



NEWS RELEASE

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PCI-X 2.0 Specification Doubles and Quadruples the Performance of PCI Bus Technology

PCI-SIG Drives Open Industry Standard with Broad Industry Support from Server OEMs

Monterey, Calif., (Server I/O Conference) – Feb. 5, 2002 – The PCI-SIG (PCI Special Interest Group) announced today that the draft specification for PCI-X 2.0, a high-performance extension to the PCI Local Bus specification, has entered the final stages of review by the PCI-SIG's PCI-X Technical Work Group. The new standard will facilitate connections to adapter cards for 10 Gigabit Ethernet, 10 Gigabit Fibre Channel, Ultra640 SCSI, Serial Attached SCSI, Serial ATA (SATA), 4X Infiniband, RAID and cluster interconnects for servers and workstations running enterprise applications. The PCI-X 2.0 review draft specification is expected to be submitted for full PCI-SIG membership review during Q1 2002 and then be released to the industry in Q2 2002.

PCI-X 2.0 Performance

PCI-X 2.0 can run at speeds up to 533 MegaTransfers per second using Double Data Rate (DDR) and Quadruple Data Rate (QDR) techniques to increase sustainable PCI Bus bandwidth to more than 2.1 Gigabytes/second and 4.3 Gigabytes/second respectively. The specification also provides increased reliability through Error Checking and Correction (ECC). PCI-X 2.0 will provide customers with needed I/O

(Input/Output) bandwidth and with investment protection because it offers backward compatibility with existing systems.

According to Roger Tipley, president and chairman of the PCI-SIG, "The introduction of PCI-X 2.0 underscores the need for PCI-X in servers and workstations today, and it will provide a hardware-compatible growth path that will support adapter card bandwidth requirements into the future. Join the PCI-SIG to participate in the development of PCI technologies and to receive PCI specifications and revisions."

"Adaptec's technology position in 1 and 10 Gigabit iSCSI, Serial ATA and integrated RAID engines demands the bandwidth of next generation system busses like PCI-X 2.0," stated Mark Delsman, Chief Technology Officer at Adaptec.

"AMD continues to be a strong supporter of the PCI SIG and its recent PCI-X 2.0 technology initiative," said Fred Weber, Vice President and Chief Technical Officer of AMD's Computation Products Group. "AMD believes that providing backward compatibility while moving to next-generation performance levels always maximizes the benefit to customers. AMD looks forward to the availability of PCI-X 2.0 for servers and workstations powered by our current and next-generation multiprocessors."

"Compaq has long been committed to delivering enterprise customers industry-standard server solutions that address critical business issues such as investment protection, bandwidth optimization, and ease-of-use," said Ken Jansen, director of ASIC and chipset development, Compaq Industry Standard Server Group. "As the extension of existing PCI-X bus standards, PCI-X 2.0 will optimize performance, cost, and resources, without requiring customers to dramatically change their existing infrastructures. Compaq's investment in PCI-X bus standards continues to enable us to deliver value through innovation."

"By delivering greater speed, improved transfer rates and increased efficiency, PCI-X 2.0 delivers leading edge innovations to an existing technology," said Dieter Herzog, general manager, Intel Server Systems, Fujitsu Siemens Computers. "Our collaboration has resulted in the innovations needed to deliver the level of performance required for business-critical 24x7 computing."

"PCI-X 2.0 is the natural evolution of the PCI technology suites that will allow HP to further exploit our innovative point-to-point, switch-based PCI implementations across our entire range of enterprise and Internet server offerings," said Suhas Badve, HP Server I/O R&D manager. "PCI-X 2.0's performance improvements combined with its forward and backward compatibility will provide our customers with leadership I/O solutions while promoting long-term investment protection."

"PCI-X 2.0 represents one of the next logical steps in improving the existing PCI standards," said Dr. Tom Bradicich, Director of Architecture and Technology for IBM eServer xSeries. "Customers can benefit from this advancement, while maintaining and leveraging their existing expertise and investments in PCI".

"Intel is a proponent of the evolution of PCI technologies," said Tom Macdonald, General Manager of Intel's Advanced Components Division. "Intel supports the efforts of the PCI-SIG to continue to improve today's PCI-X specification with PCI-X 2.0."

"The PCI-X 2.0 bus operates at speeds up to 533 MegaTransfers per second, providing burst transfer rates above 4.3 Gigabytes per second, eight times the rate of the most common PCI-X implementations today," said Sujith Arramreddy, CTO of ServerWorks, a Broadcom Company. "PCI-X 2.0 builds on the enhanced protocol of PCI-X to increase the efficiency of data transfer and to simplify electrical timing requirements, an important factor at higher clock frequencies. In addition, PCI-X 2.0 is designed to allow future performance enhancements while remaining backward compatible with the current PCI bus."

PCI-X 2.0 already has broad industry support among the PCI-SIG membership and leading Independent Hardware Vendors (IHVs). PCI-X 2.0-based products are already being designed within core logic controllers, Network Interface Cards (NICs) and adapters cards.

About the PCI-SIG

Formed in June 1992, the PCI-SIG (PCI Special Interest Group) is the industry organization that owns and manages the PCI Local Bus specification as an open industry standard. The organization defines and implements new PCI specification revisions as the industry's data I/O (Input/Output) needs evolve. Currently, more than 700 industry-leading companies are active PCI-SIG members. The PCI-SIG's board of directors is composed of the following companies: AMD, Compaq, HP, IBM, Intel, Microsoft, Phoenix Technologies, ServerWorks and TI. For more information visit the PCI-SIG web site at <http://www.pcisig.com>.

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