

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

ORACLE CORPORATION, NETAPP INC., and  
HUAWEI TECHNOLOGIES CO., LTD.,  
Petitioners,

v.

CROSSROADS SYSTEMS, INC.,  
Patent Owner.

---

Case IPR2014-01197  
Patent 6,425,035 B2

---

Before HYUN J. JUNG, NEIL T. POWELL, and KRISTINA M. KALAN,  
*Administrative Patent Judges.*

JUNG, *Administrative Patent Judge.*

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

CROSSROADS EXHIBIT 2101  
Oracle Corp. v. Crossroads Systems, Inc.  
IPR2015-008

## I. INTRODUCTION

### A. Background

Oracle Corporation, NetApp Inc., and Huawei Technologies Co., Ltd. (“Petitioners”) filed a Petition (Paper 1, “Pet.”), requesting institution of an *inter partes* review of claims 1–14 of U.S. Patent No. 6,425,035 B2 (Ex. 1001, “the ’035 patent”). Crossroads Systems, Inc. (“Patent Owner”) timely filed a Preliminary Response (Paper 12, “Prelim. Resp.”). We have jurisdiction under 35 U.S.C. § 314.

We institute *inter partes* review because we determine that the information presented in the Petition and in the Preliminary Response shows that there is a reasonable likelihood that Petitioners would prevail with respect to at least one of the claims challenged in the Petition. *See* 35 U.S.C. § 314(a). In particular, we institute *inter partes* review with respect to claims 1, 2, 4–6, 11, 12, and 14.

## II. DISCUSSION

### A. The ’035 Patent

The ’035 patent relates to a storage router and method for providing virtual local storage on remote Small Computer System Interface (“SCSI”) storage devices to Fiber Channel (“FC”) devices. Ex. 1001, 1:16–19. SCSI is a storage transport medium that provides for “relatively small number of devices to be attached over relatively short distances.” *Id.* at 1:23–26. FC is a high speed serial interconnect that provides “capability to attach a large number of high speed devices to a common storage transport medium over large distances.” *Id.* at 1:29–32. Computing devices can access local storage through native low level, block protocols and can access storage on a remote network server through network interconnects. *Id.* at 1:37–49. To

access the storage on the remote network server, the computing device must translate its file system protocols into network protocols, and the remote network server must translate network protocols to low level requests. *Id.* at 1:51–60. A storage router can interconnect the SCSI storage transport medium and the FC high speed serial interconnect to provide devices on either medium access to devices on the other medium so that no network server is involved. *Id.* at 3:30–40.

Figure 4 of the '035 patent is reproduced below:

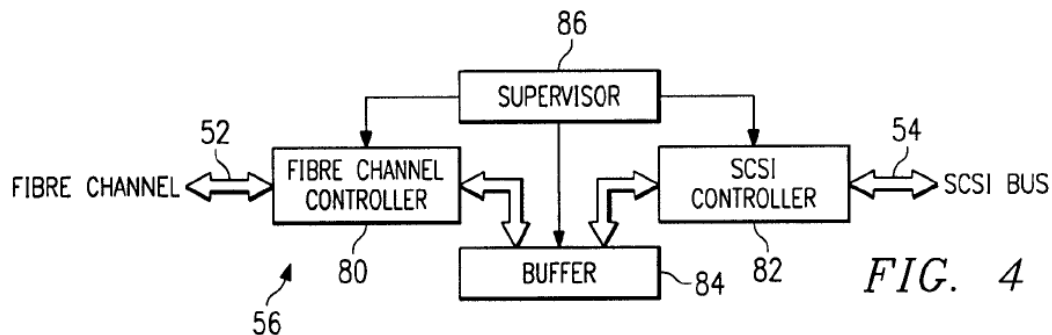


Figure 4 is a block diagram of an embodiment of a storage router. *Id.* at 2:59–60, 5:6–7. Storage router 56 can comprise FC controller 80 that interfaces with FC 52 and SCSI controller 82 that interfaces with SCSI bus 54. Buffer 84 connects to FC controller 80 and SCSI controller 82 and provides memory work space. *Id.* at 5:7–9. Supervisor unit 86 connects to FC controller 80, SCSI controller 82, and buffer 84. *Id.* at 5:10–12. Supervisor unit 86 controls operation of storage router 56 and handles mapping and security access for requests between FC 52 and SCSI bus 54. *Id.* at 5:12–17.

Claims 1, 7, and 11 are the independent claims challenged by this petition, and claim 1 is reproduced below:

1. A storage router for providing virtual local storage on remote storage devices to devices, comprising:

a buffer providing memory work space for the storage router;

a first controller operable to connect to and interface with a first transport medium;

a second controller operable to connect to and interface with a second transport medium; and

a supervisor unit coupled to the first controller, the second controller and the buffer, the supervisor unit operable to map between devices connected to the first transport medium and the storage devices, to implement access controls for storage space on the storage devices and to process data in the buffer to interface between the first controller and the second controller to allow access from devices connected to the first transport medium to the storage devices using native low level, block protocols.

*Id.* at 9:13–31.

### *B. Related Proceedings*

The '035 patent is the subject of multiple district court proceedings. Pet. 2–3; Exs. 1026, 1034, 1035, 1036; Paper 10, 2.

The '035 patent is also involved in Case IPR2014-01226 and belongs to a family of patents that are the subject of multiple *inter partes* review petitions, including IPR2014-01177, IPR2014-01207, IPR2014-01209, IPR2014-01233, and IPR2014-01463.

### *C. Challenges*

Petitioners challenge the claims as follows, all on the basis of obviousness:

References	Claims Challenged
CRD-5500 User Manual <sup>1</sup> , CRD-5500 Data Sheet <sup>2</sup> , and Smith <sup>3</sup>	1–14
Kikuchi <sup>4</sup> and Bergsten <sup>5</sup>	1–4 and 7–14
Kikuchi, Bergsten, and Smith	5 and 6
Bergsten and Hirai	1–4 and 7–14
Bergsten, Hirai, and Smith	5 and 6

#### *D. Claim Construction*

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012). We determine that no express claim construction is required for the purposes of this decision.

---

<sup>1</sup> CMD Technology, Inc., CRD-5500 SCSI RAID Controller User’s Manual, (1996) (Ex. 1003).

<sup>2</sup> CRD-5500 RAID Disk Array Controller, (Dec. 4, 1996), <http://web.archive.org/web/19961226091552/http://www.cmd.com/brochure/crd5500.htm> (last visited July 23, 2014) (Ex. 1004).

<sup>3</sup> Judith A. Smith and Meryem Primmer, *Tachyon: A Gigabit Fibre Channel Protocol Chip*, Hewlett-Packard J., 1–17 (1996) (Ex. 1005).

<sup>4</sup> U.S. Pat. No. 6,219,771 B1, iss. Apr. 17, 2001 (Ex. 1006).

<sup>5</sup> U.S. Pat. No. 6,073,209, iss. June 6, 2000 (Ex. 1007).

# 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.