



Sun Fire™ E2900 Server

Enterprise-class performance in a compact, flexible server



Highlights

- Delivers more than 5x the performance of UltraSPARC III and more than twice that of UltraSPARC IV servers — in the same footprint
- Scales up to 12 processors with 24 threads and up to 192 GB of memory for data-intensive applications
- Solaris Application Guarantee enables seamless migration to new CPU technologies
- Mix and match UltraSPARC III, IV, and IV+ processors in the same system for in-chassis upgrades with no forced migrations
- Delivers more than 30% faster I/O performance using PCI-X technology
- Capacity on Demand enables pay-as-you-grow computing options
- Dynamic Tracing (DTrace) allows application performance optimization — up to 30x in some cases
- Solaris Containers enable application consolidation
- Hot-swap CPU/memory boards with Dynamic Reconfiguration dramatically improve availability and uptime
- Redundant (2N) power supplies and remote monitoring capability improve reliability
- Available as a Sun™ System Pack, enabling customers to maximize their IT value while lowering total cost of acquisition and ownership



The Sun Fire™ E2900 server delivers enterprise-class performance and reliability in a compact, rack-optimized form factor — an ideal system for application serving, business processing, database, IT infrastructure, application development, collaboration, and compute-intensive scientific engineering.

Powered by up to 12 next-generation UltraSPARC® IV+ processors, the system delivers more than twice the performance of previous systems, in the same footprint. Two Sun Fire E2900 servers fit into a single standard rack, providing a total rack density of 24 processors and 48 compute threads. In addition, enterprise-class features such as PCI-X technology help deliver breakthrough price/performance for compute-intensive applications.

The system is inherently reliable as well, with hot-swappable CPU/memory boards, Dynamic Reconfiguration technology for online upgrades, remote monitoring, and redundant power supplies. Plus, Predictive Self-Healing technology provides the intelligent system monitoring, diagnosis, and recovery that can keep your systems — and your business — up and running. At the same time, Solaris™ Containers (available in the Solaris 10 Operating System) can increase server utilization up to 80 percent, making the Sun Fire E2900 server an excellent platform for running

multiple applications in an isolated, secure environment. And by consolidating applications, you can further increase utilization and reduce costs.

The Sun Fire E2900 server also protects your investment with a hardware lifecycle of from five to seven years, one of the longest in the industry. Sun's unique Solaris Application Guarantee means that you can upgrade your systems without recompiling or recoding your applications, which minimizes business disruptions. And Capacity on Demand 2.0 enables you to add resources on the fly to meet changing business requirements — and to pay for only those resources you use.

What's more, the Sun Fire E2900 server is available as a Sun™ System Pack, which delivers significant advantages over traditional warranty plans by providing enhanced service coverage, automatic OS updates, training credits, and much more.

Sun Fire E2900 Server Specifications

Processor

Processor	Up to twelve UltraSPARC IV+ and/or UltraSPARC IV processors
Architecture	Superscalar SPARC® V9, ECC protected
Cache per UltraSPARC IV+ processor	Level 1: 64 KB data and 64 KB instruction per pipeline Level 2: 2 MB on-chip Level 3: 32 MB external

System

Processor/memory boards	Up to three CPU/memory boards* four processors each, up to 64 GB per board
Main memory	Up to 192 GB per system
I/O	Six short PCI-X slots (64-bit 100 MHz, 3.3V); integrated Ultra-320 SCSI (one internal and one external port); two Gigabit Ethernet ports
System interconnect	9.6 GB/s Sun Fireplane interconnect; system bus with redundant data, address, and response crossbar interconnect
System bandwidth	9.6 GB/s sustained bandwidth, 31.2 GB/s aggregate bandwidth

Storage

Internal	Two 146 GB, 15K-RPM Ultra3-SCSI internal disks, DVD-ROM internal drive, tape drive (optional)
External compatibility	Direct attach to Sun StorageTek™ tape libraries and disk arrays, including Sun StorageTek 3000, 6000, and 9000 families

Resource Management

Standard	Solaris Resource Manager, Solaris Bandwidth Manager
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Software

Operating system	UltraSPARC IV+: Solaris 10 (beginning with 3/05 HW 1) Solaris 9 (beginning with 9/05) UltraSPARC IV: Solaris 10 (beginning with 3/05) Solaris 9 (beginning with 4/04) Solaris 8 (beginning with 2/04)
Enterprise software	Sun Java™ Enterprise System
Languages	C, C++, Pascal, FORTRAN, Java
Networking	ONC™/NFS™, TCP/IP, SunLink™, OSI, X.25, DCE, Netware
System monitoring	Sun Management Center

System and network

Sun Cluster™, Sun OpenBoot™
Solaris Web Start, Solstice™ manage-DiskSuite™, SunScreen™ Secure Net, VERITAS File System, VERITAS Volume Manager, Solaris Resource Manager, Solaris Bandwidth Manager

Environmental

AC power	200–240V single phase AC, 47–63 Hz, with two 11/13 Amp circuits redundant with another two on a separate grid
Optimum	22°C (72°F), 45% relative humidity, noncondensing
Range	5°C to 35°C (41°F to 95°F), 10% to 80% relative humidity, noncondensing
Altitude	Up to 3048 m (10,000 ft.); up to 2134 m (7000 ft.) for 1.8 GHz UltraSPARC IV+

Regulations (meets or exceeds 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, BSMI, UL/cUL/S Mark, TUV-GS, MIC, RoHS

Key RAS Features

Dynamic Reconfiguration of processor/memory boards, hot CPU upgrades, redundant Sun Fireplane interconnect, redundant network connections, hot-swap disks, smart fans, 2N redundant hot-swap power supplies, Auto Diagnosis and Recovery, hardened operating system kernel, hardened I/O drivers, systems configuration card, proactive self-diagnostics, end-to-end data integrity including ECC, CPU off-lining, memory page retirement, after-kernel hot-patching, and cluster support.

For More Information.

Learn how the Sun Fire E2900 server combines investment protection with enterprise-class features in a compact frame. Contact your Sun Representative at 1-800-555-9SUN, or visit sun.com/servers/midrange/sunfire_e2900/

Sun Upgrade Advantage Program

The Sun Upgrade Advantage Program (UAP) offers upfront discounts for trade-in of qualified Sun and competitive servers toward the purchase of replacement Sun Fire servers. 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 boards and I/O assemblies. For more information visit sun.com/ibb/enterprise.

Dimensions and Weight

H:	52.7 cm (20.75 in.)—12RU
W:	44.5 cm (17.5 in.)
D:	55.8 cm (22.0 in.) excluding cable arm
Weight	110 kg to 132 kg (240 lb. to 290 lb.)
Rackmount	All Sun racks and most third-party enclosures 24 in. (600 mm) and deeper racks, two per four-post rack, one per two-post rack

Remote Services

Sun Net Connect

Services

From design and implementation to support and smart sourcing, Sun provides a broad portfolio of IT infrastructure services — all built to help you achieve your objectives. Leverage Sun's relentless innovation and depth of expertise to help you architect and deploy a reliable, high-performance Sun Fire E2900 solution that gives you the edge. If you opt out of a Sun System Pack at point of sale, once in production, a SunSpectrum™ Support Upgrade provides integrated hardware and OS coverage including Sun technical support, expedited hardware service, SunVIP™ interop support, and premium online resources including on-demand health checks and OS update services.

* The Sun Fire E2900 server CPU/memory board is common and interchangeable with the Sun Fire V1280 server. Not interchangeable with Sun Fire E4900–E25K server Uniboard technology.