Cisco UCS S3260 Storage Server

Contents

Product Overview

The Cisco UCS® S3260 Storage Server (Figure 1) is a modular, high-density, high-availability, dual-node storage- optimized server well suited for service providers, enterprises, and industry-specific environments. It provides dense, cost-effective storage to address your ever-growing data needs. Designed for a new class of data-intensive workloads, it is simple to deploy and excellent for applications for big data, data protection, software-defined storage environments, scale-out unstructured data repositories, media streaming, and content distribution.

Figure 1.
Cisco UCS S3260 Storage Server

The Cisco UCS S3260 server helps you achieve the highest levels of data availability and performance. With dual-node capability that is based on the 2nd Gen Intel® Xeon® Scalable and Intel Xeon Scalable processor, it features up to 840 TB of local storage in a compact 4-Rack-Unit (4RU) form factor. The drives can be configured with enterprise-class Redundant Array of Independent Disks (RAID) redundancy or with a pass-through Host Bus Adapter (HBA) controller. Network connectivity is provided with dual-port 40-Gbps nodes in each server, with expanded unified I/O capabilities for data migration between Network-Attached Storage (NAS) and SAN environments. This storage-optimized server comfortably fits in a standard 32-inch-depth rack, such as the Cisco® R 42610 Rack.

Product Highlights

- Dual 2-socket server nodes based on 2nd Gen Intel Xeon Scalable and Intel Xeon Scalable processors with up to 48 cores per server node

- Up to 1.5 TB of DDR4 memory per M5 server node and up to 1 TB of Intel Optane™ DC Persistent Memory

- Support for high-performance Nonvolatile Memory Express (NVMe) and flash memory

- Massive 840-TB data storage capacity that easily scales to petabytes with Cisco UCS Manager software

- Policy-based storage management framework for zero-touch capacity on demand

- Dual-port 40-Gbps system I/O controllers with a Cisco UCS Virtual Interface Card 1300 platform embedded chip or PCIe-based system I/O controller for Quad Port 10/25G Cisco VIC 1455 or Dual Port 100G Cisco VIC 1495

- Unified I/O for Ethernet or Fibre Channel to existing NAS or SAN storage environments
- Support for Cisco bidirectional transceivers, with 40-Gbps connectivity over existing 10-Gbps cabling infrastructure

The Cisco UCS S3260 server uses a multigenerational modular server architecture (Figure 2) and employs **Cisco's blade technology expertise to increase investment protection, allowing you to upgrade the main** system components (Figure 3) without the need to migrate data from one system to another.

Figure 2.
Cisco UCS S3260 (Empty Chassis)

Figure 3.
Cisco UCS S3260 (Fully Populated)

Advanced Storage Management

Cisco Unified Computing System™ (Cisco UCS) management helps significantly reduce management and administration expenses by automating routine tasks to increase operational agility. Cisco UCS management provides enhanced storage management functions for the Cisco UCS S3260 and all Cisco UCS servers. Storage profiles give you flexibility in defining the number of storage disks and the roles and uses of these disks and other storage parameters. You can select and configure the disks to be used for storage by a virtual drive.

A logical collection of physical disks is called a disk group, and a disk group configuration policy defines the way that a disk group is created and configured. A disk group can be partitioned into virtual drives. Each virtual drive appears as an individual physical device to the operating system. The policy specifies the RAID level to be used for the disk group. It also specifies either manual or automatic selection of disks for the disk group and roles for the disks. This feature allows optimization of the storage resources without additional overhead and licensing costs.

Product Specifications

Table 1 lists the specifications for the Cisco UCS S3260 Storage Server.

Table 1.   Product Specifications

Item	Description
Chassis	4RU server
Server nodes	Up to 2 nodes; Cisco UCS S3260 chassis fits in 2 types of server nodes: ● M5 server nodes based on 2nd Gen Intel Xeon Scalable and Intel Xeon Scalable processors
Processors	Dual Intel Xeon Scalable processors or E5-2600 v4 product family CPUs per server node ● M5 server node processors: 2nd Gen Intel Xeon Scalable processor: 4214, 5218, 5220, 6238, 6240, 6262V, or Intel Xeon Scalable processor: 4110, 4114, 5115, 5117, 6132, 6138, 6152

Item	Description
Processor cores	Up to 48 per server node
Memory	M5 server node: 7 Dual In-Line Memory Module (DIMM) slots per processors with 16-GB, 32-GB, 64-GB, or 128-GB DDR4 registered DIMMs (RDIMMs) or Load-Reduced DIMMs (LRDIMMs). 1 Intel Optane DC Persistent Memory Ready Slot with 128-GB, 256-GB or 512-GB.
NVMe	Up to 4 TB NVMe for M5 server node
System I/O controllers	Up to 2 system I/O controllers. Choice of ● Onboard Cisco UCS Virtual Interface Card 1300 platform and 2 x 40-Gbps Quad Small Form-factor Pluggable (QSFP) ports (160 Gbps of throughput) ● PCIe Slot based with choice of Cisco UCS VIC 1455 Quad Port 10/25G, Cisco UCS VIC 1496 Dual Port 100G, or third-party Ethernet and FC Adapters
I/O expansion module	● Dual x8 Peripheral Component Interconnect Express (PCIe) half-height, half-width slots for third-party add-in cards. (Note: Available with M5 and M4 server node; uses server bay 1.) ● Choice of I/O Ethernet and Fibre Channel options: • 1 and 10 Gigabit Ethernet or 8- and 16-Gbps Fibre Channel ● Application acceleration with support for PCIe-based flash memory: • 1000 or 3200 GB
Storage controller	RAID controller: ● M5 server node: Dual-chip RAID controller based on LSI 3316 ROC with 4-GB RAID cache per chip and Supercap Supports: ● Controller support for RAID 0, 1, 5, 10, 50, and 60 and JBOD mode, providing enterprise-class data protection for all drives installed in the system Pass-Through Controller ● Dual Chip Pass-Through Controller with LSI IOC 3216 using LSI IT Firmware
Drives	● Up to 56 top-accessible, hot-swappable 3.5-inch, 2-, 4-, 6-, 8-, 10-, 12-, or 14-TB 7200-RPM NL-SAS Hard-Disk Drives (HDDs). ● Up to 28 top-accessible, hot-swappable 400-GB, 800-GB, 1.6-TB, or 3.2-TB SAS Solid-State Drives (SSDs) ● Up to 2 rear-accessible, hot-swappable, 2.5-inch, 120-, or 480-GB SATA or 1.6-TB SSDs per server node Note: These boot drives support Hardware RAID with the M4 and M5 server node connected to the RAID controller on the server node. These boot drives support SW RAID when using the pass-through storage controller. All drives are hot pluggable.
Disk expansion module	● Expand data storage capacity with up to 4 rear-accessible, hot-swappable, 3.5-inch, 2-, 4-, 6-, 8-, 10-, 12-, or 14-TB, 7200-RPM NL-SAS HDDs. (Note: These drives are installed in server bay 2.)
Power supplies	● 4 hot-pluggable, N+N redundant 1050-Watt (W) AC or DC 80 PLUS Platinum efficiency power supplies
Cisco Integrated Management Controller (IMC)	Integrated Baseboard Management Controller (BMC): ● IPMI 2.0 compliant for management and control ● One 10/100/1000 Ethernet out-of-band management interface ● Command-Line Interface (CLI) and web GUI management tool for automated, lights-out management ● Keyboard, video, and mouse ● HTML5 interface

Item	Description
Protocols	● Fibre Channel, Fibre Channel over Ethernet (FCoE), Network File System (NFS), Server Message Block (SMB), SMB Direct, and Small Computer System Interface over IP (iSCSI).
Physical unit	● 4RU height x 32-in. depth. ● High reliability, availability, and serviceability features with tool-free server nodes, system I/O controller, easy-to-use latching lid, and hot-swappable and hot-pluggable components.
Operating systems	● Microsoft Windows Server 2019, 2016; Red Hat Enterprise Linux; SUSE Linux; or VMware vSphere.

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For More Information

For additional information about the Cisco UCS S3260 Storage Server, contact your local Cisco representative or visit https://www.cisco.com/c/en/us/products/servers-unified-computing/ucs-s3260-storage-server/index.html.

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