



Cisco UCS™ with Intel® Xeon® Processors

Benefits

- Our solutions are a cost-effective match for environments with massive amounts of unstructured data.
- Our solutions offer proven data durability.
- Cisco® reference architectures and Cisco Validated Designs reduce cost and risk.
- We partner with industry-leading software vendors. This way of doing business helps you avoid lock-in to a specific product or vendor.
- Policy-based management increases operational efficiency and reduces total cost of ownership (TCO).

Cisco Scale-Out Object Storage Solutions

Your data center increasingly relies on a range of storage architectures to deliver flexibility and scalability. Traditional storage systems are limited in their ability to easily and cost-effectively scale to support massive amounts of unstructured data. With about 80 percent of data being unstructured, new approaches using x86 servers are proving to be more cost effective, providing storage that can be expanded as easily as your data grows.

Object storage is the newest approach for handling massive amounts of data. Scale-out object storage uses x86 architecture storage-optimized servers to increase performance while reducing costs. Cisco UCS® S3260 Storage Servers with Intel® Xeon® processors are excellent foundational components for object-storage solutions (Figure 1).

Typical Environments That Require Object Storage

Object storage today can be used for many environments. With its nearly endless scaling and the use of standard server hardware, it is an excellent solution for storage of warm or cold data. Its capability to extend data durability with data protection methods such as replication and erasure coding help ensure that your data is readily available when you need it most. Common workloads using object storage include:

- **Web-scale applications:** Cloud-based applications such as consumer, social, photo, or video websites need enormous amounts of space for storing objects. Object-based storage solutions simplify application design and development. Easy scalability allows application data to grow without dramatic growth in storage costs.
- **Media storage:** Object storage is well suited for large files such as video and audio files. With nearline and long-term storage capabilities, data can be stored in an object-storage solution.
- **File-based storage:** Most vendors today offer an interface for Network File System (NFS) and Server Message Block (SMB). Although latency is still not as low as with network-attached storage arrays, object storage can host general file data for which latency is not a concern.
- **Backup:** Almost unlimited scalability makes object storage more useful for backup operations than are typical purpose-build backup appliances with limited amounts of capacity.

In general, almost all applications that require large amounts of capacity with proven data durability and without the need of low latency are good fits for object storage.

Object Storage with Cisco UCS S3260 Storage Servers

The Cisco UCS S3260 Storage Server with Intel Xeon processors is well suited for object-storage solutions. It provides a platform that is cost effective to deploy and manage using the power of the Cisco Unified Computing System™ (Cisco UCS) management: capabilities that traditional unmanaged and agent-based management systems can't offer. You can design your S3260 solution for a computing-intensive, capacity-intensive, or throughput-intensive workload.

- Computing-intensive workload:** The S3260 server can be configured with dual 2-socket server nodes. The nodes can be optimized with onboard Non-Volatile Memory Express (NVMe) flash storage or tuned for high-performance caching with the I/O expansion card that supports dense flash memory.
- Capacity-intensive workload:** The S3260 server supports SAS and SSD drives with up to 560 terabytes (TB) of raw data storage, or up to 600 TB with the disk expansion card. The system can also be configured to operate in JBOD mode or using a Cisco® RAID controller with a 4-GB cache.
- Throughput-intensive workload:** The S3260 server uses two system I/O controllers (SIOCs). These controllers provide an aggregate 160 Gbps of network connectivity, with additional connectivity for Ethernet, Fibre Channel, or Fibre Channel over Ethernet (FCoE) with an I/O expansion card.

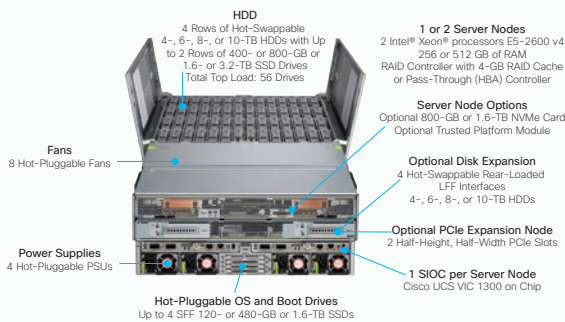


Figure 1 Cisco UCS S3260 Storage Servers are Cost Effective and Grow Capacity Easily for Scale-Out Object Storage

For More Information

Discover how our products can help you:

- cisco.com/go/ucs
- cisco.com/go/storage

Explore the solutions we offer:

- cisco.com/go/sds

Cisco Scale-Out Object-Storage Solutions

Our scale-out object-storage solutions span the spectrum of capabilities to supply the levels of capacity, cost, and performance that you need for your applications. They deliver:

- Simplicity with reduced complexity:** You can get capacity-based bundles mapped to reference architectures or Cisco Validated Designs for fast and easy deployment.
- Reduced risk with prevalidated reference architectures and validated designs:** We have already done the hard work of configuration and testing to create solutions with industry best practices built in. All you have to do is follow the recipe for success.
- No lock in:** We work with industry leaders to provide you with a choice of ecosystem partners.
- Operational efficiency:** Our automated configuration and management helps you contain operating costs and deploy servers faster than you ever could before.