

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC. and QUANTUM CORPORATION,
Petitioners,

v.

CROSSROADS SYSTEMS, INC.,
Patent Owner.

Case IPR2014-01226
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 2104
Oracle Corp. v. Crossroads Systems, Inc.
IPR2015-008

I. INTRODUCTION

A. Background

Cisco Systems, Inc. and Quantum Corporation (“Petitioners”) filed a Petition (Paper 3, “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”). Patent Owner Crossroads Systems, Inc. (“Patent Owner”) timely filed a Preliminary Response (Paper 8, “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 1–14.

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. Typical storage transport media, such as SCSI, provide for a “relatively small number of devices to be attached over relatively short distances.” *Id.* at 1:23–26. High speed serial interconnects, such as FC, provide “capability to attach a large number of high speed devices to a common storage transport medium over large distances.” *Id.* at 1:29–32. According to the ’035 patent, conventional computing devices, such as workstations, 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 workstation must translate its file system protocols into network protocols, and the remote network server must translate network protocols to low level requests. *Id.* at 1:51–57. Thus, computing devices, such as workstations, have slower access to storage on the remote network server than access to data on a local storage drive. *Id.* at 1:57–60.

A storage router can interconnect the SCSI storage transport medium and the FC high speed serial interconnect to provide devices on either medium with access to devices on the other medium such that no network server is involved. *Id.* at 3:30–40. Figure 4 of the '035 patent is reproduced below:

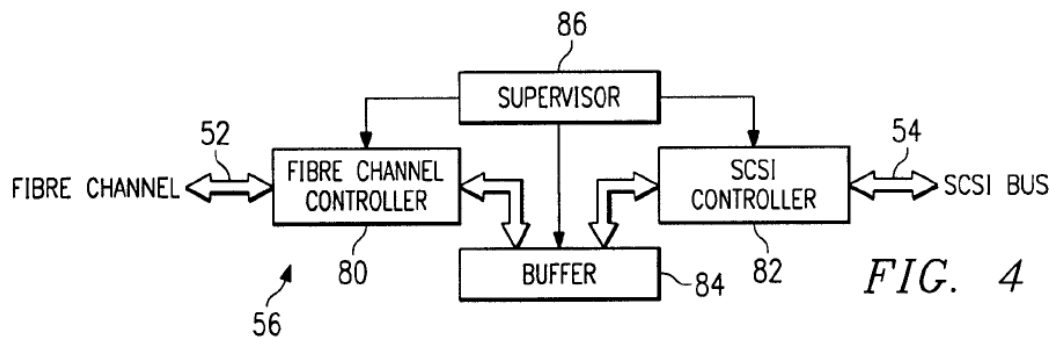


Figure 4 is a block diagram of an embodiment of a storage router. *Id.* at 2:59–60, 5:6–7. Storage router 56 can comprise FC controller 80 that interfaces with FC 52 and SCSI controller 82 that interfaces with SCSI bus 54. Buffer 84 connects to FC controller 80 and SCSI controller 82 and provides memory 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. 1–2; Paper 6, 2–3.

The '035 patent is also involved in Case IPR2014-01197 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	Claim(s) Challenged
CRD-5500 User Manual ¹ and HP Journal ²	1–5 and 7–14
CRD-5500 User Manual, HP Journal, and QLogic Data Sheet ³	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). Claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Petitioners propose a construction for “to map between devices connected to the first transport medium and the storage devices,” as recited

¹ CMD Technology, Inc., CRD-5500 SCSI RAID Controller User’s Manual, (1996) (Ex. 1004).

² Petitioners cite two articles in Exhibit 1006 as one reference: Meryem Primmer, *An Introduction to Fibre Channel*, 47 Hewlett-Packard J., 94–98 (1996) and Judith A. Smith and Meryem Primmer, *Tachyon: A Gigabit Fibre Channel Protocol Chip*, 47 Hewlett-Packard J., 99–112 (1996).

³ QLogic Corp., FAS216/216U/236/236U Fast Architecture SCSI Processor (1996) (Ex. 1007).

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