Trials@uspto.gov
571-272-7822

Paper No. 7
Entered: March 2, 2017

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EXABLAZE PTY. LTD.,
Petitioner,

v.

SOLARFLARE COMMUNICATIONS, INC.,
Patent Owner.

Case IPR2016-01908
Patent 8,612,536 B2

Before SALLY C. MEDLEY, DAVID C. MCKONE, and CHRISTA P. ZADO, *Administrative Patent Judges*.

MCKONE, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

I. INTRODUCTION

A. Background

Exablaze Pty. Ltd. ("Petitioner") filed a Petition (Paper 1, "Pet.") to institute an *inter partes* review of claims 1–17 of U.S. Patent No. 8,612,536 B2 (Ex. 1001, "the '536 patent"). Solarflare Communications, Inc. ("Patent Owner") filed a Preliminary Response (Paper 6, "Prelim. Resp."). Upon consideration of the Petition and Preliminary Response, we conclude, under 35 U.S.C. § 314(a), that Petitioner has not established a reasonable likelihood that it would prevail with respect to any of the challenged claims. Accordingly, we decline to institute an *inter partes* review of claims 1–17 of the '536 patent.

B. Related Matter

The parties indicate that the '536 patent has been asserted in *Solarflare Communications v. Exablaze Pty. Ltd.*, Case No. 16-cv-01891 (D. N.J.). Pet. 1; Paper 4, 1.

C. Evidence Relied Upon

Petitioner relies on the following prior art:

Peter Druschel, *Operating System Support for High-Speed Communication*, VOL. 39, NO. 9 COMM. OF THE ACM 41–51 (Sept. 1996) (Ex. 1003, "Druschel");

U.S. Patent No. 7,451,456 B2, issued Nov. 11, 2008, filed June 19, 2002 (Ex. 1004, "Andjelic");

U.S. Patent No. 6,594,787 B1, issued July 15, 2003, filed Sept. 17, 1999 (Ex. 1005, "Chesson");

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

Aled Edwards & Steve Muir, *Experiences implementing a high performance TCP in user-space*, PROCEEDINGS OF ACM SIGCOMM'95 196–205 (Aug. 28–Sept. 1, 1995) (Ex. 1006, "Edwards");

Olivier Maquelin et al., *Polling Watchdog: Combining Polling and Interrupts for Efficient Message Handling*, ISCA '23 PROCEEDINGS, VOL. 24, NO. 2 COMPUTER ARCHITECTURE NEWS 179–88 (May 22–24, 1996) (Ex. 1007, "Maquelin").

Petitioner also relies on the Declaration of Kevin Jeffay, Ph.D. (Ex. 1001, "Jeffay Decl.").

D. The Asserted Grounds

Petitioner asserts the following grounds of unpatentability (Pet. 4):

Reference(s)	Basis	Claims Challenged
Druschel and Andjelic	§ 103(a)	1–3, 5, 6, 10, 11, 13, and 14
Druschel, Andjelic, and Chesson	§ 103(a)	4 and 7–9
Druschel, Andjelic, and Maquelin	§ 103(a)	12 and 15–17

E. The '536 Patent

The '536 patent describes methods of transmitting and receiving data in a data processing system. Ex. 1002, Abstract. The '536 patent describes techniques in the context of the system depicted in Figure 1, reproduced below:

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

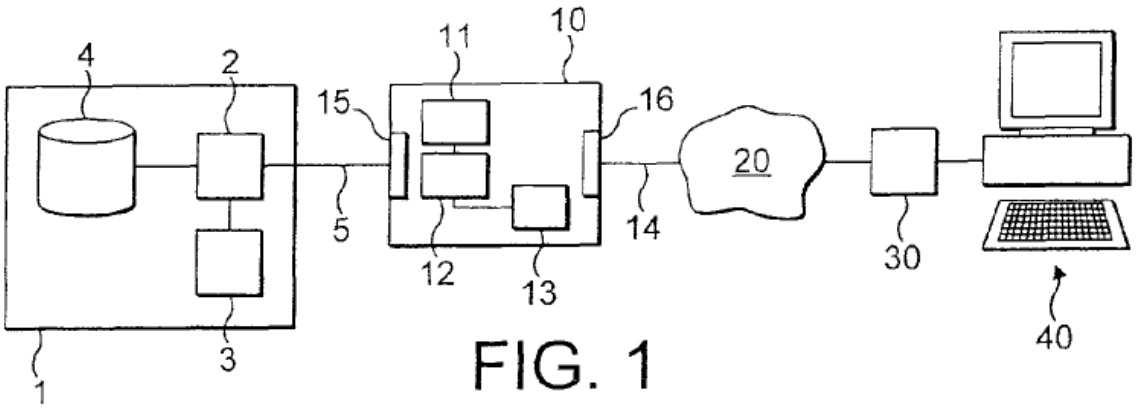

FIG. 1

Figure 1 is a schematic diagram of a system with a network interface device in use. *Id.* at 8:60–61. Network interface device (NIC) 10 is connected via data link 5 to processing device (computer) 1 and connected via data link 14 to data network 20. *Id.* at 1:18–21. Network device 30 and processing device 40 also are connected to network 20. *Id.* at 1:21–24. Computer 1 includes a processor subsystem with processor 2 and a memory subsystem with memory 3. *Id.* at 1:44–48.

According to the ’536 patent, conventionally, only the operating system (OS) of computer 1 (in particular, the kernel) could access the peripheral devices (including NIC 10) directly, with user level processes, such as application programs, required to access NIC 10 by calling routines in the operating system. *Id.* at 2:5–9, 2:14–15, 3:4–6. This was problematic in that “network transmit and receive operations can involve excessive context switching, and this can cause significant overhead.” *Id.* at 3:28–30. The ’536 patent describes a prior art solution to that concern, involving “the creation of user level protocol processing stacks operating in parallel with those of the operating system,” in which “[s]uch stacks can enable data transfers using standard protocols to be made without requiring data to traverse the kernel stack.” *Id.* at 3:36–39. The ’536 patent, however,

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

describes several problems with this approach, including the inability to continue some of the communications of the application if the application exits or crashes:

> It is common for transport protocols to mandate that a network connection outlives the application to which it is tethered. For example using the TCP protocol, the transport must endeavour to deliver sent, but unacknowledged data and gracefully close a connection when a sending application exits or crashes. This is not a problem with a kernel stack implementation that is able to provide the "timer" input to the protocol stack no matter what the state (or existence) of the application, but is an issue for a transport library which will disappear (possibly ungracefully) if the application exits, crashes, or stopped in a debugger.

Id. at 5:44–54.

The '536 patent purports to solve these problems with an architecture in which an application bypasses the operating system to communicate with the NIC for a transmission operation. The operating system, however, is responsive to a failure message directed to the application when the application is no longer in communication with the NIC and the operating system performs a portion of the transmission operation in response to the failure message. *Id.* at 6:14–16, 6:53–57. Figure 5, reproduced below, illustrates an example of a transmission control protocol (TCP) transport architecture for providing an interface between NIC 10 and computer 1 (*id.* at 9:21–24):

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

DOCKET ALARM

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.