



# SEE BEYOND THE LIMITS SUN'S FULL LINE OF SERVERS

## Highlights

- Sun's [blade servers](#) are high-performance systems designed to handle large workloads in a small footprint
- Our [entry rackmount servers](#) are easy to scale, easy to manage, and easy on your budget
- [Netra servers](#) optimize network throughput, density, and power consumption for the telecom industry
- Sun's [mid- to high-end servers](#) provide compute density backed by enterprise-class features, mainframe-class RAS, and more

Sun brings more than 20 years of systems expertise and innovative thinking to its line of servers. Designed with your business in mind, Sun's servers provide the performance, scalability, energy efficiency, and cost-effectiveness that help you meet your business needs in HPC, virtualization, and eco or energy efficiency. With Sun's complete family of servers—Sun Blade™ servers, Sun Netra™ servers, and Sun entry-level, midrange, and high-end servers—giving you a choice of architectures—UltraSPARC® processors, AMD Opteron™ processors, or Intel® Xeon® Processors—and operating systems—Solaris™ Operating System (OS), Linux, or Windows—a truly flexible IT ecosystem is a reality. When you build your datacenter on a solid foundation of Sun servers, you can expect maximum ROI and minimum TCO.

## THE SUN SERVER ADVANTAGE

The business world is increasingly competitive, and information technology is vital to every organization. Your IT department needs the most powerful, efficient, and cost-effective servers available to keep your enterprise ahead of the pack. Sun provides a comprehensive line of systems that can help you meet any business requirements, now and in the future.

Sun servers offer:

- Performance – with industry-leading Intel Xeon Processors, AMD Opteron™ processors, and SPARC® processors to power your datacenter
- Scalability – with the capacity to grow as your business grows
- Reliability – with hot-pluggable, hot-swappable, redundant components
- Cost-effectiveness – with minimal cooling, space, and power demands and enhanced manageability
- Choice – with a superior selection of operating systems, including Windows, Linux, and the Solaris OS
- Eco responsibility – with energy efficiency that helps preserve the environment and your budget



## SUN OFFERS YOU MORE THAN SERVERS

The deployment of IT resources is vital to enterprises. You need compute power that matches your needs and budget, where and when it matters most. You want to plan your IT projects carefully so that you can select the right servers, as well as the right infrastructure, to make your network as effective as possible. Sun solutions can support your business needs from end to end, throughout the lifecycle of your datacenter.

### Try it for free

Take our servers for a test drive in your own environment and find out just how much faster and cooler we can make your datacenter. With our Try and Buy program, you get to try our servers free for 60 days with full technical support at no cost ([sun.com/tryandbuy](http://sun.com/tryandbuy)).

### Greater value for growing businesses

For small and medium businesses needing a technological edge, look no further. Our innovative servers and solutions provide real technological and competitive advantages, but without the usual high cost and complexity. As the only vendor to offer a wide range of CoolThreads servers and Sun's x64 (x86, 64-bit) servers running a choice of operating system (Windows, Linux, and Solaris), Sun is here for you with powerful, open innovations that can drive revenue and add bottom-line value ([sun.com/smb](http://sun.com/smb)).

### Refresh and renew

Save space, increase compute power, and get your IT environment in top-notch competitive form by upgrading to a faster, more efficient datacenter. Sun makes it easy to update your datacenter with our Sun Upgrade Advantage program: You can trade in your outdated servers and receive a discount toward the cost of new Sun servers ([sun.com/ibb/uap](http://sun.com/ibb/uap)).

### Start up fast, start out right

If your business is an up-and-coming contender, you might want to consider our Sun Startup Essentials™ program. Sun offers startups industry-leading systems at significantly lower costs, along with free software and free technical advice—and discounted partner hosting services. We help new businesses hit the ground running ([sun.com/startup](http://sun.com/startup)).

### Sustainable hardware for a sustainable future

If your company is ready to minimize energy costs and reduce its environmental impact, talk to Sun about innovative solutions that you can deploy today. We can help you transform your technology infrastructure into a more eco-friendly datacenter with our simple three-step approach: assess, optimize, and virtualize. Plus, with our award-winning, ecologically sound servers, going green is easy ([sun.com/eco](http://sun.com/eco)).

### Web-tier infrastructure

For enterprises focused on increasingly important Web-based services, Sun has the expertise, systems, storage, software, and services you need to build, optimize, and protect your Web-tier infrastructure throughout your entire datacenter lifecycle ([sun.com/solutions/web\\_scale](http://sun.com/solutions/web_scale)). Additionally, the dynamic new combination of MySQL, the world's most popular open-source database, and the industry-leading support of Sun services can make any business datacenter more effective than ever—especially when running on industry-leading Sun servers ([sun.com/software/products/mysql](http://sun.com/software/products/mysql)).

### Simpler, safer, and swifter deployment

Deploying, building, and testing a new system or migrating data onto a new system is a temporal and monetary challenge for large enterprises and small businesses alike. Recognizing this challenge, Sun offers our Sun™ Customer Ready program. By having your Sun and third-party products integrated and factory-tested before they're shipped, you can meet your scaling challenges in record time ([sun.com/customerready](http://sun.com/customerready)).

### Space is no longer an issue

IT environments are no longer tied to one location. Organizations can now locate their datacenters wherever it makes the most sense, and then relocate as their organizational requirements change, with the Sun Modular Datacenter S20 (widely known as Project Blackbox). Packing a fully loaded IT environment of rackmount servers and storage into a high-density, climate-controlled, ready-to-deploy box, the Sun Modular Datacenter S20 provides powerful compute resources wherever and whenever you need them ([sun.com/sunmd](http://sun.com/sunmd)).

### High Performance Computing

Our servers can revolutionize your IT infrastructure regardless of your business focus. If your organization relies on computing with large volumes of critical data, you'll find Sun's High Performance Computing (HPC) solutions an ideal choice. Sun offers a comprehensive portfolio of products, solutions, and services for all your HPC needs. You can tackle the biggest computing challenges as effectively as possible with Sun systems ([sun.com/hpc](http://sun.com/hpc)).

### Virtualize

Your company can save money, energy, and space by taking advantage of Sun's complete desktop-to-datacenter virtualization portfolio. Our virtualization solutions can help you make more of your IT resources than ever before. Built on Sun Blade modular systems, Sun servers with CoolThreads technology, Sun SPARC Enterprise servers, and Sun's x64 (x86, 64-bit) servers, these systems have the power and throughput to make virtualization and consolidation real advantages for your business ([sun.com/virtualization](http://sun.com/virtualization)).

# SUN SERVERS PRODUCT GUIDE

## BLADE SERVERS

sun.com/blades



With your choice of processor architecture — AMD Opteron™ processors, Intel® Xeon® Processors, or UltraSPARC® processors — and operating systems — Linux, Windows, or the Solaris OS — Sun Blade systems are the most versatile, flexible, and open enterprise-class blade platforms available. Designed to bring scalability, performance, cost-effectiveness, and energy efficiency to your datacenter, these servers are built to industry standards to minimize complexity and maximize choice.



| Name                              | Sun Blade™ T6300 Server Module   | Sun Blade™ T6320 Server Module  | Sun Blade™ X6220 Server Module  |
|-----------------------------------|--|---|---|
| <b>Processor/CPU</b>              | One six-core 1.0 GHz or eight-core 1.0, 1.2, or 1.4 GHz chip multithreading (CMT) technology UltraSPARC® T1 processor  | One four-six, or eight-core 1.2 GHz; or eight-core 1.4 GHz UltraSPARC® T2 processor   | Two Dual-Core AMD Opteron™ 2000 Series processors   |
| <b>Memory</b>                     | Support for 1 GB, 2 GB, or 4 GB PC-4200 ECC registered DDR2 DIMMs at 533 MHz; eight DIMM slots supporting up to 32 GB  | Support for 1 GB, 2 GB, and 4 GB fully buffered DIMMs; 16 DIMM slots supporting up to 64 GB   | Support for up to 4 GB PC-5300 ECC registered DIMMs at 667 MHz; 16 DIMM slots supporting up to 64 GB of memory per server module  |
| <b>Mass Storage</b>               |  |   |   |
| Internal disk                     | Up to four SAS or SATA disks, with RAID 0, 1 support   | Up to four SAS or SATA disks with RAID 0, 1 support, optional RAID 5  | Up to four SAS or SATA disks, with RAID 0, 1 support  |
| External disk and tape            | Sun StorageTek™ 3510 FC array (RAID), Sun StorageTek 3511 FC array (RAID-SATA), Sun StorageTek 2500, 3000, 6000 and 9000 disk families, Sun StorageTek 5220 and 5320 NAS appliances and the Sun StorageTek 5310 NAS gateway system, Sun StorageTek SL24, SL48, SL500, SL3000 and SL8500 tape systems | Sun StorageTek 3510 FC array (RAID), Sun StorageTek 3511 FC array (RAID-SATA), Sun StorageTek 2500, 3000, 6000 and 9000 disk families, Sun StorageTek 5220 and 5320 NAS appliances and the Sun StorageTek 5310 NAS gateway system, Sun StorageTek SL24, SL48, SL500, SL3000 and SL8500 tape systems | Sun StorageTek 3510 FC array (RAID), Sun StorageTek 3511 FC array (RAID-SATA), Sun StorageTek 2500, 3000, 6000 and 9000 disk families, Sun StorageTek 5220 and 5320 NAS appliances and the Sun StorageTek 5310 NAS gateway system, Sun StorageTek SL24, SL48, SL500, SL3000 and SL8500 tape systems |
| <b>Network</b>                    | Two 10/100/1000 Base-T Ethernet ports; one 10/100 Ethernet management port to chassis monitoring module, four x8 PCIe interfaces; four 3 Gb/s SAS interfaces   | Two 10/100/1000 Base-T Ethernet ports; one 10/100 Ethernet management port to chassis monitoring module, four x8 PCIe interfaces; four 3 Gb/s SAS links with REM installed  | Two 10/100/1000 GbE ports; one 10/100 Ethernet management port to chassis monitoring module, four x8 PCIe interfaces; four 3 Gb/s SAS links   |
| <b>Power/cooling</b>              |  |   |   |
| Power                             | 200–240 V AC   | 200–240 V AC  | 200–240 V AC  |
| Operating temperature             | 5°C to 32°C (41°F to 90°F)   | 5°C to 32°C (41°F to 90°F)  | 5°C to 32°C (41°F to 90°F)  |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)   | -40°C to 65°C (-40°F to 149°F)  | -40°C to 65°C (-40°F to 149°F)  |
| <b>Rack units</b>                 | N/A  | N/A   | N/A   |
| <b>Physical specifications</b>    |  |   |   |
| Height                            | 44.45 mm (1.75 in.)  | 44.45 mm (1.75 in.)   | 44.45 mm (1.75 in.)   |
| Width                             | 327.15 mm (12.88 in.)  | 327.15 mm (12.88 in.)   | 327.15 mm (12.88 in.)   |
| Depth                             | 496.8 mm (19.56 in.)   | 496.82 mm (19.56 in.)   | 496.8 mm (19.56 in.)  |
| Weight                            | 6.78 kg (14.95 lb.)  | 7.8 kg (17.3 lb.)   | 7.23 kg (15.95 lb.)   |
| <b>Operating system</b>           | Solaris 10 Operating System (OS); Ubuntu Linux   | Solaris 10 OS 8/07  | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Windows  |
| <b>Warranty/services</b>          | Included with the Sun Blade™ 6000 chassis service contract   | Included with the Sun Blade 6000 chassis service contract   | Included with the Sun Blade 6000 chassis service contract   |
| <b>Sun Customer Ready program</b> | Yes; HPC Cluster   | Yes; HPC Cluster  | Yes; HPC Cluster  |

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## BLADE SERVERS

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|                                   |  |
|-----------------------------------|--|
| <b>Name</b>                       | <b>Sun Blade™ X6250 Server Module</b>  |
| <b>Processor/CPU</b>              | One or two Dual-Core or Quad-Core Intel Xeon Processors 5000 Series  |
| <b>Memory</b>                     | 1 GB, 2 GB, and 4 GB; 16 DIMM slots supporting up to 64 GB   |
| <b>Mass storage</b>               |  |
| Internal disk                     | Up to four SAS or SATA disks, with RAID 0, 1, 5, 10 support  |
| External disk and tape            | Sun StorageTek 3510 FC array (RAID), Sun StorageTek 3511 FC array (RAID-SATA), Sun StorageTek 2500, 3000, 6000 and 9000 disk families, Sun StorageTek 5220 and 5320 NAS appliances and the Sun StorageTek 5310 NAS gateway system, Sun StorageTek SL 24, SL48, SL500, SL3000 and SL8500 tape systems |
| <b>Network</b>                    | Two 10/100/1000 GbE ports; one 10/100 Ethernet management port to chassis monitoring module, two x8 PCIe interfaces; two x4 PCIe interfaces; four 3 Gbps SAS links with REM installed  |
| <b>Power/cooling</b>              |  |
| Power                             | 200–240 V AC   |
| Operating temperature             | 5°C to 32°C (41°F to 90°F)   |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)   |
| <b>Rack units</b>                 | N/A  |
| <b>Physical specifications</b>    |  |
| Height                            | 44.45 mm (1.75 in.)  |
| Width                             | 327.15 mm (12.88 in.)  |
| Depth                             | 496.8 mm (19.56 in.)   |
| Weight                            | 7.51 kg (16.56 lb.)  |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Windows   |
| <b>Warranty/services</b>          | Included with the Sun Blade 6000 chassis service contract  |
| <b>Sun Customer Ready program</b> | Yes; HPC Cluster   |

|                                   |   |
|-----------------------------------|---|
| <b>Name</b>                       | <b>Sun Blade™ X8420 Server Module</b>   |
| <b>Processor/CPU</b>              | Four Dual-Core AMD Opteron processors 8000 Series   |
| <b>Memory</b>                     | 1 GB, 2 GB, or 4 GB DDR2 667 MHz DIMMs; 16 DIMM slots supporting up to 64 GB  |
| <b>Mass storage</b>               |   |
| Internal disk                     | Up to two SAS or SATA disks, with RAID 0, 1 support   |
| External disk and tape            | Sun StorageTek 3510 FC array (RAID), Sun StorageTek 3511 FC array (RAID-SATA), Sun StorageTek 2500, 3000, 6000 and 9000 disk families, Sun StorageTek 5220 and 5320 NAS appliances and the Sun StorageTek 5310 NAS gateway system, Sun StorageTek SL24, SL48, SL500, SL3000 and SL8500 tape systems |
| <b>Network</b>                    | Available through PCIe NEMs; one 10/100 Ethernet management port to chassis monitoring module, four x8-lane PCIe interfaces and two x4-lane PCIe interfaces   |
| <b>Power/cooling</b>              |   |
| Power                             | 200–240 V AC  |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)  |
| <b>Rack units</b>                 | N/A   |
| <b>Physical specifications</b>    |   |
| Height                            | 42.67 mm (1.68 in.)   |
| Width                             | 499.36 mm (19.66 in.)   |
| Depth                             | 465.58 mm (18.33 in.)   |
| Weight                            | 11.34 kg (25.0 lb.)   |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Windows  |
| <b>Warranty/services</b>          | Included with the Sun Blade 8000 or 8000 P chassis service contract   |
| <b>Sun Customer Ready program</b> | Yes; HPC Cluster  |

|                                   |   |
|-----------------------------------|---|
| <b>Name</b>                       | <b>Sun Blade™ X8440 Server Module</b>   |
| <b>Processor/CPU</b>              | Two or four Dual-Core or Quad-Core AMD Opteron processors 8000 Series   |
| <b>Memory</b>                     | 2 GB, or 4 GB DDR2 667 MHz DIMMs; 8 DIMM slots supporting up to 128 GB  |
| <b>Mass storage</b>               |   |
| Internal disk                     | Up to two SAS or SATA disks, with RAID 0, 1 support   |
| External disk and tape            | Sun StorageTek 3510 FC array (RAID), Sun StorageTek 3511 FC array (RAID-SATA), Sun StorageTek 2500, 3000, 6000 and 9000 disk families, Sun StorageTek 5220 and 5320 NAS appliances and the Sun StorageTek 5310 NAS gateway system, Sun StorageTek SL24, SL48, SL500, SL3000 and SL8500 tape systems |
| <b>Network</b>                    | Available through PCIe NEMs; two 10/100 Ethernet management port to chassis monitoring module, up to six x8-lane PCIe interfaces  |
| <b>Power/cooling</b>              |   |
| Power                             | 200–240 V AC  |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)  |
| <b>Rack units</b>                 | N/A   |
| <b>Physical specifications</b>    |   |
| Height                            | 42.67 mm (1.68 in.)   |
| Width                             | 499.36 mm (19.66 in.)   |
| Depth                             | 465.58 mm (18.33 in.)   |
| Weight                            | 11.34 kg (25.0 lb.)   |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Windows  |
| <b>Warranty/services</b>          | Included with the Sun Blade 8000 or 8000 P chassis service contract   |
| <b>Sun Customer Ready program</b> | Yes; HPC Cluster  |

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## BLADE SERVERS

[sun.com/blades](http://sun.com/blades)



|                                   |   |
|-----------------------------------|---|
| <b>Name</b>                       | <b>Sun Blade™ X8450 Server Module</b>   |
| <b>Processor/CPUs</b>             | Two or four Dual-Core or Quad-Core Intel® Xeon® Processors  |
| <b>Memory</b>                     | 1 GB, 2 GB, 4 GB, or 8 GB DDR2/667 HPC2-5300 ECC fully buffered DIMMs supporting up to of 256 GB of RAM   |
| <b>Mass storage</b>               |   |
| Internal disk                     | Up to two SAS or SATA disks, with RAID 0, 1 support   |
| External disk and tape            | Sun StorageTek 3510 FC array (RAID), Sun StorageTek 3511 FC array (RAID-SATA), Sun StorageTek 2500, 3000, 6000 and 9000 disk families, Sun StorageTek 5220 and 5320 NAS appliances and the Sun StorageTek 5310 NAS gateway system, Sun StorageTek SL24, SL48, SL500, SL3000 and SL8500 tape systems |
| <b>Network</b>                    | Available through PCIe NEMs one 10/100 Ethernet management port to chassis monitoring module, four x8 and two x4  |
| <b>Power/cooling</b>              |   |
| Power                             | 90–264 V AC   |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature          | -40°C to 70°C (-40°F to 158°F)  |
| <b>Rack units</b>                 | N/A   |
| <b>Physical specifications</b>    |   |
| Height                            | 42.67 mm (1.68 in.)   |
| Width                             | 499.36 mm (19.66 in.)   |
| Depth                             | 465.58 mm (18.33 in.)   |
| Weight                            | 12.70 kg (28.0 lb.)   |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; also Windows   |
| <b>Warranty/services</b>          | Included with the Sun Blade 8000 or 8000 P chassis service contract   |
| <b>Sun Customer Ready program</b> | Yes; HPC Cluster  |

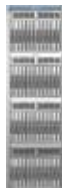
# SUN SERVERS PRODUCT GUIDE

## BLADE SERVERS

[sun.com/blades](http://sun.com/blades)



**Sun Blade™ 6000 Modular System**  
Up to 10 Sun Blade™ X6220, X6250, T6320, or T6300 server modules per chassis  
Two on-board using the GbE 10-port passthru PCIe NEM; up to two ExpressModules per server module — available options: 1 GbE 4 Gbps Fibre Channel dual-port, 4x SDR InfiniBand dual-port, up to two NEMs — available options: GbE 10-port passthru; up to two ExpressModules per server module — available options: one dual-port 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand dual-port



**Sun Blade™ 6048 Chassis**  
Sun Blade™ X6220, X6250, T6300, or T6320 server modules per chassis  
PCIe, GbE, 10 GbE, Fibre Channel, and InfiniBand; each server module has a direct connection to two PCIe ExpressModules for discrete I/O connectivity and two PCIe NEMs for aggregate I/O connectivity



**Sun Blade™ 8000 P Modular System**  
Up to 10 Sun Blade X8420, X8440, or X8450 server modules per chassis  
Up to two NEMs — available options: 1 x GbE dual-port, 4Gb/s Fibre Channel dual-port, 4x SDR InfiniBand, up to two NEMs — available options: GbE 20-port passthru, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand



**Sun Blade™ 8000 Modular System**  
Up to 10 Sun Blade™ X8420, X8440, or X8450 server modules per chassis  
Up to four NEMs — available options: 1 x GbE dual-port, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand; up to two ExpressModules per server module — available options: 1 GbE dual-port, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand dual-port, up to four NEMs — available options: GbE 20-port passthru, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand; up to two ExpressModules per server module — available options: 1 GbE dual-port, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand dual-port

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|--------------------------------|--|
| <b>Name</b>                    | <b>Sun Blade™ 6000 Modular System</b>  |
| <b>Server modules</b>          | Up to 10 Sun Blade™ X6220, X6250, T6320, or T6300 server modules per chassis   |
| <b>Network</b>                 | Two on-board using the GbE 10-port passthru PCIe NEM; up to two ExpressModules per server module — available options: 1 GbE 4 Gbps Fibre Channel dual-port, 4x SDR InfiniBand dual-port, up to two NEMs — available options: GbE 10-port passthru; up to two ExpressModules per server module — available options: one dual-port 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand dual-port |
| <b>Power</b>                   | Four power inlets 200–240 V AC; up to 16 A   |
| <b>Rack units</b>              | Ten  |
| <b>Physical specifications</b> |  |
| Height                         | 438.15 mm (17.25 in.)  |
| Width                          | 444.50 mm (17.50 in.)  |
| Depth                          | 692.15 mm (27.25 in.)  |
| Weight                         | 149 kg (327.77 lb.) fully configured, 35.7 kg (78.7 lb.) empty chassis with midplane   |
| <b>Warranty/services</b>       | Three-year warranty  |

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|--------------------------------|--|
| <b>Name</b>                    | <b>Sun Blade™ 6048 Chassis</b>   |
| <b>Server modules</b>          | Sun Blade™ X6220, X6250, T6300, or T6320 server modules per chassis  |
| <b>Network</b>                 | PCIe, GbE, 10 GbE, Fibre Channel, and InfiniBand; each server module has a direct connection to two PCIe ExpressModules for discrete I/O connectivity and two PCIe NEMs for aggregate I/O connectivity |
| <b>Power</b>                   | Eight per chassis, two per shelf, 200–240 V AC, 50–60 Hz   |
| <b>Rack units</b>              | N/A  |
| <b>Physical specifications</b> |  |
| Height                         | 2,073 mm (81.61 in.)   |
| Width                          | 606.5 mm (23.88 in.)   |
| Depth                          | 1,024.58 mm (40.34 in.)  |
| Weight                         | 931.45 kg (2,053.5 lb.) fully configured, 487.73 kg (1,075.26 lb.) empty chassis with midplane   |
| <b>Warranty/services</b>       | Three-year warranty  |

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| <b>Name</b>                    | <b>Sun Blade™ 8000 P Modular System</b>  |
| <b>Server modules</b>          | Up to 10 Sun Blade X8420, X8440, or X8450 server modules per chassis   |
| <b>Network</b>                 | Up to two NEMs — available options: 1 x GbE dual-port, 4Gb/s Fibre Channel dual-port, 4x SDR InfiniBand, up to two NEMs — available options: GbE 20-port passthru, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand |
| <b>Power</b>                   | Four power inlets 200–240 V AC; up to 16 A   |
| <b>Rack units</b>              | Fourteen   |
| <b>Physical specifications</b> |  |
| Height                         | 616.21 mm (24.26 in.)  |
| Width                          | 444.5 mm (17.5 in.)  |
| Depth                          | 722 mm (28.43 in.)   |
| Weight                         | 190.51 kg (420 lb.) fully configured, 34.02 kg (75 lb.) empty chassis with midplane  |
| <b>Warranty/services</b>       | Three-year warranty  |

|                                |   |
|--------------------------------|---|
| <b>Name</b>                    | <b>Sun Blade™ 8000 Modular System</b>   |
| <b>Server modules</b>          | Up to 10 Sun Blade™ X8420, X8440, or X8450 server modules per chassis   |
| <b>Network</b>                 | Up to four NEMs — available options: 1 x GbE dual-port, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand; up to two ExpressModules per server module — available options: 1 GbE dual-port, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand dual-port, up to four NEMs — available options: GbE 20-port passthru, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand; up to two ExpressModules per server module — available options: 1 GbE dual-port, 4 Gb/s Fibre Channel dual-port, 4x SDR InfiniBand dual-port |
| <b>Power</b>                   | Six power inlets 200–240 V AC; up to 16 A   |
| <b>Rack units</b>              | Nineteen  |
| <b>Physical specifications</b> |   |
| Height                         | 838.49 mm (33.01 in.)   |
| Width                          | 444.5 mm (17.5 in.)   |
| Depth                          | 722 mm (28.43 in.)  |
| Weight                         | 243.13 kg (536 lb.) fully configured, 42.64 kg (94 lb.) empty chassis with midplane   |
| <b>Warranty/services</b>       | Three-year warranty   |

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|--------------------------|--|
| <b>Name</b>              | <b>Sun Customer Ready HPC Cluster</b>  |
| <b>Server nodes</b>      | Choice of Sun Fire x64 rackmount servers including the Sun Fire X2200 M2 and Sun Fire X4150 or Sun Blade Modular Systems including the Sun Blade 6000 family using AMD or Intel Processors and the Sun Blade 8000 family   |
| <b>Operating system</b>  | Solaris 10 OS for x64, Red Hat Enterprise Linux, or SUSE Linux   |
| <b>Infrastructure</b>    | Sun Rack 1000, industry-standard 19-inch rack with 38 or 42 rack units; includes cabling and options for management  |
| <b>Interconnect</b>      | GbE networking and InfiniBand fabric options for management and data traffic   |
| <b>System management</b> | Sun xVM Ops Center helps simplify discovery, monitoring, operating system provisioning, comprehensive updates and patch management, firmware updates, and hardware management from power up to production in cross-platform Linux and Solaris OS-based x86 and SPARC environments. Sun Grid Engine software provides distributed resource management and policy-based workload management of applications for increased productivity and easier management of grids. Sun Grid Engine software can be preinstalled into the management node at the factory. |



# SUN SERVERS PRODUCT GUIDE

## ENTRY RACKMOUNT SERVERS

[sun.com/servers/entry](http://sun.com/servers/entry)



Maximum performance, price/performance, and flexibility—these are the benefits you can expect with Sun’s line of rackmounted servers. Powered by your choice of processors, including AMD Opteron processors, Intel Xeon Processors, and SPARC processors—and running your choice of platform, including Windows, Linux, and the Solaris OS, the world’s most advanced operating system—these systems are flexible and powerful enough to meet your most demanding business requirements.



|                                   |  |
|-----------------------------------|--|
| <b>Name</b>                       | <b>Sun Fire™ X4500 Server</b>  |
| <b>Processor/CPUs</b>             | Two Dual-Core AMD Opteron™ processors 200 Series   |
| <b>Memory</b>                     | Eight-DDR1 DIMMs (four DIMMs per CPU socket) supporting up to 16 GB  |
| <b>Mass storage</b>               |  |
| Internal disk                     | Up to 48 TB SATA II disks; RAID 0, 1, 0+1, 5, 6 enabled by RAID-Z and RAID-Z2  |
| External disk and tape            | LTO 2 SCSI desktop, SAT 72 1 U rackmount, LTO 3 SCSI desktop, SDLT 320 or 600 SCSI desktop, Tape Library C4 SCSI & FC, Sun StorageTek™ SL500 SCSI, Sun StorageTek SL500 SCSI & FC, L180 SCSI & FC, L1400 FC, and SL8500 FC |
| Optical drive                     | N/A  |
| <b>Network</b>                    | Four 10/100/1000 Ethernet ports, two PCI-X slots   |
| <b>Power/cooling</b>              |  |
| Power                             | Dual-redundant, hot-swappable power supplies, 200–220 V AC   |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)   |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)   |
| <b>Rack units</b>                 | Four   |
| <b>Physical specifications</b>    |  |
| Height                            | 175.05 mm (6.89 in.)   |
| Width                             | 439 mm (17.28 in.)   |
| Depth                             | 749.9 mm (29.52 in.)   |
| Weight                            | 77.1 kg (170 lb.)  |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Microsoft Windows Server 2003 SE and EE   |
| <b>Warranty/services</b>          | Three years/next business day  |
| <b>Sun Customer Ready program</b> | Yes; Scalable Storage Cluster  |

|                                   |   |
|-----------------------------------|---|
| <b>Name</b>                       | <b>Sun Fire™ X2100 M2 Server</b>  |
| <b>Processor/CPUs</b>             | One Dual-Core AMD Opteron™ processor 1200 Series  |
| <b>Memory</b>                     | 512 MB, 1 GB, 2 GB DDR2/667 ECC unbuffered DIMMs supporting up to 8 GB  |
| <b>Mass storage</b>               |   |
| Internal disk                     | Up to two 500 GB SATA II or SAS; RAID 0, 1, 0+1   |
| External disk and tape            | Sun StorageTek™ 2000, 3000, 5000, and 6000 family of arrays, Sun StorageTek™ 9000 system, LTO 2 or 3 SCSI desktop, DAT 72 SCSI desktop, DAT 72 1 U rackmount, SDLT 320 or 600 desktop, SDLT 600 2 U rackmount, Autoloader C2 SCSI, Tape Library C4 SCSI & FC, Sun StorageTek™ SL500 SCSI & FC, L180 SCSI & FC, L1400 SCSI & FC, and SL8500 FC |
| Optical drive                     | One DVD-ROM or DVD+/-RW   |
| <b>Network</b>                    | Four integrated 10/100/1000 Ethernet ports, two eight-lane PCIe slots   |
| <b>Power/cooling</b>              |   |
| Power                             | Single power supply, 90–264 V AC, 47–63 Hz  |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)  |
| <b>Rack units</b>                 | One   |
| <b>Physical specifications</b>    |   |
| Height                            | 43 mm (1.69 in.)  |
| Width                             | 425.5 mm (16.75 in.)  |
| Depth                             | 633.7 mm (24.9 in.)   |
| Weight                            | 10 kg (23.45 lb.)   |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Microsoft Windows Server 2003 SE   |
| <b>Warranty/services</b>          | Three years/next business day   |
| <b>Sun Customer Ready program</b> | Yes; HPC Cluster  |

|                                   |  |
|-----------------------------------|--|
| <b>Name</b>                       | <b>Sun Fire™ X2200 M2 Server</b>   |
| <b>Processor/CPUs</b>             | Up to two Dual-Core AMD Opteron™ processors 2000 Series  |
| <b>Memory</b>                     | 1 GB, 2 GB, or 4 GB DDR2/667 ECC registered DIMMs supporting up to 64 GB   |
| <b>Mass storage</b>               |  |
| Internal disk                     | Up to two 500 GB, SATA II or SAS; RAID 0, 1, 0+1   |
| External disk and tape            | Sun StorageTek 2000, 3000 SCSI arrays, 6000 arrays, Sun StorageTek 9000 system, DAT 72 SCSI desktop, LTO 2 SCSI, DAT 72 SCSI, DAT 72 1 U rackmount, LTO 3 SCSI desktop, LTO 3 2 U rackmount, SDLT 320 SCSI desktop, SDLT 600 SCSI desktop, Autoloader C2 SCSI, Tape Library C4, Sun StorageTek SL500 SCSI & FC, L1400 SCSI & FC, and SL8500 FC |
| Optical drive                     | One DVD-ROM or DVD+/-RW  |
| <b>Network</b>                    | Four integrated 10/100/1000 Ethernet ports, two eight-lane PCIe slots  |
| <b>Power/cooling</b>              |  |
| Power                             | Single power supply, 100–240 V AC, 47–63 Hz  |
| Operating temperature             | 2°C to 38°C (36°F to 100°F)  |
| Nonoperating temperature          | -40°C to 68°C (-40°F to 154°F)   |
| <b>Rack units</b>                 | One  |
| <b>Physical specifications</b>    |  |
| Height                            | 43 mm (1.69 in.)   |
| Width                             | 425.5 mm (16.75 in.)   |
| Depth                             | 633.7 mm (24.94 in.)   |
| Weight                            | 11.2 kg (24.7 lb.)   |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Microsoft Windows Server 2003 SE and EE   |
| <b>Warranty/services</b>          | Three years/next business day  |
| <b>Sun Customer Ready program</b> | Yes; HPC Cluster or Visualization System   |

|                                   |   |
|-----------------------------------|---|
| <b>Name</b>                       | <b>Sun Fire™ X4100 M2 Server</b>  |
| <b>Processor/CPUs</b>             | Up to two Dual-Core AMD Opteron processors 2000 Series  |
| <b>Memory</b>                     | Eight DDR2/667 ECC registered DIMMs supporting up to 32 GB  |
| <b>Mass storage</b>               |   |
| Internal disk                     | Up to 292 GB SAS; RAID 0, 1   |
| External disk and tape            | Sun StorageTek 2000, 3000, 3000 FC, 5000, and 6000 family of arrays, Sun StorageTek 9000 system, LTO 2 or 3 SCSI desktop, DAT 72 SCSI desktop, DAT 72 1 U rackmount, SDLT 320 or 600 desktop, SDLT 600 2 U rackmount, Autoloader C2 SCSI, Tape Library C4 SCSI & FC, Sun StorageTek SL500 SCSI & FC, L180 SCSI & FC, L1400 SCSI & FC, and SL8500 FC |
| Optical drive                     | Up to one DVD-RW  |
| <b>Network</b>                    | Four integrated 10/100/1000 Ethernet ports, two eight-lane PCIe slots   |
| <b>Power/cooling</b>              |   |
| Power                             | Dual-redundant, hot-swappable power supplies, 90–264 V AC   |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)  |
| <b>Rack units</b>                 | One   |
| <b>Physical specifications</b>    |   |
| Height                            | 43.8 mm (1.72 in.)  |
| Width                             | 445 mm (17.51 in.)  |
| Depth                             | 632 mm (24.88 in.)  |
| Weight                            | 18.6 kg (41.1 lb.)  |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Microsoft Windows Server 2003 SE and EE  |
| <b>Warranty/services</b>          | Three years/next business day   |
| <b>Sun Customer Ready program</b> | Yes; HPC Cluster or Visualization System  |

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Sun Fire™ X4140 Server



Sun Fire™ X4200 M2 Server



Sun Fire™ X4240 Server



Sun Fire™ X4440 Server



Sun Fire™ X4150 Server

|                                   |   |  |   |   |   |
|-----------------------------------|---|--|---|---|---|
| <b>Name</b>                       | Sun Fire™ X4140 Server  | Sun Fire™ X4200 M2 Server  | Sun Fire™ X4240 Server  | Sun Fire™ X4440 Server  | Sun Fire™ X4150 Server  |
| <b>Processor/CPUs</b>             | One or two Dual-Core or Quad-Core AMD Opteron processors  | Up to two Dual-Core AMD Opteron 2000 Series processors   | One or two Dual-Core or Quad-Core AMD Opteron processors  | Two or four Dual-Core or Quad-Core AMD Opteron processors   | Up to two Dual-Core or Quad-Core Intel® Xeon® Processors 5100, 5200, 5300, or 5400  |
| <b>Memory</b>                     | 16 DDR2 DIMM (eight DIMM per CPU socket); system supports from 2 GB to 64 GB  | Eight DDR2/667 ECC registered DIMMs supporting up to 32 GB   | 16 DDR2 DIMM slots (eight DIMM slots per CPU socket); system supports from 2 GB to 64 GB  | 32 DDR2 DIMM (eight DIMM per CPU socket); system supports 4 GB to 128 GB  | Up to 64 GB or PC2-5300 667 MHz ECC fully buffered DDR2 DIMMs   |
| <b>Mass storage</b>               |   |  |   |   |   |
| Internal disk                     | Add-on RAID 0, 1, 1E, 5, 5EE, 6, 10, 50, 60 with SAS RAID HBA; hot-swappable 2.5-in. internal disk; up to eight SAS disk drives with add-on SAS HBA   | Up to four 292 GB SAS; RAID 0, 1   | Add-on RAID 0, 1, 1E, 5, 5EE, 6, 10, 50, 60 with SAS RAID HBA; hot-swappable 2.5-in. internal disk, up to 16 SAS disk drives with add-on SAS host bus adapters  | Add-on RAID 0, 1, 1E, 5, 5EE, 6, 10, 50, 60 with SAS RAID HBA; eight hot-swappable 2.5-in. SAS disk drives with optional SAS HBA  | Up to eight 146 GB SAS or six SATA disks  |
| External disk and tape            | Sun StorageTek 2000, 3000, 3000 FC, 5000, and 6000 family of arrays, Sun StorageTek 9000 system, LTO 2 or 3 SCSI desktop, DAT 72 SCSI desktop, DAT 72 1 U rackmount, SDLT 320 or 600 desktop, SDLT 600 2 U rackmount, Autoloader C2 SCSI, Tape Library C4 SCSI & FC, Sun StorageTek SL500 SCSI & FC, L180 SCSI & FC, L1400 SCSI & FC, and SL8500 FC | Sun StorageTek 2000, 3000, 3000 FC, 5000, and 6000 family of arrays, Sun StorageTek 9000 system, LTO 2 or 3 SCSI desktop, DAT 72 SCSI LTO 2 or 3 SCSI desktop, DAT 72 SCSI desktop, DAT 72 1 U rackmount, SDLT 320 or 600 desktop, SDLT 600 2 U rackmount, Autoloader C2 SCSI, Tape Library C4 SCSI & FC, Sun StorageTek SL500 SCSI & FC, L180 SCSI & FC, L1400 SCSI & FC, and SL8500 FC | Sun StorageTek 2000, 3000, 3000 FC, 5000, and 6000 family of arrays, Sun StorageTek 9000 system, LTO 2 or 3 SCSI desktop, DAT 72 SCSI desktop, DAT 72 1 U rackmount, SDLT 320 or 600 desktop, SDLT 600 2 U rackmount, Autoloader C2 SCSI, Tape Library C4 SCSI & FC, Sun StorageTek SL500 SCSI & FC, L180 SCSI & FC, L1400 SCSI & FC, and SL8500 FC | Sun StorageTek 2000, 3000, 3000 FC, 5000, and 6000 family of arrays, Sun StorageTek 9000 system, LTO 2 or 3 SCSI desktop, DAT 72 SCSI desktop, DAT 72 1 U rackmount, SDLT 320 or 600 desktop, SDLT 600 2 U rackmount, Autoloader C2 SCSI, Tape Library C4 SCSI & FC, Sun StorageTek SL500 SCSI & FC, L180 SCSI & FC, L1400 SCSI & FC, and SL8500 FC | Sun StorageTek 2000, 3000, 3000 FC, 5000, and 6000 family of arrays, Sun StorageTek 9000 system, LTO 2 or 3 SCSI desktop, DAT 72 SCSI desktop, DAT 72 1 U rackmount, SDLT 320 or 600 desktop, SDLT 600 2 U rackmount, Autoloader C2 SCSI, Tape Library C4 SCSI & FC, Sun StorageTek SL500 SCSI & FC, L180 SCSI & FC, L1400 SCSI & FC, and SL8500 FC |
| Optical drive                     | One EIDE DVD±RW drive   | One DVD-RW   | One EIDE DVD±RW drive   | One EIDE DVD±RW drive (optional)  | One EIDE DVD±RW   |
| <b>Network</b>                    | Four 10/100/1000 Base-T Ethernet ports; one dedicated 10/100 Base-T Ethernet port, 1x 16-lane PCIe, 2x 8-lane PCIe  | Four integrated 10/100/1000 Ethernet ports, four eight-lane PCIe slots, one PCI-X slot   | Four 10/100/1000 Base-T Ethernet ports; one dedicated 10/100 Base-T Ethernet port, 1x 16-lane, 4x 8-lane, 1x 4-lane PCIe  | Four 10/100/1000 Base-T Ethernet ports; one dedicated 10/100 Base-T Ethernet port   | Four integrated 10/100/1000 Ethernet ports, three eight-lane PCIe slots   |
| <b>Power/cooling</b>              |   |  |   |   |   |
| Power                             | Dual-redundant, hot-swappable power supplies 100–120 V/200–240 V AC, 50/60 Hz   | Dual-redundant, hot-swappable power supplies, 90–264 V AC  | Dual redundant, hot-swappable power supplies 100-120 V/200-240 V, 50/60 Hz  | Dual-redundant, hot-swappable power supplies, 90–264 V AC, 47–63 Hz   | Dual-redundant, hot-swappable power supplies, 100–120/200–240 V AC, 50–60 Hz  |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)  | 5°C to 35°C (41°F to 95°F)   | 5°C to 35°C (41°F to 95°F)  | 5°C to 35°C (41°F to 95°F)  | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)  | -40°C to 65°C (-40°F to 149°F)   | -40°C to 65°C (-40°F to 149°F)  | -40°C to 70°C (-40°F to 158°F)  | -40°C to 70°C (-40°F to 158°F)  |
| <b>Rack units</b>                 | One   | Two  | Two   | N/A   | One   |
| <b>Physical specifications</b>    |   |  |   |   |   |
| Height                            | 44 mm (1.746 in.)   | 87.6 mm (3.44 in.)   | 88 mm (3.49 in.)  | 87.85 mm (3.46 in.)   | 44 mm (1.73 in.)  |
| Width                             | 426 mm (16.75 in.)  | 445 mm (17.51 in.)   | 426 mm (16.75 in.)  | 425.5 mm (16.75 in.)  | 425.5 mm (16.75 in.)  |
| Depth                             | 714 mm (28.125 in.)   | 632 mm (24.88 in.)   | 714 mm (28.125 in.)   | 711.2 mm (28.0 in.)   | 711.2 mm (28.0 in.)   |
| Weight                            | 16.55 kg (36.49 lb.)  | 25.49 kg (56.2 lb.)  | 25.75 kg (56.77 lb.) max  | 28.6 kg (63 lb.)  | 18.4 kg (40.66 lb.)   |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux 4; Red Hat Enterprise Linux 5; SUSE Linux Enterprise Server 10 (64-bit); Windows 2003 Standard and Enterprise versions (32-bit and 64-bit)  | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Microsoft Windows SE and EE   | Solaris 10 OS; Red Hat Enterprise Linux 4 and 5; SUSE Linux Enterprise Server 10 (64-bit); Windows 2003 Standard and Enterprise versions (32-bit and 64-bit)  | Solaris 10 OS; Red Hat Enterprise Linux 4; Red Hat Enterprise Linux 5; SUSE Linux Enterprise Server 10 (64-bit); Windows 2003 Standard and Enterprise versions (32-bit and 64-bit)  | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Microsoft Windows SE and EE  |
| <b>Warranty/services</b>          | Three years/next business day   | Three years/next business day  | Three years/next business day   | Three years/next business day   | Three years/next business day   |
| <b>Sun Customer Ready program</b> | Yes; Visualization System   | Yes; Cluster or Scalable Storage Cluster   | No  | Yes; Visualization System   | Yes; Visualization System   |

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**Sun Fire™ X4450 Server**



**Sun Fire™ T1000 Server**



**Sun Fire™ T2000 Server**



**Sun SPARC® Enterprise T1000 Server**

|                                   |  |  |   |  |
|-----------------------------------|--|--|---|--|
| <b>Name</b>                       | <b>Sun Fire™ X4450 Server</b>  | <b>Sun Fire™ T1000 Server</b>  | <b>Sun Fire™ T2000 Server</b>   | <b>Sun SPARC® Enterprise T1000 Server</b>  |
| <b>Processor/CPUs</b>             | Up to four Dual-Core or Quad-Core Intel Xeon Processors 7200 or 7300   | One six- or eight-core 1.0 GHz UltraSPARC® T1 processor, maximum 32 threads  | One four- or eight-core 1.0 GHz, or eight-core 1.2 GHz, or eight-core 1.4 GHz UltraSPARC T1 processor, maximum 32 threads   | One six- or eight-core 1.0 GHz UltraSPARC T1 processor, maximum 32 threads   |
| <b>Memory</b>                     | Up to 128 GB PC2-5300 667 MHz ECC fully buffered DDR2 DIMMs  | Up to 32 GB (support for 512 GB, 1 GB, 2 GB, or 4 GB DIMMs)  | Up to 64 GB (support for 512 GB, 1 GB, 2 GB, or 4 GB DIMMs)   | Up to 32 GB (support for 512 GB, 1 GB, 2 GB, or 4 GB DIMMs)  |
| <b>Mass storage</b>               |  |  |   |  |
| Internal disk                     | Up to eight 146 GB SAS or six SATA disks   | One 160 GB 3.5 in. 7,000 rpm SATA or two 73 GB or 146 GB 2.5 in. 10,000 rpm SAS drives; RAID 0, 1  | Up to four 73 GB or 146 GB 2.5 in., 10,000 rpm SAS disks, providing a maximum capacity of 584 GB; RAID 0, 1   | One 160 GB 3.5 in. 7,000 rpm SATA or two 73 GB or 146 GB 2.5 in. 10,000 rpm SAS drives; RAID 0, 1  |
| External disk and tape            | Sun StorageTek 2000, 3000, 3000 FC, 5000 and 6000 family of arrays, Sun StorageTek 9000 system, LTO 2 or 3 SCSI desktop, DAT 72 SCSI desktop, DAT 72 1 U rackmount, SDLT 320 or 600 desktop, SDLT 600 2 U rackmount, Autoloader C2 SCSI, Tape Library C4 SCSI & FC, Sun StorageTek SL500 SCSI & FC, L180 SCSI & FC, L1400 SCSI & FC, and SL8500 FC | Sun StorageTek 3000, 6000, and 9000 family of arrays, Sun StorageTek 6920 system, Sun StorageTek C2 autoloader, Sun StorageTek C4, L25, L180 and L500 tape library | Sun StorageTek A5200, D240 media tray, S1 array, T3 series, Sun StorageTek 3000 and 6000 family of arrays, Sun StorageTek 5210 NAS, Sun StorageTek 6920 system, Sun StorageTek DAT 72 tape drive, Sun StorageTek tape drives, including SDLT 600, C2 autoloader, C4, L100, L180, L25, L500, L700 tape library, Sun StorageTek L7, L8 autoloader | Sun StorageTek 3000, 6000, and 9000 family of arrays, Sun StorageTek 6920 system, Sun StorageTek C2 autoloader, Sun StorageTek C4, L25, L180 and L500 tape library |
| Optical drive                     | One EIDE DVD+/-RW drive  | N/A  | One slimline DVD-R/CD-RW  | N/A  |
| <b>Network</b>                    | Four integrated 10/100/1000 Ethernet ports, two eight-lane PCIe slots, four four-lane PCIe slots   | Four 10/100/1000 Mb/s Ethernet, one PCIe slot  | Four 10/100/1000 Ethernet, three PCIe, two PCI-X slots  | Four 10/100/1000 Mb/s Ethernet, one PCIe slot  |
| <b>Power/cooling</b>              |  |  |   |  |
| Power                             | Dual-redundant, hot-swappable power supplies 90–264 V AC (47–63 Hz)  | One 300 W power supply   | Two redundant, 450 W hot-swappable power supplies   | One 300 W power supply   |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)   | 5°C to 35°C (41°F to 95°F)   | 5°C to 35°C (41°F to 95°F)  | 5°C to 35°C (41°F to 95°F)   |
| Nonoperating temperature          | -40°C to 65°C (-40°F to 149°F)   | -40°C to 70°C (-40°F to 158°F)   | -40°C to 60°C (-40°F to 140°F)  | -40°C to 70°C (-40°F to 158°F)   |
| <b>Rack units</b>                 | Two  | One  | Two   | One  |
| <b>Physical specifications</b>    |  |  |   |  |
| Height                            | 87.85 mm (3.45 in.)  | 43 mm (1.69 in.)   | 89 mm (3.5 in.)   | 43 mm (1.69 in.)   |
| Width                             | 445.71 mm (17.54 in.)  | 425 mm (16.7 in.)  | 425 mm (16.7 in.)   | 425 mm (16.7 in.)  |
| Depth                             | 733.65 mm (28.88 in.)  | 467 mm (18.4 in.)  | 621 mm (24.4 in.)   | 467 mm (18.4 in.)  |
| Weight                            | 25.5 kg (56.3 lb.)   | 10.88 kg (24.0 lb.)  | 18.2 kg (40.0 lb.)  | 10.88 kg (24.0 lb.)  |
| <b>Operating system</b>           | Solaris 10 OS; Red Hat Enterprise Linux; SUSE Linux Enterprise Server; Microsoft Windows Server 2003 SE and EE   | Solaris 10 OS preinstalled; Linux  | Solaris 10 OS preinstalled; Linux   | Solaris 10 OS 11/06 preinstalled; Linux  |
| <b>Warranty/services</b>          | Three years/next business day  | Three years/next business day  | Three years/next business day   | Three years/next business day  |
| <b>Sun Customer Ready program</b> | Yes; Visualization System  | Yes; Content Infrastructure system   | Yes; Content Infrastructure system  | Yes; Content Infrastructure system   |

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| Name                              | Sun SPARC® Enterprise T2000 Server   | Sun SPARC® Enterprise T5120 Server   | Sun SPARC® Enterprise T5140 Server   | Sun SPARC® Enterprise T5220 Server   | Sun SPARC® Enterprise T5240 Server  |
|-----------------------------------|--|--|--|--|---|
| <b>Processor/CPU</b>              | One four- or eight-core 1.0 GHz, or eight-core 1.2 GHz, or eight-core 1.4 GHz UltraSPARC T1 processor, maximum 32 threads  | One four-, six-, or eight-core 1.2 GHz or eight-core 1.4 GHz UltraSPARC T2 processor, maximum 64 threads   | Four-, six-, and eight-core 1.2-GHz UltraSPARC T2 Plus processors, maximum 128 threads   | One four-, six-, or eight-core 1.2 GHz or eight-core 1.4 GHz UltraSPARC T2 processor, maximum 64 threads   | Four-, six-, and eight-core 1.2 GHz or eight-core 1.4 GHz UltraSPARC T2 Plus processors, maximum 128 threads                            |
| <b>Memory</b>                     | Up to 64 GB (support for 512 GB, 1 GB, 2 GB or 4 GB DIMMs)   | Up to 64 GB (support for 1 GB, 2 GB, or 4 GB DIMMs)  | 16 FB-DIMM slots, system maximum of 64 GB; support for 1 GB, 2 GB, and 4 GB DIMMs; minimum of 8 GB (8 x 1 GB)                          | Up to 64 GB (support for 1 GB, 2 GB, and 4 GB DIMMs)   | Up to 32 FB-DIMM slots, system maximum of 128 GB; support for 1 GB, 2 GB, and 4 GB DIMMs; minimum of 8 GB (8 x 1 GB)                    |
| <b>Mass storage</b>               |  |  |  |  |   |
| Internal disk                     | Up to four 73 GB or 146 GB 2.5 in., 10,000 rpm SAS disks, providing a maximum capacity of 584 GB; RAID 0, 1  | Up to four 73 GB or 146 GB SAS disks   | Up to four 73 GB or 146 GB SAS disks   | Up to eight 73 GB or 146 GB SAS disks  | Up to 16 73 GB or 146 GB SAS disks  |
| External disk and tape            | Sun StorageTek A5200, D240 media tray, S1 array, T3 series, Sun StorageTek 3000 and 6000 family of arrays, Sun StorageTek 5210 NAS, Sun StorageTek 6920 system, Sun StorageTek DAT 72 tape drive, Sun StorageTek tape drives, including SDLT 600, C2, L7, L8 autoloader, Sun StorageTek C4, L100, L180, L25, L500, L700 tape library | Sun StorageTek D240 media tray, S1 array, 2530–3511, 6120–6920, FLX240, FLX280, FLX380, 9910–9990V, DAT 72 rackmount, DAT 72 desktop, DAT 72 USB desktop, LTO3 rackmount, LTO3 desktop, LTO2 desktop, LTO2V rackmount, LTO2V desktop, SDLT600 rackmount, SDLT600 desktop, SDLT320 desktop, DLT-S4 rackmount, DLT-S4 desktop, C2, SL24, C4, SL48, L180, SL180, SL500 (LTO), SL500 (mixed media), L700e, L1400, SL8500, and VTL Plus | <a href="http://sun.com/storage">sun.com/storage</a>   | Sun StorageTek D240 media tray, S1 array, 2530–3511, 6120–6920, FLX240, FLX280, FLX380, 9910–9990V, DAT 72 rackmount, DAT 72 desktop, DAT 72 USB desktop, LTO 3 rackmount, LTO 3 desktop, LTO 2 desktop, LTO2V rackmount, LTO 2V desktop, SDLT600 rackmount, SDLT600 desktop, SDLT320 desktop, DLT-S4 rackmount, DLT-S4 desktop, C2, SL24, C4, SL48, L180, SL180, SL500 (LTO), SL500 (mixed media), L700e, L1400, SL8500, and VTL Plus | <a href="http://sun.com/storage">sun.com/storage</a>  |
| Optical drive                     | One slimline DVD-R/CD-RW   | One slimline CD-RW/DVD-RW  | One slimline DVD+/-RW  | One slimline CD-RW/DVD-RW  | One slimline DVD+/-RW   |
| <b>Network</b>                    | Four 10/100/1000 Ethernet, three PCIe, two PCI-X slots   | Four 10/100/1000 Mb/s Ethernet, up to 2x optional 10 GbE XAUI connections, one eight-lane PCIe and two four-lane PCIe or XAUI slots  | Four 10/100/1000 Mb/s Ethernet; up to 2x optional 10 GbE XAUI connections, one 8-lane PCIe and two 8-lane PCIe or XAUI expansion slots | Four 10/100/1000 Mb/s Ethernet; up to 2x optional 10 GbE XAUI connections, two 8-lane PCIe and two 8-lane PCIe or XAUI expansion slots   | Four 10/100/1000 Mb/s Ethernet; up to 2x optional 10 GbE XAUI connections, four 8-lane PCIe and two 8-lane PCIe or XAUI expansion slots |
| <b>Power/cooling</b>              |  |  |  |  |   |
| Power                             | Two redundant, 450 W hot-swappable power supplies  | Two redundant AC 650 W or DC 660W hot-swappable power supplies   | Two hot-swappable AC 720 W power supply units (PSUs), providing N + 1 redundancy   | Two redundant AC 750 W Hot-swappable power supplies  | Two hot-swappable AC 1100W power supply units (PSUs), providing N + 1 redundancy  |
| Operating temperature             | 5°C to 35°C (41°F to 95°F)   | 5°C to 35°C (41°F to 95°F)   | 50°C to 35°C (41°F to 95°F)  | 5°C to 35°C (41°F to 95°F)   | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature          | -40°C to 60°C (-40°F to 140°F)   | -40°C to 65°C (-40°F to 149°F)   | -40°C to 65°C (-40°F to 149°F)   | -40°C to 65°C (-40°F to 149°F)   | -40°C to 65°C (-40°F to 149°F)  |
| <b>Rack units</b>                 | Two  | One  | One  | Two  | Two   |
| <b>Physical specifications</b>    |  |  |  |  |   |
| Height                            | 89 mm (3.5 in.)  | 44 mm (1.74 in.)   | 44 mm (1.74 in.)   | 88 mm (3.49 in.)   | 88 mm (3.49 in.)  |
| Width                             | 425 mm (16.7 in.)  | 425 mm (16.75 in.)   | 425 mm (16.75 in.)   | 425 mm (16.75 in.)   | 425 mm (16.75 in.)  |
| Depth                             | 621 mm (24.4 in.)  | 714 mm (28.125 in.)  | 714 mm (28.12 in.)   | 714 mm (28.12 in.)   | 714 mm (28.12 in.)  |
| Weight                            | 18.2 kg (40.0 lb.)   | 16.55 kg (36.5 lb.)  | 16.7 kg (37.0 lb.)   | 23.58 kg (52.0 lb.)  | 23.81 kg (52.5 lb.)   |
| <b>Operating system</b>           | Solaris 10 OS preinstalled; Linux  | Solaris 10 OS 8/07 preinstalled; Linux   | Solaris 10 8/07 OS plus patches; or later  | Solaris 10 OS 8/07 preinstalled; Linux   | Solaris 10 8/07 OS plus patches; or later   |
| <b>Warranty/services</b>          | Three years/next business day  | Three years/next business day  | Three years/next business day  | Three years/next business day  | Three years/next business day   |
| <b>Sun Customer Ready program</b> | Yes; Infrastructure system or Sun Message Security Solution for Symantec Brightmail Software   | Yes; Sun Message Security Solution for Symantec Brightmail Software  | N/A  | Yes; Sun Message Security Solution for Symantec Brightmail Software  | N/A   |

# SUN SERVERS PRODUCT GUIDE

## MID- TO HIGH-END SERVERS

[sun.com/servers](http://sun.com/servers)



Designed for compute density and backed by enterprise-class features, Sun's midrange and high-end servers deliver mainframe-class RAS in a value-priced server. Designed as highly scalable virtualization/consolidation systems optimized for 24x7 mission-critical computing, Sun's midrange and high-end servers offer leading-edge technology. Coupled with the unbroken binary application compatibility of the Solaris OS, these servers enable you to maximize your investment by minimizing IT obsolescence.



|  |  |
|--|--|
| <b>Name</b>                                  | Sun Fire™ V490 Server  |
| <b>Processor/CPUs</b>                        | Up to four UltraSPARC IV+, IV processors   |
| <b>Memory</b>                                | Up to 64 GB  |
| <b>Mass storage</b>                          |  |
| Internal disk                                | Up to two 3.5 in. x 1.0 in. 15,000 rpm FC-AL disks (146 GB capacity), providing a maximum total capacity of 292 GB   |
| External disk and tape                       | Sun StorageTek™ D240 media tray, Sun StorageTek™ S1 array, Sun StorageTek™ 3000, 3310 SCSI, 3510 FC, and 3511 SATA, 6140, and 9000 family of arrays, Sun StorageTek™ 6920 system |
| Internal DVD                                 | DVD-ROM or DVD-R/W   |
| Internal DAT                                 | No   |
| <b>Network</b>                               | Two 10/100/1000 Mb/s Ethernet; six PCI slots   |
| <b>Power/cooling</b>                         |  |
| Power  | 200–240 V AC, 47–63 Hz, 2,078 VA; input per power supply/system of 1,600 W (mfg. rating)   |
| Operating temperature                        | 5°C to 35°C (41°F to 95°F)   |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)  |
| <b>Rack units</b>                            | Five   |
| <b>Physical specifications</b>               |  |
| Height                                       | 222 mm (8.74 in.)  |
| Width  | 446 mm (17.55 in.)   |
| Depth  | 610 mm (24.0 in.)  |
| Weight                                       | 43.99 kg (97.0 lb.)  |
| <b>Operating system</b>                      | Solaris™ 9 OS 9/05 and Solaris™ 10 OS 3/05 HW1   |
| <b>Warranty/services</b>                     | Three years/next business day  |
| <b>Supported virtualization technologies</b> | Solaris Containers, Solaris Zones  |

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|--|--|
| <b>Name</b>                                  | Sun Fire™ V890 Server  |
| <b>Processor/CPUs</b>                        | Up to eight UltraSPARC IV+, IV processors  |
| <b>Memory</b>                                | Up to 128 GB   |
| <b>Mass storage</b>                          |  |
| Internal disk                                | Up to 12 3.5 in. x 1.0 in. 15,000 rpm FC-AL disks (146 GB capacity) providing a maximum total capacity of 1.75 TB  |
| External disk and tape                       | Sun StorageTek D240 media tray, Sun StorageTek S1 array, Sun StorageTek 3000 arrays, 3310 SCSI, 3510 FC, 3511 SATA, 6140 and 9000 family of arrays, Sun StorageTek 6920 system |
| Internal DVD                                 | DVD-ROM or DVD-R/W   |
| Internal DAT                                 | No   |
| <b>Network</b>                               | One GbE (Fibre Channel), one 10/100 Ethernet Base-T, two serial ports, two USB; nine PCI slots   |
| <b>Power/cooling</b>                         |  |
| Power  | 200–240 V AC, 47–63 Hz, 2,078 VA; two required, three for redundancy, each with independent power cord   |
| Operating temperature                        | 5°C to 35°C (41°F to 95°F)   |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)  |
| <b>Rack units</b>                            | Seventeen  |
| <b>Physical specifications</b>               |  |
| Height                                       | 714 mm (28.11 in.)   |
| Width  | 480 mm (18.89 in.)   |
| Depth  | 836 mm (32.9 in.)  |
| Weight                                       | 130.63 kg (288.0 lb.)  |
| <b>Operating system</b>                      | Solaris 9 OS 9/05 and Solaris 10 OS 3/05 HW1   |
| <b>Warranty/services</b>                     | Three years/next business day  |
| <b>Supported virtualization technologies</b> | Solaris Containers, Solaris Zones  |

|  |   |
|--|---|
| <b>Name</b>                                  | Sun Fire™ E2900 Server  |
| <b>Processor/CPUs</b>                        | Up to 12 UltraSPARC IV+, IV processors  |
| <b>Memory</b>                                | Up to 192 GB  |
| <b>Mass storage</b>                          |   |
| Internal disk                                | Two 146 GB 15,000 rpm Ultra3 SCSI internal disks  |
| External disk and tape                       | Direct attach to Sun StorageTek tape libraries and disk arrays, including: Sun StorageTek 3000, 6000, and 9000 families of storage arrays, providing excellent linear scalability |
| Internal DVD                                 | DVD-ROM or DVD-R/W  |
| Internal DAT                                 | No  |
| <b>Network</b>                               | Two GbE Ethernet ports; nine PCI slots  |
| <b>Power/cooling</b>                         |   |
| Power  | 200–240 V single-phase AC, 47–63 Hz, with two 11/13 A circuits redundant with another two on a separate grid  |
| Operating temperature                        | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)   |
| <b>Rack units</b>                            | Twelve  |
| <b>Physical specifications</b>               |   |
| Height                                       | 52.7 cm (20.7 in.)  |
| Width  | 44.5 cm (17.5 in.)  |
| Depth  | 55.8 cm (21.96 in.)   |
| Weight                                       | 132 kg (290 lb.)  |
| <b>Operating system</b>                      | Solaris 9 OS 9/05 and Solaris 10 OS 3/05 HW1  |
| <b>Warranty/services</b>                     | One year  |
| <b>Supported virtualization technologies</b> | Hard Domains, Solaris Containers, Solaris Zones   |

|  |   |
|--|---|
| <b>Name</b>                                  | Sun Fire™ E4900 Server  |
| <b>Processor/CPUs</b>                        | Up to 12 UltraSPARC IV+, IV processors  |
| <b>Memory</b>                                | Up to 192 GB  |
| <b>Mass storage</b>                          |   |
| Internal disk                                | None  |
| External disk and tape                       | Sun StorageTek D240 media tray, Sun StorageTek S1 array, and the Sun StorageTek 3210 array; can be used as boot, data storage, data load, data interchange, and data backup devices |
| Internal DVD                                 | No  |
| Internal DAT                                 | No  |
| <b>Network</b>                               | Two GbE Ethernet ports; 16 PCI-X slots  |
| <b>Power/cooling</b>                         |   |
| Power  | 200–240 V AC, 47–63 Hz, 16 A  |
| Operating temperature                        | 5°C to 35°C (41°F to 95°F)  |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)   |
| <b>Rack units</b>                            | Seventeen   |
| <b>Physical specifications</b>               |   |
| Height                                       | 76.2 cm (30.0 in.)  |
| Width  | 44.6 cm (17.55 in.)   |
| Depth  | 72.4 cm (28.5 in.)  |
| Weight                                       | 131.1 kg (289 lb.)  |
| <b>Operating system</b>                      | Solaris 9 OS 9/05 and Solaris 10 OS 3/05 HW1  |
| <b>Warranty/services</b>                     | One year  |
| <b>Supported virtualization technologies</b> | Hard Domains, Solaris Containers, Solaris Zones   |

# SUN SERVERS PRODUCT GUIDE

## MID- TO HIGH-END SERVERS

[sun.com/servers](http://sun.com/servers)



|  |  |
|--|--|
| <b>Name</b>                                  | Sun Fire™ E6900 Server   |
| <b>Processor/CPU</b> s                       | Up to 24 UltraSPARC IV+, IV processors   |
| <b>Memory</b>                                | Up to 384 GB   |
| <b>Mass storage</b>                          |  |
| Internal disk                                | None   |
| External disk and tape                       | Direct attach to Sun StorageTek™ tape libraries and disk arrays, including: Sun StorageTek 3000, 6000, and 9000 families of storage arrays, providing excellent linear scalability |
| Internal DVD                                 | No   |
| Internal DAT                                 | No   |
| <b>Network</b>                               | 32 PCI-X slots   |
| <b>Power/cooling</b>                         |  |
| Power  | 200–240 V AC single-phase, 47–63 Hz; with two 11/13 A circuits redundant with another two on a separate grid   |
| Operating temperature                        | 5°C to 35°C (41°F to 95°F)   |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)  |
| <b>Rack units</b>                            | Twenty-eight   |
| <b>Physical specifications</b>               |  |
| Height                                       | 190.5 cm (75.0 in.)  |
| Width  | 61 cm (24.0 in.)   |
| Depth  | 134.6 cm (52.99 in.)   |
| Weight                                       | 544.31 kg (1200.0 lb.)   |
| <b>Operating system</b>                      | Solaris 9 OS 9/05 and Solaris 10 OS 3/05 HW1   |
| <b>Warranty/services</b>                     | One year   |
| <b>Supported virtualization technologies</b> | Hard Domains, Solaris Containers, Solaris Zones  |

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|--|--|
| <b>Name</b>                                  | Sun Fire™ E20K Server  |
| <b>Processor/CPU</b> s                       | Up to 36 UltraSPARC IV+, IV processors   |
| <b>Memory</b>                                | Up to 576 GB   |
| <b>Mass storage</b>                          |  |
| Internal disk                                | None   |
| External disk and tape                       | External direct, SAN or NAS attach to Sun StorageTek-compatible tape libraries and disk arrays, including Sun StorageTek 3000, 5000, 6000, and 9000 families of storage arrays |
| Internal DVD                                 | No   |
| Internal DAT                                 | No   |
| <b>Network</b>                               | Supports 10/100 Base-T Ethernet, GbE; up to 36 hot-swappable PCI-X slots   |
| <b>Power/cooling</b>                         |  |
| Power  | 200–240 V AC single-phase; supports two N+1 power grids, each using six 30 A circuits  |
| Operating temperature                        | 10°C to 35°C (50°F to 90°F)  |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)  |
| <b>Rack units</b>                            | N/A  |
| <b>Physical specifications</b>               |  |
| Height                                       | 191 cm (75.19 in.)   |
| Width  | 85 cm (33.46 in.)  |
| Depth  | 166 cm (65.35 in.)   |
| Weight                                       | 1122 kg (2468.0 lb.)   |
| <b>Operating system</b>                      | Solaris 9 OS 9/05 and Solaris 10 OS 3/05 HW2   |
| <b>Warranty/services</b>                     | One year   |
| <b>Supported virtualization technologies</b> | Hard Domains, Solaris Containers, Solaris Zones  |

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|--|--|
| <b>Name</b>                                  | Sun Fire™ E25K Server  |
| <b>Processor/CPU</b> s                       | Up to 72 UltraSPARC IV+, IV processors   |
| <b>Memory</b>                                | Up to 1.15 TB  |
| <b>Mass storage</b>                          |  |
| Internal disk                                | None   |
| External disk and tape                       | External direct, SAN or NAS attach to Sun StorageTek-compatible tape libraries and disk arrays, including Sun StorageTek 3000, 5000, 6000, and 9000 families of storage arrays |
| Internal DVD                                 | No   |
| Internal DAT                                 | No   |
| <b>Network</b>                               | Supports 10/100 Base-T Ethernet, GbE; up to 72 hot-swappable PCI-X slots   |
| <b>Power/cooling</b>                         |  |
| Power  | 200–240 V AC single-phase; supports two N+1 power grids, each using six 30 A circuits  |
| Operating temperature                        | 10°C to 35°C (50°F to 90°F)  |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)  |
| <b>Rack units</b>                            | N/A  |
| <b>Physical specifications</b>               |  |
| Height                                       | 191 cm (75.19 in.)   |
| Width  | 85 cm (33.46 in.)  |
| Depth  | 166 cm (65.35 in.)   |
| Weight                                       | 1122 kg (2468.0 lb.)   |
| <b>Operating system</b>                      | Solaris 9 OS 9/05 and Solaris 10 OS 3/05 HW3   |
| <b>Warranty/services</b>                     | One year   |
| <b>Supported virtualization technologies</b> | Hard Domains, Solaris Containers, Solaris Zones  |

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| <b>Name</b>                                  | Sun SPARC® Enterprise M4000 Server   |
| <b>Processor/CPU</b> s                       | Up to four SPARC64 VI dual-core processors   |
| <b>Memory</b>                                | Up to 128 GB   |
| <b>Mass storage</b>                          |  |
| Internal disk                                | Up to two 2.5 in. SAS boot disks   |
| External disk and tape                       | External direct, SAN or NAS attach to Sun StorageTek-compatible tape libraries and disk arrays, including Sun StorageTek 3000, 5000, 6000, and 9000 families of storage arrays |
| Internal DVD                                 | Yes  |
| Internal DAT                                 | Yes  |
| <b>Network</b>                               | 2 GbE; up to four PCIe slots, one PCI-X slot; up to 25 PCIe or PCI-X slots with external I/O expansion unit  |
| <b>Power/cooling</b>                         |  |
| Power  | 100–240 V AC; two power cords  |
| Operating temperature                        | 5°C to 35°C (41°F to 95°F)   |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)  |
| <b>Rack units</b>                            | Six  |
| <b>Physical specifications</b>               |  |
| Height                                       | 26.3 cm (10.35 in.)  |
| Width  | 44.4 cm (17.48 in.)  |
| Depth  | 81 cm (31.9 in.)   |
| Weight                                       | 84 kg (185 lb.)  |
| <b>Operating system</b>                      | Solaris 10 OS 11/06  |
| <b>Warranty/services</b>                     | One year   |
| <b>Supported virtualization technologies</b> | Hard Domains, Solaris Containers, Solaris Zones  |

# SUN SERVERS PRODUCT GUIDE

## MID- TO HIGH-END SERVERS

[sun.com/servers](http://sun.com/servers)



| Name   | Sun SPARC® Enterprise M5000 Server   | Sun SPARC® Enterprise M8000 Server  | Sun SPARC® Enterprise M9000 32 CPU Server  | Sun SPARC® Enterprise M9000 64 CPU Server   | Sun Fire™ X4600 M2 Server   |
|--|--|---|--|---|---|
| <b>Processor/CPU</b>                         | Up to eight SPARC64 VI dual-core processors  | Up to 16 SPARC64 VI dual-core processors  | Up to 32 SPARC64 VI dual-core processors   | Up to 64 SPARC64 VI dual-core processors  | Up to eight Dual-Core AMD Opteron™ 8000 Series processors   |
| <b>Memory</b>                                | Up to 256 GB   | Up to 512 GB  | Up to 1 TB   | Up to 2 TB  | 256 GB  |
| <b>Mass storage</b>                          |  |   |  |   |   |
| Internal disk                                | Up to four internal 2.5 in. SAS boot disks   | Up to 16 internal 2.5 in. SAS boot disks, four per IOU  | Up to 32 internal 2.5 in. SAS boot disks, four per IOU   | Up to 64 internal 2.5 in. SAS boot disks, four per IOU  | Up to four hot-swappable 146 GB SAS HDDs  |
| External disk and tape                       | External direct, SAN or NAS attach to Sun StorageTek-compatible tape libraries and disk arrays, including Sun StorageTek 3000, 5000, 6000, and 9000 families of storage arrays | External direct, SAN or NAS attach to Sun StorageTek-compatible tape libraries and disk arrays, including Sun StorageTek 3000, 5000, 6000, and 9000 families of storage arrays  | External direct, SAN or NAS attach to Sun StorageTek-compatible tape libraries and disk arrays, including Sun StorageTek 3000, 5000, 6000, and 9000 families of storage arrays   | External direct, SAN or NAS attach to Sun StorageTek-compatible tape libraries and disk arrays, including Sun StorageTek 3000, 5000, 6000, and 9000 families of storage arrays  | Sun StorageTek 2000, 3000 SCSI, 3000 FC, 6000, and 9000 family of arrays, LTO 2 SCSI desktop, SAT 72 1 U entry mount, LTO 3 SCSI desktop, Sun StorageTek C4 tape library SCSI and FC, Sun StorageTek SL500 SCSI, SL500 FC, L180 tape library SCSI & FC, Sun StorageTek L1400 tape library FC, and Sun StorageTek SL8500 modular library system FC |
| Internal DVD                                 | Yes  | Yes   | Yes  | Two internal DVDs   | One DVD-ROM   |
| Internal DAT                                 | Yes  | Yes   | Yes  | Two internal DATs   | N/A   |
| <b>Network</b>                               | 2 GbE; up to eight PCIe slots, two PCI-X slots; up to 50 PCIe or PCI-X slots with external I/O expansion unit  | Up to 32 PCIe slots per system; up to 112 PCIe or PCI-X slots with the optional external I/O expansion unit   | Up to 64 PCIe slots per system; up to 224 PCIe or PCI-X slots with the optional external I/O expansion unit  | Up to 128 PCIe slots per system; up to 288 PCIe or PCI-X slots with the optional external I/O expansion unit  | Four 10/100/1000 Ethernet; two PCI-X or six PCIe slots  |
| <b>Power/cooling</b>                         |  |   |  |   |   |
| Power  | 100–240 V AC; four power cords   | 200–240 V AC single-phase, three 30 A power cords; 208 V AC 3-phase DELTA, two 50 A direct-wired power connections; 415 V AC 3-phase, two 30 A direct-wired power connections, double power cords for dual power grid support | 200–240 V AC single-phase, five 30 A power cords; 208 V AC 3-phase DELTA, two 50 A direct-wired power connections; 415 V AC 3-phase, two 30 A direct-wired power connections, double power cords for dual power grid support | 200–240 V AC single-phase, ten 30 A power cords; 208 V AC 3-phase DELTA, four 50 A direct-wired power connections; 415 V AC 3-phase, four 30 A direct-wired power connections; double power cords for dual power grid support | 4x 100–240 V AC, 50–60 Hz; four hot-swappable power supplies, redundant in 2+2 configuration  |
| Operating temperature                        | 5°C to 35°C (41°F to 95°F)   | 5°C to 32°C (41°F to 89.6°F)  | 5°C to 32°C (41°F to 89.6°F)   | 5°C to 32°C (41°F to 89.6°F)  | 5°C to 32°C (41°F to 90°F)  |
| Nonoperating temperature                     | -20°C to 60°C (-4°F to 140°F)  | 0°C to 50°C (32°F to 122°F)   | 0°C to 50°C (32°F to 122°F)  | 0°C to 50°C (32°F to 122°F)   | -20°C to 60°C (-4°F to 140°F)   |
| <b>Rack units</b>                            | Ten  | N/A   | N/A  | N/A   | Four  |
| <b>Physical specifications</b>               |  |   |  |   |   |
| Height                                       | 44.02 cm (17.33 in.)   | 180 cm (70.86 in.)  | 180 cm (70.86 in.)   | 180 cm (70.86 in.)  | 176 mm (6.92 in.)   |
| Width  | 44 cm (17.32 in.)  | 75 cm (29.5 in.)  | 85 cm (33.46 in.)  | 167.4 cm (65.9 in.)   | 432 mm (17.0 in.)   |
| Depth  | 81 cm (31.88 in.)  | 126 cm (49.6 in.)   | 126 cm (49.6 in.)  | 126 cm (49.6 in.)   | 609 mm (23.97 in.)  |
| Weight                                       | 275 kg (605 lb.)   | 700 kg (1540 lb.)   | 940 kg (2068 lb.)  | 1880 kg (4136 lb.)  | 56.7 kg (125 lb.)   |
| <b>Operating system</b>                      | Solaris 10 OS 11/06  | Solaris 10 OS 11/06   | Solaris 10 OS 11/06  | Solaris 10 OS 11/06   | Solaris OS; Red Hat Enterprise Linux; Microsoft Windows   |
| <b>Warranty/services</b>                     | One year   | One year  | One year   | One year  | Three years/next business day   |
| <b>Supported virtualization technologies</b> | Hard Domains, Solaris Containers, Solaris Zones  | Hard Domains, Solaris Containers, Solaris Zones   | Hard Domains, Solaris Containers, Solaris Zones  | Hard Domains, Solaris Containers, Solaris Zones   | N/A   |

# SUN SERVERS PRODUCT GUIDE

## NETRA SERVERS

sun.com/netra



Network equipment providers (NEPs) have been leveraging Sun's open-standards-based, carrier-grade systems to accelerate time to market, cut development costs, and meet the needs of their service-provider customers. Sun builds systems certified to NEBS Level 3 requirements and provides your choice of server architectures (ATCA blades or rackmount), CPUs (UltraSPARC or x64 from AMD and Intel), and operating systems (the Solaris OS, Linux, or Windows), augmented by specialized telecom software and solutions. Sun's telecom customers can take advantage of these advanced solutions to accelerate the delivery and drastically reduce the startup costs of your next-generation voice, video, and data services.



| Name                     | Sun Netra™ T2000 Server  | Sun Netra™ T5220 Server  | Sun Netra™ X4200 M2 Server   | Sun Netra 210 Server   |
|--------------------------|--|--|--|--|
| Category                 | Carrier-grade rack   | Carrier-grade rack   | Carrier-grade rack   | Carrier-grade rack   |
| Processor/CPUs           | Four six-core 1.0 GHz or eight-core 1.2 GHz UltraSPARC® T1 processors  | Four six-core or eight-core 1.2 GHz UltraSPARC® T2 processors          | Up to two Dual-Core, Next-Generation AMD Opteron™ processors   | Up to two UltraSPARC® IIIi processors  |
| Memory                   | 8 GB to 64 GB  | 4 GB to 64 GB  | 2 GB to 32 GB  | 1 GB to 8 GB   |
| Mass storage             |  |  |  |  |
| Internal disk            | Up to 584 GB (4x 146 GB) 10,000 rpm SAS disks with RAID 0, 1 supported   | Up to 584 GB (4x 146 GB) 10,000 rpm SAS disks with RAID 0, 1 supported | Up to 584 GB (4x 146 GB) 10,000 rpm SAS disks with RAID 0, 1 supported   | Up to 292 GB (2x 146 GB) 10,000 rpm SAS disks  |
| External disk and tape   | Sun StorageTek™ D240 media tray, Sun StorageTek™ 3000 and 6000 disk families and the Sun StorageTek™ NAS 5210 system, Sun StorageTek™ SL 24, SL48, SL500, SL3000 and SL8500 tape systems | sun.com/storage  | Sun StorageTek D240 media tray, Sun StorageTek 3000 and 6000 disk families and the Sun StorageTek NAS 5210 system, Sun StorageTek SL 24, SL48, SL500, SL3000 and SL8500 tape systems | Sun StorageTek D240 media tray, Sun StorageTek 3000 and 6000 disk families, Sun StorageTek NAS 5210 system, Sun StorageTek SL 24, SL48, SL500, SL3000, and SL8500 tape systems |
| Optical drive            | DVD-R/W (with two-hard-disk-drive option only)   | DVD-R/W (with two-hard-disk-drive option only)                         | DVD-R/W (with two-hard-disk-drive option only)   | DVD-R/W  |
| Network                  | Four 10/100/1000 Mb/s Ethernet, three PCI-X, one PCIe  | Four 10/100/1000 Mb/s, two 10 GbE ports, two PCI-X, four PCIe          | Four 10/100/1000 Mb/s Ethernet, three PCI-X, one PCIe  | Four 10/100/1000 Mb/s Ethernet, one 33/66 MHz full-length PCI  |
| Power/cooling            |  |  |  |  |
| Power                    | 2x 100–240 V AC or -48 to -60 V DC   | 2x 100–240 V AC or -48 to -60 V DC                                     | 2x 100–240 V AC or -48 to -60 V DC   | 1x 100 V AC or -40 to -75 V DC   |
| Operating temperature    | 5°C to 40°C (41°F to 104°F)  | 5°C to 35°C (41°F to 95°F)   | 5°C to 40°C (41°F to 104°F)  | 5°C to 40°C (41°F to 104°F)  |
| Nonoperating temperature | -40°C to 70°C (-40°F to 158°F)   | -40°C to 65°C (-40°F to 149°F)   | -40°C to 70°C (-40°F to 158°F)   | -40°C to 70°C (-40°F to 158°F)   |
| Rack units               | Two  | Two  | Two  | One  |
| Physical specifications  |  |  |  |  |
| Height                   | 89 mm (3.5 in.)  | 87.37 mm (3.44 in.)  | 89 mm (3.5 in.)  | 43.6 mm (1.72 in.)   |
| Width                    | 508 mm (20 in.)  | 502 mm (20 in.)  | 508 mm (20 in.)  | 493 mm (19.4 in.)  |
| Depth                    | 424 mm (16.7 in.)  | 425.45 mm (16.75 in.)  | 442 mm (17.4 in.)  | 425 mm (16.3 in.)  |
| Weight                   | 18.2 kg (40.0 lb.)   | 15.81 kg (34.78 lb.)   | 16.87 kg (37.2 lb.)  | 9.79 kg (21.6 lb.)   |
| Operating system         | Solaris™ 10 OS preinstalled  | Solaris 10 OS preinstalled   | Solaris 10 OS preinstalled; Red Hat Enterprise Linux; SUSE Linux Enterprise Server   | Solaris 10 OS preinstalled   |
| Warranty/services        | One year   | One year   | One year   | One year   |

# SUN SERVERS PRODUCT GUIDE

## NETRA SERVERS

sun.com/netra



|                                |  |
|--------------------------------|--|
| <b>Name</b>                    | Sun Netra™ 1290 Server   |
| <b>Category</b>                | Carrier-grade rack   |
| <b>Processor/CPU</b>           | 12 UltraSPARC® IV+ processors  |
| <b>Memory</b>                  | 16 GB to 192 GB  |
| <b>Mass storage</b>            |  |
| Internal disk                  | 292 GB (2x 146 GB) 15,000 rpm<br>Ultra3 SCSI disks   |
| External disk and tape         | Sun StorageTek D240 media tray, Sun StorageTek 3000 and 6000 disk families and the Sun StorageTek NAS 5210 system, Sun StorageTek SL 24, SL48, SL500, SL3000 and SL8500 tape systems |
| Optical drive                  | DVD-R/W  |
| <b>Network</b>                 | Two 10/100/1000 Ethernet ports,<br>six short PCI slots   |
| <b>Power/cooling</b>           |  |
| Power                          | 4x 100~240 V AC or -48 to -60 V DC   |
| Operating temperature          | 5°C to 40°C (41°F to 104°F)  |
| Nonoperating temperature       | -40°C to 65°C (-40°F to 149°F)   |
| <b>Rack units</b>              | Twelve   |
| <b>Physical specifications</b> |  |
| Height                         | 52.7 cm (20.75 in.)  |
| Width                          | 44.5 cm (17.5 in.)   |
| Depth                          | 55.8 cm (22.0 in.)   |
| Weight                         | 141 kg (310 lb.)   |
| <b>Operating system</b>        | Solaris 10 OS preinstalled   |
| <b>Warranty/services</b>       | One year   |

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|--|
| <b>Sun Netra™ CP3020 ATCA Blade Server</b>   |
| Carrier-grade blade  |
| Single- or Dual-Core AMD Opteron™ processor  |
| Up to 8 GB   |
| Two 73 GB drives, LSI 1064 SAS/SATA controller chip  |
| sun.com/storage  |
| N/A  |
| Two 10/100/1000 Base-T Ethernet management ports, two 1000 Base-T base fabric, two 1000 series extended fabric |
| Up to 200 W  |
| 5°C to 40°C (41°F to 104°F)  |
| -40°C to 70°C (-40°F to 158°F)   |
| N/A  |
| 322.25 mm (12.69 in.)  |
| 280 mm (11.02 in.)   |
| 30.48 mm (1.2 in.)   |
| Not available  |
| Solaris 10 OS; MontaVista CGL; WindRiver PNE; Linux  |
| One year   |

|  |
|--|
| <b>Sun Netra™ CP3060 ATCA Blade Server</b>   |
| Carrier-grade blade  |
| Four-, six-, or eight-core UltraSPARC T1 processor   |
| 4 GB to 16 GB  |
| AMC.3 SATA with qualified 80 GB AMC hard drive   |
| Sun StorageTek 2000 and 6000 families  |
| N/A  |
| Dual 10/100/1000 Base-T Ethernet base fabric interfaces, dual SERDES interface as extended fabric (10/100/1000 Bx) 8 pck |
| 1x AMC and 8x PCIe to RTM  |
| 5°C to 40°C (41°F to 104°F)  |
| -40°C to 70°C (-40°F to 158°F)   |
| N/A  |
| 322.25 mm (12.69 in.)  |
| 30 mm (1.18 in.)   |
| 280 mm (11.02 in.)   |
| Not available  |
| Solaris 10 OS; WindRiver PNE; Linux  |
| One year   |

# SUN SERVERS PRODUCT GUIDE

## NETRA SERVERS

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| Name                     | Sun Netra™ CP3220 ATCA Blade Server   | Sun Netra™ CP3260 ATCA Blade Server  | Sun Netra™ CT900 ATCA Blade Server  |
|--------------------------|---|--|---|
| Category                 | Carrier-grade blade   | Carrier-grade blade  | Carrier-grade chassis   |
| Processor/CPU            | Dual-Core or Quad-Core AMD Opteron processor  | Six- or eight-core UltraSPARC T2 processor   | Supports all Sun Netra™ CP3000 series blades  |
| Memory                   | Up to 32 GB   | Up to 16 GB  | See Sun Netra CP3020, CP3060, CP3220, or CP3260 ATCA Blade Server   |
| Mass storage             |   |  |   |
| Internal disk            | 8-16 GB CompactFlash  | Four interfaces on Advanced RTMs (two local HD, two egress)  | See Sun Netra CP3020, CP3060, CP3220, or CP3260 ATCA Blade Server   |
| External disk and tape   | sun.com/storage   | sun.com/storage  | sun.com/storage   |
| Optical drive            | N/A   | N/A  | N/A   |
| Network                  | Two 10/100/1000 Base-T management port (front/rear), two 1000 Base-T base fabric, two 10 GbE extended fabric, two 1 GbE Zone 3 (AdvancedRTM-specific) | Two 10/100/1000 Base-T Ethernet management ports (front/rear), two 1000 Base-T base fabric, two 10 GbE extended fabric, two 1 GbE, Zone 3 Advanced Rear Transition Modules | Two 10/100/1000 Base-T Ethernet management ports, two 1000 Base-T base fabric, two 1000 series/10 GbE extended fabric |
| Power/cooling            |   |  |   |
| Power                    | Up to 200 W   | Up to 200 W  | -40 to -72 V DC   |
| Operating temperature    | 5°C to 40°C (41°F to 104°F)   | 5°C to 40°C (41°F to 104°F)  | 0°C to 40°C (32°F to 104°F)   |
| Nonoperating temperature | -40°C to 70°C (-40°F to 158°F)  | -40°C to 70°C (-40°F to 158°F)   | -5°C to 55°C (23°F to 131°F)  |
| Rack units               | N/A   | N/A  | Twelve  |
| Physical specifications  |   |  |   |
| Height                   | 322.25 mm (12.69 in.)   | 322.25 mm (12.69 in.)  | 533 mm (21 in.)   |
| Width                    | 30 mm (1.18 in.)  | 30 mm (1.18 in.)   | 444 mm (17.7 in.)   |
| Depth                    | 280 mm (11.02 in.)  | 280 mm (11.02 in.)   | 482 mm (19 in.)   |
| Weight                   | N/A   | N/A  | 68.03 kg (150.0 lb.)  |
| Operating system         | Solaris 10 OS x64, Linux, Microsoft Windows 2003 Server   | Solaris 10 OS  | Solaris 10 OS preinstalled  |
| Warranty/services        | One year  | One year   | Up to three years   |



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