

Sun Fire X4800 Server Frequently Asked Questions

Overview

The Sun Fire X4800 server revolutionizes the x86 market with leading performance, outstanding scalability, and unmatched RAS capabilities. This innovative server is the industry's leading 8-socket enterprise class x86 server based on Intel Xeon Processor 7500 Series.

Breakthrough Advancements in the x86 Enterprise Market

As the first and only rackmount server to leverage hot swappable I/O, the Sun Fire X4800 server surpasses expectations for x86 systems in terms of scalability, reliability, and expandability. With its leading performance, the Sun Fire X4800 server continues Oracle's tradition as the frontrunner of the x86 enterprise market¹.

The Sun Fire X4800 server's modular design saves customers time and money. This highly scalable system provides flexibility for datacenter growth while minimizing the costs associated with datacenter refresh. The easily accessible disk drives, I/O expansion slots, and CPU Modules (CMODs) make servicing and upgrading quick and simple.

Ideal Platform for Memory Intensive Applications

With its 1TB memory capacity, leading processing power, and unmatched I/O expandability, the Sun Fire X4800 server is ideal for memory intensive applications, such as: in-memory databases, data warehousing, and enterprise High Performance Computing (HPC) applications. This server excels in data warehousing applications, including real time financial data reporting. Combined with Oracle Times Ten, the Sun Fire X4800 server gives customers a superior in-memory database solution.

Most Reliable x86 Server for Mission Critical Applications

For the first time in the x86 rackmount market, the Sun Fire X4800 server supports up to eight hot swappable PCIe

¹ Outperforms the Sun Fire X4640 and HP DL785 G6 by 80%

ExpressModules, in addition to standard RAS capabilities. The innovative design virtually eliminates down time for I/O upgrades.

The Sun Fire X4800 server features two Network Express Modules (NEMs), providing customers with a maximum of eight GbE ports. The combination of hot swappable PCIe ExpressModules, NEMs, and Oracle Solaris allows the Sun Fire X4800 Server to support highly available dual pathing of I/O links. Using Solaris IPMP and MPxIO features, failures of components, cables, and subsystems can be detected and mitigated autonomously, sustaining mission critical applications with minimal interruption.

The unmatched reliability capabilities make the Sun Fire X4800 server the perfect system for mission critical, compute and memory intensive applications.

Platform of Choice to Replace HP Itanium and IBM Power

The Sun Fire X4800 server is the smart choice for customers looking to refresh inefficient legacy HP Itanium and IBM Power systems. With support of the fastest eight-core Intel Xeon Processor 7500 Series, the Sun Fire X4800 server provides exceptional performance at a fraction of the price of HP Itanium and IBM Power systems. The large memory footprint and compute power is packed into a space efficient 5 rack unit (RU) chassis, allowing HP Itanium customers to save over 70% on expensive datacenter real estate². The Sun Fire X4800 server is designed with high availability features, such as hot swappable I/O, unseen on the aging HP Itanium and IBM Power servers.³ These enhancements shorten time-to-revenue and reduce downtime for upgrades and repairs. With the support of virtually all operating systems, the Sun Fire X4800 server is the ideal refresh platform in terms of performance, price, and serviceability.

² HP Itanium rx8640 is 17RU while Sun fire X4800 server is 5RU

³ HP Itanium and IBM Power do not have hot swappable I/Os.

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Customer Benefits

With the modular design and breakthrough high availability features of the Sun Fire X4800 server, customers are able to easily deploy and maintain their datacenters while saving on costs and maximizing uptime.

Quick to Deploy, Quick to Upgrade

- The unique, hot swappable I/O design simplifies initial deployments and gives customers a new level of reliability. This differentiates the Sun Fire X4800 server from competing solutions,⁴ allowing customers to have non-disruptive I/O upgrades and repairs.

Save Time, Save Money

- Upgrading the Sun Fire X4800 server can be done quickly and easily. Processors and memory are added via the front accessible CPU Modules. Hot swappable disk drives can be installed without downtime. These simple upgrades reduce maintenance costs and can be performed by less technical staff.
- Network Express Modules (NEMs) provide a maximum of eight GbE ports per Sun Fire X4800 server, doubling the connectivity of current 8-socket systems.⁵ This reduces the need for external switches, minimizing initial expenses and operational costs.

⁴ HP Itanium and IBM Power only have hot pluggable I/Os.

⁵ Compared to Sun Fire X4640 and HP DL785

Frequently Asked Questions

What is the Sun Fire X4800 server?

The Sun Fire X4800 server redefines the x86 server space with leading performance, outstanding scalability, and unmatched RAS capabilities. This innovative server is the industry's leading enterprise class 8-socket x86 server based on Intel Xeon Processor 7500 Series.

How does the Sun Fire X4800 server compare to the Sun Fire X4640?

Compared to the previous generation 8-socket server, the Sun Fire X4800 server has up to 33% more processor cores, twice the memory capacity, and double the internal storage capacity.

What kind of applications and workloads are the Sun Fire X4800 server best suited to run?

With its 1TB memory capacity, leading processing power, and unmatched I/O expandability, the Sun Fire X4800 server is ideal for memory intensive applications, such as: in-memory databases, data warehousing, and enterprise High Performance Computing (HPC) applications. These benefits make it the ideal refresh platform for HP Itanium and IBM Power servers that are inefficient to operate. The Sun Fire X4800 server significantly outperforms these aging systems.

What are the memory, storage, and expansion options supported on the Sun Fire X4800 Server?

The Sun Fire X4800 server supports up to 128 DDR3 memory DIMMs, 8 hard disk drives, and 8 PCIe ExpressModules.

More information can be found at:
<http://wikis.sun.com/x/ywv5Cw>

How many memory DIMMs are required per processor?

The Sun Fire X4800 server requires either 16 or 32 memory DIMMs per processor. All processors in a single system must have the same amount and same type of memory DIMMs. Memory options include 2GB, 4GB, and 8GB DDR3 DIMMs.

What SAS-2 options are supported on the Sun Fire X4800 server?

The Sun Fire X4800 server supports up to eight 300GB 2.5" SAS-2 hard disk drives in a single system.

What are the operating systems that have been certified to run on the Sun Fire X4800 server?

The Sun Fire X4800 server is certified to run Oracle Solaris, Oracle Enterprise Linux, Oracle VM, Red Hat Linux, SuSE Linux Enterprise Server, and Windows.

The list of supported Operating Systems can be found at:
<http://wikis.sun.com/x/ywv5Cw>

What software is pre-installed on the Sun Fire X4800 server?

The customer has the option to request Oracle Solaris operating system be pre-installed on the server in the factory.

What are the system management options available for the Sun Fire X4800 server?

The Sun Fire X4800 server comes standard with the Oracle Integrated Lights Out Manager (ILOM) which provides a consistent management interface across Oracle's entire x86 product line. ILOM helps to simplify data center management, system configuration and life cycle management as well as software provisioning and updates done locally or remotely. This is a powerful and fully featured Service Processor that also has power management and power capping capability to help reduce energy cost. Its extensive manageability and monitoring capabilities can be found here:
<http://wikis.sun.com/x/ywv5Cw>

The Oracle Enterprise Manager Ops Center is the newest addition to the Oracle Enterprise Manager product family. More information can be found at:
<http://www.oracle.com/us/products/enterprise-manager/opscenter/index.html>

Is there a choice in system configurations?

Yes, the Sun Fire X4800 server can be fully customized to the configuration specified by the customer through our factory's ATO (Assemble to Order) process.

What high availability features are available in the Sun Fire X4800 server?

The Sun Fire X4800 server offers new RAS capabilities not found in traditional x86 systems. It offers hot swappable and redundant RAID-enabled disks, cooling fans and power supply

units, as well as hot swappable I/O. This makes Sun Fire X4800 tserver he most reliable server in the x86 market.

Where can I find more information about the Sun Fire X4800 server?

You can contact your Oracle sales representative directly or call 1-800-Oracle1. For more information about the Sun Fire X4800 server on the web, go to:

<http://www.oracle.com/goto/x4800>

The data sheet for the Sun Fire X4800 server can be found at:

<http://www.oracle.com/us/products/servers-storage/servers/x86/sun-fire-x4800-ds-079895.pdf>

Pricing for the Sun Fire X4800 server can be found at:

<http://www.oracle.com/goto/x4800>

Can I add blades into the Sun Fire X4800 chassis?

No, the Sun Fire X4800 chassis does not support any blade modules.

What are the power and cooling requirements for the Sun Fire X4800 Server?

The Sun Fire X4800 server's online power calculator provides an estimate on the idle and operating power level of the server.

The power calculator can be found at:

<http://www.oracle.com/goto/x4800>



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