IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent of: Baek et al.	§	Petition for *Inter Partes* Review
	§	
U.S. Patent No. 6,978,346	§	Attorney Docket No.: 47415.430
	§	
Issued: December 20, 2005	§	Customer No.: _____
	§	
Title: APPARATUS FOR	§	Real Parties in Interest: Dell Inc.,
REDUNDANT INTER-	§	Hewlett-Packard Company, and NetApp,
CONNECTION	§	Inc.
BETWEEN MULTIPLE	§	
HOSTS AND RAID	§	

<u>Declaration of Dr. M. Ray Mercer</u>

<u>Under 37 C.F.R. § 1.68</u>

I, Dr. M. Ray Mercer, do hereby declare:

1. I am making this declaration at the request of Dell Inc., Hewlett-Packard Company, and NetApp, Inc. in the matter of the *Inter Partes* Review of U.S. Patent No 6,978,346 ("the '346 Patent") to Baek et al.

2. I am being compensated for my work in this matter. My compensation in no way depends upon the outcome of this proceeding.

3. In the preparation of this declaration, I have studied:

(1)   The '346 patent, DHPN-1001;

(2)   The prosecution history of the '346 patent, DHPN-1002;

(3)   Peter Weygant, *Clusters for High Availability: A Primer of HP-UX Solutions*, 1996 ("Weygant"), DHPN-1003;

(4)   *Managing MC/ServiceGuard*, Hewlett-Packard Company, 1998 ("ServiceGuard"), DHPN-1004;

(5)   Hathorn et al., U.S. Pat. No. 5,574,950 ("the '950 patent"), DHPN-1005;

(6)   Surugguchi et al., International Publication No. WO 99/38067 ("Mylex"), DHPN-1007; and

(7)   *American National Standard for Information Technology – Fibre Channel Arbitrated Loop (FC-AL-2)*, June 28, 1999 ("ANSI"), DHCP-1008.

4.   In forming the opinions expressed below, I have considered:

(1)   The documents listed above,

(2)   The relevant legal standards, including the standard for obviousness provided in *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007) and any additional authoritative documents as cited in the body of this declaration, and

(3)   My knowledge and experience based upon my work in this area as described below.

Qualifications and Professional Experience

5.   My qualifications are set forth in my curriculum vitae, a copy of which is attached as Appendix 1.

6.   I have over 45 years of dual industrial and academic experience in Electrical Engineering and Computer Engineering. I received a B.S. in Electrical Engineering from Texas Tech University in 1968. From 1968 to 1973, I was a Research/Development Engineer at General Telephone and Electronics Sylvania in Mountain View, California, and I received an M.S. in Electrical Engineering from Stanford University in 1971. From 1973 to 1977, I was a Member of Technical Staff at Hewlett-Packard's Santa Clara Division and subsequently at Hewlett-Packard Laboratories in Palo Alto, California. From 1977 to 1980, I was a Lecturer in the Division of Mathematics, Statistics, and Computer Science at the University of Texas at San Antonio, and I received a Ph.D. in Electrical Engineering from the University of Texas at Austin in 1980. From 1980 to 1983, I was a Member of Technical Staff at Bell Laboratories in Murray Hill, New Jersey.

7.   In 1983, I was appointed Assistant Professor of Electrical and Computer Engineering at the University of Texas at Austin. In 1987, I was promoted to Associate Professor and in 1991, Professor. In 1995, I was appointed

Professor of Electrical and Computer Engineering, Leader of the Computer Engineering Group and Holder of the Computer Engineering Chair at Texas A&M University in College Station, Texas. My teaching, my research, my technical publications, and my supervision of graduate students during this period included the areas of computer clusters, redundant connections, and networking – key issues in this proceeding.

8. In September 2005, I retired, and the Regents of the Texas A&M University System appointed me as Professor Emeritus of Electrical and Computer Engineering at Texas A&M University.

9. Since 1984, I have been an independent consultant and provided private consultation and advice in Electrical and Computer Engineering to numerous entities including IBM, Inc., Rockwell International, Motorola Semiconductor, AT&T, Inc., and SigmaTel. I also have been hired by numerous law firms to provide them and their clients with expert consultation and expert testimony – often in the areas of patent infringement litigation related to Electrical and Computer Engineering.

10. I was actively involved in numerous professional organizations including the Institute of Electrical and Electronics Engineers ("IEEE"), and I was recognized as an IEEE Fellow in 1994. I was the Program Chairman for the 1989 International Test Conference, which is an IEEE-sponsored annual conference with

(at that time) more than one thousand attendees and over one hundred presented papers. I won the Best Paper Award at the 1982 International Test Conference. I also won a Best Paper Award at the 1991 Design Automation Conference, an annual conference with (at that time) more than ten thousand attendees and five hundred submitted papers, many of which related to the design of integrated circuit based systems. The subject of this paper involved trade-offs between power consumption and processing speed in integrated circuits. I also won a Best Paper Award at the 1999 VLSI Test Symposium. I am the inventor on United States patents that relate to the design of integrated circuits. I was selected as a National Science Foundation Presidential Young Investigator in 1986.

11.   I am familiar with the knowledge and capabilities one of ordinary skill in the networking and computing cluster arts in the period around 2000. Specifically, my work with students, undergraduates as well as masters and Ph.D. candidates, with colleagues in academia, and with engineers practicing in industry allowed me to become personally familiar with the level of skill of individuals and the general state of the art. Unless otherwise stated, my testimony below refers to the knowledge of one of ordinary skill in the networking and computing cluster arts in the period around 2000 – the period that includes the filing date of the '346 patent.

Relevant Legal Standards

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.

fastcase®
Smarter legal research.