder ... knew that the patent vas invalid").

153 *Atari Games*, 897 F.2d at 1576-77, 14, U.S.P.Q. 2d at 1037 ("When a patent owner uses his patent rights not only as a shield to protect his invention, but as a sword to eviscerate competition unfairly, that owner may be found to have abused the grant and may become liable for antitrust violations when sufficient power in the relevant market is present. Therefore, patent owners may incur antitrust liability for enforcement of a patent known to be obtained through fraud or known to be invalid, where license of a patent compels the purchase of unpatented goods, or where there is an overall scheme to use the patent to violate antitrust laws.").

obligation to disclose the '830 patent under the applicable IEEE rules, then the failure to do so should not provide the predicate for a violation of Section 2, as that body of law exists today.

The FTC's complaint in the *Rambus* matter has raised questions in many quarters regarding the FTC's enforcement strategy as to patents involved in industry standard setting. While predicting FTC enforcement policy is far from an exact science, there are a number of reasons to believe that the FTC would be unlikely to bring a complaint on the facts of this case. First, Commission investigations of monopolization-related conduct normally have been guided by the requirement that injury to competition actually occur or be incipient. Chairman Muris has been especially vocal when the Commission has strayed from this standard in the past.[154] In the absence of any violation of IEEE rules, it is difficult to envision a theory as to how Alcatel's failure to disclose the '830 patent or pending application to IEEE injured competition.

Moreover, standard organizations have aggressively lobbied the FTC in the past to create rules under FTC § 5 consistent with the disclosure rules the standards organizations impose on their members. In both the *Dell Computer* and *Rambus* complaints, the Commission staff went to lengths to make it clear that the conduct they asserted was wrongful violated the disclosure policy of the standards body at issue in the case. It would represent an unprecedented and highly controversial step for the FTC to initiate a complaint in a case where the patentee had fully complied with the governing rules of the standards organization or had no duty to disclose a patent.

With regard to state law claims, it is again difficult to generalize all such possible claims. However, with respect to fraud claims, such as the one involved in *Rambus v. Infineon*, the fact that the '830 patent is not essential to the standard should preclude a successful claim of fraud. Initially, we note that the IEEE standards policy, unlike the JEDEC policy in *Rambus*, does not mandate disclosure of patents. In the IEEE scheme, disclosure is voluntary. Thus, it is at least arguable that there is no *duty* to disclose patents in an IEEE standards setting, and hence no

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154 *Supra* note 32.

person could reasonably rely on a patentee's silence as indicating that the patentee had no such patents. Moreover, here, it seems clear that the '830 patent is not essential to the 802.1X standard and not subject even to voluntary disclosure under the IEEE patent policy. We think it is the case that a properly instructed court would find that there can be no fraud in the failure to disclose a patent that is not essential under the IEEE patent disclosure regime.

IV. THERE MAY BE OTHER GROUNDS TO CONCLUDE THAT ALCATEL HAD NO DUTY TO DISCLOSE THE '830 PATENT.

In the course of our investigation we noted other facts that tend to suggest that Alcatel did not have an obligation to disclose the pending application that lead to the '830 patent to the IEEE standards body or facts that otherwise tend to mitigate any inference that Alcatel is estopped from enforcing the '830 patent. While we have predicated our analysis on the fact that the '830 patent is not essential to the 802.1X standard, we note our observations of these additional facts in this section.

A. Alcatel Employees Were Not "Participants" of the IEEE 802.1 Working Group to IEEE 802.1X Standard.

As stated above, IEEE-SA participants do not have a duty to perform patent searches as part of the standard-setting process. To the extent that the IEEE-SA patent policy encourages participants to disclose essential patents, such requirement is limited to the participants' actual knowledge of the patents.[155] As there is no duty on a company to search its portfolio to find patents or applications that may be relevant or applicable, a company's patent disclosure obligation is limited to its participants' good faith knowledge of the company's patent activities.[156]

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155 T. Wettach, IEEE Patent Policy (presentation to IEEE802 11.5.99) at 9.

156 IEEE Patent Policy at 9.

To our knowledge, none of the IEEE 802.1 Working Group participants listed in the IEEE 802.1X standard was ever employed by Alcatel.[157] Since Alcatel had no employees participating in the IEEE 802.1 Working Group during the period relevant to the IEEE 802.1X standard, the question of patent knowledge with respect to these listed individuals and Alcatel's resulting obligation to disclose the '830 patent is therefore rendered moot.

B. Alcatel Employees' Limited Involvement in the IEEE 802.1X Standard Setting Process Did Not Require Disclosure of the '830 Patent Application.

It appears that three Alcatel employees had limited involvement with the IEEE 802.1X standard setting process. A brief summary of Alcatel employees' involvement during the various stages of the development and approval of the IEEE 802.1X standard is as follows.

On June 2, 1999, the IEEE Project 802 held a meeting in Coeur d' Alene, Idaho, during which the project authorization request (PAR) phase for the IEEE 802.1X standard was agreed upon. Alcatel employee, Jeff Hayes, gave a presentation on Alcatel's experience with user authenticated VLANs in support of a survey demonstrating commercial interest. Alcatel employee Leon Sangroniz was also present at that meeting and appears to have attended one other IEEE 802.1 Working Group meeting. Moreover, Mr. Sangroniz also replied to two emails on the IEEE 802.1 Working Group email exploder on September 8 and September 9, 1999, respectively. Alcatel employee Bill Simon attended the March 2000 IEEE 802.1 Working Group meeting in Albuquerque, New Mexico.

The limited involvement of the three Alcatel employees during the IEEE 802.1X standard development process does not appear to have risen to the level that an obligation to disclose the pending patent application was triggered. As stated above, IEEE-SA's patent disclosure obligations apply only to participants of a Working Group. The policy is silent as to individuals that are not participants. There is no evidence that any one of the three Alcatel employees' attendances sufficiently qualified them as "participants" in the IEEE 802.1X Working Group.

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157 A complete list of the participants to the IEEE 802.1 Working Group relevant to the IEEE 802.1X standard is provided on pages v and vi of the IEEE 802.1X standard.

Moreover, none of these Alcatel employees have ever requested or declared an intention to become a "voting member." Thus, even if the '830 patent were essential to the IEEE 802.1X standard, it appears that none of the Alcatel employees had sufficient involvement with the standard setting process to warrant disclosure of the application.

Moreover, the '830 patent was issued on January 15, 2002, after the IEEE 802.1X standard was approved for adoption on June 14, 2001. Accordingly, the '830 patent was a pending application at all times during the standard-setting process for the IEEE 802.1X standard. There is no evidence that any of the three Alcatel employees attended standard setting meetings for the IEEE 802.1X standard after July 2000 when the IEEE 802.1 Working Group adopted the current patent disclosure policy extending disclosure obligation to pending patents. Thus, the limited involvement of the Alcatel employees in the standard setting efforts for the IEEE 802.1X standard is insufficient to trigger an obligation to disclose the '830 patent or the patent application that issued as the '830 patent.

The IEEE-SA has long acknowledged the difficulty in applying its policies to patent applications. In fact, the IEEE has distinguished patent applications from patents with respect to its disclosure policy and stated that "[s]tandards committees realize that until a patent has issued there is little value to disclosure since the scope of valid patent claims has not been determined.[158] That the '830 patent was a patent application at all times during the IEEE 802.1X standard-setting process and that the three Alcatel employees had only limited involvement in the process all tend to suggest that Alcatel had no obligation to disclose the '830 patent even if the patent were to cover the IEEE 802.1X standard.

V. CONCLUSION

For the reasons set forth above, it is our analysis that a reasonable and well-informed judge or jury would conclude that Alcatel is not precluded from enforcing the '830 patent against

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158 *Id.* at 6.

HOWREY
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the members of the IEEE-SA because the '830 patent is not essential to the IEEE 802.1X standard.

Sincerely,

Joseph P. Lavelle
Howrey Simon Arnold & White, LLP

Enclosures