Cisco UCS S3260 Storage Server

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 helps you achieve the highest levels of data availability and performance. With dual-node capability that is based on the Intel® Xeon® processor E5-2600 v4 series, it features up to 600 terabytes (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 JBOD architecture in pass-through mode. 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 Intel Xeon processor E5-2600 v2 or v4 CPUs with up to 36 cores per server node
- Up to 512 GB of DDR3 or DDR4 memory per server node (1 TB total)
- Support for high-performance Non-Volatile Memory Express (NVMe) and flash memory
- Massive 600-TB data storage capacity that easily scales to petabytes with Cisco UCS Manager
- Policy-based storage management framework for zero-touch capacity on demand
- Dual-port 40-Gbps system I/O controllers with Cisco UCS Virtual Interface Card (VIC) 1300 platform embedded chip
- Unified I/O for Ethernet or Fibre Channel to existing NAS or SAN storage environments
- Support for Cisco bidirectional (BiDi) transceivers, with 40-Gbps connectivity over existing 10-Gbps cabling infrastructure

The Cisco UCS S3260 uses a multigenerational modular server architecture (Figure 2). It uses 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: ● M4 server nodes based on Intel Xeon processor E5-2600 v4 CPUs ● M3 server nodes based on Intel Xeon processor E5-2600 v2 CPUs
Processors	Dual Intel Xeon processor E5-2600 v2 or v4 product family CPUs per server node ● M4 server node processors: Intel Xeon processor E5-2620 v4, E5-2650 v4, E5-2680 v4, and E5-2695 v4 ● M3 server node processors: Intel Xeon processor E5-2620 v2, E5-2660 v2, and E5-2695 v2
Processor cores	Up to 36 per server node
Memory	8 dual in-line memory module (DIMM) slots per processor with support for 128, 256, or 512 GB of capacity with DDR3 with M2 server node or DDR4 registered DIMMs (RDIMMs) or load-reduced DIMMs (LRDIMMs)
NVMe	One 2.5-inch NVMe 800-GB or 1.6-TB drive per M4 server node
System I/O controllers	Up to 2 system I/O controllers with onboard Cisco UCS VIC 1300 platform and 2 x 40-Gbps Quad Small Form-Factor Pluggable (QSFP) ports (160 Gbps of throughput)

Item	Description

I/O expansion module	• Dual x8 PCIe half-height, half-width slots for third-party add-in cards (**Note:** Available only with M4 server node; uses server bay 1)
	• Unified I/O for storage
	  ◦ 1 and 10 Gigabit Ethernet or 8- and 16-Gbps Fibre Channel
	• Application acceleration with support for PCIe-based flash memory
	  ◦ 1000, 3200, or 6400 GB

RAID controller	• M3 server node: Cisco 12-Gbps RAID, SAS host bus adapter (HBA), and LSI 3108 RAID-on-chip (ROC) controller • M4 server node: LSI 3316 ROC controller with 4-GB RAID cache • 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
Drives	• Up to 56 top-accessible, hot-swappable 3.5-inch 4-, 6-, 8-, or 10-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 disk (SSD) drives • Up to 2 rear-accessible, hot-swappable, 2.5-inch 120- or 480-GB SATA or 1.6-TB SSD drives per server node **Note:** These boot drives support software RAID connected to Intel Platform Controller Hub (PCH) with M3 server nodes, and hardware RAID with the M4 server node connected to the RAID controller on the M4 server node. • All drives are hot pluggable
Disk expansion module	• Expand data storage capacity with up to 4 rear-accessible, hot-swappable 3.5-inch 4-, 6-, 8-, or 10-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) 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 (KVM) • HTML5 interface
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-inch depth • High reliability, availability, and serviceability (RAS) 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 2012, 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 http://www.cisco.com/c/en/us/products/servers-unified-computing/ucs-S3260-storage-server/index.html.

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