Datasheet Sun Fire[™] E6900 Server **On the Web** sun.com/servers/midrange

Sun Fire™ E6900 Server

Highly available powerhouse for mission-critical applications.



Key feature highlights

- 64-bit Chip Multithreading (CMT)
 UltraSPARC® IV technology, with over 2x
 the throughput of previous generations
- Scales up to 24 UltraSPARC IV processors, each with 16 MB of Level 2 cache, and executing 48 simultaneous computing threads
- Investment protection with hot-swappable Uniboard processor/memory boards, common across the entire Sun Fire™
 E4900–E25K server family, with binary and application compatibility guarantees
- Solaris™ 8, Solaris 9, and Solaris 10
 Operating System
- Robust capabilities in the Solaris OS such as Predictive Self-Healing to increase reliability, Solaris Containers for increased utilization, and dTrace to optimize application performance
- High availability via full hardware redundancy, fault-isolated Dynamic System
 Domains, Dynamic Reconfiguration (DR), and online maintenance and upgrades
- Dependability enhancements that include a new level of intelligent system monitoring, diagnosis, and recovery
- Respond flexibly to changing business requirements with Capacity on Demand 2.0 for "pay as you grow" computing options
- Mixed CPU support enables growth of infrastructure without costly interruptions

Delivering on Sun's Throughput Computing vision, the Sun Fire £6900 server is a large-scale, shared memory system with Chip Multithreading (CMT) UltraSPARC® IV processor technology, offering over 2x the performance of Sun's previous generation servers in the same footprint. The Sun Fire £6900 server delivers sophisticated availability, scalability, and manageability features that meet the highest levels of RAS requirements.

The Sun Fire E6900 server is a 24-processor (up to 48 threads) datacenter system that is optimized for running applications for high-volume databases, data mining, customer management, decision support, and high-performance and technical computing (HPTC). The Sun Fire E6900 server is designed to deliver on mission-critical Service Level Agreements (SLAs) through full hardware redundancy, Dynamic Reconfiguration, and Predictive Self-Healing. With multiple fault-isolated Dynamic System Domains and secure Solaris™ Containers, the Sun Fire E6900 provides unprecedented security, resource optimization, and investment protection. Sun Fire E6900 server utilizes Solaris OS capabilities such as Dynamic Tracing to optimize application performance.

The Sun Fire E6900 server helps protect IT investments with its ability to mix and match UltraSPARC IV and UltraSPARC III processors in the same system, without disrupting end-user applications. The Sun Fire E6900 server delivers a balanced system architecture with guaranteed binary compatibility, CPU/memory Uniboards which are hot-swappable across the Sun Fire E4900–E25K line, and an industry-standard PCI subsystem integrated into the chassis for excellent I/O bandwidth. Furthermore, with Capacity on Demand (COD) 2.0, the Sun Fire E6900 server offers the ability to add 'on demand' resources to meet changing business requirements and pay only when extra capacity is needed.



Datasheet Sun Fire E6900 Server On the Web sun.com/servers/midrange

Sun Fire E6900 Specifications

Processor	
Number	4-24
Architecture	UltraSPARC IV and UltraSPARC III Cu, superscalar SPARC V9, ECC protected
Cache per processor	Level 1: Parity-protected 32-KB instruction and 64-KB data on chip (single-bit errors are corrected)
	Level 2: ECC-protected 16-MB external cache on UltraSPARC IV
System	
Processor/ memory boards	Up to six Uniboard CPU/memory boards, with four processors each, and up to 32 GB per board; maximum 24 processors per system
Main memory	Up to 192 GB per domain
1/0	32 PCI slots (twenty-four 66 MHz and eight 33 MHz)
System interconnect	9.6-GB/sec. Sun Fireplane interconnect. System bus with redundant data, address, and response crossbar interconnect
System bandwidth	9.6-GB/sec. sustained bandwidth, 67.2-GB/sec. aggregate bandwidth
System controller	Two per system
Boot device	Sun StorEdge [™] D240 Media Tray, Sun StorEdge S1 Array, and the Sun StorEdge 3210 Array may be used as boot, data-storage, data-load, data- interchange, and data backup devices.
Storage	
External Compatibility	Direct attach to Sun StorEdge tape libraries and disk arrays, including: Sun StorEdge 3000, 6000, and 9000 families, providing excellent linear scalability
Resource Management	
Standard	Dynamic System Domains, Solaris Resource Manager, Solaris Bandwidth Manager

Operating system	Solaris 8 (02/04), Solaris 9 (04/04),
(minimum version)	Solaris 10
Enterprise software	Sun Java Enterprise System
Languages	C, C++, Pascal, FORTRAN, Java
Networking	ONC™/NFS™, TCP/IP, SunLink™, OSI, MHS, X.25, DCE, Netware
System monitoring	Sun Management Center
System and network management	Solaris Web Start, Solstice AdminSuite", Suite", Solstice Domain Manager", Solstice Enterprise Manager", Solstice DiskSuite", Solstice Backup", VERITAS File System, VERITAS Volume Manager Sun Cluster, Sun HPC ClusterTools"
Environmental	
AC power	200-240 VAC (47-63 Hz), 34 Amp
Power cords	Four
Operating	5° C to 35° C (41° F to 95° F) 20% to 80% relative humidity, noncondensing
Nonoperating	-20° C to 60° C (-4° F to 140° F) 5% to 93% relative humidity, noncondensing
Regulations (meets or ex	xceeds the following requirements)
Safety	UL 60950, third-edition USA CAN/CSA-C22.2 No. 60950-00, Canada EN 60950, third-edition, Europe S Mark, Argentina Gost-R, Russia CB Scheme with all national deviations
Emissions	EN55022 Class A, Europe EN6100-3-2 / 3-3, Europe FCC Class A, USA ICES-003 Class A, Canada VCCI Class A, Japan CNS-13438, (BSMI-Taiwan) AS/NZ 3548 (C-tick), Australia Gost-R, Russia
Immunity	All European requirements EN55024, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, and EN300-386
Regulatory markings	CE, FCC, ICES-003, C-tick, VCCI, Gost-R

Key RAS Features

Full hardware redundancy, fault-isolated Dynamic System Domains, Dynamic Reconfiguration (DR), auto diagnosis and recovery, proactive self diagnostics, online upgrades, concurrent maintenance, end-to-end data integrity including ECC, redundant network connections, redundant storage connections, kernel hot patching, hardened operating system kernel, live operating system upgrades, journaling file system, hardened I/O drivers, CPU off-lining, memory page retirement, after-kernel hot patching, and cluster support

Upgrades

The Sun Upgrade Advantage Program (UAP) offers trade-in value for qualified Sun and competitive servers toward the purchase of replacement Sun Fire E6900 server(s). Whether upgrading one system or consolidating many systems to one, Sun UAP offers the flexibility to trade in and receive credit toward the new Sun system purchased. Upgrades are also available for Sun Fire server system components, including processor/memory boards and I/O.

Dimensions and Weight

Height	190.5 cm (75.0 in.)
Width	61.0 cm (24.0 in.)
Depth	134.6 cm (53.0 in.)
Weight	544.3 kg (1200.0 lb.)
Power cord	4.6 m (15.0 ft.)

Remote Services

SRS Net Connect

Services

Sun provides a worldwide services portfolio that helps enable customers to develop a Sun Fire E6900 solution designed for reliability, availability, serviceability, and growth. Sun can assist you to build an architecture plan, assess your current IT infrastructure, improve staff skills and efficiencies, and properly install your Sun Fire E6900 system in your environment. Services highlights include: Sun Preventive Services, Enterprise Installation Services, Learning Services, Architecture Services, Migration/Consolidation Services, Sun Managed Services, and the Accredited Installation Provider program. For more information on Sun Services, please visit www.sun.com/service.

Get the details on how the Sun Fire E6900 combines high availability, performance, and scalability for mission-critical applications. Contact your Sun Representative at 1-800-555-9SUN, or visit sun.com/servers/midrange/sunfire_e6900/.

Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 USA Phone 1-650-960-1300 or 1-800-555-9SUN Web sun.com



Sun Worldwide Sales Offices: Argentina +541-4317-5600, Australia +612-9844-5000, Austral +431-60563-0, Belgium +32-2-704-8000, Brazil +551-518-72187-2100, Canada +905-477-6745, Chile +56-2-3724500, Colombia +571-629-2323 (Commonwealth of Independent States +7-502-935-8411, Zezch Republic +4202-2390-9311, Denric +44, 4555-5000, Egypt +202-570-9442, Estonia +372-6-98-900, Indian +358-952-5561, France +331-140-30-00, Germany +49-89-4608-0 (Greece +30-1-618-8111, Hungary +36-1-489-8900, Iceland +354-563-3010, India-Bangalore +91-80-2298989/2295454; New Delhi +91-11-6106000; Mumbai +91-22-697-8111, Ireland +353-1-8055-666, Israel +972-9-9710500 (Italy +39-02-641511, Japan +81-3-5717-5000, Kazakhstan +7-3272-466774, Korea +822-2193-5114, Lativia +371-750-3700, Lithuania +370-729-8468, Luxembourg +352-49 11 33 1, Malaysia +603-21161888, Mexico +52-5258-6100 (Proposition +46-4-96-6800; Wellington +64-4-462-0780, Norway +47 23 36 96 00, People's Republic of China-Beiling +86-10-6803-5588; Chengdu +86-28-6809; Wellington +64-4-462-0780, Norway +47 23 36 96 00, People's Republic of China-Beiling +86-10-6803-5588; Chengdu +86-28-6810-900, Portugal +351-21-4134000, Russia +7-502-935-8411, Saudi Arabia +9661 273 4567, Singapore +65-6438-1888 (Slovak Republic +422-2472-4342-9485, South Africa +27 11256-6300, Spain +34-91-767-6000, Sweden +468-831-10-00, Switzerland-German 41-1908-90-00; French 41-22-999-0444, Taiwan +886-2872-933, Thailand +662-344-6888 Turkey +90-212-335-22-00, United Arab Emirates +91-4356-333, United Kinadom +441-276-2044, United States +1-800-555-595UN or 1-16-50-960-3300, Venezuela +582-905-3800, or online at sun.com/store

BSMI, UL/cUL/S Mark, TUV-GS, MIC

SUN © 2005 Sun Microsystems, Inc. All rights reserved. Sun, Sun Microsystems, the Sun logo, Java, ONC, Solaris, Solstice AdminSuite, Solstice DiskSuite, Sun Fire, Sun StorEdge, and Solstice Backup, and The Network is the Computer are trademarks, registered trademarks, or service marks of Sun Microsystems, Inc. in the United States and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc., in the United States and other countries. Other brand and product names are trademarks of their respective companies. Information subject to change of the support o