

# Sun Fire™ V125 Server

## Just the Facts

*SunWIN token 481005*

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# Table of Contents

<b>Sun Fire™ V125 Server Positioning</b> .....	<b>5</b>
Introduction.....	5
New Features.....	5
Product Family Placement.....	6
Sun Fire V125 and Sun Fire V215 Server Feature Comparison.....	6
Key Messages.....	7
Availability.....	8
Users.....	10
Target Markets.....	10
Target Applications.....	10
<b>Selling Highlights</b> .....	<b>11</b>
Market Value Proposition.....	11
Features, Functions, and Benefits .....	12
Applications.....	14
Compatibility.....	14
<b>Enabling Technology</b> .....	<b>15</b>
Technology Overview.....	15
<b>System Architecture</b> .....	<b>18</b>
Overview.....	18
<b>Reliability, Availability, and Serviceability (RAS)</b> .....	<b>19</b>
Reliability.....	19
Availability.....	19
Serviceability.....	19
<b>Installation Data</b> .....	<b>20</b>
Sun Fire V125 Server Specifications.....	20
<b>Requirements and Configuration</b> .....	<b>26</b>
System Requirements.....	26
System Configuration.....	26
Licensing/Usage.....	26
Interconnect.....	27
<b>System Management</b> .....	<b>28</b>
System Administration.....	28
Software.....	28
Operating System.....	29
<b>Ordering Information</b> .....	<b>30</b>
Field Replaceable Units.....	31

<b>Service and Support</b> .....	<b>32</b>
SunSpectrumSM Support.....	32
Sun Software Support Services.....	33
Warranty.....	34
Education and Learning Solutions.....	34
Professional Services.....	36
<b>Glossary</b> .....	<b>38</b>
<b>Materials Abstract</b> .....	<b>40</b>
<b>Competitive Information</b> .....	<b>41</b>
<b>Future/Roadmap</b> .....	<b>42</b>

# Sun Fire™ V125 Server Positioning



Figure 1. Sun Fire™ V125 Server

## Introduction

The Sun Fire V125 is a ready-to-deploy, low-cost thin server, loaded with all the components customers need for deployment in front-end Web infrastructure and technical farms. The Sun Fire™ V125 server—powered by a single 1 GHz UltraSPARC™ IIIi processor in a compact 1 RU form factor—will help Sun expand its leadership position in the rack-optimized server market. Loaded with numerous industry-unique features designed to increase availability, speed throughput, enhance performance, and simplify management and serviceability, the Sun Fire V125 server makes an ideal 1P-capable server solution.

The Sun Fire V125 server is an innovative, feature-rich 1U server designed to “wow” customers—not only Sun loyalists, but also users of competitive dual-processor, 1U servers. Innovative features like two Gigabit Ethernet ports and aggressive pricing will make the Sun Fire V125 server a popular server for Edge Computing.

The Sun Fire V125 server also comes standard with the industry’s ONLY System Configuration Card (SCC).

By adopting low-, mid-, and high-end configurations together with two integrated Gigabit Ethernet ports. The inclusion of two Ethernet ports on the motherboard means that the Sun Fire V125 server gives customers considerable savings compared to using separate PCI cards to obtain the same functionality—providing a significant competitive advantage. Two Ethernet ports are suited for firewall applications and redundancy and drive the requirement of the majority of customers for QFE (Quick Fix Engineering) PCI cards.

## New Features

53% increase in performance over V100/V120. Customers continue to reap benefits of Sun's innovation dividend with higher speed CPU.

The Sun Fire V125 delivers the industry's premier UNIX solution by combining highly integrated features with the best OS on the planet into a low-cost package to return greatest value for horizontally scaled workloads.

## Product Family Placement

The Sun Fire V125 is the latest in the Sun Fire server product line and provides an upgrade path for customers from the Sun Fire V100/V120 and other single CPU servers. Based on the UltraSPARC IIIi technology and the J-Bus architecture, the Sun Fire V125 server provides customers with high compute power and fast data transfer throughput at a competitive price.

## Sun Fire V125 and Sun Fire V215 Server Feature Comparison

The following table compares some features of the Sun Fire V125 server to those of the Sun Fire V215server.

Features	Sun Fire V125 Server	Sun Fire V215 Server
<b>Number of processors</b>	1	1–2
<b>CPU type</b>	UltraSPARC IIIi	UltraSPARC IIIi
<b>CPU speed</b>	1 GHz	1.5GHz
<b>Level 2 cache</b>	1 MB internal cache	1 MB internal cache
<b>Minimum/maximum memory</b>	1 GB / 8 GB	1GB / 16 GB
<b>O/S</b>	Solaris 8 beginning with HW 2/04 OS Solaris 9 beginning with 09/04 OS Solaris 10 OS	Solaris 9 beginning with HW 9/05 OS Solaris 10 OS beginning with 6/06 OS with mandatory patches
<b>PCI slots</b>	1 (66 MHz/64bit)	2 (1 x 133 Mhz/64bit PCI X, 1 x 8 lane PCI E)
<b>Network connections</b>	2 x built-in 10/100/1000Base-T Ethernet ports	4 x built-in 10/100/1000Base-T Ethernet ports
<b>I/O connections</b>	2 x serial, 2 x USB, 1x10 MB/s Ethernet, 1 x LVD SCSI	2 x serial, 3 x USB, 1 x 10MB/s Ethernet,
<b>Number of disks and type (max)</b>	2 x Ultra160 SCSI 73/146 GB	2 x SAS 2.5” 73GB
<b>Remote management</b>	ALOM (standard)	ALOM (standard)
<b>System Configuration Card</b>	Standard	ID Module
<b>Crypto Accelerator Daughter Board</b>	Yes	No
<b>Power supplies</b>	1	2 (redundant)
<b>Height / Depth</b>	1U / 24 in.	1U / 24 in.
<b>MAX power (min. config)</b> (Power calculated with 72% PSU efficiency for V125 & 85% for V215)	157.1 Watts (1 x 1.0 GHz processor, 2 x 512-MB DIMMS, 1 x 73-GB HDD)	141.1 Watts (1 x 1.5 GHz processor, 2 x 512-MB DIMMS, 1 x 73-GB HDD)

Features	Sun Fire V125 Server	Sun Fire V215 Server
<b>MAX power (max config)</b> (Power calculated with 72% PSU efficiency for V125 & 85% for V215)	227.1 Watts (1 x 1.0GHz processor, 8 x 1-GB DIMMS, 2 x 73-GB HDD)	292.42 Watts (2 x 1.5GHz processor, 8 x 2-GB DIMMS, 4 x 73-GB HDD, DVD 2 x PCI cards)
<b>TYPICAL Power (min config)</b> (measured at 240V/50Hz)	146.4 Watts (1 x 1.0 GHz processor, 2 x 512-MB DIMMS, 1 x 73-GB HDD)	131.2 Watts (1 x 1.5 GHz processor, 2 x 512-MB DIMMS, 1 x 73-GB HDD)
<b>TYPICAL Power (max config)</b> (measured at 240V/50Hz)	161.5Watts (1 x 1.0 GHz processor, 4 x 2-GB DIMMS, 2 x 73-GB HDD)	271.9 Watts (2 x 1.5GHz processor, 16 x 1-GB DIMMS, 4 x 73-GB HDD, DVD 2x XVR-300 & 2x XVR-2500 )
<b>Heat dissipation (min config)</b>	536 BTU/hr	482.6 BTU/hr
<b>Heat dissipation (max config)</b>	775 BTU/hr	1,000 BTU/hr
<b>Optional features</b>	DVD-ROM	DVD-dual
<b>Maximum shipping weight</b>	12.3 kg	13 kg

## Key Messages

With the introduction of the Sun Fire V125 server, Sun continues to offer customers a low-cost entry SPARC server with support for Solaris 8.

## VALUE

- **True System Approach:** The Sun Fire V125 server comes pre-loaded and pre-tested at no extra cost with Solaris OS, the Sun Java Enterprise System 2005Q1 software, system management functionality, and high-speed network connectivity.
- **Cradle-to-Grave Management Support:** The Sun Fire V125 server comes with integrated Advanced Lights Out Manager (common to Sun's new Blade servers), Sun™ Management Center software, SNMP support, and easy-to-use provisioning and patch management software through Solaris OS.
- **World-class Services:** Whether it's a Sun Fire V125 server or a multimillion-dollar Sun Fire 25K server, customers are supported by Sun's world-class Services organization.
- **Investment Protection:** Customers get binary and application compatibility through an end-to-end SPARC®/Solaris architecture from 1 to 106 processors that increases operation efficiency while eliminating costs for application porting. In addition, Sun offers added values that are consistent through the volume systems products line, such as front-to-back cooling, integrated remote management features, rack optimization, and hot-swappable components.
- **Serviceability:** The Sun Fire V125 server comes standard with telescopic rail kit, hinged lid and flip-down bezel.

## INNOVATION

- **Tried & tested Processor Technology:** The Sun Fire V125 server uses the UltraSPARC IIIi processor which has been deployed in over 400,000 low-end systems. Sun Fire V125 server runs at 1GHz.
- **Robust and Compact Design:** The system architecture of the Sun Fire V125 server leads the industry in terms of memory capacity and number of I/O ports in a compact form factor. Features include two built-in 10/100/1000Base-T Ethernet ports, an Ultra160 LVD SCSI port, two serial ports, two USB ports and a 10MB/s Ethernet port. The Sun Fire V125 server can accommodate an optional Sun™ Crypto Accelerator 500 card for SSL encryption, which provides network security without sacrificing a PCI slot. All these features are packed in a 1 RU form factor.
- **Maximizes Uptime:** The Sun Fire V125 server offers RAS features such as front-accessible, hot-swap disks, an easy-to-use System Configuration Card, and the reliable Solaris OS.

## CHOICE

- **Multiple Architectural Choices:** Sun offers a family of low-end servers to accommodate customer IT requirements. Customer can choose among the Solaris OS on UltraSPARC (Example, the Solaris OE on x86 (Example: Sun Lx50), or Linux on x86 platforms.

In addition, the Sun Fire V125 server helps customers:

- ALLEVIATE shrinking IT budget pressures-entry SPARC rackmount server.
- ENHANCE manageability with pre-installed Advanced Lights Out Manager (ALOM) and Sun Management Console software.
- ACHIEVE high availability for mission-critical applications with redundant, hot-swap components and serviceability with a pre-installed System Configuration Card that can transfer system identity from one system to another.
- ENABLES binary compatibility from 1 to 106 processors. The SPARC/Solaris platform is one of the industry's most scalable, reliable, and secure architectures.
- PROVIDE fast and secure Web transactions without sacrificing CPU cycles and taking up a PCI slot. The Sun Fire V125 server has a low-cost integrated SSL card option on the system motherboard.

## Availability

General availability for the V125 configuration is planned for October 2006.



## **Users**

The Sun Fire V125 server is an ideal platform for front-end Web infrastructure and technical compute farms and for users who demand Sun dependability and true multiprocessor server performance at PC prices.

## **Target Markets**

- Financial Services
- Education
- Service Providers
- Government
- Discrete Manufacturing
- Retail

## **Target Applications**

- Web Servers
- Security
- Application Development
- Portal Gateway
- Technical Computing
- Grid Engine

# Selling Highlights

## Market Value Proposition

Based on the latest SPARC/Solaris technology, the Sun Fire V125 server continues the roadmap for V100/V120 customers with a low-cost entry SPARC server and support for Solaris 8.

Customers reap the rewards of Sun's innovation dividend through higher performance UltraSPARC IIIi systems which deliver performance and price/performance improvements of over 50%. This enables customers to improve service levels while reducing costs. Customers have the benefit of being able to run Solaris OS, the industry's most advanced and popular UNIX operating system which reduces cost, risk and complexity of delivering networked applications and services, while preserving investments in existing IT infrastructure and skills.

- **Density:** Higher density servers decrease operating costs by more efficiently using existing data center space.
- **Performance:** The Sun Fire V125 offers 1.5x the performance of the V100/V120 and double the memory.
- **Affordability:** The Sun Fire V125 server presents an affordable, feature-rich, fully fledged SPARC/Solaris server from Sun. The Sun Fire V125 server offers tremendous value by integrating high-speed network connections, remote management, serviceability features and a software stack at the same price point as the old Sun Fire V120
- **Familiarity:** The Sun Fire V125 server allows customers to leverage their SPARC/Solaris expertise to administer the server.
- **Availability:** There are few metrics more important than system uptime and the Sun Fire V125 server provides an economical approach to deploying services redundantly. The Sun Fire V125 server's 1 RU size and low cost allow the product to be used as a basis for redundantly deploying services for higher availability when compared to competing alternatives. Built-in dual Gigabit Ethernet ports also provide redundancy.
- **Reliability:** Based on the highly successful Sun Fire V210 the Sun Fire V125 server provides standard Sun reliability that is well established in the Internet market. Solaris technology provides proven reliability, robustness, and binary compatibility. With the Solaris Operating System, Sun delivers a trustworthy, universal platform to meet the needs of today's businesses—from small startups to large Fortune 1000 enterprises.
- **Security:** With the robust Solaris Operating System the Sun Fire V125 server gives customers security and protection which is either lacking, or more expensive to implement, in competitive solutions.
- **Manageability:** Advanced Lights Out Manager (ALOM) is featured on the Sun Fire V125 server.
- **Added Value:** With two integrated Gigabit Ethernet ports and the implementation of SSL daughter card, the Sun Fire V125 server provides added value to customers who would discover that obtaining the same functionality via PCI cards would be far more expensive.

## Features, Functions, and Benefits

Feature	Function	Benefit
<ul style="list-style-type: none"> <li>Entry point fully fledged SPARC/Solaris rackmount server</li> </ul>	<ul style="list-style-type: none"> <li>Affordable SPARC technology</li> </ul>	<ul style="list-style-type: none"> <li>Reduces cost of developing apps &amp; makes provisioning for redundancy cost effective</li> </ul>
<ul style="list-style-type: none"> <li>Integrated Security Protocol Accelerator</li> </ul>	<ul style="list-style-type: none"> <li>Delivers on-board SSL encryption</li> </ul>	<ul style="list-style-type: none"> <li>Provides fast and secure Web transactions without sacrificing CPU cycles and a PCI slot</li> </ul>
<ul style="list-style-type: none"> <li>Comes standard with exceptional hardware and software functionality that the competition charges extra for or does not offer</li> </ul>	<ul style="list-style-type: none"> <li>Solaris OS, Sun Java Enterprise System 2005Q1 software, system management functions, variety of I/O connectivity, SCC</li> </ul>	<ul style="list-style-type: none"> <li>A complete, ready-to-deploy system platform</li> </ul>
<ul style="list-style-type: none"> <li>Industry's only System Configuration Card (SCC) comes standard</li> </ul>	<ul style="list-style-type: none"> <li>Contains the system's host ID,MAC and IP address, which is easily transferrable to a standby system</li> </ul>	<ul style="list-style-type: none"> <li>Increases system availability and serviceability by allowing customers to quickly bring a system up or down</li> </ul>
<ul style="list-style-type: none"> <li>Comes with integrated Advanced Lights Out Management, Sun MC and SNMP support. Plus easy-to-use provisioning and patch management software through Solaris OS</li> </ul>	<ul style="list-style-type: none"> <li>Cradle-to-grave management support</li> </ul>	<ul style="list-style-type: none"> <li>Simplifies system management and reduces costs by providing numerous, standard management features</li> </ul>
<ul style="list-style-type: none"> <li>64-bit architecture</li> </ul>	<ul style="list-style-type: none"> <li>Allows computer to handle 64 bits of data simultaneously (versus 32 bits)</li> </ul>	<ul style="list-style-type: none"> <li>Increased scalability of computer and applications. Ideal for applications that require large files, large numbers of files, or a large number of users.</li> </ul>

Feature	Function	Benefit
<ul style="list-style-type: none"> <li>World-class Services organization</li> </ul>	<ul style="list-style-type: none"> <li>Piece of mind that all service needs will be handled painlessly. “One stop shop.”</li> </ul>	<ul style="list-style-type: none"> <li>Increases return on investment and lowers total cost of ownership.</li> </ul>
<ul style="list-style-type: none"> <li>PCI slot</li> </ul>	<ul style="list-style-type: none"> <li>For external connections to additional storage, , graphics, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Increases flexibility.</li> </ul>
<ul style="list-style-type: none"> <li>Binary and application compatibility through an end-to-end SPARC/Solaris architecture from 1 to 106 processors</li> </ul>	<ul style="list-style-type: none"> <li>Increases operation efficiency while eliminating costs for application porting.</li> </ul>	<ul style="list-style-type: none"> <li>Provides investment protection.</li> </ul>
<ul style="list-style-type: none"> <li>The Sun Fire V125 server leads the industry in terms of memory capacity and number of I/O ports for a compact form factor (1 RU)</li> </ul>	<ul style="list-style-type: none"> <li>Includes 2 built-in 10/100/1000 Base-T Ethernet ports, an Ultra160 LVD SCSI port, two serial ports, two USB ports, and a 10MB/s Ethernet port. Also accommodates an optional Sun Crypto Accelerator 500 card without sacrificing a PCI slot.</li> </ul>	<ul style="list-style-type: none"> <li>Increases return on investment.</li> </ul>
<ul style="list-style-type: none"> <li>Two-accessible, hot-swap disks, easy-to-use System Configuration Card (SCC), reliable Solaris OS, and dual integrated Gigabit Ethernet ports</li> </ul>	<ul style="list-style-type: none"> <li>Various functions but all intended to keep the system up and costs down.</li> </ul>	<ul style="list-style-type: none"> <li>Maximizes uptime for mission-critical environments</li> </ul>
<ul style="list-style-type: none"> <li>J-bus interconnect operating at 2.67 GB/s.</li> </ul>	<ul style="list-style-type: none"> <li>High-bandwidth interconnect ensures scalability with minimal contention and latency between processing and I/O subsystems.</li> </ul>	<ul style="list-style-type: none"> <li>Increases efficiency</li> </ul>
<ul style="list-style-type: none"> <li>Front and back LEDs and physical security features</li> </ul>	<ul style="list-style-type: none"> <li>Lights show server status (power, fault, etc.). Physical security features prevent access to enclosed hardware and apps from unauthorized users.</li> </ul>	<ul style="list-style-type: none"> <li>Increases productivity, availability, and security.</li> </ul>

Feature	Function	Benefit
<ul style="list-style-type: none"> <li>Advanced Lights Out Management (ALOM)</li> </ul>	<ul style="list-style-type: none"> <li>Monitors and reports system and component status, meaning less need for on-site staff.</li> </ul>	<ul style="list-style-type: none"> <li>Increases productivity and availability by allowing remote management via network or serial connections.</li> </ul>
<ul style="list-style-type: none"> <li>Standard with telescopic rail kit, hinged lid and flip down bezel</li> </ul>	<ul style="list-style-type: none"> <li>These features help make servicing systems in a rack easier</li> </ul>	<ul style="list-style-type: none"> <li>Reduce service time</li> </ul>

## Applications

The Sun Fire V125 server is a general-purpose server suitable for the following Tier 1 and Tier 2 applications.

- Web server
- Security
- Application development
- Portal Gateway

## Compatibility

Sun Fire V125 servers have been qualified to be compatible with external storage devices such as Sun StorEdge™ disk arrays listed in the Mass Storage and Media section in this document.

# Enabling Technology

## Technology Overview

The Sun Fire V125 server is the next-generation server low cost SPARC entry server. Design characteristics are focused on a low-entry price point and high performance, serviceability, and reliability. The Sun Fire V125 server is powered by either one UltraSPARC IIIi CPU and can be configured with up to 8 GB of memory to support any application to offer the widest flexibility in service delivery.

The Sun Fire V125 server is targeted at Tier 1 and Tier 2 applications like Web servers, media streaming, caching, security, and application servers. The architecture and design of the server provides an extremely powerful and well-balanced system to eliminate bottlenecks and maintain service availability.

Sun Fire V125 servers have the following system architectural features:

- UltraSPARC IIIi (Jalapeno) processor with integrated 1 MB of on-chip (internal) L2 cache
- Superscalar SPARC V9 processor technology
- J-Bus system databus
- Networking
- Optional Sun Crypto Accelerator 500 card
- ALOM
- Low power consumption

## UltraSPARC IIIi Processor

The UltraSPARC IIIi processor is a highly integrated processor that implements the 64-bit, SPARC V9 architecture and Sun's Visual Instruction Set (VIS). The UltraSPARC IIIi processor contains primary data and instruction caches and a unified L2 cache. It also contains an SDRAM memory controller, a J-Bus controller, and sophisticated power management capabilities.

A high-performance integrated processor, the UltraSPARC IIIi processor is used with a wide range of applications. Its RISC architecture and VIS technology make it ideally suited for compute servers and embedded applications in telecommunications and imaging. Support for VIS is the means to accelerate multimedia, networking encryption, and Java™ processing.

UltraSPARC IIIi CPUs are field replaceable. This allows not only easy servicing but also provides for simple speed upgrades to the server when future, faster CPUs are available.

The memory controller is integrated to each CPU. It is in charge of addressing and retrieving memory data. Memory is divided into "local," which is accessible by the CPU itself, and "foreign," in which data has to be retrieved from the memory controlled by the opposite CPU. There is a minimal overhead when retrieving foreign data transactions because addressing and data transfers are realized in completely separate buses.

The supported memory is DDR-1 SDRAM PC2100 DIMMs, configurable in 4 DIMM slots, and they are divided in two banks of two equal size DIMMS. The available capacity per DIMM will be 512 MB, 1GB and 2GB. Mixing of DIMM sizes is permitted between memory banks,

however, there will be a slight performance impact (due to sub optimal memory interleaving). DIMMs must be installed in pairs and must be of the same size and manufacturer for each bank.

## **System Bus**

The system bus provides high throughput paths clocked at 167 MHz with 2.67GB/sec system throughput when 1 GHz CPUs are installed. The data bus width is 144 bits which includes 128 data bits and 16 ECC bits.

Two ASICs named JIO provide the J-Bus connectivity and PCI buses (two per chip). The higher throughput and the reduced number of chips provide simplicity in design and also reduced cost. The data bus is completely separate from the addressing bus, so no clock cycles are used to transfer data while addressing memory or other devices.

## **Memory**

PC2100 DDR1 memory with ECC clocked at 125MHz.

## **Networking**

With two on-board RJ45 10/100/1000Base-T (Copper) Gigabit Fast Ethernet ports for high throughput.

Also included are one RS-232/423 asynchronous serial port and a 10Base-T Ethernet interface which allows ALOM access for control of the server including power switching and on-board processors access.

For additional storage capabilities, two USB ports are available to attach supported products.

Internally, up to two drives can be installed on the Sun Fire V125 server. For external storage, an Ultra3SCSI LVD connector (160 MB/s) is included. For additional networking connectivity or storage redundancy, one 33/66-MHz/64 bit PCI slot is available.

## **Sun Crypto Accelerator 500 Card**

The optional Sun Crypto Accelerator 500 card, based on the BroadComm BCM 5822 coprocessor, provides encryption protocols such as SSL, RSA, and DES without the need to consume a PCI slot. This gives added flexibility by not having to dedicate CPU cycles to key functionality required by applications deployed in Tier 1 and Tier 2.

For Solaris 10 support Via version 2.0 of the SCA500 then visit the Sun Download Center for a free download at:

<http://www.sun.com/download/products.xml?id=422e7576>

## **ALOM**

Advanced Lights Out Manager provides remote administration via a CLI and a GUI (future support) remote console with interfaces to Ethernet networks or serial ports. Monitoring capabilities provide detailed logs for easy troubleshooting. The power-on/power-off functionality allows for full control of service availability, since the server can be remotely powered on with no physical user intervention—a simple mouse click on the remote management console, and the server is powered on. Granular user access control gives more control over who can access which areas of the server, whether for monitoring or system level shutdown capabilities.

The following table compares key features among LOMLite 2 used on Sun Fire V100/V120, and ALOM on the Sun Fire V125.

<b>Features</b>	<b>LOMLite 2</b>	<b>ALOM</b>
Serial interface	Yes	Yes
Ethernet interface	No	Yes
Host-side interface and admin utility	Yes	Yes
Hardware environmental monitoring and management (fans, power, temperature, PSU, FRU ID, LED, hot-plug)	Yes	Yes
Host control (power, reset, LEDs)	Yes	Yes
Server watchdog (OS monitor and restart)	Yes	Yes
Self watchdog and reset	Yes	Yes
Event logging	Yes	Yes
Logging host console	Yes	Yes
Maximum number of multiple users	4	16
E-mail notification	No	Yes
Out-of-box functionality	Yes	Yes
SCC support	Yes	Yes
Optimized boot time	Yes	Yes
CLI	Yes	Yes
GUI	No	No
Telnet via Ethernet	No	Yes
FRU ID	No	Yes
Non-volatile events	Yes	Yes
Remote SYS log events	No	Yes

# System Architecture

## Overview

Sun Fire V125 servers can be mounted in industry standard 19-in. racks (check compatibility for non Sun racks) and come with standard telescopic rails and cable management arm. The system is 24 inches deep from the rear face of the mounting flanges to the rear of the system. The air flow direction is from front to back and internal fans are included. Access to the System Configuration Card and I/O and power connections are at the rear of the chassis.

# Reliability, Availability, and Serviceability (RAS)

## Reliability

- Solaris Operating System
- UltraSPARC platform
- ECC memory
- Automatic System Reconfiguration (ASR) around failed components such as memory (not CPUs)

## Availability

- The Sun Fire V125 server's low cost and small form factor allow redundant deployment in a compact space to increase overall service availability.
- Maximum availability is provided with features such as Advanced Lights Out Manager (ALOM), Automatic Server Restart (ASR), and hot-swappable disks.
- Customers can have a separate service per server and provide more services within the same small footprint. This eliminates sharing servers and increases availability if the system goes down—only one server would be affected.
- The System Configuration Card (SCC) allows transfer of a system's host ID and configuration to another server while routine maintenance is performed with minimal downtime.
- Built-in **dual** Gigabit Ethernet ports provide redundancy.

## Serviceability

- Toolless access allows for ease of service and maintenance.
- Front-accessible, hot-swappable drives.
- The SCC can be switched easily by pulling out the card and replacing it, without removing the cover and without special tools.
- The ALOM module allows administrators to monitor and manage power status at the sub-board level remotely. With the ASR feature, administrators can configure the Sun Fire V125 server to restart automatically.
- Indicator lights on the front and back of the chassis allow problems to be detected and isolated easily.
- A fault indicator light stays on following a fault even if the system has been powered off.
- Front-panel power switch (behind the flip-down bezel) provides easy access.
- Rackmount slides are included for easy installation and removal of a unit.

# Installation Data

## Sun Fire V125 Server Specifications

### Processor Options

Processor	One 1 GHz UltraSPARC processor(s)
Architecture	64-bit, 4-way Superscalar SPARC V9
Cache	64 KB data, 32 KB instructions and 1 MB integrated L2

Note: no CPU upgrade kits available

### Main Memory

4 DIMM slots, registered DDR-1 SDRAM (PC2100) 128 bit plus ECC databus.
System configurations from 1 GB to 8 GB.

### Standard/Integrated Interfaces

Network	Two 10/100/1000Base-T Ethernet ports
Network management	One 10Base-T Ethernet port
Serial management	One TIA/EIA-232-F (RJ45) Port
Serial	One TIA/EIA-232-F asynchronous (DB9) Port
SCSI	One Ultra160SCSI multimode (SE/LVD)
USB	Two OHCI 1.0-compliant interfaces, supporting dual speeds of 12 and 1.5 Mbits/s each
Expansion bus	One 64-bit 33/66-MHz full-length PCI 2.2 compliant slot. Accepts 3.3V & universal cards.
System Configuration Card and reader (removable)	Front accessible for transfer of system configuration information, including host ID, MAC address and NVRAM
Security	Optional Sun Crypto 500 accelerator card, offering security protocol acceleration via a daughter card

### Keyboard and Mouse Support

320-1273-01	USB Keyboard
370-3632-01	USB Mouse
X3538A	US UNIX/ UNIXUNIV./ EUR.UNIX
X3564A	ITALIAN COUNTRY KIT
X3558A	UK UNIX COUNTRY KIT
X3559A	EUROPEAN UNIX COUNTRY KIT

**Supported PCI Cards**

X4445A	Sun Quad Gigabit Ethernet
X4422A-2	Dual Gigabit Ethernet and Dual SCSI Adapter
X2156A-Z	Serial Asynchronous Interface PCI Bus Adapter 3.0
X1355A-2	HSI/U2.0 4 port
X7296A	Sun (TM) XVR-100 Graphics Accelerator
X4150A-2	GigaSwift Ethernet UTP PCI Adapter (GCS)
X4151A-2	GigaSwift Ethernet UTP PCI Adapter (GFS)
SGXPCI1SCSILM320-Z	Single Ultra320 SCSI Host Adapter - supported for connectivity to the L25/L100 tape devices.
SGXPCI2SCSILM320-Z	Dual Ultra320 SCSI Host Adapter - supported for connectivity to the L25/L100 tape devices.
SG-XPCI2FC-QF2-Z	Sun StorEdge 2GB PCI dual fibre channel network adapter
SG-XPCI1FC-EM2	Emulex 2Gb Single Channel FC HBA
SG-XPCI2FC-EM2	Emulex 2Gb Dual Channel FC HBA
SG-XPCI1FC-EM4-Z	Single port 4Gb FC
SG-XPCI2FC-EM4-Z	Dual port 4Gb FC
SG-XPCI1FC-QF4	QLogic Single port 4Gb FC HBA
SG-XPCI2FC-QF4	QLogic Dual port 4Gb FC HBA
X4455A	10Gb Ethernet HBA

## Mass Storage and Media

Internal disk	Up to two hot-swap Ultra160SCSI 73/146-GB disks. Mixed mirrored disc drives are supported for the V125 using the combinations.
Internal DVD	One Slim-line ATAPI DVD-ROM (optional)
External disk	Sun StorEdge S1 array* Sun StorEdge 3310 SCSI array* Sun StorEdge 3120 SCSI Array* Sun StorEdge 3320 SCSI Array Sun StorEdge 3510 FCAL array Sun StorEdge 3511 FCAL array Sun StorEdge 3520 FCAL array Sun StorEdge 5310 array Sun StorEdge 9990, 9985, 9980, 9970, 9960, and 9910 series Sun StorEdge D240 Media Tray
External tape	Sun StorEdge DAT 72 Tape Sun StorEdge L8 Tape Autoloader ( LT02, LT03 and SDLT 320) Sun StorEdge L25 (Solaris 9 and 10 only, LT02, LT03 ) Sun StorEdge L100 (Solaris 9 and 10 only, LT02, LT03 ) Sun StorEdge L500 Sun StorEdge C2* Sun StorEdge C4* Sun StorEdge SDLT 600

\* Indicates support for direct attachment to server external SCSI port

Switches	Brocade 200E, 3900, 3250, 3850, 4100, 24000, 48000 McData 4300, 4400, 4500, 4700, 6064 Qlogic 5200, 5602 Sun StorEdge 2-Gbit Network FC Switch-8, Switch-16, Switch-64
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## Software

Operating environment	Solaris 8 beginning with HW 2/04 Operating System (mandatory patch 109885-15 required) Solaris 9 beginning with 12/03 Operating System. Solaris 10 Operating System
Languages	C/C++, FORTRAN, Java programming language, all other standard Sun-supported languages
Networking	ONC™, NFS, TCP/IP, SunLink™, OSI, MHS, IPX™/SPX
Management	Sun Management Center, SunVTS™, SRS Ready, SRM, ALOM, SNMPv3 MIB
High availability	Sun™ Cluster 3.x
Sun Java Enterprise System Software	See Software section on page 20 for full list of pre-installed software.

## Power Supplies

One power supply	
Maximum DC output	320 W

## Environment

AC power	90–264 V AC (47–63 Hz)
Operating temperature	5° C to 35° C (41° F to 95° F), 10% to 90% relative humidity, noncondensing, 27° C max wet bulb
Nonoperating temperature	-40° C to 65° C (-40° F to 149° F), up to 93% relative humidity, noncondensing, 38° C max wet bulb
Altitude (operating)	Up to 3000 m, maximum ambient temperature is derated by 2° C per 500 m above 500 m
Altitude (nonoperating)	Up to 12000 m
Acoustic noise	Less than 7.3B sound power in ambient temperature of up to 24C.

## Regulations

Meets or exceeds the following requirements:	
Safety	IEC60950, UL/CSA60950, EN60950.
RFI/EMI	FCC Class A, Part 15 47 CFR, EN55022, CISPR 22
Immunity	EN55024

Certifications Safety EMC	cULus Mark, TUV GS Mark, CE Mark, S-Mark, CCC, GOST CE Mark (93/68/EEC), FCC authorized Class A, ICES, VCCI, BSMI, CTICK, MIC, CCC, GOST.
RoHS	RoHS compliant with lead in solder exemption

## Dimensions and Weight

Chassis Height Width Depth Weight (w/o packaging)	43.2 mm (1.7 in.) 425 mm (16.73 in.) 635 mm (25 in.) 12.3 kg maximum
Enclosure	Fits into a standard 19-inch wide rack. Four post rack kit adjustable between 720 mm and 925 mm. Check compatibility for non Sun racks.

## Shock and Vibration Testing

The shock tests are performed to assure that unit can withstand the relatively infrequent non repetitive shocks or transient vibrations in handling, transportation, and service environment. Shock test are also used to measure an item's fragility, which packing may be designed to protect, if necessary.

The vibration tests determine the resistance of the unit to vibration stresses expected in its shipment and application environments.

### Shock Test

#### a. Standalone Operating Shock

Acceleration/ Duration	Shock spectrum	Duration
5.5G/11ms	Half sine $\pm$ 3%	10 $\pm$ 10% in 6 directions ( $\pm$ X, $\pm$ Y, $\pm$ Z)

#### b. Standalone Non-Operating Shock

Acceleration/ Duration	Shock spectrum	Duration
33 Gs/11ms	Half sine (G level) $\pm$ 3%	3 $\pm$ 10% pluses in 6 directions ( $\pm$ X, $\pm$ Y, $\pm$ Z)

### Vibration Test

#### a. Standalone Operating Vibration

Axes	Acceleration	Wave	Frequency range (Hz)	Duration
X axis	0.25G	Sine Wave	5-500-5	1 octave/minute 10 sweep (5 up, 5 down)
Y axis	0.25G			
Z axis	0.25G			

b. Standalone Non-operating Vibration

Axes	Acceleration	Wave	Frequency range (Hz)	Duration
X axis	1.2G	Sine Wave	5-500-5	1 octave/minute 10 sweep (5 up, 5 down)
Y axis	1.2G			
Z axis	1.2G			

# Requirements and Configuration

## System Requirements

Thermally and electrically 32 Sun Fire V125 server units can fit into a next-generation rack, Sun Fire rack and 12 server units in a StorEdge rack. For more information, go <http://www.sun.com/servers/rack/> or contact an integration manager. Customers can contact their account team or go to <http://www.sun.com/integration> for program information.

The Sun Fire V125 server supports Solaris 8 Operating System beginning with HW 02/04 Solaris 9 Operating System, beginning with 09/04 and Solaris 10.

## System Configuration

The Sun Fire V125 server has the following standard components:

- 1 x 1 GHz UltraSPARC IIIi processor(s)
- 8 GB system main memory (512-MB, 2-GB and 1-GB DDR-1 DIMMS). Mixing of DIMM sizes is permitted between memory banks, however, performance will be impacted slightly (due to sub optimal memory interleaving). DIMMs must be installed in pairs and must be of the same size and manufacturer per bank.
- AC power supply
- 19-inch rackmount kit
- One 66-MHz / 64-bit PCI slot
- Two Disk drive bays
- One UltraSCSI 160 external port; one UltraSCSI 160 internal port
- Solaris 10 Operating System is pre-installed
- Sun Java Enterprise System 2005Q1
- System Configuration Card and reader
- Advanced Lights Out Manager (ALOM)
- Two USB ports
- Two 10/100/1000Base-T Ethernet ports
- One 10Baset-T Ethernet port for ALOM
- Two serial ports (one for ALOM)

## Licensing/Usage

The Sun Fire V125 server comes with a server license for Solaris 8, 9 and 10 for unlimited users.

## **Interconnect**

The Sun Fire V125 server comes standard with two Ethernet 10/100/1000Base-T Ethernet ports without having to use the PCI expansion slot.

# System Management

## System Administration

Refer to <http://docs.sun.com> for information about system administration.

### MTBF

The MTBF for the Sun Fire V125 server varies depending upon configuration. Refer to the Sun internal only site <http://ras4sun.sfbay/> for more information.

## Software

The Sun Fire V125 standard configuration (125-XUZ1C11GHA) comes with Solaris 10 Operating System pre-installed and Sun Java Enterprise System 2005Q1 software with the following applications pre-installed :

### o Network Identity Services

- Sun Java™ System Directory Server 5 2005Q1
- Sun Java™ System Access manager 6 2005Q1
- Sun Java™ System Directory Proxy Server 5 2005Q1

### o Web and Application Services

- Sun Java™ System Application Server Enterprise Edition 8.1 2005Q1
- Sun Java™ System Message Queue 3 2005Q1 Enterprise Edition
- Sun Java™ System Web Server 6.1 Service Pack 4 2005Q1

### o Portal Services

- Sun Java™ System Portal Server 6 2005Q1
- Sun Java™ System Portal Server Mobile Access 6 2005Q1
- Sun Java™ System Portal Server Secure Remote Access 6 2005Q1

### o Communication and Collaboration Services

- Sun Java™ System Messaging Server 6 2005Q1
- Sun Java™ System Calendar Server 6 2005Q1
- Sun Java™ System Instant Messaging 7 2005Q1

### o Availability Services

- Sun™ Cluster 3.1 9/04
- Sun Cluster Agents for Sun(TM) ONE Services (Web, App, Directory, Messaging and Calendar Servers and Message Queue)

### o Security Services

- The Java Enterprise System's Security services span the entire System. Security services provide consistent single sign-on to online resources. They protect content using the latest security standards and resilient authentication and access control options.

## **Operating System**

The Sun Fire V125 server supports Solaris 8 Operating System beginning with HW 2/04, Solaris 9 Operating System beginning with 09/04, and Solaris 10 beginning with 3/05.

# Ordering Information

The following are part numbers and descriptions for each Sun Fire V125 server configuration.

Order Number	Title and Description
125-XUZ1C11GHA	1 x 1GHz, 2 x 512MB, 1 x 73GB, STD

## Options

X-option number	X-options
X7703A-4	2 x 512-MB memory expansion DIMM
X7704A-4	2 x 1-GB memory expansion DIMM
X7711A-4	2 x 2-GB memory expansion DIMM
XRA-SC1CB-73G10K	Internal 73GB 10K Ultra 3 SCSI HDD Drives
X5268A	Internal 146GB 10K Ultra 3 SCSI HDD Drives
X7410A-4	Internal slim DVD-ROM drive
X7405A-4	Sun Crypto Accelerator 500 card
X311L	Localized power cord kit (North America/Asia)
X312L	Localized power cord kit (Continental Europe)
X314L	Localized power cord kit (Switzerland)
X317L	Localized power cord kit (U.K.)
X383L	Localized power cord kit (Denmark)
X384L	Localized power cord kit (Italy)
X386L	Localized power cord kit (Australia)
X320A	Localized power cord kit (Japan)
X340L	Localized power cord kit (North American twist lock)

## Field Replaceable Units

The following field replaceable units (FRUs) are available for Sun Fire V125 servers. Customers can choose to have hot standby servers and use the System Configuration Card feature or replace individual components.

FRU Part Number	Field Replaceable Units (FRUs)
<b>F375-3478-xx</b>	FRU, MOTHERBOARD, 1 x 1 GHz, 0 MB
<b>F540-6776-xx</b>	FRU, DDR1, DIMMX2, 512MB, SPD1.0
<b>F540-6777-xx</b>	FRU, DDR1, DIMMX2, 1GB, SPD1.0
<b>F540-6402-xx</b>	FRU, DDR1, DIMMX2, 2GB, SPD1.0
<b>F300-1847-xx</b>	FRU, ASSY, PSU, 320W, A177
<b>F540-6600-xx</b>	HDD, 73 GB, 1-INCH, 10K, SCSI3, SD/PLT
<b>F540-6602-xx</b>	HDD, 146 GB, 1-INCH, 10K, SCSI3, SD/PLT
<b>F371-1108-xx</b>	FRU, DRV, DVD, SLIMLINE
<b>F371-0838-xx</b>	FRU, ASSY, SCCR, BOARD
<b>F370-5155-xx</b>	SYSTEM, CONFIG, CARD, UNIVERSAL
<b>F371-0802-xx</b>	FRU, ASSY, FAN
<b>F371-0792-xx</b>	FRU, ASSY, 1U, INTERFACE, BOARD
<b>F371-0991-xx</b>	FRU, ASSY, HCM, BOARD
<b>F371-1134-xx</b>	FRU, KIT, CABLE, SET
<b>F370-7668-xx</b>	FRU, RACK SLIDER
<b>F371-1404-xx</b>	FRU, 3v LITHIUM BAT, N31/N32

Note: Due to the frequency that the last 2 digits of the FRU part number can change they are shown as -xx in the table above.

# Service and Support

Sun Services offers a full range of services to assist customers who deploy the Sun Fire™ V125 server. Whether it is architecture services, implementation services, or services to help customers manage the servers once released to production, Sun Services has the right services during every phase of the project’s life cycle.

## SunSpectrum<sup>SM</sup> Support

While the purchase of a new Sun system gives customers the key to leading technology and processing power, services can help optimize performance and availability. SunSpectrum Service Plans help ensure the customers' systems are running smoothly and meet the demands for availability. Through a combination of technical support, hardware service coverage, and Solaris OS updates, SunSpectrum can resolve technical issues quickly and effectively. From mission-critical services to basic self-maintenance support, customers can get the support they need for their unique requirements.

SunSpectrum Service Plans are priced on a per system per year basis. In addition, the newly introduced “Sun System Performance Packs” offer customers a greater ROI value by combining services with servers, storage or software at the point of sale. Sun System Performance Packs enable a superior price than purchasing the individual components separately--in some cases the price for the combination can be less than the server price alone.

SunSpectrum Service Plans				
Features	Platinum Service Plan Mission-critical Systems	Gold Service Plan Business-critical Systems	Silver Service Plan Basic System Support	Bronze Service Plan Self-Maintenance Support
Telephone and Online Technical Support	24/7 Live transfer	24/7 Live transfer	8-8, M-F Live transfer	8-5, M-F 4hr response
One-stop Interoperability Assistance	Yes	Yes	No	No
Hardware Service Coverage	24/7 2hr On-site Service	8-8, M-F 4hr On-site Service	8-5, M-F 4hr On-site Service	Replacement parts 2nd business day
Solaris™ Releases	Yes	Yes	Yes	Yes
On-demand Solaris™ Updates	Yes	Yes	Yes	Yes
Online System Admin Resources	Yes	Yes	Yes	Yes
Support Notification Services	Yes	Yes	Yes	Yes
SunSpectrum™ eLearning Library	Yes	Yes	Yes	Yes
System Health Check Subscription	Yes	No	No	No
Additional Services for Qualifying Sites	Customer sites meeting an annual SunSpectrum contract minimum (approximately \$160,000 USD) can receive additional services including the creation of a personalized support plan, periodic support reviews, patch assessments and educational services. For local qualification criteria, visit <a href="http://sun.com/service/support/localinfo.html">sun.com/service/support/localinfo.html</a>			
<ul style="list-style-type: none"> <li>• Availability of specific features, coverage hours and response times may vary by location or product.</li> <li>• Response times are determined by customer-defined priority. The response times shown are for service requests designated by the customer as "Priority 1."</li> <li>• To receive the best support, Sun recommends that customers install Sun Net Connect software on SPARC®-based systems. This software creates a secure, customer-controlled link to the Sun Solution Center which helps enable expedited Solaris OS troubleshooting, remote diagnostics, and a number of customer-enabled alerting and reporting functions.</li> </ul>				

## Sun Software Support Services

Sun Services is providing unbundled software and hardware support for added flexibility and choice. Support offerings for the Sun Fire V125 server include Sun<sup>SM</sup> Software Support Services for all Sun software.

### Sun Software Standard Support

The Sun Software Standard Support offering provides customers with a comprehensive support plan. Features include:

- Extended local business hours (12 hour) for telephone and online support (5x12)
- Four business hour response on Priority 1 (Urgent) requests
- Two authorized contacts
- Online incident submission and tracking
- Software updates and patches
- Access to online self-solve resources

### Sun Software Premium Support

The Sun Software Premium Support offering is designed for critical environments where high availability is a priority and round-the-clock support is a customer requirement. In addition to all of the features of the Standard support level, this level of service offers:

- 24x7 coverage with live call transfer for Priority 1 (Urgent) requests
- Three authorized contacts per 8-hour shift

### Optional Services

Both the Standard and Premium offerings give customers the option to purchase the following to enhance their service plans:

- Dedicated or Assigned Service Account Manager (SAM)
- Dedicated Technical Support Engineer (TSE)
- Additional authorized contacts
- SunSpectrum program hardware-only support
- Next business day on-site response

Additional support services may be available on a custom quote basis. For more information on Sun Support Services can be found at <http://www.sun.com/service/support>.

### SunSpectrum Hardware-Only Support

For customers who prefer Sun engineers to provide hardware service, the one year limited warranty can be upgraded to SunSpectrum Hardware-Only support which offers a next business day on-site response.

## **The Online Support Center**

The Online Support Center (OSC) provides Web-based solutions anytime, anywhere. Providing high-quality availability services has always been a top priority at Sun. As a pioneer in web-based customer solutions, Sun continues to utilize the power and versatility of the Internet to offer customers a broad variety of online service offerings.

The online answer/transaction process can save customers valuable time by eliminating the time spent waiting on the phone for a customer service representative. The Online Support Center empowers the user by offering anywhere, anytime access to Web-based support, training, and consulting solutions for Sun hardware and software products. The site serves as a portal for proactive service offerings, systems support features, and resource links.

For more information on the above support offerings, please visit:  
<http://www.sun.com/service/support>.

## **Warranty**

Sun Fire V125 server has a one year, second business day on site day warranty.

## **Education and Learning Solutions**

### **Sun Fire V125 Server Maintenance and Troubleshooting (WZI-3715)**

Course format: Web-based training as part of the Web Learning Center. Training is available for Internal training and to Partners (NOTE: This is not a customer course.)

Target Audiences: Sun Support Services and Partners

Content: Installing, configuring, diagnosing, and repairing the Sun Fire V125 server

Internal audiences include:

- OEM FEs and Support Engineers
- FEs
- Partner FEs
- SSEs
- Solution Center TSEs

External audiences might include:

- OEM FEs and Support Engineers
- Customers Support Engineers (Self-maintainers)

After going through the complete training program, learners should be able to:

- Describe the Sun Fire V125 server
- Describe the system architecture
- Locate and describe major system components
- Perform FRU removal and replacement procedures

- Install and configure server-specific packages
- Troubleshoot server-related errors and problems

Prerequisites:

- Experience with maintaining Sun hardware preferred
- OR
- Solaris Essentials for System Maintainers (SM-101)
  - Solaris System Administration II
  - Sparc Desktop System Maintenance (SM-210)

## **Solaris™ Operating System Courseware and Certification**

Sun offers flexible training options for the Solaris Operating System ranging from individual courses to certifications. Sun provides students with the knowledge to successfully install, manage, and troubleshoot the Solaris Operating System.

### **Sun Fire Server Skills Package**

Sun Fire Skills Packages are prepackaged training solutions that contain the recommended courseware to deliver the skills needed to effectively manage and optimize the customer's Sun Fire V125 server in their computing environment. After a skills package order has been received, an education manager contacts the customer to develop a tailored training program. Please contact a local Sun Education representative for details on availability and pricing of these learning solutions.

### **Security Courseware**

To ensure the data stored on a Sun server is implemented and maintained in a secure environment, Sun training helps enterprises understand how to develop and implement solid security strategies to protect their critical data. Sun's security courses listed below teach corporations how to deploy and manage Sun security products for maximum protection of the massive amounts of corporate data which will reside on their Sun server system.

### **Education Consulting Services**

Education Consulting Services allows customers to make the most out of training and provide optimal return on total IT investment by assessing requirements, delivering solutions, and measuring results. And, customers can bridge the gap between training and organizational goals by aligning IT structure, people, and skills with business objectives. Sun's Education Consulting Services help companies change the way learning takes place by creating custom training solutions that allow people to develop the right skills at the right time.

For more information on training and the above courseware, visit:

<http://suned.sun.com>.

## Professional Services

### Architecture Services

Sun's Architecture Services assist customers in identifying new IT solutions from concept, design, and deployment that are built against the customer's long-term technology strategy and architected for sustained business growth.

Architecture Services are comprised of an architecture workshop, assessment, and roadmap services.

- Architecture Workshop emphasizes the importance of building architectures with service-level requirements such as reliability, availability, scalability, and security. It can help customers accomplish their business goals and provide them with a high-level action plan for next steps.
- Architecture Assessment examines the technology stack from data center to applications to determine the architecture's ability to operate against a desired set of service level requirements.
- Architecture Roadmap focuses on identifying, prioritizing, and documenting functional and service level requirements of the customer's architecture.

### SunReady™ Availability Assessment Service (SRAA)

The SunReady Availability Assessment (SRAA) Service assesses the ability of a customer's IT infrastructure and organization to sustain appropriate access, performance, function, and service levels within limits and expectations defined by the customer and their end users. This service can be applied to a specific environment or business application. Sun's service consultants conduct a comprehensive review of the effectiveness of the customer's technical architecture and operational environment in meeting its availability goals for a particular application environment.

The SRAA helps customers determine their IT infrastructure's ability to meet its service level commitments to end users. It also prioritizes the gaps and risks to improve performance. The SRAA process includes the following:

- A gap analysis that details the IT infrastructure's ability to effectively and efficiently deliver the required service levels for the target application environment.
- A scorecard detailing the strengths and areas of risk followed by a recommended action plan. The scorecard is based upon the gap analysis conducted during the review.
- Recommendations and action plan from SRAA to identify and prioritize risk factors, set appropriate service level expectations for the target application environment, and justify future IT investment for the data center.

### Performance and Capacity Planning Services

Sun's highly trained consultants can evaluate customers' server environments and develop a plan to help meet their current and future business needs. With the Sun Performance Analysis and Capacity Planning Services, customers can fully utilize their current assets. By understanding their current system performance and capacity needs, customers can become better informed when making future budgetary decisions related to hardware needs. These services cover server

inventory and configuration, performance assessment, resource consumption and future growth potential, system monitoring, and hardware alternatives to accommodate future needs.

### **Enterprise Security Assessment Service**

The Enterprise Security Assessment Service provides a comprehensive security review and assessment of the customer's current security environment to identify security exposures and risks within their policies, processes, procedures, networks, and systems.

### **Storage Services**

Sun's Storage Services can help customers to quickly determine storage issues that may be impacting their ability to meet Service Level Agreements or other goals. Sun can help customers improve total storage utilization across the enterprise as well as their ability to share data between applications.

### **Migration Services**

Sun's migration services is focused on addressing two of the most critical business issues companies face today:

- Total cost of ownership
- Investment protection

Sun's singular focus on SPARC/Solaris technology from single processor to large-scale data center environments offers customers a unique opportunity to improve the reliability, availability, scalability, and serviceability of their data centers, and avoid the daunting prospect of a future "forklift upgrade."

Sun consultants can evaluate the best option for the customer's business for migrating applications, data or both to a new Sun platform.

Sun recommends that Sun Client Solutions attend SRT classes to better understand how the Sun Fire V125 server fits into current strategy. Professional Services will then work with the product team to determine the need for any Sun Client Solutions offerings and their content. For more information, refer to <http://www.sun.com/service>.

# Glossary

1U	One rack unit as defined by the Electronic Industries Alliances (EIA). A vertical measurement equal to 1.75 inches.
AC	Alternating Current.
ALOM	Advanced Lights Out Manager. A service and availability feature that monitors the system board, fan power and rpm, and temperature via a dedicated ALOM serial port, combined console/ALOM serial port, or alarm software that can be tied into SNMP. The ALOM module also has a remote power on/off and cycle.
ASIC	Application Specific Integrated Circuit. A chip that is custom designed for a specific application rather than a general-purpose chip such as a microprocessor. The use of ASICs improve performance over general-purpose CPUs because ASICs are hardwired to do a specific job and do not incur the overhead of fetching and interpreting stored instructions.
ASR	Automatic Server Restart. A feature of the LOM module that reduces downtime from system lock-up. ASR enables administrators to configure the Sun Fire V125 server to restart automatically in case of a software lock-up.
Density	Number of units in a given amount of space.
DES	Data Encryption Standard. A NIST-standard secret key cryptography method that uses a 56-bit key. DES decryption is very fast and widely used.
Ecache	External cache. Memory cache external to the CPU chip, also referred to as L2 cache.
ECC	Error Correcting Code. A type of memory that corrects errors on the fly.
Ethernet 10/100/1000Base-T	The most widely used LAN access method defined by the IEEE 802.3 standard; uses standard RJ-45 connectors and telephone wire. 100Base-T is also referred to as Fast Ethernet. And 1000Base-T is also referred to as Gigabit Ethernet.
FRU	Field Replaceable Unit.
General-purpose server	A server designed to perform any type(s) of function(s). General-purpose servers typically require skilled IT professionals and system administrators to maintain them.
Host ID	The unique identifier assigned to the host computer.
Hot-pluggable	A feature that allows an administrator to remove a drive without affecting hardware system integrity.
Hot-swappable	A feature that allows an administrator to remove and/or replace a device without affecting software integrity. This means that, while the system does not need to be rebooted, the new component is not automatically recognized by the system.

I/O	Input/output. Transferring data between the CPU and any peripherals.
L2 cache	See Ecache.
MTBF	Mean Time Between Failures. The average time a component works without failure.
MTTR	Mean Time To Repair. The average time it takes to repair a component.
RAM	Random Access Memory.
RISC	Reduced Instruction Set Computer. A computer architecture that reduces chip complexity by using simpler instructions.
RSA	Rivest-Shamir-Adleman. A highly secure cryptography method developed by RSA Data Security, Inc. It uses a two-part key in which the private key is kept by the owner and the public key is published. RSA is very computation-intensive.
SCSI	Small Computer Systems Interface. Pronounced “scuzzy.” A hardware interface that allows the connection of up to 15 peripheral devices to a single bus.
SP	Service Provider.
SSL	Secure Sockets Layer. The leading security protocol on the Internet. When an SSL session is started, the server sends its public key to the browser, which the browser uses to send a randomly generated secret key back to the server in order to have a secret key exchange for that session.
VIS	Visual Instruction Set. VIS is a set of RISC instructions which are extensions to the SPARC V9 open processor architecture and are designed to accelerate applications where multiple data entries require the same instruction, such as multimedia, image processing, and networking applications.

## Materials Abstract

All materials will be available on SunWIN except where noted otherwise.

<b>Collateral</b>	<b>Description</b>	<b>Purpose</b>	<b>Distribution</b>	<b>Token # or COMAC Order #</b>
<i>Sun Fire V125 Server Just the Facts</i>	Reference Guide for the Sun Fire V125 Server (this document)	Training, Sales Tool	SunWIN, Reseller Web	481005
<b>Product Literature</b>				
<i>Sun Fire V125 Datasheet</i>	Datasheet	Sales Tool, Training	SunWIN, COMAC	481006
<i>Sun Fire V125/V215/V245 NDA Customer Presentation</i>	Customer Presentation	Sales Tool, Training	SunWIN, COMAC	475673
<i>Architecture White Paper</i>	White Paper	Sales Tool, Training	SunWIN, COMAC	481065
<i>Sun Fire V125 Sales Guide</i>	One Pager	Sales Tool, Training	SunWIN, COMAC	481007
<b>External Web Site</b>	<a href="http://www.sun.com/servers/entry/v125">http://www.sun.com/servers/entry/v125</a>			
<i>Sun Fire V125 Server Web Site</i>				
<b>Internal Web Site</b>	<a href="http://onestop.central.sun.com/hw/sfv125.shtml">http://onestop.central.sun.com/hw/sfv125.shtml</a>			
<i>Sun Fire V125 Server Internal Web Site</i>				
<b>Reseller Web Site</b>	<a href="http://reseller.sun.com">http://reseller.sun.com</a>			
<i>Sun Reseller General Information</i>				

# Competitive Information

Refer to the Sun internal only site <http://competitive.central> or <http://partner.sun.com/competition> for the competitive information.

# Future/Roadmap

Refer to the Sun internal only site <http://systems.sfbay> for information about future enhancements.