Veeam Availability Solution for Cisco UCS

The data availability challenge

Organizations are modernizing their data centers so that they can provision IT services faster, strengthen security and control, and lower operating costs. While building modern data centers, organizations invest in server virtualization, modern storage applications, and cloud-based services. However, businesses are facing new demands from end users, including access to data and applications at all times with no downtime or data loss. In addition, they are facing exponential data growth annually. For many organizations, there is a gap: between the requirements of the Hyper-Available Enterprise™ and IT's ability to effectively deliver availability. Organizations bridge this gap with a new kind of solution — one that delivers a recovery time objective (RTO) and recovery point objective (RPO) of less than 15 minutes for all applications and data.

The Solution: Veeam Availability Solution for Cisco UCS

Veeam and Cisco have collaborated to offer an integrated and pre-configured data availability appliance based on Cisco UCS and Veeam technology. The Veeam Availability Solution for Cisco UCS comes ready for deployment, and is verified jointly by Veeam and Cisco.

The Veeam Availability Solution for Cisco UCS offers:

- Data availability — instant VM recovery and file-level recovery.
- Verified protection — automatically verifies the recoverability of every backup and replica.
- Two-in-one backup and replication — provides near-continuous data protection for every virtualized application.
- Rapid restores for critical applications like Microsoft Exchange, SharePoint, SQL Server, and Oracle databases.
- Scalable and flexible — Ready to deploy and scales easily from 40TB and 70 VMs to over 2PB and thousands of VMs.

The Veeam Availability Solution for Cisco UCS is an appliance that is simple to purchase, deploy, and manage. It is ideal for midsize, large, remote office/branch office (ROBO) customers and service providers.

The Veeam Availability Solution for Cisco UCS leverages Cisco UCS C240 or S3260 storage servers and Veeam Availability Suite to deliver high-speed recovery, data loss avoidance, and verified protection with complete visibility for applications requiring high availability and scalability.

"TMA's vision is to improve the health of all Texans, so we use the time and money saved by Veeam and the S3260 to concentrate on ways technology can support our public health priorities, including reduced tobacco use, environmental hazards, obesity and mental health and substanceuse disorders," Haley said.

— **Aaron Haley,**
   Network Operations Director
   Texas Medical Association

"Veeam consistently pushes the envelope in bringing sophisticated backup and disaster recovery functionality to enterprises and cloud providers."

— **Justin Giardina,**
   CTO
   iland

Learn more:

[Veeam Product Overview](#)

[Cisco and Veeam Availability solutions](#)

Disclaimers — These recommendations are "ballpark" sizings, these are not meant to be the final configuration sizing, that is the responsibility of the Veeam systems engineer.

Also each Cisco UCS server configuration is sized to run the Veeam server, Backup Proxy and Backup Repository.

Cisco server	S3260	S3260	S3260	S3260	S3260
Model	S3260 M5	S3260 M5	S3260 M5	S3260 M5	S3260 M5
Description	Full-capacity	Full-capacity	Full-capacity	Full-capacity	Full-capacity
Boot Drives	2 x 480GB SAS SSD	2 x 480GB SAS SSD	2 x 480GB SAS SSD	2 x 480GB SAS SSD	2 x 480GB SAS SSD
Storage	56 x **8TB** NL-SAS HDD	56 x **12TB** NL-SAS HDD	56 x **14TB** NL-SAS HDD	56 x **16TB** NL-SAS HDD	56 x **18TB** NL-SAS HDD
Raw Capacity (excl. SSD)	448TB	672TB	784TB	896TB	1,044TB
Usable capacity (excl. SSD)	352TB	528TB	616TB	704TB	792TB
Storage Configuration	2 x RAID 60	2 x RAID 60	2 x RAID 60	2 x RAID 60	2 x RAID 60
File System	ReFS or XFS	ReFS or XFS	ReFS or XFS	ReFS or XFS	ReFS or XFS
CPU	2 x 5220R, 24 core each	2 x 5220R, 24 core each	2 x 5220R, 24 core each	2 x 5220R, 24 core each	2 x 6230R, 26 core each
Memory	128GB	128GB	128GB	128GB	192GB
Veeam Sizing*					
VM workloads supported*	675	1,000	1,200	1,400	1,550
Used data size*	135TB	200TB	240TB	280TB	310TB
Size of VBR Backup Repository*	346TB	506TB	604TB	701TB	775TB
Veeam Quantity and License	680 VUL of VAS	1000 VUL of VAS	1200 VUL of VAS	1400 VUL of VAS	1550 VUL of VAS

***Based on these assumptions:**

VM initial average size = 200GB

Retention = 30 daily, 4 weekly

Daily incr, weekly synthetic

Change rate = 7%

Data reduction from VBR = 2x

ReFS/XFS Block Cloning = enabled

Incremental backup = 10 hours

3 years of 10% data growth

All Veeam sizing was done using the Veeam Size Estimation Tool on www.veeambp.com

VUL = Veeam Universal License

VAS = Veeam Availability Suite Universal Subscription or Perpetual License. Includes Enterprise *Plus* Edition features.

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Cisco server	C240	C240	C240	C240
Model	C240 M6	C240 M6	C240 M6	C240 M6
Description	C240 M6 96TB	C240 M6 128TB	C240 M6 160TB	C240 M6 192TB
Boot Drives	2 x 400GB SAS SSD	2 x 400GB SAS SSD	2 x 400GB SAS SSD	2 x 400GB SAS SSD
Storage	16 x **6TB** NL-SAS HDD	16 x **8TB** NL-SAS HDD	16 x **10TB** NL-SAS HDD	16 x **12TB** NL-SAS HDD
Raw Capacity (excl. SSD)	96TB	128TB	160TB	192TB
Usable capacity (excl. SSD)	78TB	104TB	130TB	156TB
Storage Configuration	RAID 6	RAID 6	RAID 6	RAID 6
File System	ReFS or XFS	ReFS or XFS	ReFS or XFS	ReFS or XFS
CPU	2 x 4210R, 10 cores each	2 x 4210R, 10 cores each	2 x 4210R, 10 cores each	2 x 4210R, 10 cores each
Memory	128GB	128GB	128GB	128GB
Veeam Sizing*				
VM workloads supported*	140	190	240	290
Used data size*	28TB	38TB	48TB	58TB
Size of VBR Backup Repository*	77TB	103TB	128TB	154TB
Veeam Quantity and License	140 VUL of VAS	190 VUL of VAS	240 VUL of VAS	290 VUL of VAS

*Based on these assumptions:

VM initial average size = 200GB

Retention = 30 daily, 4 weekly

Daily incr, weekly synthetic

Change rate = 7%

Data reduction from VBR = 2x

ReFS/XFS Block Cloning = enabled

Incremental backup = 10 hours

3 years of 10% data growth

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Cisco server	C240 All Flash	C240 All Flash	C240 All Flash
Model	C240 M6 All Flash	C240 M6 All Flash	C240 M6 All Flash
Description	C240 M6 All Flash 45.6TB	C240 M6 All Flash 91.2TB	C240 M6 All Flash 182.4TB
Boot Drives	2 x 400GB SAS SSD	2 x 400GB SAS SSD	2 x 400GB SAS SSD
Storage	24 x 1.9TB SATA SSD	24 x 3.8TB SATA SSD	24 x 7.6TB SATA SSD
Raw Capacity (excl. SSD)	45.6TB	91.2TB	182.4TB
Usable capacity (excl. SSD)	39.9TB	79.8TB	159.6TB
Storage Configuration	RAID 6	RAID 6	RAID 6
File System	ReFS or XFS	ReFS or XFS	ReFS or XFS
CPU	2 x 4214R, 12 cores each	2 x 4214R, 12 cores each	2 x 4214R, 12 cores each
Memory	128GB	128GB	128GB
Veeam Sizing*			
VM workloads supported*	65	140	300
Used data size*	13TB	28TB	60TB
Size of VBR Backup Repository*	38TB	78TB	159TB
Veeam Quantity and License	70 VUL of VAS	140 VUL of VAS	300 VUL of VAS

*Based on these assumptions:

VM initial average size = 200GB

Retention = 30 daily, 4 weekly

Daily incr, weekly synthetic

Change rate = 7%

Data reduction from VBR = 2x

ReFS/XFS Block Cloning = enabled

Incremental backup = 10 hours

3 years of 10% data growth

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Summary

The Veeam Availability Solution for Cisco UCS is a best-of-breed appliance that is the perfect answer for customers requiring an advanced, enterprise-class data availability solution for their virtual environments that is simple to order, deploy and manage and can easily expand over time as the need increases.

It provides fast, flexible and reliable recovery of applications and data bringing backup and replication together in a single solution with award-winning support.

Learn more
veeam.com

Download free trial
vee.am/availabilitysuite