

## RE: Looking for an HPCWire archive article from September 1993.

**Tiffany Trader** <Tiffany@taborcommunications.com>
To: kemal.ebcioglu@gmail.com
Co: Michael Feldman <Michael@taborcommunications.com>

Tue, Mar 3, 2009 at 1:29 AM

Here is a link and the text of the press release. Please let me know if I can be of further assistance.

-Tiffany

http://archive.hpcwire.com/archives/2088.html

Power2 Chip Nearly Doubles Performance of IBM RS/6000 Line

09/24/93

New York, N.Y. -- IBM Tuesday introduced what it called "the highest-performance microprocessor in the computing industry," Power2, as well as three new RISC System/6000 models that incorporate this new implementation of IBM's Power Architecture.

With today's announcements, IBM said its customers now have access to the most powerful uniprocessor-based systems available in the industry.

IBM said its Power2 (Performance Optimization With Enhanced RISC 2) chip is "a revolutionary microprocessor" that allows IBM's new Power2-based systems to nearly double both integer and floating-point performance over IBM's existing Power-based RISC System/6000 models.

Power2-based systems will run, with no modification, the more than 6,500 existing software applications available for AIX/6000, IBM's operating system for the RS/6000 family.

The new Power2-based RISC System/6000 models announced Tuesday are:

- \* Powerserver 990 -- a rack-mounted, high-end server "with computing power and performance comparable to today's supercomputers -- at one-tenth of a supercomputer's cost," according to IBM.
- \* Powerstation/Powerserver 590 -- the highest-performing RISC System/6000 deskside system ever.
- \* Powerstation/Powerserver 58H -- a midrange deskside system configured similarly to the 590 that is intended as a commercial server or a high-performance 3-D workstation.

IBM noted that the Powerserver 990 and Powerstation/Powerserver 590 are classified as having supercomputer performance not only by IBM -- but by the United States Department of Commerce, which requires that these new systems carry a special export license reserved for supercomputers.

"Power2 is a breakthrough technology in the industry, and no competitor's systems can match us in either price or performance categories for comparable products," said Phil Hester, vice president of systems and technology for IBM Advanced Workstations and Systems. "The three new Power2-based systems announced today will usher in a new era of computing capability, giving our customers the ability to do things they could previously only dream about."

The Powerserver 990 comes with a 71.5-MHz Power2 microprocessor, the highest-performing uniprocessor in the computer industry. It delivers a SPECint92 rating of 126 and a SPECfp92 rating of 260.4, well above the level of its nearest competitor, according to IBM.

"These outstanding integer and floating-point specifications make the Powerserver 990 a natural choice for technical customers in fields such as analytical simulation, where the ability to handle large numerically intensive computing problems is critical to their success," IBM said in a release.

The system has 256 KB of data cache and a 32 KB of instruction cache, and comes standard with 128 MB of memory, expandable to 2 GB with the new 256-MB memory card; 4 GB of disk expandable to 840 GB with the IBM RAIDiant Array; integrated SCSI; a SCSI-2 controller adapter; two 80-MB/sec Micro Channel buses providing 16 standard slots (one slot occupied by the SCSI controller); 5 GB 8mm tape, CD-ROM drive and battery backup.

The performance of the Powerserver 990 can be boosted further with IBM's High Availability Cluster Multi-Processing/6000 software, which allows customers to cluster up to four Powerserver 990 models in a high-availability configuration.

The Powerstation/Powerserver 590 and 58H, with 66-MHz and 55-MHz Power2 microprocessors, respectively, create a new high-end and mid-range deskside category in the RISC System/6000 product line.

These systems have a 256-KB data cache and a 32-KB instruction cache, and come standard with 64 MB of memory, expandable to 2 GB; 2 GB of disk, expandable to 460 GB with IBM's RAIDiant Array; integrated SCSI; a SCSI-2 controller adapter, eight 8-MB/second Micro Channel slots (one slot occupied by the SCSI-2 controller) and a CD-ROM drive.

"They offer outstanding integer, floating-point and transaction processing at competitive price points," IBM said. "Customers in banking, manufacturing and other industries who are looking for a minicomputer replacement or a distributed database server for general business and commercial applications will find power to spare in both the Powerstation/Powerserver 590 and 58H.

"Engineers and scientists working on applications that require maximum floating-point performance, such as seismic modeling, engineering analysis, computational chemistry or 3-D simulation, will find these systems to be spectacular performers."

The Power2 chip -- capable of a half-billion operations per second -- uses a design that incorporates twice the number of fixed and floating-point execution units available for the first-generation Power chip, allowing for up to eight operations and six instructions per cycle.

IBM said this configuration far outdistances the 2 operations and 2 instructions of the Power2's closest performance rival, DEC's Alpha chip.

The processor complex itself consists of eight chips mounted on a multichip module. Those chips include: one instruction cache, one fixed-point (containing two fixed-point units), one floating-point (containing two floating-point units), four data cache units, and one storage control unit.

IBM said the advanced technology employed in the new multi-chip module provides the required levels of performance and bandwidth to sustain the

multi-execution levels of the Power2, thus eliminating bottlenecks within the processor and allowing much greater performance.

All existing RS/6000 9XX series customers have the ability to upgrade to the new Powerserver 990, while customers with an existing Powerstation/Powerserver 570 can move up to either the model 58H or model 590. High-end deskside customers that currently have an installed Powerstation/Powerserver 580 can also upgrade their systems to the new Powerstation/Powerserver 590.

Pricing and availability:

PRODUCT PRICE AVAILABILITY
Powerstation/Powerserver 58H \$ 64,450 10/22/93
Powerstation/Powerserver 590 \$ 74,450 10/22/93
Powerserver 990 \$127,100 10/29/93

Tiffany Trader Associate Editor www.hpcwire.com 858.625.0070 x306

----Original Message-----

From: Kemal Ebcioglu [mailto:kemal.ebcioglu@gmail.com] On Behalf Of

Kemal Ebcioglu

Sent: Friday, February 27, 2009 12:01 AM

To: Michael Feldman

Subject: Looking for an HPCWire archive article from September 1993.

Hi I am looking for an HPCWire archive article from around September 1993, which used to be at the link

http://www.hpcwire.com/archives/2088.html

It was about the release of the IBM Power-2 machine. The link no longer works, but is the article still online somewhere? If not, can you please email it to me as a pdf file, or send me a copy? I would very much appreciate your help.

Dr. Kemal Ebcioglu

--|/ -

Kemal

http://vcard.acm.org/~kemal.ebcioglu