

Sun Fire™ V890 Server



Extensive compute, I/O, and storage capacity delivered in a highly integrated package with exceptional throughput and investment protection.

Key Feature Highlights

- Delivers up to 5 times the performance of UltraSPARC III servers and nearly double the performance of UltraSPARC IV servers in the same footprint.
- Scales up to 8 processors with 16 threads and up to 64GB memory in a 17-RU tower/desk-side or rack-mountable package.
- Unique Solaris OS application compatibility guarantee enables seamless migration to newer processor technologies.
- Mix and match UltraSPARC IV+ and IV processors in the same system for in-chassis upgrades to faster processors, preventing forced migrations.
- New RAS and security enhancements improve system uptime. Predictive Self Healing predicts and prevents faults automatically.
- Dynamic Tracing (dTrace) allows further application performance optimization — up to 300% gains seen by customers.
- Ideal for consolidating applications using Solaris Containers technology.
- Integrated Fibre Channel disk subsystem, multipathing-ready, supporting up to 12 FC-AL disks.
- 9 PCI slots help ensure a highly scalable, well-balanced system.
- Standard three-year warranty.

The Sun Fire™ V890 server, powered by the new UltraSPARC® IV+ processor and Solaris™ OS, provides enterprise-class features in a powerful, affordable platform. This server delivers up to 5 times the performance of UltraSPARC III servers, and nearly double the performance of UltraSPARC IV servers within the same footprint without additional power/cooling requirements. With up to eight UltraSPARC IV+ Chip Multithreading (CMT) processors executing 16 concurrent threads, up to 64 GB of memory, and nearly two terabytes of internal storage, the Sun Fire V890 server delivers extensive compute capacity with enterprise-class throughput at a low-cost server price.

The Sun Fire V890 server adds value through innovation, security, and the industry's best investment protection, which extends the life cycle of your Sun servers and results in significant cost savings. Rigorous adherence to the Solaris OS's application binary compatibility means that existing Solaris applications continue to run with no disruption to your existing software infrastructure. The Sun Fire V890 server also supports mixed generations and speeds of UltraSPARC IV+ and UltraSPARC IV boards in the same server so you can maintain existing hardware investments in the Sun Fire V890 server and easily upgrade to

the latest technology. Remote system administration of the Sun Fire V890 server is enabled by the Sun Systems Controller; and Solaris Security Toolkit provides enterprise-wide security posture management with hardening and audit capabilities.

Optimized for your most demanding departmental and enterprise applications, the Sun Fire V890 server runs the robust UNIX® operating system, Solaris OS and continues to deliver up to 80% server utilization taking advantage of Solaris Containers, making it a perfect consolidation platform. Key applications include Application Serving, Business Processing, Database Services, IT Infrastructure, Application Development, Collaboration, and compute-intensive Scientific Engineering.



Sun Fire V890 Server Specifications

Processor

Processor	Combine up to eight 1.5GHz UltraSPARC IV+ and/or 1.35GHz UltraSPARC IV processors
Architecture	Superscalar SPARC® V9, ECC protected
Processor modules	One to four dual-processor/memory modules
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

Main Memory

A system maximum of 64 GB when configured with eight processors

Standard/Integrated Interfaces

Network	1-Gb Ethernet and 10/100Base-T Ethernet
I/O	FC-AL disk controller
Serial	Two EIA-232D or EIA-423 serial ports (DB25) via splitter cable
Expansion capability	Nine full-sized, hot-plug PCI slots compliant with PCI specification Revision 2.1 (2 @ 66 MHz, 64 bits wide, 3.3 volts; 7 @ 33 MHz, 64 bits wide, 5 volts)
USB	Two (compliant with USB Revision 1.0)

Mass Storage and Media

Internal tape	Optional 12-GB DDS-3 or 20-GB DDS-4 SCSI drive(s) via X6758A adapter and X912A cable options
Internal disk	Up to 12 3.5" x 1.0" 10K-RPM FC-AL disks (146-GB capacity) providing a maximum total capacity of 1.75 TB
External disk	Sun StorEdge® A5100/A5200 Sun StorEdge D240 Sun StorEdge S1 Sun StorEdge 3120 Sun StorEdge 3310 SCSI RAID/JBOD Sun StorEdge 3320 Sun StorEdge 3510 FC RAID/JBOD Sun StorEdge 3511 Sun StorEdge 6320 Sun StorEdge 6920 Sun StorEdge 9910/9960/9970/9980

External tape	Sun StorEdge DAT 72 desktop tape drive Sun StorEdge LTO-2 desktop tape drive Sun StorEdge SDLT 320 desktop tape drive Sun StorEdge L8 tape autoloader Sun StorEdge L25 tape library Sun StorEdge L100 tape library Sun StorEdge L180 tape library Sun StorEdge L700 tape library Sun StorEdge L8500 tape library
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Software

Operating system (minimum version)	The minimum OS version for 1.5GHz UltraSPARC IV+ processors is Solaris 9 9/05 and Solaris 10 3/05 HW1 The minimum OS version for 1.35GHz UltraSPARC IV processors is Solaris 8 2/04, Solaris 9 4/04, and Solaris 10 3/05
Enterprise infrastructure software	Sun Java™ Enterprise System

Power Supplies

Two required, three for redundancy, each with independent power cord	
Maximum AC input	3200 W per system
Maximum DC output	2509 W per system

Environmental

AC power	200–240 VAC, 47–63 Hz, 2078 VA
Operating	5° C to 35° C (41° F to 95° F), 20% to 80% relative humidity, noncondensing, 27° C max. wet bulb
Nonoperating	-20° C to 60° C (-4° F to 140° F), 95% at 40° C relative humidity, noncondensing

Regulations (meets or exceeds the following requirements)

Safety	UL/CSA-60950-1, EN60950-1, IEC60950 CB Scheme with all country deviations, IEC825-1, 2, and CFR21 part 1040
Ergonomics	EK1-ITB-2000
RFI/EMC	EN55022/CISPR22 Class A, FCC CFR47 Part 15 Class A, EN61000-3-2, EN61000-3-3
Immunity	EN55024/CISPR24
Telecommunications	EN300-386
X-ray (for monitors)	DHHS 21 Subchapter J; PTB German X-ray Decree
Regulatory markings	CE, FCC, ICES-003, C-tick, VCCI, GOST-R, BSMI, MIC, UL/cUL, TUV-GS, TUV/S-mark

Key RAS Features

- Hot-pluggable disk drives and PCI cards
- N+1 power supply redundancy
- Hot-swappable power supplies
- Redundant, hot-swappable fan trays
- Environmental monitoring and fault protection
- Automatic System Recovery (ASR)
- Remote Lights Out Management capability
- Support for disk and network multipathing with automatic failover capability
- Dual-loop enabled FC-AL mass storage system
- Error correction and parity checking for improved data integrity

Upgrades

The Sun Upgrade Advantage Program (UAP) offers trade-in value for qualified Sun and competitive servers toward the purchase of replacement Sun Fire V890 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 CPU/memory boards and I/O. For more information visit sun.com/ibb/uap/.

Dimensions and Weight

Height	714 mm (28.1 in.) with casters 700 mm (27.6 in.) without casters (rackmounting does not require the removal of casters)
Width	480 mm (18.9 in.)
Depth	836 mm (32.9 in.)
Weight	88.1 kg (194.0 lb.) (min.) 130.9 kg (288.0 lb.) (fully configured)

Warranty

Hardware support	3 years
Software install	90 days
Call response	8 hours
Delivery	Next business day, on-site

For More Information

Learn how the Sun Fire V890 server combines investment protection with enterprise-class features in a powerful, affordable platform. Contact your Sun Representative at 1-800-555-9SUN, or visit sun.com/v890.