Affordable, Scalable and Easy-to-Manage Data Storage from SUSE and Cisco

As the volume of enterprise data grows, organizations are turning to software-defined storage (SDS)—a simpler, more scalable and cost-effective solution than traditional proprietary, hardware-based storage. SDS delivers a full suite of persistent storage services via an autonomous software stack that can run on a commodity hardware platform. It enables more dynamic storage provisioning so you can better handle fluctuating workloads. And now, thanks to SUSE and Cisco, you can get enterprise-ready SDS that is affordable and easy to manage.

Software-Defined Storage from SUSE and Cisco at a Glance:

- **Get the benefits of an enterprise-ready version...**
  of the open source SDS solution Ceph, with added features from longtime industry leaders.

- **Scale your storage cost-effectively...**
  by paying per node, not per gigabyte.

- **Reduce architecture complexity...**
  with unified file, block and object storage.

- **Simplify management...**
  with an integrated, comprehensive toolset that makes IT's job easier.

- **Products:**
  SUSE Enterprise Storage
  YES Certified™ Cisco UCS servers
  Cisco UCS Manager

Scale with Ease

With SUSE® Enterprise Storage on Cisco Unified Computing System (UCS) servers and Cisco UCS Manager, you get the flexibility of infinite scalability and fast access to critical data when you need it. The Cisco and SUSE components integrate seamlessly to create a single storage solution, and per-node pricing allows you to grow with greater cost efficiency.

Whether you're in an industry that strictly regulates the use of data, such as healthcare or government, or you need to comply with new data protection laws, the Cisco/SUSE storage solution simplifies governance, risk management and compliance. It does this through application- and policy-aware infrastructure with Cisco UCS and Cisco Application Centric Infrastructure (ACI).

SUSE Linux Enterprise Server, the basis for SUSE Enterprise Storage, is certified on Cisco UCS servers and integrated with Cisco's UCS Manager to help create a single, streamlined system. You get a complete storage management toolset with UCS Manager providing management at the infrastructure layer and openATTIC—a part of SUSE Enterprise Storage—providing management at the solution layer. Plus, the solution is Cisco tested and validated and comes with a reference architecture.

With Cisco and SUSE, you also get integrated, end-to-end world-class support from proven industry leaders.

Partners with a Deep Knowledge of Data Storage

Cisco and SUSE have been working together for more than 20 years—not only on storage, but also on a variety of solutions that you can combine with your SDS infrastructure, including solutions for SAP HANA and OpenStack cloud. SUSE is Cisco's preferred SAP partner, which is

Off-the-shelf servers with SUSE Enterprise Storage reduce capital expenditures, lowering the cost per gigabyte of enterprise-class storage deployments by as much as 50 percent in some cases.[1]

one reason SUSE Enterprise Storage on Cisco UCS is a preferred storage solution for SAP environments.

Store Data Your Way
The Cisco/SUSE SDS solution is an ideal choice for a variety of uses:

- **Compliance archiving**—*To remain compliant with various regulations, many organizations must store emails, legal documents and other files for specified periods of time. SUSE Enterprise Storage can act as a target for compliance archiving systems such as iTernity to meet these very specific requirements.*
- **Data archive and bulk storage**— *Enterprises often have a lot of data that has to be stored for long periods of time—such as old emails, logs, transaction histories, reports and more. SUSE Enterprise Storage on Cisco servers can act as a target for archiving systems to provide an affordable way to handle all that data.*
- **Disaster recovery or disk-based backup**—*Enterprises need a storage solution with costs close to tape, but with much higher performance and capacity. SUSE Enterprise Storage and Cisco servers provide that with an affordable and scalable way to meet backup windows and recovery times. The solution is certified with backup*

vendors such as Veeam, Veritas and Commvault.
- **Audio/video streaming**—*Content and media businesses need to store large numbers of potentially very large files. These video and content files also need to be available at all times. SUSE Enterprise Storage and Cisco offer affordable, scalable storage to support these use cases.*

Components of Powerful Storage

CISCO UNIFIED COMPUTING SYSTEM
Cisco UCS is a state-of-the-art data center platform that unites computing, network, storage access and virtualization into a single cohesive system. You can combine storage-rich nodes, such as the Cisco UCS S3260 Storage Server, with other system nodes of your choice from the Cisco UCS portfolio to create a storage cluster that is ideal for delivering multiprotocol file services to many applications or use cases.

Figure 1.
Cisco UCS S3260 Storage Server

Cisco UCS S-Series servers provide maximum investment protection through multigenerational system design. They feature dual-server-node architecture using Intel Xeon Scalable processors to strike the right balance between compute and capacity.

CISCO UCS MANAGER
Cisco UCS Manager makes it easy to automate routine tasks to boost agility, streamline daily operations and reduce management requirements. In addition to simplifying storage management, it enables server and fabric provisioning as well as device discovery, inventory, configuration, diagnostics, monitoring, fault detection, auditing and collection of statistics.

On average, UCS Manager users have been able to achieve an 83 percent reduction in provisioning time and 66 percent lower ongoing administrative and management costs.[2]

1 **www.suse.com/solutions/software-defined-storage/**
2 **www.cisco.com/c/en/us/products/servers-unified-computing/ucs-manager/index.html**

SUSE ENTERPRISE STORAGE

SUSE Enterprise Storage allows you to deploy a unified block, object and file storage environment to reduce the capital and operational costs of storage infrastructure. Its flexible, cluster-based design enables graceful and inexpensive upgrades and near-linear scaling.

The solution is self-managing and self-healing to reduce your management burden and costs. And because it's SDS, you can update your storage software and hardware separately to take advantage of new innovations in either area.

SUSE Enterprise Storage delivers high performance, too. It offers site-to-site replication and much faster recovery times when compared to tape backup, making it a viable disaster recovery option. SUSE Enterprise Storage 5 offers up to double the write performance of previous releases, coupled with significant reductions in I/O latency through the use of BlueStore—which can help reduce data storage overhead by enabling data compression.

Learn More

Learn more about how SUSE and Cisco can give you the storage capacity for today and tomorrow's needs at **www.suse.com/cisco**.

> With Ceph, a single system administrator can manage up to 3–4 PB of data, six times more than an administrator in an equivalent block storage environment.

Contact us at:
www.suse.com

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