Announcing the New Fujitsu SPARC M12 Servers

World's #1 Core Performance, Extreme Flexibility, and Mainframe-Class RAS

The new Fujitsu SPARC M12 server, featuring the 12-core SPARC64TM XII processor, delivers up to 2.5 times faster core performance and saves on total cost of ownership (TCO). The success of IT in delivering mission-critical applications depends on having a platform with blazing performance, unprecedented reliability, and scalability that enables smooth growth. Better performance includes flexibility that allows customers to optimize license costs by running their current software stack on fewer cores.

The new Fujitsu SPARC M12 servers meet modern enterprise computing demands. The Fujitsu SPARC M12 delivers extreme performance, mainframe-class reliability, availability, and serviceability (RAS), and optimum scalability for mission-critical workloads. Delivering immense computing capacity in a compact size, Fujitsu uses a flexible building block approach combined with a unique core activation feature to scale the systems incrementally up to 32 processor sockets, hosting up to 32 TB of memory. Fujitsu SPARC M12 supports Oracle Solaris 10 and 11 (bare metal and virtualized), and benefits from the Oracle Solaris Binary Application Guarantee to provide compatibility with past and present SPARC/Solaris servers.

The SPARC64 XII processor with advanced Software on Chip (SWoC) acceleration for database and in-memory processing, combined with the world's most powerful processor core, makes the Fujitsu SPARC M12 an ideal system for enterprise workloads.

Moreover, robust RAS features make Fujitsu SPARC M12 the ideal foundation for a highly scalable mission-critical cloud, delivering outstanding business value with low total cost of ownership.

Smooth Scalability to Grow at Your Own Pace

Scalability is critical for businesses that need to allow for future growth while achieving superior performance today. Dynamic, flexible growth also allows businesses to save money – buy only what fits organizational needs and budget. The Fujitsu SPARC M12 features unique dynamic scaling to grow in lockstep with the business through granular core activation that helps address the challenges of unpredictable data growth. A unique Building Block Architecture scales easily and economically, combining up to 16 Building Blocks for a total of 32 processor sockets and 384 cores.

With the unique core activation feature, customers can activate cores as needed and dynamically scale from 2 cores to 384 cores at their own pace, enabling rapid and cost-effective scalability. The Fujitsu SPARC M12 offers massive and flexible I/O scalability (up to 928 PCI Express Gen 3 slots in Fujitsu SPARC M12-2S) using PCI Expansion Units that enable large scale consolidation where dedicated I/O resources are required.

Record-Setting Performance for the Most Demanding Modern Workloads

At the heart of the Fujitsu SPARC M12, the innovative SPARC64 Xll processor has already captured 15 world records across a wide range of industry-standard benchmarks. With record-setting performance, the Fujitsu SPARC M12 helps organizations manage the explosive growth of data with cutting-edge technology for faster database and application processing.

		Per-Core Performance	Socket Performance			
#1 Arithmetic Performance	SPECint_rate 2006	1	1			
#1 Scientific Performance	SPECfp_rate 2006	1	1	1	1	1
Faster memory Throughput	STREAM TRIAD	Not Applicable (core count does not impact STREAM results)	1	1	1	
#1 Java Performance	SPECjbb2015 max-jOPS (MultiJVM)	1				
	(Composite)	1				
Extreme Response Performance	SPECjbb2015 critical-jOPS (MultiJVM)	1				
	(Composite)	1	1			

Please see the Fujitsu SPARC benchmark page at http://www.fujitsu.com/global/products/computing/servers/unix/sparc/key-reports/benchmarks/ for the benchmark results as of April 4, 2017.

Mainframe-Class RAS Ensures Continuous Uptime

Migrating workloads can be risky business for critical applications with zero tolerance for downtime. The Fujitsu SPARC M12 delivers mainframe-class RAS across the entire system, from the SPARC64 XII processors and memory to every subsystem. The system can perform a variety of actions to protect itself and your critical applications and data — from dynamically degrading the minimum faulty component to proactively looking for errors.

Fujitsu SPARC M12 servers use innovative processor and system design to ensure high reliability and high availability for mission-critical applications. In addition, comprehensive and exhaustive data protection and redundancy assures system uptime 24 hours a day, 365 days a year.

"Oracle and Fujitsu have worked together for more than three decades to produce SPARC systems satisfying the demanding requirements of mission-critical infrastructure. Fujitsu SPARC M12 servers featuring the new SPARC64 XII processor for extreme core performance are an exciting addition to the SPARC family, allowing customers to address their most difficult computing challenges with systems that offer both high performance and enterprise reliability."

—Edward Screven
  Chief Corporate Architect
  of Oracle Corporation

Innovative Cooling for Server Density and Performance

Fujitsu SPARC M12 adds innovation in cooling technologies, too. The new Vapor and Liquid Loop Cooling (VLLC) system found in the Fujitsu SPARC M12 provides twice the cooling performance over the Liquid Loop Cooling (LLC) system used in Fujitsu M10 servers. VLLC achieves significantly increased cooling performance through the phase change of liquid to vapor, allowing superior heat absorption. VLLC in the Fujitsu SPARC M12 are sealed-for-life units with no external hoses or chillers. And because VLLC alleviates the need for heatsinks, CPUs and memory can be packed more closely together, reducing latency and helping to make the Fujitsu SPARC M12 the most advanced server for mission-critical enterprise applications.

Software on Chip Delivers Performance and Security

Fujitsu SPARC M12 servers feature core-based advanced SWoC technology to accelerate performance and enhance security. The power of Fujitsu's SWoC technology helps control costs and deliver value by ensuring that businesses don't have to choose between security and performance. With Fujitsu SPARC M12, an organization gets both.

For example, in-memory query acceleration and in-line decompression deliver dramatic improvements for in-memory databases and allow both analytics and OLTP transactions to be performed on the same data. Also, encryption acceleration enables end-to-end security with near-zero overhead. Encrypt everything, all the time, at full speed. In addition, decimal and NUMBER acceleration speed database calculations.

Mission-Critical Infrastructure for Private Cloud

Many organizations today need the security and privacy of private cloud. With Fujitsu SPARC M12 servers, companies get record-setting core performance, mainframe-class RAS, and on-demand scalability for future growth—delivered from your private datacenter. Business critical applications are the perfect fit for the Fujitsu SPARC M12 powering your private cloud, too. They can be delivered on Oracle Solaris 10 or Oracle Solaris 11, the world's most advanced enterprise operating system with security, speed, and simplicity for enterprise private cloud.

Private cloud management is readily available, too. OpenStack is integrated in the robust Oracle Solaris operating system to deliver open standards-based private cloud. And with Oracle Enterprise Manager Cloud Control and Oracle Enterprise Manager Ops Center, IT gets a robust set of software tools

NEW SPARC MODELS DELIVER THE PERFORMANCE YOU NEED

Fujitsu SPARC M12 servers are available in two models that deliver the performance and scalability to meet all organizational needs.

• The Fujitsu SPARC M12-2 features up to two 3.9 GHz, 12-core processors with 8 threads per core for a total of up to 24 cores and 192 threads per server. The 4U chassis supports up to 2 terabytes of DDR4 memory.

• The Fujitsu SPARC M12-2S features two 4.25 GHz processors in a 4U chassis that can be combined with other Fujitsu SPARC M12-2S servers using Fujitsu Building Block Architecture to form a 16 Building Block configuration offering up to 32 processors, with 384 cores and 3,072 threads. Memory can scale up to 32 terabytes of DDR4 memory.

to build and manage a private cloud using familiar Oracle technology.

Fujitsu and Oracle – A Powerful Partnership

The SPARC M12 brings together the SPARC64 XII processor, Fujitsu's advanced system technology, and the most powerful enterprise operating system, Oracle Solaris 11. Together, Oracle and Fujitsu continue to deliver customers unmatched value with the Fujitsu SPARC M12 through record-breaking performance, reliability, and scalability for the modern enterprise.

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For more information, visit www.fujitsu.com/sparc