



# FLASHSTACK

## Converged Infrastructure for VMware Horizon View

Acceleration for your virtual desktops

### THE CHALLENGE

On-the-go access and collaboration are changing the way people get work done and how businesses operate. When teams work in corporate and home offices, conference rooms, coffee shops, and other locations at all times of the day, companies turn to virtual desktop solutions to deliver anytime, anywhere access to environments and applications. Unfortunately, not all virtual desktop deployments deliver the rich experience that users expect. That's why companies are turning to FlashStack™ converged infrastructure with VMware Horizon View software. With this solution, your IT staff and end users can work faster and be more efficient and agile, enabling your organization to deliver better business results.

### FLASHSTACK: A BETTER APPROACH FOR BETTER VIRTUAL DESKTOP DELIVERY

FlashStack, from Cisco and Pure Storage, uses an innovative approach that makes it easy to deploy, operate, manage, and scale your virtual desktop infrastructure (VDI) and end user computing (EUC) environments. Based on a Cisco Validated Design, the solution combines Cisco Unified Computing System (Cisco UCS) blade servers, Cisco UCS fabric interconnects, Cisco Nexus 9000 and Cisco MDS 9000 switches, Pure Storage FlashArray, VMware Horizon View, and VMware vSphere software into a single system. This powerful, reliable, and extremely efficient integrated infrastructure transforms the data center lifecycle so that thousands of users can quickly and confidently access the environments and applications they need at any time and from any location.

## FASTER

The pace of business continues to accelerate. By using powerful and reliable FlashStack solutions, your organization can compete and perform like never before. It starts with rapid deployment. Why? Because traditional IT resources can't support your local and mobile workforce, and your IT staff doesn't have time to waste. FlashStack is pretested and validated so that your IT staff doesn't have to spend a lot of time selecting, connecting, integrating, testing, and managing components. You can move from inflexible and poorly integrated components to a holistic approach that lets you allocate and repurpose your virtual desktop resources and underlying infrastructure on a moment's notice.

The benefits don't stop after your virtual desktops are deployed on FlashStack. Unlike solutions based on slow and inefficient disk or hybrid storage systems, FlashStack unleashes the power of an all-flash storage architecture. With sub-millisecond latency and hundreds of thousands of I/O operations per second (IOPS), you can consistently deliver a rich experience and accelerate applications whether you need to support 100 or 5000 virtual desktop users. When you need to upgrade or expand your deployment, non-disruptive operations mean your users can keep working without sacrificing performance or delaying service delivery. The result: always-available, high-performance virtual environments that can help your staff achieve better business outcomes faster

## MORE EFFICIENT

People, infrastructure, and facilities are significant factors in data center operations. FlashStack provides an exceptionally efficient approach that allows your IT organization to focus its time, staff, and budget on strategic initiatives rather than day-to-day processes.

- **Efficient expansion and upgrades:** FlashStack allows your data center to remain modern over time, with no need to rip and replace components as your requirements grow and change. A modular design lets you switch out hot-swappable components for replacement or upgrade, including blade servers, fabric interconnects and fabric extenders, and storage systems, without requiring a new chassis.
- **Efficient deployments:** FlashStack provides the right balance of memory, I/O, CPU, and storage resources to deliver best-in-class virtual machine density and storage density. Inline and post-process data reduction capabilities further enhance these benefits.
- **Efficient management processes:** Built-in management and automation capabilities and integration with familiar tools free your IT staff from repetitive and time-consuming tasks and reduce the likelihood of errors due to misconfiguration problems. With Cisco UCS Director, you can reduce server, networking, and storage management by up to 90 percent.
- **Efficient cost structure:** Using a pre-validated design with more than 10x data reduction and management simplicity lowers your cost per virtual desktop and the costs associated with ongoing maintenance. Non-disruptive operation means your IT staff doesn't have to work late or over the weekend to get the job done.

# FLASHSTACK for VMware Horizon View



## AGILE

Your users expect fast and easy access to their virtual desktops. FlashStack makes it easy to break free of data center constraints that slow down the process of adding new or repurposing idle IT resources. This flexible infrastructure lets you move to a cloud-like model and scale IT in concert with your business.

The system abstracts the complexity of devices, hypervisors, and virtual machines and automates management processes through a unified set of tools. These abstractions, called service profiles, allow every aspect of the system's configuration to be assigned on demand. With the click of a button, your users request the resources they need and the system deploys consistent virtual machine and underlying infrastructure configurations that are optimized so that they perform at peak efficiency.

When it is time to adapt, you can independently and incrementally scale the performance and capacity of your infrastructure. You can scale up by adding computing, network, and storage resources as needed, or you can scale out by adding FlashStack systems. As a result, you can start with what you need today and have confidence that the system can easily scale to tens of thousands of virtual machines and massive data storage requirements.

## GET STARTED WITH FLASHSTACK

Delayed infrastructure rollouts can affect your organization's bottom line. FlashStack makes it easy to deploy the right virtual desktop infrastructure right from the start. Thousands of engineering hours and rigorous testing of the entire solution stack have resulted in a verified, lab-tested architecture that helps reduce risk and guesswork by giving your IT architects and administrators a guidebook for implementation. Whether you want to buy a new solution from an authorized FlashStack Partner or use the FlashStack components you already have deployed, this Cisco Validated Design can help you create a FlashStack foundation that delivers high performance for mixed virtual desktop workloads as well as resiliency in the event of a storage controller failure.

No matter the deployment size, your FlashStack solution can be ready to go from day one. In the event you have questions, the FlashStack Partner ecosystem—including single call support delivered by Cisco—can quickly get you the support you need so that you can accelerate your business.

## FOR MORE INFORMATION

For more information about FlashStack, visit  
<http://www.purestorage.com/solutions/infrastructure/flashstack.html> and  
<http://www.cisco.com/go/ucsintegratedinfrastructure>.

For more information about this Cisco Validated Design, visit  
[http://www.cisco.com/c/en/us/td/docs/unified\\_computing/ucs/UCS\\_CVDs/ucs\\_flashstack\\_view62\\_5k.html](http://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/UCS_CVDs/ucs_flashstack_view62_5k.html).