

Sun Blade X6270 M2 server module

Frequently Asked Questions

Overview

Oracle's Sun Blade X6270 M2 server module is a 2 socket x86 blade server based on industry standard Intel Xeon Processor 5600 Series CPUs. The Sun Blade X6270 M2 server module leverages the highly available power, cooling and I/O infrastructure provided by the Sun Blade 6000 chassis.

Best Blade for Business Applications Virtualization

The Sun Blade X6270 M2 server module, with its large memory footprint (18 DIMMs) and industry leading I/O bandwidth (282Gb/s) is uniquely balanced to support more virtual machines than competing 2 socket blade servers. Combining the X6270 M2 server module with the high-performance, low latency Sun Blade 6000 Ethernet Switched Network Express Module 24p 10GbE provides customers with the bandwidth that's required to eliminate potential network bottlenecks that can occur when a large number of virtual machines are deployed. This switched Network Express Module greatly reduces operational expenses by simplifying the IT infrastructure, reducing cables by as much as 4:1 and also helps reduce network acquisition costs by eliminating an entire tier of datacenter switching.

World's easiest blade system to deploy or upgrade

Unique to the blade server market, all Sun Blade Modular Systems leverage industry standard PCIe ExpressModules to allow each individual server module to have its own unique "I/O personality." The ExpressModules are inserted in the rear of the Sun Blade 6000 chassis, are externally accessible and require no add-on mezzanine or daughter cards on the server modules. This "off-blade" hot swappable¹ I/O module design simplifies initial deployments, thereby reducing time-to-revenue and virtually eliminates downtime for I/O upgrades. ExpressModule upgrades can be performed up to thirteen

¹ Component level hot swap functionality assumes Operating System level support for this function.

times faster than competing solutions² (and with no downtime). Higher uptime percentages translate to consistently met SLAs and reduced OpEx costs. Another benefit of this "out of the box" I/O design is that customers can tailor each individual server module's I/O to satisfy the specific workload characteristics of the application(s) it is running. In addition, the Sun Blade X6270 M2 server module can leverage "chassis-wide" Network Express Modules which provide common I/O to every installed server module should they all require the same standard I/O technology (such as GbE, 10GbE etc.). When it comes to I/O and Oracle's modular blade servers, unlike the competition ... each server module has a choice!

Industry Leading Performance

In addition to its flexible I/O design, the Sun Blade X6270 M2 server module was built from the ground up with performance in mind. With support for the latest in SAS-2 technology, storage I/O bandwidth is doubled over previous generation products. Additionally, this server module runs the highest performing six-core Intel Xeon Processor 5600 Series. These new enhancements enable this server module to support an amazing amount of I/O bandwidth and compute power (12 cores). When combined with its large memory capacity (18 DIMM sockets) it is easy to see why the Sun Blade X6270 M2 server module obtained record setting SPECjbb2005 benchmark results.

The Sun Blade X6270 M2 server module is a perfectly balanced modular blade server that has all of the requirements that are needed for running virtualized business applications and enterprise collaboration workloads.

² Based on internal lab results: Sun Blade X6270 server module ExpressModule hot swap upgrade from 4Gb/s FC to 8Gb/s FC required 30 seconds with no downtime. HP c7000 comparison required 6 minutes and 30 seconds downtime for similar I/O upgrade.

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Customer Benefits

With the flexible design of the Sun Blade X6270 M2 server module, customers are able to greatly reduce their time-to-revenue and virtually eliminate downtime for I/O upgrades.

- 13x faster deployments enable rapid revenue generation for IT organizations. With the X6270 M2 you're up and running while the others are still installing
- Simple, hot swappable I/O design enables less technical staff to perform upgrades. Upgrades become non-disruptive and business-as-usual. Skilled IT staff members can focus on critical business needs.

What is the Sun Blade X6270 M2 server module?

The Sun Blade X6270 M2 server module is the “next generation” offering in the 2 socket Sun Blade X6270 server module product family. The M2 model introduces support for Intel Xeon 5600 Series processors and SAS-2 storage.

How many processors are supported in the Sun Blade X6270 M2 server module?

The Sun Blade X6270 M2 server module is supported with either one or two (max) processor sockets populated.

How many memory DIMMs are required?

Depending on the number of processors installed, the Sun Blade X6270 M2 server module can support as few as one DIMM (in a single processor configuration) or two DIMMs (in a two processor configuration). The maximum number of DIMMs supported is eighteen (nine per installed processor). 4GB and 8GB DIMMs are currently supported at this time.

What is the total aggregated system I/O bandwidth?

The Sun Blade X6270 M2 server module leverages multiple PCIe links for an unmatched total I/O bandwidth of 282Gb/s.

How many Sun Blade X6270 M2 server modules are supported in the Sun Blade 6000 chassis?

The Sun Blade 6000 chassis can support ten Sun Blade X6270 M2 server modules. The chassis provides ten slots that can be populated with various combinations of x86 server modules, SPARC server modules or storage modules.

What are the operating systems that have been certified to run on the Sun Blade X6270 M2 server module?

The Sun Blade X6270 M2 is certified to run Oracle Linux, Oracle VM, Oracle Solaris, Red Hat Enterprise Linux, SuSE Linux Enterprise Server, VMware and Windows.

What are power, cooling and RAS benefits of Sun Blade Modular Systems?

The Sun Blade server modules contain no power supplies or cooling fans. The server modules rely on the Sun Blade 6000 chassis (in which they reside) for power and cooling support. This greatly reduces the number of “moving parts” located in the server module. This reduction in moving parts leads to higher reliability and better power & cooling efficiency. The power supply and cooling fan modules in the chassis are larger and more efficient than those typically found in rack-mount or standalone servers. Since the power supplies and fans are larger and more efficient there can be a significantly fewer qty of each.

How do I manage the Sun Blade X6270 M2 server module? Are there any additional costs?

The Sun Blade X6270 M2 comes standard with the Oracle Integrated Lights Out Manager (ILOM) Service Processor to ease system management. The Integrated Lights Out Manager (ILOM) helps enable centralized system, storage and networking management and can be performed locally or remotely. ILOM helps to simplify datacenter management, system configuration and life cycle management as well as software provisioning and updates. Server modules can be managed individually just as if they were rack-mount servers or they can be managed from the blade chassis perspective.

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The Oracle Enterprise Manager Ops Center is a member of the Oracle Enterprise Manager product family. More information can be found at:

<http://www.oracle.com/us/products/enterprise-manager/opscenter/index.html>

What high availability features are available in the Sun Blade X6270 M2 server module?

This enterprise-class blade server is designed to leverage all of the Reliability, Availability and Serviceability features afforded it by the Sun Blade 6000 chassis where it resides. All of the I/O modules are externally accessible and support redundant configurations. In addition to the chassis components the X6270 M2 server module supports hot swappable and redundant RAID enabled disks. Combining the chassis based RAS features with ILOM, the Sun Blade X6270 M2 server module is designed to maximize uptime, simplify system management and reduce administration costs.

What software can be pre-installed on the Sun Blade X6270 M2 server module?

Currently, the Oracle Solaris operating system and Oracle VM can be pre-installed on the server in the factory.

Is there a choice in system configurations?

Yes, the Sun Blade X6270 M2 server module can be fully customized to the configuration specified by the customer through our factory's ATO (Assemble to Order) process.

Where can I find more information about the Sun Blade X6270 M2 server module and other Sun Blade Modular System offerings?

You can contact your Oracle sales representative directly or call 1-800-Oracle1 or contact your Oracle authorized reseller. In addition, more information (datasheets, whitepapers etc.) about the Sun Blade X6270 M2 and Sun Blade 6000 Modular Systems can be found on the web at:

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

Where can I find more Sun Blade 6000 product information, including the Option Cards, Downloads and Firmware, OS's and External Storage Options?

You will find this information on the external wiki <http://wikis.sun.com/x/ywv5Cw>

Can I order the Sun Blade X6270 M2 server module today?

Yes, we are taking orders for this product



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