

# Sun Fire X4800 M2 Server

## Frequently Asked Questions

July 12, 2011

### Overview

The Sun Fire X4800 M2 server revolutionized the x86 market with leading performance, outstanding scalability, and unmatched RAS capabilities. This innovative server is the industry's leading eight-socket enterprise class x86 server based on the new Intel® Xeon® E7-8800 product family processors.

#### Breakthrough Advancements in the x86 Enterprise Market

As the first and only rackmount server to leverage hot swappable I/O, the Sun Fire X4800 M2 server surpasses expectations for x86 systems in terms of scalability, reliability, and expandability. With its leading performance, the Sun Fire X4800 M2 server continues Oracle's tradition as the front runner of the x86 enterprise market.

The Sun Fire X4800 M2 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. Easily accessible disk drives, I/O expansion slots, and CPU Modules make servicing and upgrading quick and simple.

#### Ideal Platform for Memory Intensive Applications

With its 2 TB memory capacity, leading processing power, and unmatched I/O expandability, the Sun Fire X4800 M2 server is ideal for memory intensive applications, such as in-memory databases, data warehousing, and enterprise technical computing applications. This server excels in data warehousing applications, including real time financial data reporting.

#### Most Reliable x86 Server for Mission Critical Applications

For the first time in the x86 rackmount market, the Sun Fire X4800 M2 server supports up to eight hot swappable PCIe ExpressModules, in addition to standard RAS capabilities. The innovative design virtually eliminates downtime for I/O upgrades.

The Sun Fire X4800 M2 server features two Network Express Modules (NEMs), providing customers with eight GbE and eight 10 GbE ports. This combination of hot swappable PCIe ExpressModules, NEMs, and Oracle Solaris allows the Sun Fire X4800 M2 server to support highly available dual pathing of I/O links. Using Oracle Solaris IPMP and MPxIO features, failures of components, cables, and subsystems can be detected and mitigated autonomously, sustaining mission critical applications with minimal interruption.

Unmatched reliability makes the Sun Fire X4800 M2 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 M2 server is the smart choice for customers looking to refresh inefficient legacy HP Itanium and IBM Power systems. With support for the fastest ten-core Intel® Xeon® processor E7-8800 product family CPUs, the Sun Fire X4800 M2 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 estate<sup>1</sup>. The Sun Fire X4800 M2 server is designed with high availability features, such as hot swappable I/O, unseen on the aging HP Itanium and IBM Power Systems servers.<sup>2</sup> 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 M2 server is the ideal refresh platform in terms of performance, price, and serviceability.

### Customer Benefits

<sup>1</sup> HP Itanium rx8640 is 7RU while Sun Fire X4800 server is 5RU

<sup>2</sup> HP Itanium and IBM Power Systems do not have hot swappable I/O.

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With the modular design and breakthrough high availability features of the Sun Fire X4800 M2 server, customers are able to easily deploy and maintain their datacenters while saving on costs and maximizing uptime.

#### **Quick to Deploy, Quick to Upgrade**

This unique, hot swappable I/O design simplifies initial deployments and gives customers a new level of reliability. This differentiates the Sun Fire X4800 M2 server from competing solutions, allowing customers to have non-disruptive I/O upgrades and repairs.

#### **Save Time, Save Money**

Upgrading the Sun Fire X4800 M2 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.

Two Network Express Modules (NEMs) provide a maximum of eight GbE and eight 10 GbE ports per Sun Fire X4800 M2 server, reducing the need for external switches, and minimizing initial expenses and operational costs.

## Frequently Asked Questions

### What is the Sun Fire X4800 M2 server?

The Sun Fire X4800 M2 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 the new Intel Xeon processor E7-8800 product family CPUs.

### How does the Sun Fire X4800 M2 server compare to the Sun Fire X4800?

Compared to the previous generation the Sun Fire X4800 M2 server has 16 more processing cores for a total of 80, it doubles the memory capacity with 2 TB of low voltage memory, and it doubles the internal storage capacity for a total of 4.8 TB.

### What kind of applications and workloads is the Sun Fire X4800 M2 server best suited to run?

With its 2 TB memory capacity, leading processing power, and unmatched I/O expandability, the Sun Fire X4800 M2 server is ideal for memory intensive applications, such as in-memory databases, data warehousing, and enterprise technical computing applications. These benefits make it an ideal refresh platform for HP Itanium and IBM Power Systems servers that are inefficient to operate. The Sun Fire X4800 M2 server significantly outperforms these aging systems.

### What are the memory, storage, and expansion options supported on the Sun Fire X4800 M2 Server?

The Sun Fire X4800 M2 server supports up to 128 low voltage DDR3 memory DIMMs, eight internal drives, and eight PCIe ExpressModules.

More information can be found at:

<http://wikis.sun.com/display/SystemsComm/Sun+Fire+X4800+M2+Server>

### How many memory DIMMs are required per processor?

The Sun Fire X4800 M2 server requires either 16 or 32 memory DIMMs per processor. All processors in a single system must co-exist with the same quantity and same type of memory DIMMs. Memory options include 4 GB, 8 GB, and 16 GB DDR3 low voltage DIMMs.

### What SAS-2 options are supported on the Sun Fire X4800 M2 server?

The Sun Fire X4800 M2 server supports up to eight 300 GB or 600 GB 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 M2 server?

The Sun Fire X4800 M2 server is certified to run Oracle Solaris, Oracle 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/display/SystemsComm/Sun+Fire+X4800+M2+Server>

### What software is pre-installed on the Sun Fire X4800 M2 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 M2 server?

The Sun Fire X4800 M2 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.

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 M2 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 included in the Sun Fire X4800 M2 server?

The Sun Fire X4800 M2 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 the Sun Fire X4800 M2 server the most reliable server in the x86 market.

#### **Where can I find more information about the Sun Fire X4800 M2 server?**

You can contact your Oracle sales representative directly or call 1-800-Oracle1. For more information about the Sun Fire X4800 M2 server on the web, go to the product page which features a link to the pricing page at <http://www.oracle.com/goto/x4800M2>

Also on the product page you can find the Sun Fire x4800 M2 datasheet, the technical architecture whitepaper, a link to the Power Calculator and a link to the 3D Virtual Product Demo.

#### **Can I add blades into the Sun Fire X4800 M2 chassis?**

No, the Sun Fire X4800 M2 chassis does not support any blade modules.

#### **What are the power and cooling requirements for the Sun Fire X4800 M2 Server?**

The Sun Fire X4800 M2 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/us/products/servers-storage/sun-power-calculators/calc/x4800-m2-power-calculator-405670.html>

#### **What features in Oracle Solaris add value to Oracle's Sun Fire server products?**

While the majority of features in Oracle Solaris are common across both x86 and SPARC platforms, please visit the following URL for details of how the OS is optimized for x86: <http://www.oracle.com/technetwork/server-storage/solaris11/overview/x86-optimization-392740.html>

#### **Where can I find more information about the warranty and support for this system?**

The Sun Fire X4800 M2 server comes with a one-year warranty. For more information, visit <http://www.oracle.com/goto/sun/warranty>. With Oracle

Premier Support, our customers get complete, integrated support to maximize the return on their Oracle investment—from software updates and operational best practices to proactive support tools and rapid problem resolution. For more information visit <http://www.oracle.com/support>.

#### **When will this system be available to order and ship?**

The Sun Fire X4800 M2 is available to order and ship as of July 12, 2011.



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