AMD launches Dual-Core processors for servers and workstations

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AMD

AMD today introduced a broad portfolio of dual-core solutions from server and workstations for enterprise users to desktop and desktop-replacement notebooks for consumers and business users. At the second-anniversary celebration of the award-winning AMD Opteron processor, the company announced immediate availability of the Dual-Core AMD Opteron 800 Series processor for four- to eight-way servers. The 200 Series processors for two-way servers and workstations will be available in late May. The new processors deliver up to a 90 percent performance improvement for application servers over single-core AMD Opteron processors. For desktop PC users, AMD announced the new AMD Athlon 64 X2 Dual-Core processor brand that will enable true multi-tasking capabilities for richer computing experiences.

AMD's key OEM customers, including Sun, HP and IBM, showcased ground-breaking, dual-core platforms based on the non-disruptive AMD64 technology, the world's leading x86, 64-bit computing environment. Only AMD customers will have the ability to upgrade

90nm-ready server platforms with dual-core processors and continue running legacy 32-bit x86 applications as well as new 64-bit OS solutions.

"Just as AMD led the industry to pervasive 64-bit computing, AMD is now leading the industry to the performance and power benefits of multi-core processors," said Marty Seyer, corporate vice president and general manager, Microprocessor Business Unit, Computation Products Group, AMD. "We have flawlessly executed manufacturing AMD64 processors, which is why today we are announcing the world's only broad dual-core client and server processor line-up, well ahead of our announced schedule. Because our non-disruptive dual-core architecture is designed to fit in today's existing infrastructure and provide leading- edge performance, enterprise customers can rapidly adopt AMD64 dual-core processors for servers and workstations today and for client platforms in June."

Dual-core processors are the next evolution of AMD64's Direct Connect Architecture and were designed from the ground up to directly connect two cores on a single die, along with memory, I/O and dedicated caches, improving overall system performance and efficiency and helping to eliminate the bottlenecks inherent in a front-side-bus architecture.

Unlike other dual-core systems, migrating to dual-core processing based on AMD64 technology can be seamless, thanks to a non-disruptive upgrade path. AMD64 technology is designed to deliver the higher performance of a multi-core processor in the same power envelope and the same infrastructure as a single-core AMD64 processor. For server/workstation customers this means the AMD Opteron processor can continue to provide the best performance-per-watt ratio in the industry.

The software advantage of dual-core AMD64

technology

For multi-tasking and multithreaded environments, two cores offer more physical resources, enabling operating systems to prioritize and manage tasks from multiple applications simultaneously and, therefore, maximize performance. Dual-core AMD64 processors are designed to be compatible with the existing base of x86 software, whether it is single-threaded or multithreaded. This means the more than 1,300 applications from more than 300 ISVs and open-source software organizations that are featured on the AMD64 Software Ecosystem Web site www.amd.com/amd64ecosystem will be able to support AMD64 dual-core processors with a simple BIOS upgrade and no substantial code changes.

More than 30 strategic software partners joined AMD in the launch of AMD64 dual-core technology, including market-leading vendors for operating systems, development tools, database, IT infrastructure, engineering and graphic design tools. The industry's leading operating systems—Solaris 10 and Linux dual-core-compatible operating systems and the upcoming Windows® 64-bit editions—are all optimized for AMD64 dual-core technology.

"With the availability of Windows Server 2003 x64 editions and Windows XP Professional x64 Edition, customers now have a mainstream, industry-standard 64-bit operating system optimized to take advantage of the performance and efficiency improvements of AMD64 dual-core technology," said Brian Valentine, senior vice president, Windows Core Operating System Division, Microsoft Corp. "The simultaneous availability of AMD64 dual-core processors and Windows x64 editions represents a huge performance leap and much greater value for Microsoft customers. Microsoft congratulates AMD on its leadership in delivering innovative technologies to the market."

Dual core on the desktop: Do more in less time

Raising personal computing to new heights, AMD announced the AMD Athlon 64 X2 processor brand for dual-core desktop and desktop-replacement notebook processors. AMD is currently shipping samples of the AMD Athlon X2 Dual-Core processors to leading OEMs worldwide and will officially launch in June 2005. Alienware, a leading manufacturer of high-performance computer desktop and mobile systems, showcased dual-core client platforms based on the non-disruptive AMD64 technology at the two-year AMD Opteron processor celebration.

The AMD Athlon 64 X2 Dual-Core processor will especially benefit prosumer and digital media enthusiasts, as well as those who run many software applications simultaneously. With its breakthrough performance on multithreaded applications, the AMD Athlon 64 X2 Dual-Core processor will allow consumers and businesses to take digital content creation and multimedia experiences to a whole new level. PC users, who have been frustrated by staring at the hourglass icon when trying to work on multiple programs at once, can significantly increase performance with the AMD Athlon 64 X2 Dual-Core processor. For example, with the AMD Athlon 64 X2 Dual-Core processor, users can simultaneously burn a CD, check e-mail, edit a digital photo and run virus protection – all without slowing down their computer.

A broad portfolio of these multi-tasking processors will join the AMD64 family and includes models 4800+, 4600+, 4400+ and 4200+ with the price based on performance at $1001, $803, $581 and $537, respectively, in 1,000-unit quantities.

The award-winning AMD Athlon 64 FX processor consistently trounces the competition on relevant benchmarks and continues to be recognized throughout the industry as the world's highest-performing processor for

gaming. Because today's games are single-threaded, gamers' demands will continue to be best served with the knockout performance of the single-core AMD Athlon 64 FX processor. AMD plans to introduce a dual-core version of the AMD Athlon 64 FX processor when multithreaded software games are available to take advantage of its benefits.

On an industry-standard application server benchmark, the Dual-Core AMD Opteron processor Model 275 bested the highest performing single-core AMD Opteron processor Model 252 by nearly 70 percent and the single-core Model 248 by nearly 90 percent. The SPECjbb2000 benchmark measures the performance of Java application servers, commonly used in ERP, CRM, e-business and other tiered applications in which a Web browser is used to access information contained in a database. Performance and benchmark information will be available on the AMD Athlon 64 X2 Dual-Core processors at the official launch in June.

The Dual-Core AMD Opteron processors offer a compelling price/performance ratio, beginning with the AMD Opteron 200 Series that starts at $851 in 1,000-unit quantities for Model 265 and scales to $1,299 in 1,000-unit quantities for the Model 275. The Dual-Core AMD Opteron 800 Series will start at $1,514 in 1,000-unit quantities for Model 865 and reach up to $2,649 in 1,000-unit quantities for the Model 875. The Dual-Core AMD Opteron processor Models 265 and 865 are priced the same as the single-core AMD Opteron processor Models 252 and 852, thereby making the shift to dual-core technology an easy decision for customers.

The Dual-Core AMD Opteron 800 Series will be available immediately and the Dual-Core AMD Opteron 200 Series will be available in late May. AMD expects systems from OEM partners based the Dual-Core AMD Opteron 800 Series to be available within 30 days and systems

with the Dual-Core AMD Opteron 200 Series to be available in June.

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