

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORP., CAVIUM, INC.,
WISTRON CORPORATION, and DELL INC.
Petitioner,

v.

ALACRITECH, INC.,
Patent Owner.

Case IPR2017-01406¹
U.S. Patent No. 7,673,072
Title: FAST-PATH APPARATUS FOR TRANSMITTING DATA
CORRESPONDING A TCP CONNECTION

**SUR-REPLY IN OPPOSITION TO PATENT OWNER'S MOTION TO
AMEND FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,673,072**

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

¹ Cavium, Inc., which filed a Petition in IPR2017-01707, Wistron Corporation, which filed a Petition in IPR2018-00329, and Dell Inc., which filed a Petition in IPR2018-00375, have been joined as petitioners in this proceeding.

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. PATENT OWNER HAS IMPROPERLY EXPANDED THE SCOPE OF CLAIMS 22-29.....	2
III. PATENT OWNER HAS FAILED TO MEET ITS BURDEN TO SHOW WRITTEN DESCRIPTION SUPPORT.....	4
IV. SUBSTITUTE CLAIMS 22-29 AND 36-42 ARE INDEFINITE	8
V. THE SUBSTITUTE CLAIMS ARE OBVIOUS OVER ERICKSON IN VIEW OF TANENBAUM.....	9
A. A POSA Would Have Been Motivated to Combine Erickson with Tanenbaum96.....	10
B. Patent Owner Has Failed to Rebut Petitioner’s Showing that the Limitations of the Substitute Claims Are Met	11
VI. CONCLUSION.....	12

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Aqua Prods., Inc. v. Matal</i> , 872 F.3d 1290 (Fed. Cir. 2017).....	5
<i>B.E. Tech., L.L.C. v. Google, Inc.</i> , Case No. 2015-1827, 2016 WL 6803057 (Fed. Cir. Nov. 17, 2016)	5, 6
<i>Facebook, Inc. v. Everymd LLC</i> , IPR2014-00242, Paper 31 (May 12, 2015).....	6
<i>Honeywell Int’l Inc. v. Hamilton Sundstrand Corp.</i> , 370 F.3d 1131 (Fed. Cir. 2004).....	9
<i>In re Merck & Co.</i> , 800 F.2d 1091 (Fed. Cir. 1986).....	11
<i>Respironics, Inc. v. Zoll Med. Corp.</i> , IPR2013-00322, Paper 46 (Sept. 17, 2014)	5, 6
<i>Semiconductor Components Indus., LLC v. Power Integrations, Inc.</i> , IPR2016-01600, Paper 35 (Feb. 14, 2018)	5
<i>Toshiba v. Optical Devices, LLC</i> , IPR2014-01441, Paper 36 (Mar. 8, 2016).....	4
Statutes and Regulations	
35 U.S.C. § 103	1
35 U.S.C. § 316(d)	4, 5
37 C.F.R. § 42.121	5, 6
37 C.F.R. § 42.121(b)	5
37 C.F.R. § 42.221	5

EXHIBIT LIST

Exhibit #	Description
Ex.1001	U.S. Patent No. 7,237,036 (“036 Patent”)
Ex.1002	Excerpts from Prosecution File History of U.S. Patent No. 7,237,036 (“036 File History”)
Ex.1003	Declaration of Robert Horst
Ex.1004	<i>Curriculum Vitae</i> of Robert Horst
Ex.1005	U.S. Patent No. 5,768,618 (“Erickson”)
Ex.1006	Tanenbaum, Andrew S., <i>Computer Networks</i> , Prentice-Hall, Inc., New Jersey (1996) (“Tanenbaum96”)
Ex.1007	Transmission Control Protocol, “Darpa Internet Protocol Specification,” RFC: 793, Sept. 1981 (“RFC 793”)
Ex.1008	Stevens, W. Richard, <i>TCP/IP Illustrated Volume 1: The Protocols</i> , Addison-Wesley (1994) (“Stevens1”)
Ex.1009	Lilinkamp, J., Mandell, R. and Padlipsky, M., “Proposed Host-Front End Protocol,” Network Working Group Request for Comments: 929, Dec. 1984 (“RFC 929”)
Ex.1010	Alacritech’s Preliminary Claim Construction and Extrinsic Evidence Disclosures, January 31, 2017
Ex.1011	Declaration of Rice Mayors regarding Tanenbaum, Andrew S., <i>Computer Network</i>
Ex.1012	U.S. Patent No. 4,831,523
Ex.1013	Stevens, W. Richard and Wright, Gary R., <i>TCP/IP Illustrated Volume 2: The Implementation</i> , Addison-Wesley (1995) (“Stevens2”)
Ex.1014	Touch, J., “TCP Control Block Interdependence,” Network Working Group Request for Comments: 2140, April 1997 (“RFC 2140”)

Exhibit #	Description
Ex.1015	Thia, Y.H., Woodside, C.M., “A Reduced Operation Protocol Engine (ROPE) for a Multiple-Layer Bypass Architecture,” Protocols for High Speed Networks (Dordrecht), 1995 (“Thia”)
Ex.1016	Biersack, E. W., Rüttsche E., “Demultiplexing on the ATM Adapter: Experiments with Internet Protocols in User Space,” Journal on High Speed Networks, Vol. 5, No. 2, May 1996 (“Biersack”)
Ex.1017	Rüttsche, E., Kaiserswerth, M., “TCP/IP on the Parallel Protocol Engine,” Proceedings, IFIP Conference on High Performance Networking, Liege (Belgium), Dec. 1992 (“Rüttsche92”)
Ex.1018	Rüttsche, E., “The Architecture of a Gb/s Multimedia Protocol Adapter,” Computer Communication Review, 1993 (“Rüttsche93”)
Ex.1019	Padlipsky, M. A., “A Proposed Protocol for Connecting Host Computers to Arpa-Like Networks Via Directly-Connected Front End Processors,” Network Working Group RFC #647, Nov. 1974 (“RFC 647”)
Ex.1020	U.S. Patent No. 5,619,650 (“Bach”)
Ex.1021	U.S. Patent No. 5,915,124 (“Morris”)
Ex.1022	Cooper, E.C., et al., “Protocol Implementation on the Nectar Communication Processor,” School of Computer Science, Carnegie Mellon University, Sept. 1990 (“Cooper”)
Ex.1023	Kung, H.T., et al., “A Host Interface Architecture for High-Speed Networks,” School of Computer Science, Carnegie Mellon University and Network Systems Corporation (“Kung”)
Ex.1024	Exhibit D to Declaration of Dr. Gregory L. Chesson in Support of Microsoft’s Opposition to Alacritech’s Motion for Preliminary Injunction: “Protocol Engine Handbook,” Protocol Engines Incorporated, Oct. 1990 (“Chesson”)

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.