



Cisco UCS™ with Intel®
Xeon® Processors

Cisco Software-Defined Storage Solutions

Storage plays an important role in the data center: from storing email messages and documents to saving business-critical information, intellectual property, and transaction detail. As businesses continue to become more connected, the old ways of storing and archiving data are changing to accommodate growing amounts of data and demand for anytime, anywhere access to information.

Historically, IT organizations transitioned from systems with individual disk drives to storage arrays that allowed disk drives to be grouped together to form a larger area of capacity. When fast and easy access to more capacity was needed, storage area networks (SANs) and network-attached storage (NAS) emerged to deliver capacity over the network. More recently, integrated systems and hyperconverged infrastructure have been added to networks to simplify resource acquisition and deployment and facilitate easy scaling. As companies try to balance storage access, performance, and cost, software-defined storage is becoming more popular, taking this evolution a step farther.

Benefits

- **Less risk and complexity:** The combination of Cisco® servers and software from a broad ecosystem of software partners simplifies the task of pooling IT resources and storing data across systems for improved scaling and investment protection.
- **Versatility:** A range of server options makes it easy for you to deploy the right amount of capacity and performance for your software-defined storage deployments.
- **Operation efficiency:** Cisco UCS® Manager helps you configure hundreds of storage servers as easily as you can configure one, in a repeatable and consistent manner.

What Is Software-Defined Storage?

Software-defined storage is the next phase of server virtualization technology, moving beyond virtual machines to virtual data stores. It combines industry-standard x86-architecture servers with Intel® Xeon® processors that are optimized for direct-attached storage (DAS) with a distributed software abstraction layer. This intelligent software transforms systems into a single, logical pool of cost-effective, scale-out storage resources that are easily integrated and managed within your data center.

Cisco Solutions for Software-Defined Storage

Our solutions provide the storage flexibility you need to support growing amounts of data and deliver fast access to information and innovation. You can choose from a variety of systems and expansion cards according to the capacity and performance needs of your users and applications. Our modular approach lets you:

- **Reduce risk and complexity:** You need confidence that your software-defined infrastructure will work right the first time. Cisco's collaboration and validation with a large partner ecosystem of software vendors gives you a choice of proven solutions and reference architectures while helping your IT staff integrate storage innovation with your IT processes and business applications at low risk. As a result, you can easily procure the solution you need and accelerate implementation and deployment.

Target Environments

- File, block, and object storage
- Email servers
- Collaboration environments
- Video surveillance archiving
- Content distribution networks
- Data protection solutions
- Private cloud 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

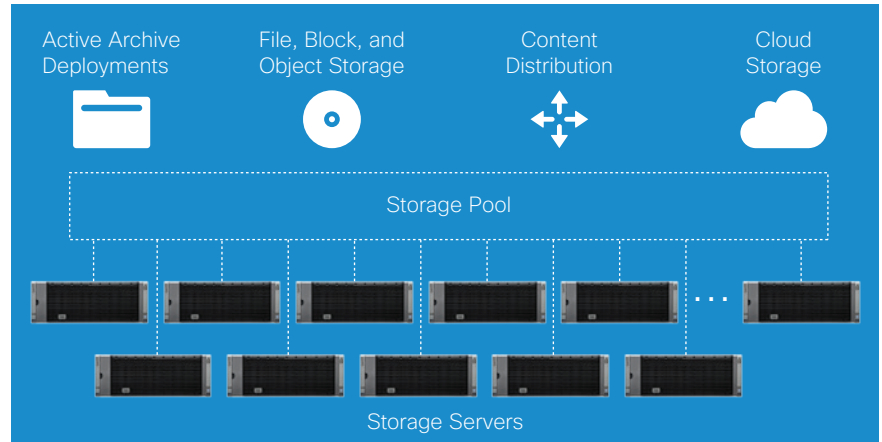


Figure 1 Cisco Solutions Deliver the Foundation for Software-Defined Storage Deployments

- **Gain versatility:** The Cisco Unified Computing System™ (Cisco UCS®) with Intel Xeon processors offers a variety of server options for rightsizing your software-defined storage deployments. You can deploy Cisco UCS C-Series Rack Servers to support many common storage scenarios, and use Cisco UCS S-Series Storage Servers for highly scalable and available storage infrastructure (Figure 1).
- **Scale on demand:** You can scale the storage capacity, performance, and protocols used in your software-defined storage infrastructure at your pace and with a smaller increment of scale than with traditional large-scale storage solutions. With the flexibility to choose what to scale and when to scale it, you can start with a small configuration and expand to petabytes of capacity, and you can distribute I/O operations among servers to accelerate I/O operations.
- **Improve the efficiency of your IT operations:** Cisco UCS Manager provides the automation you need to be efficient. Role- and policy-based management makes it easy to deploy terabytes to petabytes of storage capacity in minutes. Cisco UCS service profiles and storage profiles extend these capabilities, allowing you to specify the ways that servers and disk drives should be identified, configured, connected, and used. You can configure hundreds of storage servers as easily as you can configure one, in a repeatable manner.
- **Reduce vendor lock-in:** Whether you need to support a remote or branch office or a large enterprise data center, our broad ecosystem of partners offers what you need. We work together to test, validate, and document joint solutions so that you can get your software-defined storage solutions up and running quickly and with confidence.

Next Steps

Call your Cisco® sales representative or authorized partner to find out how Cisco UCS solutions can help you create the best software-defined storage solution for your business and applications.