

Data Protection for Cisco HyperFlex with Veeam Availability Suite

Solution Brief
July 2016



Highlights

Data Protection for Cisco HyperFlex with Veeam Availability Suite

- Is Cisco compatible
- Helps ensure data availability for Cisco HyperFlex Systems™ virtualized applications
- Uses modern architecture designed for virtualization
- Reduces total cost of ownership (TCO)
- Enables reliable recovery

Imagine being able to easily deploy fast and agile infrastructure together with its corresponding data protection for local and remote locations.

Data center infrastructure and corresponding protection strategies typically are difficult to deploy, often requiring long lead times. To be viable in today's markets, you need a flexible, agile, and efficient platform that is fast and easy to deploy. And your data availability capabilities for these platforms, including data recovery and disaster recovery, need to just as easy to deploy and just as agile.

The Cisco HyperFlex™ Systems solution together with Veeam Availability Suite gives you a flexible, agile, and scalable infrastructure that is protected and easy to deploy. Building on top of the Cisco HyperFlex HX Data Platform's built-in protection tools, Veeam Availability Suite expands the protection of your data with local and remote backups. Today's data centers are heterogeneous, and most administrators want to avoid siloed data protection for each application or infrastructure stack. You need data protection to work across your enterprise and for recovery to be self-service, easy, and fast—whether the data is local or remote.

Cisco and Veeam have created a Cisco HyperFlex certified data protection solution that addresses the challenge of delivering agile protection for your Cisco HyperFlex platform.

Agile Protection for Cisco HyperFlex Systems

The Cisco HyperFlex solution delivers next-generation hyperconvergence in a data platform to offer end-to-end simplicity for faster IT deployments, unifying computing, networking, and storage resources. The Cisco HyperFlex solution is built on the Cisco Unified Computing System™ (Cisco UCS®) platform and conform to a data center architecture supporting traditional, converged, and hyperconverged

systems with common policies and infrastructure management. The Cisco HyperFlex HX Data Platform is a purpose-built, high-performance, distributed file system delivering a wide range of enterprise-class data management and optimization services. This platform redefines distributed storage technology, expanding the boundaries of hyperconverged infrastructure with its independent scaling, continuous data optimization, simplified data management, and dynamic data distribution for increased data availability. This agile system is easy to deploy and manage, scales as your business needs change,

and provides the first level of data availability. However, as with most systems, a second layer of protection that is equally agile is recommended. Veeam Availability Suite can meet this need.

Powered by Veeam Availability Suite

Data Protection for Cisco HyperFlex with Veeam Availability Suite is a certified solution built on a modern architecture that delivers fast, reliable recovery, reduced total cost of ownership (TCO), a better user experience, and greater convenience for Cisco HyperFlex solutions.

Modern Architecture

Data Protection for Cisco HyperFlex with Veeam Availability Suite and the Cisco HyperFlex platform (Figure 1) is designed to deliver balanced processing, networking, and storage capacities for consistent configurations across your enterprise. The solution is easy to correctly size and customize for your environment, so you can deploy what you need today and quickly scale to meet the needs of growing storage requirements.

Designed specifically for virtual environments, such as those supported by the Cisco HyperFlex platform, Data Protection for Cisco HyperFlex with Veeam Availability Suite is integrated with VMware vSphere, helping ensure consistent and verifiable virtual machine recovery. Veeam Explorer is an intuitive user interface for self-service recovery, enabling the creation of an efficient backup-as-a-service cloudlike environment for your users.

Reliable Recovery

Data Protection for Cisco HyperFlex with Veeam Availability Suite provides fast, flexible, and reliable recovery of virtualized applications and data, allowing organizations to maintain availability 24 hours a day, every day. The solution provides organizations with high-speed recovery, data-loss avoidance, and verified protection.

High-speed recovery

You can instantly recover failed virtual machines in as little as two minutes, and instantly recover guest operating system files and folders in real time. Veeam Explorer for Microsoft Exchange, Active Directory, SharePoint, and SQL Server and Oracle databases provides

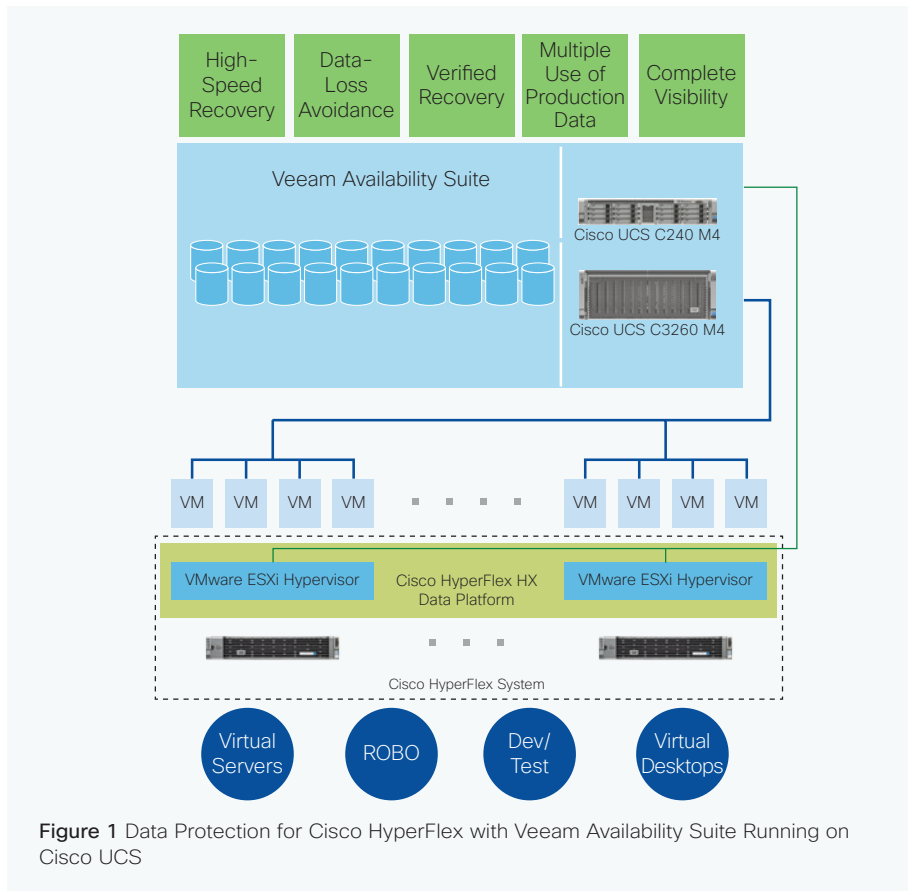


Figure 1 Data Protection for Cisco HyperFlex with Veeam Availability Suite Running on Cisco UCS

recovery of specific information and meets low recovery-time objectives (RTOs).

Data-loss avoidance

Avoid the risk of catastrophic data loss without having to invest in infrastructure for a second site with Veeam Cloud Connect.

- Secure your data during backup, at rest, and in motion with end-to-end encryption.
- Improve offsite recovery with WAN accelerated replication, replication

from backup, and one-click site failover with support for planned failover.

- Provide near-continuous data protection (near-CDP) for any virtualized application with two-in-one backup and replication.
- Achieve 50 times faster backup data transfer across the WAN with built-in WAN acceleration offerings.
- Store and recover entire virtual machine backups or individual files from tape with native tape support.

Verified protection

Veeam SureBackup and SureReplica automatically verify the recoverability of every backup and every replica, every time.

Reduced TCO

The solution runs on Cisco UCS C240 M4 and C3260 Rack Servers, so you have fewer components to purchase, power, cool, and house than with traditional servers or appliances. Often with data protection software, by the time the solution is deployed, someone somewhere has lost some data. We

Table 1 Configurations for Data Protection for Cisco HyperFlex with Veeam Availability Suite

	Starter 1	Starter 2	Small	Medium	Large
Servers	Cisco UCS C240 M4 (LFF)	Cisco UCS C240 M4 (LFF)	Cisco UCS C3260	Cisco UCS C3260	Cisco UCS C3260 (cluster of 3)
CPU	Intel® Xeon® processor E5-2650 (2.3 GHz, 10 cores)	Intel Xeon processor E5-2650 (2.3 GHz, 10 cores)	Intel Xeon processor E5-2660 (2.2 GHz, 10 cores)	Intel Xeon processor E5-2660 (2.2 GHz, 10 cores)	Intel Xeon processor E5-2660 (2.2 GHz, 10 cores)
Memory	32 GB total	32 GB total	256 GB total	256 GB total	• 768 GB total • 256 GB per server
Storage	• 12 x 4-TB SAS 7200-rpm drives • 48 TB raw capacity • 36 TB minimum usable capacity	• 16 x 6-TB SAS 7200-rpm drives • 96 TB raw capacity • 72 TB minimum usable capacity	• 28 x 8-TB SAS 7200-rpm drives • 224 TB raw capacity • 176 TB minimum usable capacity	• 56 x 8-TB SAS 7200-rpm drives • 448 TB raw capacity • 352 TB minimum usable capacity	• 168 x 8-TB SAS 7200-rpm drives • 1344 TB raw capacity • 1056 TB minimum usable capacity
RAID	• SAS RAID 6 controller • 1-GB flash-backed cache	• SAS RAID 6 controller • 1-GB flash-backed cache	• SAS RAID 60 controller • 1-GB flash-backed cache	• SAS RAID 60 controller • 1-GB flash-backed cache	• SAS RAID 60 controller • 1 GB flash-backed cache
Network	2 x 10 GB (LAN on motherboard [LOM])	2 x 10 GB (LOM)	4 x 10 GB (LOM)	4 x 10 GB (LOM)	4 x 10 GB (LOM)
Veeam sockets	10	10	50	100	300
Average number of virtual machines	100	100	500	1000	3000

provide fast and easy deployment and agile data assurance. It is so simple that you don't need a staff of consultants to perform extensive evaluation, testing, sizing, and setup.

Integration with Cisco UCS Management

Integration with our unified management and a self-service interface greatly simplifies initial deployment and helps you scale the solution quickly and easily. This solution also helps ensure a consistent configuration across platforms, reducing the need for troubleshooting and for downtime that can be caused by human errors. When software or hardware updates are needed, the solution simplifies and automates the process.

Better Experience

Data Protection for Cisco HyperFlex with Veeam Availability Suite is also cost effective and easy to operate for commercial IT managers and cloud service providers. Its unified management provides an intuitive interface for both IT staff and self-service users. To recover an entire virtual machine or the files contained in it, simply mount the protected virtual machine using the Network File System (NFS), boot the virtual machine, and recover part or all of your data. It's that simple and quick.

Convenience

The all-in-one design makes this

solution easy to order, deploy, manage, and update. Data Protection for Cisco HyperFlex with Veeam Availability Suite comes from Cisco partners preassembled to integrate fully into your data center.

Built on Cisco UCS Servers

To help you choose the solution that best meets your business needs, we have tested several configurations for quick ordering and deployment, shown in Table 1.

Cisco UCS C240 for Smaller Enterprises

The Cisco UCS C240 M2 Rack Server is one of the highest-density, 2-socket rack server platforms in the industry. This Cisco UCS server offers compact performance for applications such as data availability. Its large memory capacity and up to 12 large-form-factor (LFF) drives make it an excellent platform for backup applications.

Cisco UCS C3260 for Medium-Size to Larger Enterprises

The Cisco UCS C3260 Rack Server is an excellent platform to support data availability across your entire enterprise with Veeam Availability Suite. This horizontally scaled cluster managed by Veeam software allows you to add servers as your storage needs grow. It can support up to 560 terabytes (TB) of data per Cisco UCS C3260 server. It includes solid-state disk (SSD)

drives for caching to accelerate I/O performance. Each Cisco UCS C3260 contains two nodes for high availability.

Both the Cisco UCS C240 M4 and C3260 Rack Servers have an upgrade path to 80 Gbps throughput for even faster streaming of backup data and fast restoration.

Cisco and Veeam: Better Together

Data Protection for Cisco HyperFlex with Veeam Availability Suite provides agile and comprehensive protection of virtual machines running on the Cisco HyperFlex platform. Veeam is a Cisco® Preferred Solution Partner working closely with Cisco to test these solutions to help ensure that they are Cisco compatible. Together, Cisco and Veeam are delivering availability and data protection for the Cisco HyperFlex platform, Cisco UCS, and third-party systems that are fast, cost-effective, and simple to deploy and use.

For More Information

- For more information about Cisco data protection with Veeam, visit <https://marketplace.cisco.com/catalog/companies/veeam-software-corporation>.
- For more information about Veeam Availability Suite solutions, visit <https://www.veeam.com/veeam-cisco-ucs.html>.



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.