Datasheet
Fujitsu SPARC Enterprise M8000 server

Provides the enterprise start point for large database. ERP and OLTP applications plus total stability, flexibility and asset protection.

Only the best with Fujitsu SPARC Enterprise

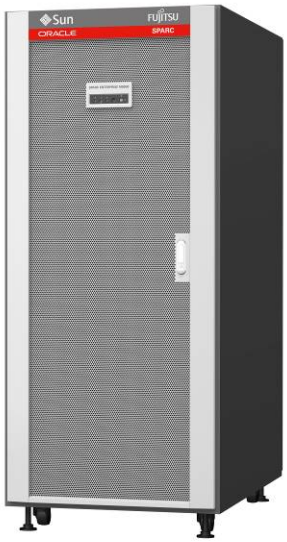
Based on robust SPARC architecture and running the leading Oracle Solaris 11, Fujitsu SPARC Enterprise servers are ideal for customers needing highly scalable, reliable servers that increase their system utilization and performance through virtualization.

The combined leverage of Fujitsu's expertise in mission-critical computing technologies and high-performance processor design, with Oracle's expertise in open, scalable, partition-based network computing, provides the overall flexibility to meet any task.

A SPARC of steel

As you would expect in a server aimed at your most important tasks, Fujitsu SPARC Enterprise M8000 has all the qualities of a mainframe. Absolutely rock solid, dependable and sophisticated, it has the total Solaris binary compatibility necessary to both protect your investments and enhance your business.

Its rich virtualization eco-system of extended partitioning and Solaris Containers coupled with dynamic reconfiguration, means non-stop operation and total resource utilization at no extra cost. Benchmark leading performance with the world's best applications and outstanding processor scalability just add to the capabilities of this attractive open system platform.



Features and benefits

Main features	Benefits
Flexible investment protection	
■ All SPARC64 VI dual-core processor and SPARC64 VII/VII+ quad-core processor can be mixed and matched in the servers and even partitions. ■ Supports up to 16 physical partitions and thousands of Solaris Containers with dynamic reconfiguration and optional Fujitsu PRIMECLUSTER inter-partition clustering.	■ Investment protection for years to come, less risk and lower cost of ownership. ■ Scales to nearly twice the performance with the same number of sockets and similar space and power requirements. ■ Fast deployment of new applications with total availability for business critical processes.
Reliability that makes you forget	
■ Engineered like a mainframe with outstanding self-healing capability. ■ All circuits, processors and memory are constantly monitored to ensure correct and continuous operation.	■ Best suited to the needs of large databases, financial and high volume applications. ■ Manages itself so you don't have to. ■ Self-managing hardware also maximizes the opportunity for applications to work at peak performance.
World's most advanced OS, Oracle Solaris 11	
■ Whole network can be virtualized by mapping physical network entities onto virtualization entities ■ Solaris 10 Containers can help applications run on Solaris 11 ■ Boot Environment greatly reduces downtime for server updates ■ Highest security including delegated administration can minimize risks of attacks	■ Minimizes costs of server administration and maintenance ■ Application asset protection by non-disruptive upgrades ■ Maximum system operations time due to online systems update ability ■ Protects business credibility by eliminating information exposure and business disruption risks

Topics

Flexible investment protection

Fujitsu has invested in your future by ensuring that new processors can be installed in existing systems. Even better they can be mixed, on the same system boards and in the same physical partitions, with previous processors. This provides unrivalled investment protection and - as you don't need to replace servers so often - it can also reduce your overall IT spends.

As advances in processor technology have continued, Fujitsu SPARC Enterprise and SPARC 64 processors provide the ability to significantly increase performance over time. You can either add more processors (up to 64 cores with Fujitsu SPARC Enterprise M8000) or employ new processors with almost twice the performance. In the latter case the increased performance comes with almost no increase in data center power consumption or additional heat management.

To ensure that all that performance is fully used, support for up to 16 physical partitions and thousands of Solaris Containers lets you quickly and dynamically reconfigure the system for both existing and new business processes. Plus, in conjunction with Fujitsu PRIMECLUSTER middleware you can also implement fully mission-critical clustered solutions, between physical partitions, inside your M8000.

Reliability that makes you forget

When Fujitsu designed Fujitsu SPARC Enterprise M8000 they looked to their long mainframe heritage to provide the quality and robustness needed in a major UNIX business-critical platform. The result is a most reliable, and highly scalable, self-sustaining system. That works well with the world's most popular business application systems and databases. By placing the widest range of error checking and correction systems directly into the hardware, the platform manages itself. This relieves system administrators from most of the difficult diagnostic and recovery tasks required with many other systems. Once you own Fujitsu SPARC Enterprise system you will soon forget the operational problems of the past. Like the engine management systems in the finest cars, everything is monitored and self-managed to ensure all applications work non-stop at the peak of their capability.

World's most advanced OS, Oracle Solaris

Solaris is the only OS that has the scalability, security, and diagnostic features, to fully and quickly comprehend the situation, if a major application problem occurs. That is one of the reasons Solaris has the largest application portfolio and why it is the development platform of choice for many of the world's major business applications.

Technical details

Processor	
Processor quantity and type	2–16x SPARC64 VII+, SPARC64 VII, SPARC64 VI
Processor options	SPARC64 VII+ quad-core processor (3.0GHz, 128KB L1 cache on core, 12MB L2 cache per chip)
	SPARC64 VII quad-core processor (2.88GHz, 128KB L1 cache on core, 6MB L2 cache per chip)
	SPARC64 VI dual-core processor (2.4GHz, 256KB L1 cache on core, 6MB L2 cache per chip)

Memory	
Memory slots	128 slots
Memory slot type	DDR2 SDRAM
Memory capacity (min. – max.)	16GB–1TB
Memory protection	ECC
	Extended ECC
	Memory Mirroring support
	Memory Patrolling
Memory modules	32GB Memory Expansion (16x 2GB DIMM)
	64GB Memory Expansion (16x 4GB DIMM)
	128GB Memory Expansion (16x 8GB DIMM)

Drive bays	
Hard disk bay configuration	16x 2.5-inch hot-swap SAS
Hard disk drives	146GB 2.5-inch 10,000rpm
	300GB 2.5-inch 10,000rpm
Tape drive bay configuration	1x 3.5-inch hot-swap bay
Tape drives	DAT72 (option)
Optical drive bay configuration	1x 128mm bay
Optical drives	CD-RW/DVD-RW (8xDVD-ROM, 6xDVD-RW, 24xCD/CD-R, 10xCD-RW)

Interfaces	
Remote Cabinet Interface (RCI)	2 port
Service LAN for XSCF	2 ports (10/100Mbit/s, RJ45)
Service serial for XSCF	1 port (RS232C, RJ45)

Slots	
PCI Express	32x PCI Express (x8, full-height, short)
Note	Expandable to 112 slots (PCI Express, PCI-X) when using 20x External I/O Expansion Units

Supported operating systems		
Supported operating systems	**SPARC64 VII+**	Oracle Solaris 10 8/07 or later Oracle Solaris 11
	SPARC64 VII	Oracle Solaris 10 8/07 or later Oracle Solaris 11
	SPARC64 VI	Oracle Solaris 10 11/06 or later Oracle Solaris 11
Operating system release link		www.fujitsu.com/sparcenterprise/manual/notes/

Server management	
Service processor	eXtended System Control Facility (XSCF)
Supported software	Enhanced Support Facility
	Server System Manager

Virtualization	
Virtualization features	Hardware partitioning
	Dynamic Reconfiguration
	Capacity on demand
	Solaris Container

RAS features		Integer register protected by ECC
Processor RAS		L1 cache protected by parity and redundancy and L2 cache protected by ECC
		Dynamic way degradation in L1, L2 cache and TLB
		Hardware Instruction Retry
		Dynamic chip/core degradation
		Operation of processor is recorded automatically
		Memory (mirror configuration)
Redundant components		Hard disk drive (software RAID)
		PCI card (multi-path configuration)
		Fan
		Power supply unit
		Power system
		Service processor (XSCF)
		CPU memory unit (CMU)
Hot-swap components		I/O unit (IOU)
		Hard disk drive (software RAID)
		PCI card
		Tape drive (DAT)
		Optical drive (CD-RW/DVD-RW)
		External I/O expansion units
		Fan
		Power supply unit
		Service processor (XSCF)
Degradation features	**Dynamic degradation**	Memory
		Hard disk drive (software RAID)
		Fan
		Power supply unit
		Service processor (XSCF)
	Static degradation	CPU memory unit (CMU)
		Processor (chip, core, cache)
		Memory
		I/O unit (IOU)
		Hard disk drive
		PCI cards
		Crossbar
		Fan
		Power supply unit

Dimensions / Weight	
Floor-stand (W x D x H)	750 x 1,260 x 1,800 mm
	29.5 x 49.6 x 70.9 inches
Weight	700 kg
	1,543 lb.

Environment		
Sound pressure (LpAm)		67 dB (A)
Operating ambient temperature		5–32°C (depending on altitude)
		41–89.6°F (depending on altitude)
Operating relative humidity		20–80%
Operating altitude		0–3,000 m
		0–10,000 ft

Electrical values		
Rated voltage range	Single-phase	AC 200–240 V
	3-phase (delta)	AC 200–240 V
	3-phase (star)	AC 380–415 V
Rated frequency range		50/60 Hz
Active power max.		10.50 kW
Apparent power max.		10.98 kVA
Heat emission		37,800 kJ/h

Compliance	
Europe	CE
	RoHS
USA/Canada	FCC
	UL/CSA
Japan	VCCI
China	Chinese RoHS
Korea	MIC
Taiwan	BSMI
Compliance note	There is general compliance with the safety requirements of major countries. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.

Warranty and support services	
Service link	www.fujitsu.com/support

More information

Fujitsu platform solutions

In addition to Fujitsu SPARC Enterprise M8000, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products
www.fujitsu.com/global/services/computing/
- PRIMERGY: Industrial standard server
- SPARC Enterprise: UNIX server
- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system
- BS2000/OSD: Mainframe
- GS21: Mainframe
- ESPRIMO: Desktop PC
- LIFEBOOK: Notebook PC
- CELSIUS: Workstation

Software
www.fujitsu.com/software/
- Interstage: Application infrastructure software
- Systemwalker: System management software
- Symfoware: Database software
- PRIMECLUSTER: Clustering software

More information

Learn more about Fujitsu SPARC Enterprise M8000, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.
www.fujitsu.com/sparcenterprise/

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at:
www.fujitsu.com/global/about/environment/

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