



AT A GLANCE™

Virtual Data Center in a Box



*Cisco and Pure Storage
Compute, Networking, Pure
FlashArray and management*



*Cisco UCS B200® and/or
C240 M5 servers and/
or C3260 integrated
infrastructures as backup and
recovery targets to ensure
data availability*



*Veeam Backup & Replication
PLUS-Availability for the
Always-On Enterprise*



*VMware vSphere is the
ideal foundation for any cloud
environment*

The challenge:

Although all organizations today face challenges managing and mining their data for our new data-centric world, when IT budgets are constrained, these challenges are even more daunting. To break through these barriers, four vendors – Cisco®, Pure Storage®, VMware® and Veeam® – have combined their development efforts to provide a cost-effective converged solution ideal for entry-level data centers or branch office deployments.

The solution:

Virtual Data Center FlashStack™ Mini includes compute, networking and Pure Storage flash storage, combined with Veeam data availability software, to safely deploy up to 500 to 1200 VMware vSphere® virtual machines with less than 1 ms response time for the most demanding applications.

How Cisco, Pure Storage, Veeam and VMware work together

All four companies are Alliance partners of long standing. The combination of these market-leading companies enables users to meet the most stringent recovery time and point objective (RTPO™) required for tier-1 applications less than 15 minutes for most workloads.

Veeam solutions are certified on Cisco, Pure Storage and VMware platforms, and are engineered to better deliver everything you need to protect your virtual machine application workloads and data, to achieve Availability for the Always-On Enterprise™.

Reducing deployment risk

All four companies have collaborated to offer an integrated and pre-configured data availability solution based on the Cisco Unified Computing System™ (Cisco UCS®), Flash Storage from Pure Storage, and Veeam technology for vSphere environments. FlashStack solutions are available in different sizes and configurations to match your enterprise data protection requirements, while the Veeam Availability Solution for Cisco UCS comes ready for deployment and is verified jointly by Veeam and Cisco.

This solution leverages Cisco UCS M240 or C3260 integrated infrastructures and Veeam Backup & Replication™ Enterprise PLUS to deliver high-speed recovery, data-loss avoidance, and verified protection with complete visibility for applications requiring high availability and scalability. All on VMware vSphere, the industry-leading server virtualization platform.





About Pure Storage

Pure Storage® helps companies push the boundaries of what's possible. Pure's end-to-end data platform—including FlashArray, FlashBlade™ and our converged offering with Cisco, FlashStack™ – is powered by innovative software that's cloud-connected for management from anywhere on a mobile device and supported by the Evergreen™ business model. The company's all-flash-based technology, combined with its customer-friendly business model, drives business and IT transformation with solutions that are effortless, efficient, and Evergreen.

About Veeam

Veeam® recognizes the new challenges companies across the globe face in enabling the Always-On Enterprise™, a business that must operate 24.7.365. To address this, Veeam has pioneered a new market of Availability for the Always-On Enterprise™ by helping organizations meet recovery time and point objectives (RTPO™) of less than 15 minutes for all applications and data, through a fundamentally new kind of solution that delivers high-speed recovery, data loss avoidance, verified recoverability, leveraged data and complete visibility. To learn more, visit <https://www.veeam.com>.

About VMware

VMware®, a global leader in cloud infrastructure and business mobility, helps customers realize possibilities by accelerating their digital transformation journeys. With VMware solutions, organizations are improving business agility by modernizing data centers and integrating public clouds, driving innovation with modern apps, creating exceptional experiences by empowering the digital workspace, and safeguarding customer trust by transforming security. With 2016 revenue of \$7.09 billion, VMware is headquartered in Palo Alto, CA and has over 500,000 customers and 75,000 partners worldwide.

Virtual Data Center Configuration		
FlashStack Mini (components)	Standard configuration	Additional configuration options
Compute	Four (4) Cisco UCS B200 M5 Blade Servers in a Cisco UCS 5108 AC2 Chassis	Install up to four (4) additional B200 M5 blade servers in the chassis for a fully populated chassis (8 blades) Further expansion options via QSPF Breakout Cable: Attach a second Cisco UCS chassis for up to 8 more UCS B series servers and/or, in addition to the C240 M5 Rack Server running Veeam, attach up to three (3) additional C240 M5 Rack Servers
Networking	Two (2) Cisco UCS 6324 Fabric Interconnects Cisco UCS Virtual Interface Card I340	Additional fabric interconnect is required to expand networking (out of cabinet)
Flash storage	One (1) Pure Storage FlashArray//M10 with 25 TB of effective capacity	Requires higher model array //M20, //M50, or //M70
Data availability	Eight (8) sockets - Veeam Backup & Replication PLUS Software*	Up to eight (8) additional sockets for a total of 16 sockets: Veeam Backup & Replication PLUS Software*
Enterprise-class remote backup target	One (1) Cisco UCS C240 M4 Rack Server with external hard disk drive 72-TB Raw (6-TB drives), Certified Veeam- Ready Repository	Can be ordered with drives for 120-TB Raw capacity
Virtualization	VMware vSphere 6.5 Enterprise Plus	vSphere with Operations Management Enterprise plus vCenter Server Standard

* Available in perpetual or subscription licensing

Customer Benefits	
Eliminates IT complexity	
Pre-validated and tested solution	Preconfigured FlashStack Mini platform combined with Veeam's enterprise-class availability features and Cisco's enterprise-class disk array provides a complete data center solution that is easy to deploy, manage, and support.
Faster time to value	FlashStack Mini requires 50 to 75 percent less time than traditional infrastructure, which enables customers to get up and running faster.
Ease of management	Uses Cisco UCS Management , which makes the computing and networking resources both self-aware and self-integrating.
Plug & play	Cisco UCS Manager recognizes any component plugged into the system and can configure a server's identity, connectivity, and configuration without user intervention.
IT flexibility	Can be deployed as a complete small and medium-sized business (SMB) data center solution or provide data protection for branch office solutions for commercial or enterprise customers.
Cost-effective	
Lower TCO and Fast ROI	FlashStack Mini requires fewer networking components, such as cables, switches, and network adapters, than traditional blade and rack architectures. This design lowers the cost from the start.
Data availability growth without additional cost	Veeam Software licensing is not capacity based, which enables customers to grow their storage capacity without additional cost.
Investment protection	FlashStack Mini is evergreen architecture that allows you to continuously update your environment without ever having to undertake a major equipment upgrade.
Supports data availability for virtual environments	
Complete Data Availability	Veeam Backup & Replication PLUS delivers availability for all virtual, physical, and cloud workloads (including VMware vSphere from a single management console).
Performance and Recovery Time Objective (RTO)	FlashStack Mini platform, combined with Veeam's enterprise-class availability features, successfully lowers recovery point objectives (RPOs) and RTOs and seamlessly streamlines backup-and-disaster recovery capabilities.
Reliable restore for virtually every recovery scenario	Veeam Backup & Replication PLUS enables the following restore options: <ul style="list-style-type: none"> • Recover a failed virtual machine in less than 2 minutes • Recover guest OS files and folders on the fly • Recover individual Active Directory objects and entire containers, user accounts and passwords, group policy objects (GPOs), integrated DNS records, and more • Full or granular database recovery: Microsoft® Exchange®, SharePoint®, SQL Server®, Oracle®

To learn more, contact flashstack@purestorage.com or see www.flashstack.com.

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