

Datasheet

Fujitsu SPARC Enterprise M4000 server

Combines mainframe benefits in a cost effective UNIX® format. Providing virtualization, integration and automation.

Only the best with Fujitsu SPARC Enterprise

Based on robust SPARC architecture and running the leading Oracle Solaris11, 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

Fujitsu SPARC Enterprise M4000 is a mid-range system with the same aggressive RAS features as its larger enterprise class cousins. Its compact rack mounted design however, significantly lowers the ownership price-point.

It features the non-stop self-healing mechanisms and rock solid, dependability needed to run departmental databases and ERP Applications. They can even be clustered for high availability across two physical partitions. Total binary compatibility fully protects your application investments, as well as provides Solaris Containers for further no-cost subdivision of resources. Fujitsu SPARC Enterprise M4000 is also a performance leader in its class with major business applications.



Features and benefits

Main features	Benefits
<p>Flexible investment protection</p> <ul style="list-style-type: none">■ All SPARC64 VI dual-core processor and SPARC64VII+ quad-core processor can be mixed and matched in the servers and even partitions.■ Supports up to 2 physical partitions and thousands of Solaris Containers, with dynamic reconfiguration and optional Fujitsu PRIMECLUSTER inter-partition clustering. <p>Reliability that makes you forget</p> <ul style="list-style-type: none">■ Engineered with mainframe class self-healing capability.■ All circuits, processors and memory are constantly monitored to ensure correct and continuous operation. <p>World's most advanced OS, Oracle Solaris 11</p> <ul style="list-style-type: none">■ 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	<ul style="list-style-type: none">■ 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. <ul style="list-style-type: none">■ Best suited to the needs of departmental databases, financial and other 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. <ul style="list-style-type: none">■ 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 16 cores with Fujitsu SPARC Enterprise M4000) 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 can be fully used, support for up to 2 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 M4000.

Reliability that makes you forget

When Fujitsu designed Fujitsu SPARC Enterprise M4000 they looked to their long mainframe heritage to provide the quality and robustness needed in an important mid-range 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	2–4x SPARC64 VII+, SPARC64 VI
Processor options	SPARC64 VII+ quad-core processor (2.66GHz, 128KB L1 cache on core, 11MB L2 cache per chip)
	SPARC64 VI dual-core processor (2.15GHz, 256KB L1 cache on core, 5MB L2 cache per chip)

Memory

Memory slots	32 slots
Memory slot type	DDR2 SDRAM
Memory capacity (min. – max.)	16GB–256GB
Memory protection	ECC
	Extended ECC
	Memory Mirroring support
	Memory Patrolling
Memory modules	8GB Memory Expansion (4x 2GB DIMM)
	16GB Memory Expansion (8x 2GB DIMM)
	32GB Memory Expansion (8x 4GB DIMM)
	64GB Memory Expansion (8x 8GB DIMM)

Drive bays

Hard disk bay configuration	2x 2.5-inch hot-swap SAS
Hard disk drives	300GB 2.5-inch 10,000rpm
	600GB 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

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

Slots

PCI Express	4x PCI Express (x8, full-height, short)
PCI-X	1x PCI-X (64/32 bit, 66/133 MHz, 3.3V Universal, short)
Note	Expandable to 25 slots (PCI Express, PCI-X) when using 2x External I/O Expansion Units

Supported operating systems

Supported operating systems	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

Virtualization

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

Processor RAS	Power supply unit Integer register protected by ECC 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
Redundant components	Memory (mirror configuration) Hard disk drive (software RAID) PCI card (multi-path configuration) Fan Power supply unit Power system
Hot-swap components	Hard disk drive (software RAID) PCI card Tape drive (DAT) External I/O expansion units Fan Power supply unit
Degradation features	Dynamic degradation Memory Hard disk drive (software RAID) Fan Power supply unit
	Static degradation Processor (chip, core, cache) Memory I/O board Hard disk drive PCI cards Fan

Dimensions / Weight

Rack-mount (W x D x H)	444 x 810 x 263 mm ; 6U
	17.5 x 31.9 x 10.3 inches ; 6U
Weight	84 kg
	185 lb.

Environment

Sound pressure (LpAm)	59 dB (A)
Operating ambient temperature	5–35°C (depending on altitude)
	41–95°F (depending on altitude)
Operating relative humidity	20–80%
Operating altitude	0–3,000 m
	0–10,000 ft

Electrical values

Rated voltage range	AC 200–240 V
Rated frequency range	50/60 Hz
Rated current max.	12–24 A
Active power max.	1,692 W
Apparent power max.	1,763 VA
Heat emission	6,091 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
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More information

Fujitsu platform solutions

In addition to Fujitsu SPARC Enterprise M4000, 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
- Symfaware: Database software
- PRIMECLUSTER: Clustering software

More information

Learn more about Fujitsu SPARC Enterprise M4000, 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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Contact

FUJITSU LIMITED
Website: www.fujitsu.com
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