

# **Delivering Cloud to** On-Premises Infrastructures

Flexibility is one of the greatest advantages of modernizing a private cloud infrastructure and evolving to a hybrid cloud model. Hybrid clouds allow VMware Cloud organizations to choose the best combination of on-premises and cloud-based Foundation+\* resources to meet their specific needs.

> By leveraging a hybrid cloud environment, organizations can run mission-critical workloads on-premises with complete control and security, while running lesscritical workloads in the public cloud, where they can take advantage of lower costs and scalability.

VMware Cloud Foundation+™ is the foundational platform that allows IT leaders to focus on building the future of their private cloud infrastructure, evolving towards a true multi-cloud strategy that removes the burden of operational complexity and maximizes business output.

# Key ingredients to a future-proof cloud solution

Modern infrastructure and operations leaders are pivoting to support new technologies while navigating economic uncertainty. Delivering the speed, agility and scale of public cloud while maintaining visibility, security and control have been standardized as part of the corporate data center. It is crucial to deploy cloud services on-premises that can extend the infrastructure to support emerging technologies such as containers and Kubernetes. These objectives must be attained while lowering costs and improving the availability, resilience and management of these critical corporate assets.

## Key factors to consider when evaluating modern hybrid cloud solutions

## Integration and interoperability

The ability to seamlessly integrate existing infrastructure with public and private cloud environments, and support data and application migration between cloud environments.

#### Scalability and elasticity

The ability to easily and quickly scale up or down as workload demands change, and support for dynamic resource allocation across cloud environments.



## **VMware Cloud Foundation+** Benefits



Admin services reduce maintenance windows and improve security



Accelerates developer productivity with embedded Kubernetes runtime, management, and cloud developer services



Provides access to high-value cloudbased admin, developer, and add-on services



Streamlines maintenance windows and monitors global inventory



#### Gauging Kubernetes usage

## 86%

of application developers have a say in workload deployment

# 95%

of new applications use containers

## 86%

of containerized applications are on Kubernetes

#### Security and compliance

The implementation of advanced security measures, such as encryption and access controls, and the ability to meet regulatory and compliance requirements across cloud environments.

#### Cost optimization

The ability to optimize costs by choosing the right workloads to run in public or private clouds while using cost-saving techniques, such as automation and resource sharing.

#### Management and automation

The availability of centralized management tools to simplify the administration of hybrid cloud environments and support the automation of routine tasks.

#### Performance and availability

The ability to ensure high performance and availability for critical applications across cloud environments, with features such as load balancing and disaster recovery.

IT leaders should prioritize these factors based on the specific needs and requirements of their organization, and choose a hybrid cloud solution that best meets those needs.

# **Defining VMware Cloud Foundation+**

VMware Cloud Foundation+ delivers the benefits of cloud connectivity to efficiently manage VM and container-based workloads that serve as a basis for private, hybrid, and multi-cloud deployments.

By delivering a cloud operating model for on-premises workloads, VMware Cloud Foundation+ combines industry-leading full stack hyperconverged infrastructure technology, an enterprise-ready Kubernetes environment, and high-value cloud services to transform existing on-premises deployments into SaaS-enabled infrastructures. With the VMware Cloud™ Console, IT teams can gain operational efficiency by reducing maintenance windows while having immediate access to new features and capabilities.

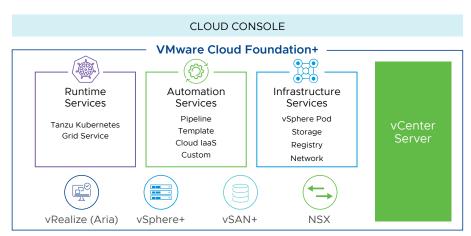


Figure 1: VMware Cloud Foundation+ Architecture.

<sup>2.</sup> StackRox, State of Container and Kubernetes Security Report, Spring 2019



<sup>1. 451</sup> Research's Voice of the Enterprise: Digital Pulse, Organizational Dynamics.

## The economic impact of **VMware Cloud Foundation+**

# \$4.8M

Security-related present value savings (USD)

# \$2.6M

Ongoing operational costs present value savings (USD)

# \$1.9M

Network operations productivity and efficiency savings (USD)

# \$0.4M

Lifecycle management productivity related present value savings (USD)

# Leveraging VMware Cloud Foundation+

The automation of VMware Cloud Foundation+ brings true cloud agility to enterprise applications on-premises, simplifying management and freeing resources for new projects. It simplifies the hybrid cloud by delivering a single, integrated solution that is easy to deploy and operate through automation, with built-in lifecycle management.



### Make the hybrid cloud the default operating model

Making hybrid cloud the default operating model requires a well-planned and executed strategy that leverages the right technologies and processes. VMware Cloud Foundation+ provides several key capabilities, such as a common platform for private cloud deployments that offers the agility and benefits of public cloud on-premises.

VMware Cloud Foundation+ integrates multiple VMware technologies, including vSphere®, NSX®, and vSAN™, into a single, integrated software stack. This simplifies the deployment and management of hybrid cloud environments while providing administrators the benefits of each technology.

Leveraging cloud-ready services allows IT leaders to further extend the platform to the cloud, and deliver on their multi-pronged cloud strategy.



#### Modernize infrastructure operations through orchestration

VMware Cloud Foundation+ delivers production-grade infrastructure with agility, reduced complexity, and a lower TCO. Intrinsic security and lifecycle management are built into the platform, ensuring that infrastructure administrators can secure networking operations.

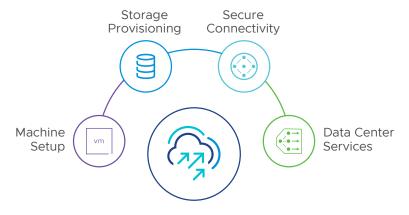


Figure 2: VMware Cloud Foundation+ Intelligent Automation and Orchestration.





Automation streamlines the initial deployment, the configuration, and the full stack upgrades to ensure that systems remain patched and secure. For example, VMware Cloud Foundation+ administrators can simplify the creation and maintenance of a clusters-desired state vSphere Lifecycle Manager image by replicating a reference host configuration in order to streamline and reduce time for host upgrades.



#### Improve global observability through a cloud console

Observability provides insights into how systems are functioning by collecting and analyzing data from various sources, such as log files, performance metrics, or network traffic. This information is used to identify issues, understand the root causes of problems, and take corrective action. In the context of modern cloudbased systems and applications, observability has become even more important due to the complexity and scale of organizational environments.

VMware Cloud Foundation+ provides integrated observability capabilities to help IT leaders monitor and understand the behavior and performance of their cloud environments. By introducing centralized monitoring as part of the VMware Cloud Console, organizations now can view performance metrics and events from multiple sources in a single view. This streamlines the process to identify and remediate issues in the shortest time possible.



#### Accelerate developer productivity

To keep continuous development pipelines running at peak efficiencies, it's critical to ensure that developers have frictionless access to application code, infrastructure services, runtime environments, system tools, libraries, and registries. Hybrid cloud deployments enable developer productivity by providing the tools and resources they need to build, test, and deploy applications quickly and efficiently.

By providing developers with access to the right tools and services, faster deployment, improved collaboration, and more efficient resource utilization, hybrid clouds can help organizations deliver better applications and services faster and at lower cost. This can drive greater innovation and competitiveness, and help organizations stay ahead in a rapidly changing market.



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#### Deliver a secure, compliant hybrid platform

It is critical for IT leaders to ensure that their hybrid cloud environments are secure and protected against threats. Hybrid cloud deployments often are subject to regulatory requirements, such as data privacy regulations and industry-specific standards. And they often involve multiple cloud providers, each with its own security controls and requirements.

VMware Cloud Foundation+ comes equipped with a full stack of security tools for IT leaders to leverage at every stage of the deployment, providing both consistency and the ability to meet regulatory standards.

## **Getting started**

Getting started with VMware Cloud Foundation+ is simple. For a quick hands-on experience, try the VMware Cloud Foundation+ Hands-on Lab.

When you are ready to purchase, there are four ways to acquire VMware Cloud Foundation+:

- 1. Directly from VMware
- 2. From VMware channel partners
- 3. As part of an integrated system from OEM vendors
- 4. As a subscription service from a public cloud service provider

