

EVENT FLASH

Sun Launches Galaxy Servers into a Broader Sphere

Vernon Turner

Jean S. Bozman

Matthew Eastwood

John Humphreys

Stephen L. Josselyn

IN THIS EVENT FLASH

This IDC Flash analyzes the impact that Sun's introduction of its Galaxy servers can be expected to have on the worldwide server marketplace. Sun announced several x86-64 servers based on AMD's Opteron dual-core microprocessors that are part of a growing family of Sun x86-64 servers running the Solaris 10 operating system and supporting a range of other operating systems and virtualization software.

SITUATION OVERVIEW

On September 12, Sun announced three models of its Galaxy server product line, which is based on AMD dual-core Opteron microprocessors. The Galaxy servers are optimized to run key enterprise workloads, including enterprise resource planning (ERP) applications, databases, and high-performance computing (HPC) applications.

Key highlights of the announcement include the following:

- ☒ The Sun Fire X2100 is a one-Opteron system, with one or two active cores. The X2100 is priced at less than \$750 for the single-core system and is positioned as a rack-optimized 1U workstation/server for HPC workloads. It has dual 3.5in. SATA disk drives.
- ☒ The Sun Fire X4100 is a dual-core, dual-processor server designed for high-performance, high-density deployments. Customers have the option of ordering single-core Opterons for their servers. This system has two PCI-X slots and four 2.5in. SAS disk drives. It has dual redundant hot-swap power and cooling features and remote KVM/S support for integrated lights-out management (ILOM) of server hardware and storage.
- ☒ The Sun Fire X4200 is a dual-core, dual-processor server designed for high performance and support of a range of configurations with respect to memory and I/O. Customers have the option of ordering single-core Opterons for their servers. This system has five PCI-X slots and four 2.5in. SAS disk drives. It has dual redundant hot-swap power and cooling features and remote KVM/S support for ILOM of server hardware and software.
- ☒ The servers support multiple operating systems, including Solaris 10 for x86 systems, Microsoft Windows, and the Red Hat and Novell SUSE Linux distributions.
- ☒ All Galaxy systems are Windows-certified. With this launch, Sun is announcing that it will provide direct support of Windows operating systems running on Galaxy servers, providing a single point of contact for maintenance of Galaxy servers deployed with Windows.
- ☒ Sun also announced custom-configured grid configurations, pre-racked and outfitted with all components installed in the factory. These include Sun Grid configurations for HPC or database workloads.
- ☒ Sun is using its N1 System Manager software to provision workloads across a grid of servers and to remotely install and manage workloads. A variety of system management standards will be supported, including the IPMI 1.5 and IPMI 2.0, SNMP, and DMTF management protocols.

Sun made clear that the new servers will be part of a larger family, one that includes the V20z and V40z models (introduced in 2004 and refreshed this year), the new Galaxy single-core and dual-core systems, and future multicore models with two or more cores per processor and more than two sockets per server.

Sun's Galaxy servers are long-awaited additions to the company's growing x86-64 family of servers. The low-end units will round out Sun's long list of volume server offerings (servers priced less than \$25,000), but the line will surely extend into the midrange enterprise space (servers priced \$25,000 to \$499,999) over time. Indeed, fully loaded racks of these servers, custom configured to run in HPC or database-oriented deployments, could edge up into the high-end enterprise category (servers priced at \$500,000 or more).

It is clear that Sun intends to wield low-cost building blocks to provide a new standards-based hardware platform that leverages volume economics on the supply side to gain more market share for Sun in the broad x86 server market it entered in 2003. Sun is, in effect, moving quickly to regain ground it lost in the marketplace in the early 2000s; back then, it was not shipping 32-bit x86 servers at a time when that category

Please contact the IDC Hotline at 800.343.4952, ext. 7988 (or +1.508.988.7988) or sales@idc.com for information on applying the price of this document toward the purchase of an IDC service or for information on additional copies or Web rights. Visit us on the Web at www.idc.com. To view a list of IDC offices worldwide, visit www.idc.com/offices.

Copyright 2005 IDC. Reproduction is forbidden unless authorized. All rights reserved.

Filing Information: September 2005, IDC #34047, Volume: 1, Tab: Vendors

Enterprise Server Fundamentals: Event Flash

of 32-bit servers was leading the overall server market's growth. In 2003, Sun began introducing many low-cost 64-bit RISC-based servers, along with a few x86 servers based on Intel processors, including x86 server blades. More recently, it introduced and shipped V20z and V40z AMD Opteron-based servers, which are growing each quarter in terms of factory revenue and unit shipments. Now, Sun is moving forward with new single-core and dual-core Opteron-based Galaxy servers.

Three key alliances helped Sun to change its product mix, with the aim of delivering RISC-based and x86-based servers. Taken together, these alliances allowed Sun to address both of these large "slices" of the server market (the RISC and x86 segments each generate about 40% of annual server market revenue). The first alliance, with Fujitsu, moved design and production of the APL line of SPARC-based servers to Fujitsu Ltd.; the second, with AMD, provided Sun with Opteron processors that compete strongly in the x86 space through support of 32-bit and 64-bit capabilities and support of high-performance, data-intensive workloads; and the third, with Microsoft, removed long-simmering litigation, provided \$1.9 billion in payments to Sun, and provided support and certification for Microsoft Windows running on Sun's AMD-based servers. IDC notes that Sun is working with Texas Instruments, which manufactures Sun's UltraSPARC processors, on Sun's next-generation chip multithreading (CMT) microprocessor designs, code-named Rock and Niagara.

Sun is broadening its reach on platforms, but it will not move away from its focus on Unix servers running on both RISC and x86: It is promoting its Solaris 10 Unix operating system as the lead operating system for the Galaxy servers, although Galaxy will support Solaris, Microsoft Windows, and the Red Hat and Novell SUSE distributions of Linux. IDC also notes that Sun will continue to sell UltraSPARC RISC-based servers, as it addresses the Unix/RISC server market that accounts for most of its current installed base of an estimated 1.5 million active Sun servers worldwide. Sun is set to ship the APL generation of SPARC-based servers next year and will offer upgrades from UltraSPARC IV to UltraSPARC IV+ microprocessors this year.

FUTURE OUTLOOK

Galaxy provides a great opportunity for Sun to demonstrate its network-centric computing style in the x86 server space. Part of Sun's value proposition is that its hardware designs focus on price/performance, packaging, cooling, and low-power operations — and the other part is that it supports remote, lights-out operations and network-enabled maintenance that, taken together, provide no-touch support for rack-dense servers. It is leveraging its N1 System Manager software to provision workloads and to automate remote installation of software.

The market will watch this launch with interest because it could mark an inflection point in Sun's move into x86 platforms that could allow Sun to reach the top of the list of x86 server vendors worldwide. Sun's early Opteron-based products, the V20z and V40z, have ramped strongly but have not yet allowed Sun to take on the top x86 server vendors (i.e., HP, Dell, and IBM) in terms of factory revenue and unit shipments.

As always, Sun can be expected to show its own style in its approach to the x86 server market — featuring packaging, optimization, and network centrality. The "fast turns" of the x86 server space will be one way to gauge Sun's progress as it ramps the Galaxy servers. Sun's ability to show that it's swimming fast in this highly competitive sea of x86 server competitors would be a promising sign of its diversification — remaining a major RISC vendor while moving strongly into the x86 server space.