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TIDBITS

By Mark Long [8/28/00-05]

AMD SHIPS 1.1GHZ ATHLONS IN VOLUME

AMD has announced that it has commenced shipping 1.1GHz processors to leading computer manufacturers. AMD partners reportedly will introduce systems featuring the 1.1GHz Athlon (see *MPR 3/13/2000–02*, "Athlon Wins Race to 1GHz by Hair") on August 28, 2000. AMD also reports it is on track to meet its goal of doubling shipments of seventh-generation PC processors to 3.6 million units in this quarter and again doubling shipments to 7.2 million units in the fourth quarter. AMD believes its total PC processor shipments—including Athlon, Duron, and K6-2 processors—could approach 7 million units this quarter and 9 million units in the fourth quarter.

The 1.1GHz, 1GHz, 950MHz, 900MHz, 850MHz, and 800MHz Athlon processors are priced at $853, $612, $460, $350, $282, and $215, respectively, in 1,000-unit quantities. The 700MHz, 650MHz, and 600MHz Duron processors are priced at $138, $103, and $79, respectively, in 1,000-unit quantities. For more information: *www.amd.com*.

LINUX DEMOED ON 16-WAY ITANIUM

During the LinuxWorld Conference & Expo in San Jose, California, TurboLinux demonstrated a 64-bit Linux operating system on a 16-way Intel Itanium-processor-based system. Code-named AzusA, the systems ran Mandelbrot and ray-tracing applications on the developers release of TurboLinux for the IA-64 as modified by NEC. TurboLinux, which last March was the first company to make an IA-64 Linux distribution available to developers, recently announced the fifth upgrade of its TurboLinux for IA-64 developers-release operating system, which is available for download at *ftp.turbolinux.com/pub/ia64*. The commercial release of TurboLinux's IA-64 Linux and NEC's 16-way AzusA system will coincide with Intel's general release of Itanium platforms.

The TurboLinux IA-64 release is based on the kernel and tools developed by the IA-64 Linux Project, formerly known as the Trillian project, made up of a group of companies that includes TurboLinux, Caldera, CERN, Hewlett-Packard, IBM, Intel, Red Hat, SuSE, SGI, and VA Linux. For more information: *www.turbolinux.com*.

MISSION CRITICAL PORTS LINUX HA TO IA-64

Mission Critical Linux, Inc., has ported Linux HA (high-availability) clustering technology to Intel's IA-64 architecture using a Convolo Cluster built on the open-source Kimberlite technology that Mission Critical developed. The combined system was demonstrated at Intel's LinuxWorld booth and the Intel Developers Forum. Implemented as a back-end HA system for dynamic data, the IA-64/Convolo Cluster is integrated with an IA-32 Intel Web-server farm.

The system being demonstrated uses a Convolo Cluster to guarantee high availability for front-end, Intel-based servers. The redundant Web servers access the main databases through a two-node cluster configuration that uses RAID-protected shared storage disks to ensure the integrity of dynamic data during transactions. The cluster server nodes, which are connected to a shared RAID storage controller, keep track of all dynamic data entering the databases; when one node shuts down or fails, the other node accesses the disk and uses transaction logs to recover the database and continue operation. For more information: *www.missioncriticallinux.com*

AGILENT UNVEILS MICROPROCESSOR COOLERS

Agilent has announced two ArctiCooler cooling products for 1GHz+ microprocessors. According to Agilent, its ArctiCooler cooling products meet the thermal, acoustic, size, weight, and reliability specifications for the Intel Pentium 4 and AMD "post-PIII-era" microprocessors. The model CB ArtiCooler is intended for the full market life of the Pentium 4 and the introductory phase of Foster, while the lower-cost CC model is intended for the entry phase of the Pentium 4. The ArctiCooler assembly incorporates a solid

conical base, which provides high-velocity airflow through the heat sink and heat conduction from the processor to the fins. A two-pass heat exchange occurs as air is pulled in through the fins at the top of the heat sink and out through the fins at the bottom, creating a partial vacuum that draws additional cooling air in from the sides of the assembly. Angled fins provide nonturbulent airflow that aids heat transfer and lowers noise. The result, says Agilent, is nearly twice the cooling power of conventional air-cooled designs. The ArctiCooler is based on cooling technology originally developed in 1996 by Hewlett-Packard for the company's PA-RISC series of processors and has been used to cool processors with power dissipations of more than 100W.

Production prototypes of the ArctiCooler models CB and CC are planned for rollout in September 2000, with volume production by October 2000. The model CB will be priced at $10.50 and the model CC at $7.80, both in 100,000-unit volumes. For more information: *www.arcticooler.com*.

Coaxial System Delivers 50A to Processors

Incep Technologies has announced the introduction of PowerDirect, a low-cost coaxial power interconnect for delivering high currents as close to the integrated circuit as possible. This new power-distribution architecture provides an extremely low inductance and resistance path from the power source to its destination. PowerDirect's current-carrying capacity is 50A, with transients (slew rates) as high as 400A/µs and requires a board area of only 0.11 square inch. Incep also announced that it is working with Intel on small-form-factor Itanium server prototypes. For more information: *www.incep.com*.