VMWARE CLOUD FOUNDATION
Simple, Agile and Secure Cloud Infrastructure

AT A GLANCE
VMware Cloud Foundation™ is the industry’s most advanced cloud infrastructure platform. It provides a complete set of software-defined services for compute, storage, networking and security to run enterprise apps — traditional or containerized — in private or public environments. Cloud Foundation drastically simplifies the path to the hybrid cloud by delivering a single integrated solution that is easy to operate, thanks to newly built-in automated lifecycle management.

KEY BENEFITS
VMware Cloud Foundation dramatically shortens the path to a true hybrid cloud, increasing admin productivity while reducing overall TCO. Customers who deploy VMware Cloud Foundation can achieve the following when compared to a legacy hardware-defined data center.

• Accelerate time to market: Achieve up to 6-8x faster time to market by eliminating complex processes around system design, testing, bring-up, configuration, and provisioning
• De-risk deployment: Ensure quick, repeatable, secure deployments based on a standardized, VMware Validated Design™
• Lower TCO: Reduce overall TCO of private cloud deployments when deployed with vRealize Suite by up to 30-40%* 
• Future proof infrastructure: Run any app, both traditional and cloud native containerized

*Data based on internal VMware analysis and testing

What is VMware Cloud Foundation
Cloud Foundation is the next generation VMware cloud infrastructure platform. It evolves VMware’s market leading server virtualization, VMware vSphere®, by extending the core hypervisor with integrated software-defined storage, networking and security capabilities that can be consumed flexibly on premises or as a service in the public cloud (VMware Cloud on AWS™, VMware Cloud Foundation on IBM Cloud, VMware Cloud Provider™ program). When coupled with a cloud management platform (VMware vRealize® Suite), the end result is a hybrid cloud platform than can span private and public environments offering a consistent operational model based on well-known vSphere tools and processes, and freedom to run applications anywhere without the complexity of application re-writing.
What is Unique

Integrated Stack: Cloud Foundation is an engineered integration into a single solution of the entire software-defined stack with guaranteed interoperability, freeing organizations from dealing with interoperability matrixes.

Standardized Architecture: Cloud Foundation is built on a standard architecture that is based on a VMware Validated Design. It ensures quick, repeatable deployments while eliminating risk of mis-configurations.

Automated Lifecycle Management: Cloud Foundation includes unique lifecycle management services that automates day 0 to day 2 operations from bring up to configuration, resources provisioning and updates/upgrades.

Can be Deployed from the Cloud: Cloud Foundation provides you the ultimate flexibility to maintain your private cloud on premises and to the other end of the spectrum run all your applications and workloads in the public cloud, with a consistent operational experience across cloud.

Broad Ecosystem: Cloud Foundation can be flexibly deployed on premises on a broad set of qualified hardware from major OEMs or through service providers for the public cloud.

Key Features and Capabilities

Natively integrated software-defined stack: Cloud Foundation provides a complete set of software-defined services for compute, storage, networking and security to run enterprise apps - traditional or containerized - in private or public environments. Cloud Foundation simplifies the path to the hybrid cloud by delivering a single integrated solution that is easy to operate with built-in automated lifecycle management.

Enterprise-grade functionality: Cloud Foundation is based off of VMware’s market leading technologies: VMware vSphere, vSAN™, NSX®, and SDDC Manager™, delivering enterprise ready services for both traditional and containerized apps.

Storage elasticity and high performance: Cloud Foundation supports the latest version of vSAN 6.6 with all-flash performance and enterprise-class storage services including deduplication, compression and erasure coding. vSAN implements hyper-converged storage architecture delivers elastic storage and drastically simplifies storage management.

End to end security: Cloud Foundation delivers end to end security for all applications by delivering micro-segmentation, distributed firewalls, and VPN (NSX), VM, hypervisor, and vMotion® encryption (vSphere), and data at rest, cluster, and storage encryption (vSAN).
Automated lifecycle management: Cloud Foundation includes VMware SDDC Manager, new management software that automates day 0 to day 2 operations of cloud infrastructure software stack, including, when deployed, vRealize Suite and VMware Horizon.

• Rapid deployment: Cloud Foundation automates the bring up process of the entire cloud infrastructure stack, including deployment of infrastructure VMs, creation of the management cluster, configuration of VLANs, storage, physical network, and cluster creation and provisioning.

• One-click patching and upgrades: Cloud Foundation enables a one click patching/upgrading process of the cloud infrastructure stack (including VMware vCenter Server®). Cloud admins have the flexibility to choose the timing and scope of the updates.

• Policy based provisioning: Cloud Foundation simplifies resource allocation to individual workloads by automating cluster creation through policy.

Flexible deployment choice: Flexibly deploy Cloud Foundation on-premises across multiple pre-qualified vSAN ReadyNodes and ready systems, including Dell EMC, Cisco, HPE, QCT, Fujitsu and HDS, or run as a service from VMware Cloud on AWS and select VMware partners including IBM Cloud, Rackspace, OVH, and CenturyLink.

Use Cases

Virtual Infrastructure: Leverage the high performance, availability, and scalability of VMware’s SDDC to run any mission critical application such as database, Web apps, VDI, etc.

IT Automation: Automate infrastructure and application delivery with self-service capabilities.

Virtual Desktop Infrastructure: VMware Cloud Foundation for Horizon delivers a complete solution for VDI deployments at scale – it simplifies planning and design with a standardized and tested solution fully optimized for VDI workloads. It also reduces complexity with automated deployments, configuration, and provisioning.

Hybrid Cloud: Build a path to the hybrid cloud by leveraging a common infrastructure and consistent operational model, connecting your on- and off-premise data center that is compatible, stretched and distributed.

Deployment Options

VMware Cloud Foundation software can be consumed in three ways:

• Ready Systems: Pre-qualified vSAN ReadyNodes and networking switches. To learn more about our qualified hardware partners, please visit the VMware Compatibility Guide.

• Integrated System: VMware Cloud Foundation software stack pre-installed and integrated on qualified hardware (e.g., Dell EMC VxRack SDDC).

• As a Service from the Public Cloud: Run VMware Cloud Foundation as a service, managed by public cloud providers.