

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™ E6900 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 E6900 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.



Sun Fire E6900 Specifications

Processor		Software		Key RAS Features	
Number	4-24	Operating system (minimum version)	Solaris 8 (02/04), Solaris 9 (04/04), Solaris 10	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	
Architecture	UltraSPARC IV and UltraSPARC III Cu, superscalar SPARC V9, ECC protected	Enterprise software	Sun Java Enterprise System	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.	
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	Languages	C, C++, Pascal, FORTRAN, Java		
System		Networking	ONC™/NFS™, TCP/IP, SunLink™, OSI, MHS, X.25, DCE, Netware	Dimensions and Weight	
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	System monitoring	Sun Management Center	Height	190.5 cm (75.0 in.)
Main memory	Up to 192 GB per domain	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™	Width	61.0 cm (24.0 in.)
I/O	32 PCI slots (twenty-four 66 MHz and eight 33 MHz)	Environmental		Depth	134.6 cm (53.0 in.)
System interconnect	9.6-GB/sec. Sun Fireplane interconnect. System bus with redundant data, address, and response crossbar interconnect	AC power	200-240 VAC (47-63 Hz), 34 Amp	Weight	544.3 kg (1200.0 lb.)
System bandwidth	9.6-GB/sec. sustained bandwidth, 67.2-GB/sec. aggregate bandwidth	Power cords	Four	Power cord	4.6 m (15.0 ft.)
System controller	Two per system	Operating	5° C to 35° C (41° F to 95° F) 20% to 80% relative humidity, noncondensing	Remote Services	
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.	Nonoperating	-20° C to 60° C (-4° F to 140° F) 5% to 93% relative humidity, noncondensing	SRS Net Connect	
Storage		Regulations (meets or exceeds the following requirements)		Services	
External Compatibility	Direct attach to Sun StorEdge tape libraries and disk arrays, including: Sun StorEdge 3000, 6000, and 9000 families, providing excellent linear scalability	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	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 .	
Resource Management		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	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/.	
Standard	Dynamic System Domains, Solaris Resource Manager, Solaris Bandwidth Manager	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 BSMI, UL/cUL/S Mark, TUV-GS, MIC		

