

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETAPP, INC.,
Petitioner,

v.

INTELLECTUAL VENTURES II, LLC,
Patent Owner.

Case IPR2017-00276
Patent 6,633,945 B1

Before JEFFREY S. SMITH, JENNIFER S. BISK, and
BEVERLY M. BUNTING, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision issues pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine Petitioner has shown by a preponderance of the evidence that claims 1 and 6 (all the challenged claims) of U.S. Patent No. 6,633,945 B1 (Ex. 1001, “the ’945 patent”) are unpatentable.

A. *Procedural History*

Petitioner filed a Petition¹ for *inter partes* review of claims 1 and 6. Paper 13 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). Pursuant to 37 C.F.R. §§ 42.4(a) and 42.108 and 35 U.S.C. § 314(a), the Board instituted an *inter partes* review of: claims 1 and 6 as unpatentable under 35 U.S.C. § 103 over Ekanadham² and Hagersten³; claims 1 and 6 unpatentable under 35 U.S.C. § 103 over Sharma⁴ and Hagersten; and claims 1 and 6 as unpatentable under 35 U.S.C. § 103 over Sharma. *See* Paper 14, 24 (“Dec. on Inst.”).

After institution of trial, Patent Owner filed a Patent Owner Response (Paper 19, “PO Resp.”), to which Petitioner filed a Reply (Paper 23, “Reply”).⁵

¹ Petitioner filed an Original Petition on Nov. 18, 2016 (Paper 1), and a Corrected Petition on May 8, 2017 (Paper 13). In this Decision we cite to the Corrected Petition.

² US 6,085,295, issued Jul. 4, 2000, filed Oct. 24, 1997 (Ex. 1003).

³ US 5,754,877, issued May 19, 1998, filed Jul. 2, 1996 (Ex. 1004).

⁴ US 6,055,605, issued Apr. 25, 2000, filed Oct. 24, 1997 (Ex. 1002).

⁵ Petitioner filed evidentiary objections to Patent Owner’s Response (Paper 20) and Patent Owner filed evidentiary objections to Petitioner’s Reply (Paper 24). Neither party filed a motion to exclude, which is required to preserve any evidentiary objection. *See* 37 C.F.R. § 42.64(c).

An oral argument was held on March 1, 2018. A transcript of the oral argument is included in the record. Paper 32 (“Tr.”).

On May 10, 2018, we supplemented our Decision on Institution to include in the trial the ground that claims 1 and 6 are unpatentable under 35 U.S.C. § 103 over Ekanadham alone, so as to institute trial on all Challenged Claims and all grounds. *See* Paper 37; see also *SAS Inst., Inc. v. Iancu*, 2018 WL 1914661, at *10 (U.S. Apr. 24, 2018) (“Because everything in the statute before us confirms that SAS is entitled to a final written decision addressing all of the claims it has challenged and nothing suggests we lack the power to say so, the judgment of the Federal Circuit is reversed and the case is remanded for further proceedings consistent with this opinion.”). During a conference call on May 9, 2018, to discuss the impact of the *SAS Inst., Inc.* decision on this proceeding, the parties were unsure whether they believed the ground based on Ekanadham alone would require additional consideration. As we indicated in our supplement to the Decision to Institute, if either Patent Owner or Petitioner believes that the ground based on Ekanadham alone requires additional consideration in this proceeding, the parties may file a rehearing request pursuant to 37 C.F.R. § 42.71(d). Paper 37.

B. Related Matters

Both parties identify that the ’945 patent was asserted against NetApp Inc. in *Intellectual Ventures I, LLC v. NetApp Inc.*, Case No. 1:16-cv-10868-IT (D. Mass.), filed May 11, 2016. Pet. 17; Paper 4, 1.

C. The ’945 Patent

The ’945 patent relates generally to a fully connected multiple flow control unit (FCU) based architecture to reduce memory read latencies. Ex.

1001, 1:66–2:1. A symmetric multiprocessor system includes a switch matrix for data transfers that provides multiple concurrent buses that enable increased bandwidth between processors and shared memory. Ex. 1001, Abstract. A high-speed point-to-point channel couples command initiators and memory with the switch matrix and with input/output (I/O) subsystems. *Id.* Figure 2 of the '945 patent is reproduced below.

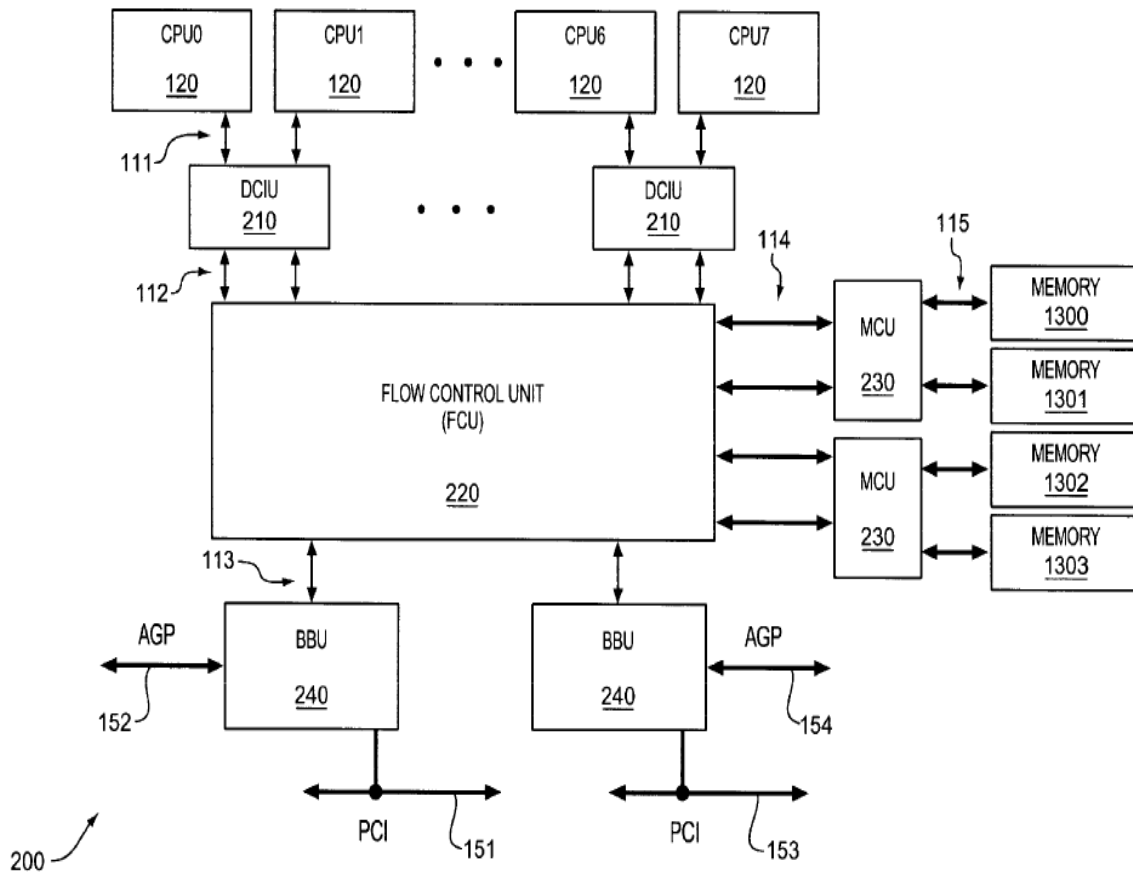


FIG. 2

Figure 2, above, shows a symmetric shared-memory multiprocessor system using a switched-fabric data path architecture centered on FCU 220. Ex. 1001, 2:59–62. Point-to-point (PP) interconnections 112, 113, and 114 provide channel interfaces between FCU 220 and dual CPU interface units

(DCIUs) 210, memory control units (MCUs) 230, and bus bridge units (BBUs) 240, respectively. *Id.* at 2:67–3:8, 3:11–15.

Figure 12 of the '945 patent is reproduced below.

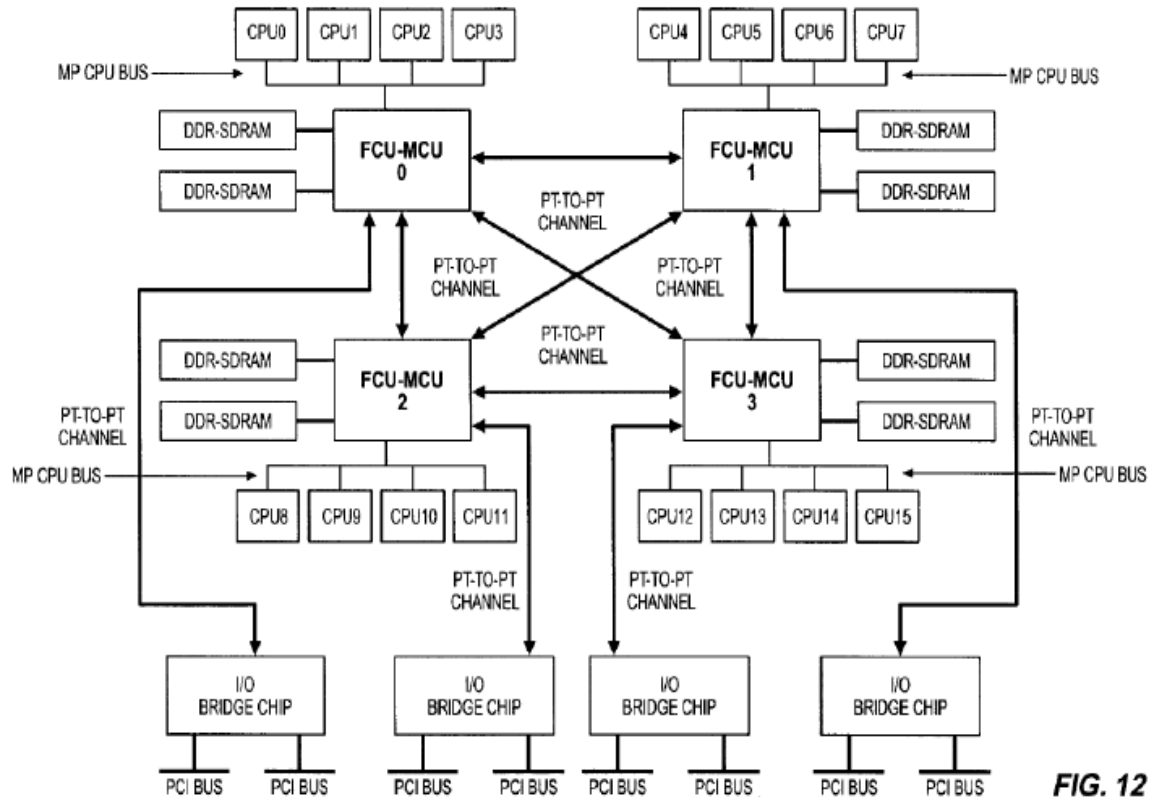


FIG. 12

Figure 12, above, shows fully connected multiple FCU architectures. *Id.* at 6:22–23, 6:62–7:57. The interconnections between FCUs are point-to-point. *Id.* at 7:14–15. Each FCU has a direct connection to all other FCUs and maintains cache coherency for transactions that belong to its memory region via the point-to-point interconnections. *Id.* at 7:15–21.

D. Illustrative Claim

Challenged claims 1 and 6 of the '945 patent are independent. Claim 1 is illustrative of the claimed subject matter:

1. A multi-processor shared memory system comprising:
a first set of point-to-point connections;

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.