

Sun™ Hardware At-A-Glance

Updated July, 2003



Sun Fire™ Entry SPARC®/Solaris™ Servers

| | Sun Fire™ V100 Server | Sun Fire™ V120 Server | Sun Fire™ V210 Server | Sun Fire™ V240 Server | Sun Fire™ 280R Server | Sun Enterprise™ 250 Server | Sun Fire™ V480 Server | Sun Fire™ V880 Server |
|---------------------------|-----------------------|-----------------------|-----------------------|----------------------------|----------------------------|----------------------------|------------------------|-----------------------|
| CPUs | 1 | 1 | 1-2 | 1-2 | 1-2 | 1-2 | 2-4 | 2-8 |
| CPU type | UltraSPARC® Ili | UltraSPARC Ili | UltraSPARC IIIli | UltraSPARC IIIli | UltraSPARC III+ | UltraSPARC II | UltraSPARC III | UltraSPARC III |
| CPU speed | 550, 650 MHz | 650 MHz | 1 GHz | 1 GHz | 1.2 GHz | 400 MHz | 900 MHz | 1.05 GHz |
| Level 2 cache | 512 MB | 512 KB | 1 MB | 1 MB | 8 MB | 2 MB | 8 MB | 8 MB |
| Main memory | 2 GB | 4 GB | 4 GB | 8 GB | 8 GB | 2 GB | 32 GB | 64 GB |
| PCI slots | None | 1 (33 MHz) | 1 (66 MHz) | 3 (2 x 33 MHz, 1 x 66 MHz) | 4 (3 x 33 MHz, 1 x 66 MHz) | 4 (1 x 66 MHz/ 64-bit) | 6 (2 x 66 MHz/ 64-bit) | 9 (2 x 66 MHz) |
| Internal disks | 2 | 2 | 2 | 4 | 2 | 6 | 2 | 12 |
| Internal disk type | 40-GB IDE | 36 GB | 36 GB | 36 GB | 73-GB FC | Ultra3 SCSI | 36-GB FC | 73-GB FC |

Data Center Servers

| | Sun Fire™ V1280/ Netra 1280 Server | Sun Fire™ 4800 Server | Sun Fire™ 6800 Server | Sun Fire™ 12K Server | Sun Fire™ 15K Server |
|--------------------------|---|---|---|---|---|
| CPUs | 4, 8, or 12 | 2-12 | 2-24 | 52 | 106 |
| Clock speed | 900 MHz | 900 MHz | 900 MHz | 900 MHz | 900 MHz |
| Graphics | 1-2 XVR-4000 graphics card | 1-2 XVR-4000 graphics card | 1-2 XVR-4000 graphics card | 1-2 XVR-4000 graphics card | 1-2 XVR-4000 graphics card |
| Internal disks | Up to 12 | Up to 12 | Up to 12 | Up to 12 | Up to 12 |
| Disk capacity | 876 GB | 876 GB | 876 GB | 876 GB | 876 GB |
| Disk type | SCSI | SCSI | SCSI | SCSI | SCSI |
| PCI I/O slots | 9 | 9 | 9 | 9 | 9 |
| CPUs | 4, 8, or 12 | 2-12 | 2-24 | 52 | 106 |
| CPU type | UltraSPARC III Cu | UltraSPARC III Cu | UltraSPARC III Cu | UltraSPARC III Cu | UltraSPARC III Cu |
| CPU speed | 900 MHz | 1.05, 1.2 GHz | 1.05, 1.2 GHz | 1.05, 1.2 GHz | 1.05, 1.2 GHz |
| Level 2 cache | 8 MB | 8 MB | 8 MB | 8 MB | 8 MB |
| Main memory | 96 GB | 96 GB | 192 GB | 288 GB | 576 GB |
| CPU/memory boards | Up to 3 | Up to 3 | Up to 6 | Up to 9 | Up to 18 |
| I/O connection | 6 PCI slots (1 x 66 MHz, 5 x 33 MHz), 2 GB Ethernet ports, 1 Ultra3 SCSI port | 8 cPCI (4 x 66 MHz, 12 x 32 MHz), or 16 PCI slots (4 x 66 MHz, 12 x 33 MHz) | 16 cPCI (8 x 66 MHz, 8 x 32 MHz), or 32 PCI Slots (8 x 66 MHz, 24 x 33 MHz) | Up to 36 PCI Slots (18 x 66 MHz, 18 x 33 MHz) | Up to 72 PCI Slots (36 x 66 MHz, 36 x 33 MHz) |
| System controller | 1 | 2 | 2 | 2 | 2 |

Sun Fire™ Entry x86 Servers

| | Sun RaQ™ 550 Server | Sun™ LX50 Server | Sun Fire™ V60x Server | Sun Fire™ V65x Server |
|---------------------------|---------------------|--------------------|-----------------------|-----------------------|
| CPUs | 1 | 2 | 2 | Up to 2 |
| CPU type | Pentium III | Pentium III | Intel Xeon | Intel Xeon |
| CPU speed | 1.26 GHz | 1.4 GHz | 2.8 GHz | Up to 3.06 GHz |
| Level 2 cache | 256, 512 KB | 512 KB | 512 KB | 512 KB |
| Main memory | 2 GB | 256 MB-6 GB | 512 MB-6 GB | 512 MB-12 GB |
| PCI slots | 1 x 64-bit, 33 MHz | 2 x 64 bit, 66 MHz | 2 PCI-X | 6 PCI-X |
| Internal disks | 2 | 3 | 3 | Up to 6 |
| Internal disk type | 80-GB IDE | Ultra160 SCSI | Ultra320 SCSI | Ultra320 SCSI |

Sun Fire™ Blade Servers

| | Sun Fire™ B100s SPARC® Blade Server | Sun Fire™ x86 Blade Server | Sun Fire™ B1600 Chassis |
|---------------------------|-------------------------------------|----------------------------|-------------------------------|
| CPUs | 1 | 1 | |
| CPU type | UltraSPARC Ili | x86 | |
| CPU speed | 650 MHz | 1.2+ GHz | |
| Operating system | Solaris™ 8, 9 | Solaris x86 or Linux* | |
| Main memory | 512 MB-2 GB | 512 MB-2 GB | |
| Internal disks | 1 | 1 | |
| Internal disk type | 30-GB Ultra ATA 100 | 30-GB Ultra ATA 100 | |
| Capacity | | | Up to 16 blades |
| Indicator lights | | | Power, fault, ready to remove |
| System controllers | | | Up to 2 |
| Layer-2 switches | | | Up to 2 x 10/100/1000 GbE |
| Power supply | | | 110-240 V AC |
| Form factor | | | 3RU |

Netra™ Systems

| | Netra™ 120 Server | Netra™ 20 Server | Netra™ t 1400/ 1405 Servers | Netra™ CT 410/ 810 Servers |
|---------------------------|-------------------|------------------|-----------------------------|----------------------------|
| CPUs | 1 | 2 | 1-4 | 1 |
| CPU type | UltraSPARC Ili | UltraSPARC III | UltraSPARC II | UltraSPARC Ili |
| CPU speed | 650 MHz | 900 MHz, 1.2 GHz | 440 MHz | 650 MHz |
| Level 2 cache | 512 KB | 8 MB | 4 MB | 512 KB |
| Main memory | Up to 4 GB | 1-8 GB | 4 MB | 1-4 GB |
| PCI slots | 1 | 4 | 4 | 2/6 |
| Internal disks | 2 | 2 | 4 | 1/2 |
| Internal disk type | 18- or 32-GB SCSI | 36-GB FC-AL | 36 GB | 36 GB 73 GB |

Workstation Products

| | Sun Blade™ 150 Workstation | Sun Blade™ 2000 Workstation |
|---------------------------|----------------------------|-----------------------------|
| CPUs | 1 | 1 or 2 |
| CPU type | UltraSPARC Ili | UltraSPARC III Cu |
| CPU speed | 550, 650 MHz | 900 MHz, 1.2 GHz |
| Level 2 cache | 512 KB | 8 MB |
| Main memory | Up to 2 GB | 8 GB |
| PCI slots | 3 | 4 |
| Internal disks | Up to 2 | Up to 2 |
| Internal disk type | IDE | FC-AL |

Entry-Level Storage

| | Sun StorEdge™ S1 Array | Sun StorEdge™ 3310 SCSI Array | Sun StorEdge™ 3510 FC Array |
|-------------------------|------------------------|----------------------------------|----------------------------------|
| Drive type | Ultra3 SCSI | Ultra160 SCSI | Dual-ported Fibre Channel |
| Capacity | Up to 3 drives | 2 to 36 drives 876 GB maximum | 2 to 36 drives 1.72 TB maximum |
| Form factor | 1RU | 2RU/tray | 2RU/tray |
| Supported drives | 18.2 GB/10K, 36 GB/10K | 36 GB/15K, 73 GB/10K, 146 TB/10K | 36 GB/15K, 73 GB/10K, 146 TB/10K |

Midrange Storage

| | Sun StorEdge™ 6120 Array | Sun StorEdge™ 6320 System | Sun StorEdge™ 6900 Series |
|-------------------------|----------------------------------|----------------------------------|----------------------------------|
| Capacity | 7 to 42 drives 12.3 TB maximum | 14 to 308 drives 45 TB maximum | 18 to 144 drives 10.9 TB maximum |
| Form factor | 3RU/tray | 1 or 2 cabinets | 1 or 2 cabinets |
| Supported drives | 36 GB/15K, 73 GB/10K, 146 TB/10K | 36 GB/15K, 73 GB/10K, 146 TB/10K | 36 GB/15K, 73 GB/10K |

Data Center Storage

| | Sun StorEdge™ 9970 | Sun StorEdge™ 9980 |
|-------------------------|----------------------------------|-----------------------------------|
| Capacity | 5 to 128 drives 17.5 TB maximum | 5 to 1024 drives 147.5 TB maximum |
| Form factor | 1 frame | Up to 3 frames |
| Supported drives | 36 GB/15K, 73 GB/10K, 146 TB/10K | 36 GB/15K, 73 GB/10K, 146 TB/10K |

Data Continuanance Libraries

| | 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™ L5500/L6000 Tape Library |
|--------------------------------|---|---|--|--|---|---|
| Interface | LVD | HVD/LVD SCSI | HVD/LVD SCSI | HVD, LVD, SCSI, FC | HVD, LVD, SCSI, FC | HVD, LVD, SCSI, FC |
| Drives | 1 | 1-2 | 1-6 | 6 (9840); 10 LTO, LTO 2 | 6 (9840); 10 LTO, LTO 2, 9940 | 80 LTO, 68 (9840x), LTO, LTO 2, 9940 |
| Maximum native capacity | 800 GB (LTO 1), 1.6 TB (LTO 2), 1.28 TB (SDLT320) | 2.5 TB (LTO 1), 5 TB (LTO 2), 3.36 TB (SDLT320) | 10 TB (LTO 1), 20 TB (LTO 2), 13.44 TB (SDLT320) | 17 TB (LTO), 27 TB (SDLT), 34 TB (LTO 2) | 108 TB (SDLT320), 68 TB (LTO), 135 TB (LTO 2) | 120 TB (9940), 550 TB (LTO), 1.1 PB (LTO 2) |
| Form factor | 2U | 4U | 13.5RU | N/A | N/A | N/A |

Sun™ Software At-A-Glance

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Data Center Software



Solaris™ Operating System (SPARC® & x86 Platform Editions)
The foundation for Sun™ systems; delivers a consistent computing environment from departmental servers to massive, clustered servers with more than 100 CPUs; designed for multiprocessing and 64-bit computing.

Trusted Solaris™ Operating System
Provides superior safeguards against internal and external threats far beyond the protection commonly found in standard operating systems.

Solaris PC Netlink
Move Windows NT network services such as file, print, directory, and authentication from PC servers to the Solaris™ Operating System.

Sun™ ONE Grid Engine
Distributed management software; aggregates the compute power available in dedicated compute farms, networked servers, and desktop workstations, and presents a single access point to users needing compute cycles.

Sun Management Center
Provides a single point of management for the Sun environment; enables proactive management of Sun hardware and the Solaris Operating System.

Sun Cluster
Delivers application services to the data center or enterprise; enables the use of core Solaris services across a tightly coupled cluster, while maintaining full Solaris Operating System compatibility for existing applications.

Solaris Bandwidth Manager
Enables better provisioning of network bandwidth; helps reduce network congestion and increases efficiency.

Solaris Resource Manager
Manages a system's compute resources by assuring resource availability and better resource utilization.

N1™
In the pilot stage, a new data center approach that combines and manages compute, storage, and network components as a single system.

Project Orion
Emerging Sun effort to integrate all system software into the Solaris OS for one software distribution with simplified licensing.

Mobility, Security, and Productivity



StarOffice™ 6.0 Office Suite
The affordable alternative in office productivity; runs on multiple platforms, gives users full-featured, easy-to-use applications, and supports XML file formats.

Java for Wireless (Java™ 2 Platform, Micro Edition-J2ME)
Bundles Java technologies needed for developing, deploying, and maintaining Java technology-enabled consumer devices.

Java Card™
Enables Java technology to run on smart cards and other devices with limited memory.

Software Development Tools



Sun ONE Studio 5, Standard Edition
Sun's integrated developer environment (IDE) for building Java applications and Web Services. Based on NetBeans™ platform, the IDE can be extended with plug-in modules from Sun, Sun's partners, and the community.

Sun ONE Studio 8, Compiler Collection
C, C++, and Fortran compilers and a command-line debugger for the creation of high-performance, high-quality applications for Solaris SPARC® and x86 systems.

Sun ONE Studio 7, Enterprise Edition for Solaris
Bundles the integrated development environment of Sun ONE Studio 4 update 1 with the C, C++, and Fortran compilers from Sun ONE Studio 7, Compiler Collection.

Sun ONE Web Services Platform, Developer Edition
Provides a desk-top-to-mainframe development and test environment that spans portal, identity, application, and integration functionality. Developers can quickly create Web services and Web applications that integrate multiple information systems.

Java 2 SDK, Enterprise Edition
A reference implementation for the Java 2 Enterprise Edition (J2EE™) platform, that expedites the development of solutions to be delivered by Java 2 licensees.

Java 2 Platform, Standard Edition (J2SE™)
The essential Java 2 SDK tools, runtimes, and APIs for developers writing, deploying, and running applets and applications in the Java programming language.

Sun ONE Directory Server SDK
Creates cross-platform, directory-enabled, custom applications.

Storage Management Software



Sun StorEdge™ Resource Management Suite
Provides automated monitoring, reporting, and alerting of storage resources for proactively managing storage growth, implementing cost accounting and user chargeback, and planning for storage networks.

Sun StorEdge Utilization Suite
Provides automated storage management, archiving, and rapid file restores to maximize storage and IT staff utilization.

Sun StorEdge Performance Suite
Optimizes storage resources for speed and continuous data availability for large files such as satellite pictures, magnetic resonance images (MRIs), check scans, or automotive designs.

Sun StorEdge Availability Suite
Takes instant snapshots of online data without disrupting online business processes; protects information from unplanned downtime and disasters by replicating data between physically separate servers in real time and from any distance.

Sun StorEdge Component Manager
Helps maximize storage investment through effective, intuitive management with a common view across Sun storage arrays, simplifying array configuration, management, and monitoring.

Solstice DiskSuite™
Disk and storage management solution designed for technical and business applications.

Sun StorEdge Enterprise Backup Software
Automates backup, recovery, and storage management services to many systems on the network, including UNIX®, NetWare, Microsoft Windows NT, or Apple Macintosh systems.

VERITAS Volume Manager
Provides online storage management capabilities for enterprise computing and storage area network (SAN) environments; protects against disk and hardware failures; offers the flexibility to extend existing hardware capabilities.

VERITAS NetBackup
An enterprise-wide backup and recovery solution that helps enable central management of storage resources through a single console.

Application/Web Services



Sun ONE Directory Server
Stores and manages identity profiles, access privileges and applications, and network resource information.

Sun ONE Identity Server
Manages the lifecycle of users and users' secure relationships with the network resources and Web services; provides an identity platform that includes Web SSO, access management, identity administration, federated identity management, and directory services.

Sun ONE Meta-Directory
Consolidates and aggregates identity information from disparate sources to build a single, unified view stored in the directory.

Sun ONE Directory Proxy Server
Routes requests from clients to the appropriate directory server automatically through a referral mechanism; provides security services for the Sun ONE Directory Server.

Sun ONE Instant Messaging
Provides secure, real-time communication and collaboration, combining presence awareness with instant messaging capabilities such as chat, conferences, alerts, news, polls, and file transfers to create a rich collaborative environment.

Sun ONE Web Server
Secure and reliable infrastructure for deploying Web applications based on JavaServer Pages™ or Java Servlet technologies, Active Server Pages, ColdFusion, PHP, or CGI.

Sun ONE Active Server Pages
Secure, enterprise-class Active Server Pages (ASP) engine for the Sun ONE Web Server and Apache Web server.

Sun ONE Web Proxy Server
Acts as a secure network traffic manager, reducing the number of requests to remote content servers and lessening network traffic.

Sun ONE Application Server
Develops, deploys, and manages application services for a broad range of servers, clients, and devices; based on Java 2 Platform, Enterprise Edition (J2EE) technology; maximizes application reuse and developer collaboration.

Sun ONE Integration Server, EAI Edition
Integrates packaged, custom, legacy, and new Java applications to build automated business processes across multiple and distributed heterogeneous environments.

Sun ONE Integration Server, B2B Edition
Secure, reliable, electronic document exchange over the Internet with a variety of protocols and data types.

Sun ONE Integration Server Secure Trading Agent
Lightweight, peer-to-peer, Web services-enabled solution for securely and reliably exchanging B2B documents over the Internet.

Sun ONE Message Queue
An implementation of the Java™ Message Service (JMS) specification, designed to enable disparate applications both internal and external to the enterprise to interact efficiently. Supports Web Services messaging through SOAP.

Sun ONE Calendar Server
Enables users to manage their schedules, share resources, and schedule events or appointments from a broad set of clients, including Web, desktop, and mobile devices such as PDAs.

Sun ONE Messaging Server
The industry's leading messaging solution in the service provider market, providing a highly scalable and available platform capable of sending and receiving messages to/from millions of users while supporting mobile access, unified communications, and a broad set of clients.

Sun ONE Portal Server
The industry's first fully integrated, secure portal and identity management solution; provides all the key services required to build compelling portals, including aggregation, presentation, security, personalization, search, integration, community, extranet and mobile access, and identity management.