Frequently Asked Questions Oracle Server X7-8 Dual Four-Socket Configuration

Overview

With the highest reliability, availability, and serviceability (RAS) features, Oracle Server X7-8 in a dual four-socket configuration is the ideal x86 platform for consolidating enterprise applications and running in-memory databases. Oracle has upgraded the 5U server chassis to enable both four-socket and eight-socket configurations, resulting in an increase in compute density while increasing RAS.

Frequently Asked Questions

Q: Where can I find the data sheet for the Oracle Server X7-8 dual four-socket configuration?

A: .Oracle Server X7-8 Dual Four-Socket Configuration Data Sheet

Q: How does the Oracle Server X7-8 dual four-socket configuration compare with Oracle Server X5-4?

A: Oracle Server X7-8 is based on the Platinum or Gold Intel® Xeon® Processor Scalable Family processors, while Oracle Server X5-4 is based on Intel® Xeon® processor E7-8895 v3 processor. The memory subsystem of Oracle Server X7-8 is organized into six DDR4 channels, each operating at 2,666 megatransfers per second (MT/sec), and it can be populated with up to two dual inline memory modules (DIMMs) per channel. The memory subsystem on Oracle Server X5-4 is an eight-DDR3 channel design operating at up to 1,600 MT/sec with one and two DIMMs per channel. Oracle Server X7-8 dual four-socket configuration supports eight hot-swappable PCIe slots per four-socket server. The total NVMe flash capacity of Oracle Server X7-8 doubles to 25.6 TB per four-socket server. Oracle Server X5-4 is a 3U system while the Oracle Server X7-8 dual four-socket configuration houses two four-socket servers in a 5U chassis, increasing core density by 60 percent.

Q: What kind of applications and workloads is the Oracle Server X7-8 dual four-socket configuration best suited to run?

A: Oracle Server X7-8 in a dual four-socket configuration is the ideal x86 virtualization platform for enterprise applications and in-memory databases that require large amounts of memory and I/O. This server also forms an ideal upgrade path for two-socket applications that have outgrown the capabilities of their current infrastructure and could benefit from additional cores and memory capacity.

Q: What is included in the Oracle Server X7-8 dual four-socket configuration base chassis?

A: The chassis includes two system modules (SMODs), each consisting of one HBA, four 2.5-inch SAS3 drive bays, four 10GBase-T ports, an embedded Oracle Integrated Lights Out Manager (Oracle ILOM) service processor, one management Ethernet and one management serial port, Trusted Platform Module (TPM) version 1.2, and two USB 3.0 ports (one rear, one internal). In addition, this chassis includes 16 low-profile PCIe 3.0 slots (eight with 16 lanes and eight with 8 lanes), four 3,000 watt platinum-plus rated power supplies with up to 91 percent efficiency, and eight fans. Each Oracle Server X7-8 ships with one tool-less static rack mounting rail kit.

Q: What flash storage options are available on Oracle Server X7-8?

A: Oracle Server X7-8 supports two flash storage options: up to four Oracle Flash Accelerator F640 NVMe PCIe cards and up to four 800 GB 2.5-inch SAS solid-state drives (SSDs) per four-socket server.

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Q: What memory, internal storage, and expansion options are supported on Oracle Server X7-8?

A: Each individual four-socket server in Oracle Server X7-8 supports up to 48 DDR4 DIMMs (16 GB, 32 GB, or 64 GB), four hard disk drives (HDDs) or SSDs, four Oracle Flash Accelerator F640 NVMe PCIe cards, and eight low-profile PCI-e slots. This results in up to 3 TB of memory, up to 4.8 TB of HDD storage, and up to 25.6 TB of NVMe flash capacity.

Q: Can I mix and match HDDs and SSDs in the same server?

A: Yes. Oracle Server X7-8 does not support NVMe flash in SSD form factor.

Q: What operating systems and virtualization software are certified to run on Oracle Server X7-8?

A: Oracle Server X7-8 is certified to run Oracle Linux, Oracle Solaris, and Oracle VM.

For a complete list, go to Oracle Server X7-8 OS Support.

Q: What system management options are available for Oracle Server X7-8?

A: Oracle Server X7-8 includes an embedded service processor, known as Oracle ILOM. Oracle ILOM helps to simplify data center management, system configuration, and lifecycle management by providing a rich set of management interfaces for monitoring the health of the server and for remote management.

Oracle Hardware Management Pack is a set of command-line tools and agents that assist with automating server configuration through the host operating system. These tools provide a means for scripting RAID, BIOS, and Oracle ILOM configuration as well as updating all embedded firmware. In addition, Oracle Hardware Management Pack provides agents that monitor the health of the storage subsystem and provide remote SNMP monitoring.

Q: Can the server configuration options be customized?

A: Through the Oracle factory's assemble-to-order (ATO) process, Oracle Server X7-8 can be customized to the configuration you specify.

Q: Does having two four-socket servers in one chassis impact reliability?

A: To ensure that a catastrophic failure in one server does not impact the functioning of the other server, these servers are designed to be electrically isolated. A pair of power supplies is dedicated to each server to deliver power in a 1+1 redundant configuration. All PCIe slots, HBAs, and service processors, along with the BIOS and OS, are independent and unique to each server.

Q: What high-availability features are available in Oracle Server X7-8?

A: This enterprise-class x86 server is designed with reliability, availability, and serviceability (RAS) in mind. All PCIe slots are hot-pluggable by way of eight dual PCIe card carriers (DPCCs). In addition, this system features RAID-enabled disks, cooling fans, and power supply units that are hot-swappable and redundant. Combining these RAS capabilities with Oracle ILOM, Oracle Server X7-8 is designed to maximize uptime, simplify system management, and reduce administration costs.

Q: What are the power requirements for Oracle Server X7-8?

A: The online power calculator provides an estimate of the idle and operating power level of the server: Oracle Server X7-8 Power Calculator.

Q: What automated service request support is provided for Oracle Premier Support customers?

A: Oracle Auto Service Request, one of the features available in all of Oracle's x86 servers, detects and reports potential issues to the Oracle support center without user intervention, ensuring maximum service levels and simplifying support.

Q: What is included with Oracle Premier Support for Systems?

A: For more information, please see Oracle Premier Support for Systems.

Q: Where can I find more information about Oracle Server X7-8?

A: Contact an Oracle sales representative directly, call 1-800-Oracle1, or contact an Oracle authorized reseller.

For more information visit Oracle Server X7-8.

Please go to www.oracle.com/goto/x86 to see all of Oracle's x86 rack servers.

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