FlexPod from Cisco and NetApp: Simplify Your Journey to a Microsoft Private-Cloud Solution

What You Will Learn

The FlexPod with Microsoft Private Cloud solution, jointly delivered by Cisco and NetApp, has been validated for Microsoft-based infrastructure-as-a-service (IaaS) environments[1]. By taking advantage of FlexPod, organizations like yours can:

- Quickly establish a virtual desktop or server infrastructure, secure multitenancy environment, or private-cloud environment based on a Microsoft private-cloud solution
- Scale up and scale out with ease
- Support a wide range of Microsoft application workloads
- Reduce overall IT risk and complexity by relying on a pre-validated solution based on technologies from industry leaders Cisco, NetApp, and Microsoft

Challenge

The demand for IaaS is growing exponentially. IT departments race to bring the benefits of such an infrastructure to the business but must do so while keeping control of costs and avoiding unnecessary complexity and risk. But where does an IT department begin its journey to the private cloud? For many, the answer to this question has been simple: with a ready-to-deploy solution based on a prevalidated data center design and technologies from industry leaders.

FlexPod Solution

The search for a ready-to-deploy IaaS solution is over. FlexPod with Microsoft Private Cloud, a predesigned private-cloud infrastructure built on industry-leading technology, is built on the Cisco Unified Computing System™ (Cisco UCS™), Cisco Nexus® data center switches, NetApp fabric-attached storage (FAS) components, Microsoft Windows Server 2012, and Microsoft System Center 2012.

FlexPod is a base configuration for running Microsoft applications and can scale up for greater performance and capacity, or it can scale out for environments that need consistent, multiple deployments. In addition, the solution has the flexibility to be sized and optimized to accommodate

FAST FACTS

What Is FlexPod?

Jointly delivered by Cisco and NetApp, FlexPod with Microsoft Private Cloud is a ready-to-deploy private-cloud platform that has been validated by Microsoft to run Microsoft applications.

What Are the Benefits?

FlexPod enables companies to:

- Rapidly make the journey to the cloud through a preconfigured solution
- Approach the private cloud with lower risk
- Scale up and out with ease

[1] FlexPod with Microsoft Private Cloud from Cisco and NetApp is validated through the Microsoft Private Cloud Fast Track program.

many different use cases. FlexPod is a platform that can address current virtualization needs and simplify your company's move to the private cloud.

Main Technologies in the Solution

Microsoft is working with Cisco and NetApp to bring together industry-leading infrastructure to deliver a Microsoft-based private-cloud solution. FlexPod includes:

- **Cisco UCS:** Cisco UCS is the first converged data center platform that combines industry-standard, x86-architecture servers with networking and storage access into a single system.
- **Cisco Nexus 5548UP Switch:** The Cisco Nexus 5548UP Switch delivers innovative architectural flexibility, infrastructure simplicity, and business agility, with support for networking standards across traditional, virtualized, unified, and high-performance computing environments.
- **NetApp family of FAS controllers:** NetApp FAS storage controllers provide an agile and scalable storage platform that unifies storage and data management software and processes to reduce the complexity of data ownership, boost agility, and reduce the overall total cost of ownership (TCO).
- **Microsoft private-cloud solutions:** Built on Microsoft Windows Server 2012 with Hyper-V technology and Microsoft System Center 2012 solutions, Microsoft private-cloud offerings provide the powerful capabilities that you need to build a private-cloud infrastructure that will transform the way that your organization delivers IT services.
- **Integrated Management with System Center:** Cisco and NetApp management platforms (i.e. Cisco UCS Manager) tightly integrate with System Center 2012 as well as Microsoft PowerShell.

Simplify Your Data Center Transformation

FlexPod is built on leading computing, networking, storage, and infrastructure software components. It provides an excellent virtualized data center solution through:

- Validated technologies from industry leaders in computing, storage, networking, and server virtualization
- One platform built from unified computing, fabric, and storage technologies, with popular and trusted software virtualization
- Integrated components that help enable you to centrally manage all your infrastructure pools
- An open management framework that integrates with your existing third-party infrastructure management solutions

Accelerate Deployment

With FlexPod with Microsoft Private Cloud, a comprehensive feature set and detailed guidance make Microsoft private clouds easy to deploy. Features include:

- End-to-end architectural and deployment guidance
- Streamlined infrastructure planning through the use predefined capacity
- Enhanced capabilities and automation tailored to your needs, for supporting Microsoft applications in the private cloud
- Ease of repeatability, enabling your organization to simply deploy another FlexPod solution as your needs grow and change, without the need to start from the beginning

Move to the Cloud with Confidence

Validated configurations mean that you can implement your move to the cloud with confidence. Reducing the risk in your move to the cloud, FlexPod offers:

WHAT IS PREVALIDATED?

Enabling a rapid move to private-cloud computing, FlexPod comes with a pre-validated architectural design that combines networking, computing, and storage in a cloud infrastructure and supports multiple applications and workloads.

BEST OF TECH ED 2013 WINNER!

FLEXPOD WITH MICROSOFT PRIVATE CLOUD – SYSTEMS MANAGEMENT CATEGORY

- Integrated management for physical and virtual machines
- Self-service portal for rapid and simplified provisioning of resources
- Tested, end-to-end interoperability of computing, storage, and networking resources
- Predefined, out-of-the-box solutions based on a common cloud architecture
- High degree of service availability through automated load balancing

Gain Greater Scalability

FlexPod can scale up for greater performance and capacity, or scale out for environments that need consistent multiple deployments. You can size and optimize FlexPod to accommodate different use cases, such as application workloads that include:

- Microsoft SQL Server
- Microsoft Exchange Server
- Microsoft SharePoint Server
- Virtual desktop infrastructure (VDI)
- Secure multitenancy environments

Move to Intelligent Networking

Industry trends indicate a vast data center transformation toward shared infrastructures. Enterprise customers are moving away from silos of information and purpose-built infrastructure and adopting shared infrastructures, virtualized environments, and cloud-based offerings to increase agility and reduce costs. As businesses shift to these new, intelligent networks, users expect more than just a "best-effort" service. Expectations are high, and high security, reliability, and predictability are critical. At the forefront of helping businesses establish intelligent networking, Cisco provides a solid foundation through FlexPod. By turning to FlexPod, businesses like yours can ease the transition to private-cloud computing and gain the benefits that such a transition offers: agility, simplicity, efficiency, and more.

Why Cisco?

Cisco and its strategic alliances enable business to achieve the benefits of comprehensive solutions that use powerful technologies from industry leaders. To that end, FlexPod brings together the power of Cisco® server and network infrastructure with leading NetApp storage solutions and a Microsoft technology–based private server and desktop virtualization solution. With FlexPod, your business will be well on its way to an IaaS model quickly, cost effectively, and with less risk.

For More Information

Visit the following sites for more information about FlexPod and related solutions:

- The Cisco Validated Design for the FlexPod solution validated with Microsoft private-cloud solutions is available at http://www.cisco.com/en/US/solutions/ns340/ns414/ns742/ns743/ns1050/landing_flexpod.html.
- Other designs tested and validated by Cisco for Microsoft applications such as Microsoft Exchange Server, SharePoint Server, and SQL Server are available at www.cisco.com/go/microsoft.
- To learn more about the Microsoft private-cloud platform, visit www.microsoft.com/readynow and www.microsoft.com/en-us/server-cloud/new.aspx.

BUILT FOR THE REAL WORLD

The private cloud is not just a nice idea—it is a reality that FlexPod makes possible. Business solutions across industries, such as healthcare, finance, and government, are increasingly relying on FlexPod in a wide range of scenarios.

www.cisco.com
www.netapp.com

Printed in USA C22-705761-00 09/13