



At-a-Glance
2015



VersaStack Solution for Private Cloud

Built with Cisco UCS Integrated Infrastructure and IBM Storwize V7000 Unified Storage



Deploy the Right Cloud Foundation

Every day, businesses perform a delicate balancing act: working to outperform competitors with IT resources that often are unresponsive and unmanageable. As you turn to cloud computing to enhance business agility, your IT infrastructure must be easy to integrate, automate, and orchestrate. VersaStack with Cisco UCS® Director offers everything you need to deploy infrastructure as a service (IaaS). This unified, pretested, and validated data center solution is built on a flexible and secure shared IT infrastructure using leading technology from Cisco and IBM.

VersaStack Solution for Cloud Deployments

Many IT departments have large sets of hardware and software components and spend a lot of time integrating them into a workable solution. Unlike other solutions that simply overlay software, the VersaStack Solution for Private Cloud is a pretested and validated solution that pools your computing, network, and storage resources and enables you to easily deliver IaaS. Based on Cisco UCS Integrated Infrastructure, the solution combines the Cisco Unified Computing System™ (Cisco UCS), Cisco Nexus® 9000 Series Switches, IBM® Storwize V7000 Unified system, and Cisco UCS Director into a single system. With a solution that is easy to deploy, automate, and manage, your IT staff can quickly deliver the infrastructure services your business needs to increase IT and business agility.

Deliver Easy, Efficient, and Versatile IT Services

When computing and storage capacity is added in an ad hoc manner, your IT staff spends a lot of time selecting, connecting, integrating, testing, and managing components. Cisco and IBM enable you to easily deploy the resources you need and add more resources

when you need them. Verified, lab-tested architecture provides detailed design and implementation guidance that helps reduce risk and guesswork by giving your architects and administrators guidebooks for implementation. By following the guidelines in these Cisco® Validated Designs, you can create a VersaStack foundation that helps protect against compromise while delivering a simplified, standardized, and trusted approach for the deployment, use, and management of your shared infrastructure resources and cloud environments.

Deliver Self-Service IT

Your users expect continuous operation and easy access to resources, so IT can't take a long time to add new servers or repurpose idle ones. Based on a Cisco Validated Design, this VersaStack solution lets you move from technology silos to a cloud model that transforms your data center infrastructure into pools of resources that can be easily allocated and repurposed. Your applications can run more efficiently within, between, and beyond your data center boundaries—and your IT department can evolve to IT as a service (ITaaS) to accelerate service delivery and increase revenue.

Self-service access to cloud resources is easy to provide. Cisco UCS Director abstracts the complexity of individual devices, hypervisors, and virtual machines into a simplified model that makes them easy to manipulate and to incorporate into automated processes. Users simply request the resources they need through an easy-to-use, secure, self-service portal, and the system provisions the underlying infrastructure resources. Your cloud infrastructure layers are synchronized and optimized, helping ensure that IT resources are available on demand. Because this intelligent system knows how objects fit together and can apply service profiles in a consistent manner, you can have confidence that the right equipment is quickly and easily provisioned for the workload that you need it to support.

Optimize Storage Footprint, Capacity, and Performance

The solution uses IBM Storwize V7000 Unified, a virtualized, flash-memory-optimized, enterprise-class storage system that provides efficient storage infrastructure for cloud data. The system includes technologies that enhance virtual and cloud environments, with built-in functions such as data virtualization, real-time compression, and IBM Easy Tier, which automatically migrates data between tiers based on real-time use patterns, for extraordinary levels of performance and efficiency. In fact, Easy Tier can deliver up to 3x performance improvement with only 5 percent of the flash-memory storage capacity.¹ Your IT staff can centrally manage storage volumes from a single point, migrate data without disruption to applications, and avoid downtime for backup, maintenance, and upgrade operations.

Measure, Monitor, and Charge for Use

Cisco UCS Director helps you securely separate tenants, monitor and manage applications, provide resource consumption reports, and charge appropriately for IT infrastructure use. With at-a-glance status panels, resource utilization tracking, and predefined reports, your IT department can monitor cloud infrastructure status, show IT resource charges, and charge users only for the resources they use. In addition, the capability to replace time-consuming, manual provisioning and deprovisioning of data center resources with automated workflows helps your IT staff reduce delivery time from weeks to minutes and improve consistency, efficiency, and speed within your organization.

Scale Your Cloud and Lower IT Costs

You need the flexibility to scale your cloud without sacrificing cost control. The system uses a unified fabric that results in fewer network interface cards (NICs), host bus adapters (HBAs), cables, and upstream switch ports and eliminates the need for a parallel Fibre

Channel end-to-end network. Traditional chassis-resident switches are replaced by a low-cost, low-power, zero-management fabric extender that enables the entire system to scale across multiple chassis without any addition of management points. All hardware and software components are managed through unified, embedded management to improve operation efficiency. With fewer components to buy and manage, you can scale your data center at less cost.

Why Cisco and IBM?

Cisco and IBM are global IT industry leaders and have a 15-year history of demonstrated joint success, with more than 25,000 shared customers. We have experience in guiding emerging technology transitions and have the breadth and ability to deliver innovative, validated solutions while helping your organization reduce risk.

Cisco and IBM together provide global delivery capabilities and deep industry expertise along with current technology offerings in data center computing, networking, mobility, collaboration, analytics, and the Internet of Things (IoT). Our solution portfolio is based on client-specific needs and strategies across industries and segments, including healthcare, banking, public safety, energy, utilities, and retail. As a result, we can offer you what you need to achieve the vision of a modern data center that delivers IT and business agility.

For More Information

Read the Cisco Validated Design at [VersaStack for Data Center with Cisco UCS Director](#).

Learn more about VersaStack at <http://www.cisco.com/go/versastack>.

¹ IBM Lab measurements



Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
www.cisco.com/go/ibm



International Business Machines Corporation
New Orchard Road
Armonk, NY 10504
www.ibm.com/cisco

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