7 Reasons VMware Cloud Foundation is the Premier Hybrid Cloud Solution: An Executive Guide

vmware®

Executive Summary

Application and cloud strategies are inextricably linked. IT organizations are modernizing application portfolios to meet digital business needs. They're also rethinking IT infrastructure to support the spectrum of application types and requirements.

Because not one size fits all, IT leaders have choices about how to effectively and efficiently modernize both applications and underlying infrastructure. And, options for how to implement a cloud operating model that delivers consistent IT services wherever workloads are deployed.

VMware Cloud Foundation™ is a market-leading hybrid cloud platform that works consistently across any private cloud, hosted provider cloud, and public cloud based on VMware vSphere®. Uniquely, it's now optimized for both traditional virtual machine (VM) and cloud-native containerized workloads.

By running any and all applications—new and existing—on a VMware platform in any cloud and adopting a single cloud operating model for all infrastructure services, you and your organization can enjoy the fastest and least disruptive path to app modernization and hybrid cloud:

- Accelerate IT to support application transformation and digital business goals
- Reduce complexity with consistent IT infrastructure and consistent IT operations
- Lower operational cost and business risk using proven solutions

Keep reading to discover how your organization can benefit from future ready hybrid cloud with VMware.

Is Your IT Service Delivery Future Ready?

Global Crisis Accelerates Digital Transformation

No industry was completely prepared for the rapid disruption caused by COVID-19. Although some organizations were able to pivot more quickly to remote work and ensuring business continuity than others, even those with the most sophisticated digital channels faced scalability and supply chain challenges.

Recognizing improvement is needed and possible with modern approaches, businesses across industries are adopting new digital capabilities to not only survive but thrive. They are accelerating IT initiatives, despite economic challenges. And moving beyond responding and adapting to innovating.

Investment in Modern Apps and Infrastructure Boosts Agility

IT organizations looking to improve speed and resilience are laser focused on modernizing apps and their underlying IT infrastructure to support containerized workloads.

Containers allow developers to deploy their applications with portable, lightweight packaging. Cloud enables programmatic control of infrastructure virtually and remotely. The combination of containers, cloud infrastructure, and integrated continuous integration/continuous delivery (CI/CD) tools allows developers to rapidly ship incremental changes to their applications to meet digital business needs.

DIGITAL INVESTMENT

Polling results from a Gartner webinar conducted in July 2020 showed that while 53% of the respondents expected a revenue decline in the next 12 months, 86% planned to increase their digital investment in the same period.[1]

ADDITIONAL RESOURCES

VMware Cloud Platform CTO, Kit Colbert: The Counterintuitively Fastest Path to App Modernization

1 Gartner, Inc. "10 Things COVID-19 Will Change in Digital Commerce," August 2020

App Modernizations is a Spectrum

Often mischaracterized as an all-or-nothing investment, application modernization is truly a spectrum of choices. To add new digital capabilities for a specific business need, organizations have three application modernization options:

- **Rehost** – "As is" workload migration to the cloud without changing architecture or code
- **Replatform** – Containerize traditional workloads to increase agility and standardize automated development and deployment tool chains
- **Refactor** – Utilize cloud-native and microservices architectures by rewriting or writing new code

Modern Infrastructure Flexibility

As they are modernizing apps, future ready IT organizations are also adopting a cloud operating model that delivers developer-ready infrastructure services for all application types. And one that enables consistent service delivery, breaking down traditional infrastructure-specific silos while offering the greatest flexibility to change.

In short, organizations are boosting agility with the key to digital transformation success: A single hybrid cloud platform that operates consistently across any cloud, any app, any device.

KEY QUESTIONS

1. What are your company's strategic goals and how do digital solutions meet them?
2. How are your developers modernizing your application portfolio to meet those goals?
3. How is your current infrastructure architected to support cloud and application changes?

LEARN MORE ABOUT

VMware Cloud® on AWS
VMware Cloud managed by VMware on AWS infrastructure

Cloud Verified Partners
Who offer VMware Cloud compatible services

VMware Hybrid Cloud

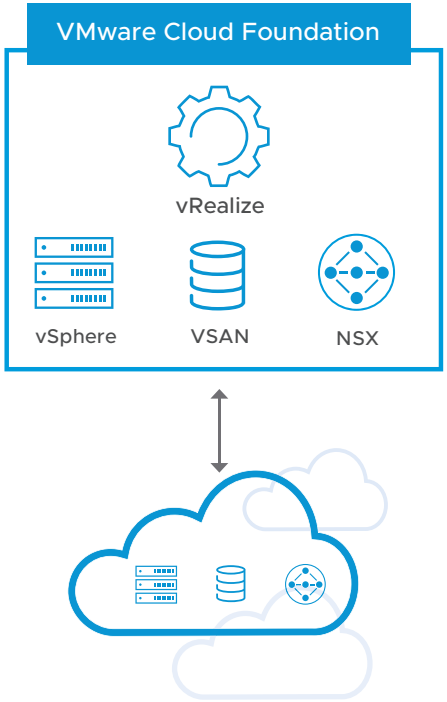
Many enterprises have had a tactical cloud-first strategy and set workload migration targets. Yet application modernization requirements are often the strategic drivers of infrastructure modernization and cloud strategies.

Consider this: Although **70%** of IT organizations recently surveyed are actively engaged in migrating existing applications to public cloud, they are also planning to deploy **47%** of new cloud-native workloads to private cloud.[2]

And despite there not being one cloud strategy for all, **76%** of IT organizations surveyed are committed to hybrid cloud as a long-term strategy.[3]

VMware has a unique and powerful hybrid cloud solution—VMware Cloud Foundation—that provides a virtualized and programmatic-consistent infrastructure as well as consistent operations and automation tools that work everywhere you deploy and manage both traditional and cloud-native workloads.

VMware Cloud Foundation is the future-proof hybrid cloud platform for modernizing data centers and deploying modern apps. It is full-stack hyperconverged infrastructure (HCI) with fully integrated compute, storage, networking, and management—with automation for reduced complexity and lower TCO.



2. Management Insight Technologies. "VMware Research Snapshot: The State of Application Modernization and Hybrid Cloud Computing," January 2020. (N=1205)
3. Enterprise Strategy Group. "Research Highlights, Hybrid Cloud Trends: Strategies for Optimizing On-Premises and Public Cloud Infrastructure," June 2019. (N=358)

7 Reasons to Choose VMware

Here's why the VMware Cloud Foundation future ready, full-stack hybrid and multi-cloud solution is ideal for all your workloads:

1. VMware Cloud Foundation is an integrated, software-defined solution with built-in automated lifecycle management that combines virtualized services for compute, storage, networking, security, and cloud management. It delivers consistent infrastructure for private, hybrid, and multi-cloud demands.
2. Kubernetes is now delivered as part of VMware Cloud Foundation with VMware Tanzu, delivering full-stack, developer-ready infrastructure with a standard Kubernetes API for programmatic consumption of compute, network, storage, and security services.
3. IT operations teams, who have different priorities, skill sets, and preferences than developers, can offer developer-ready infrastructure while gaining observability and troubleshooting for Kubernetes workloads.
4. VMware solutions included in the full-stack hybrid cloud are now optimized for Kubernetes. As a result, IT can configure an enterprise-grade Kubernetes infrastructure with integrated networking and storage within an hour.[4]

LEARN MORE ABOUT

VMware Cloud Foundation with VMware Tanzu™

This full-stack solution is the best way to run Kubernetes workloads at scale.

- For application developers—It is Kubernetes.
- For infrastructure administrators—It is vSphere.
- For the digital business—It is a single hybrid cloud platform that supports the spectrum of application modernization options.

4. Based on 2020 internal VMware testing and expectations for a production environment, where appropriate network settings are preconfigured for consumption.

5. With built-in Kubernetes, any environment based on vSphere with Tanzu now natively supports both VM and container workloads as first-class citizens.

6. The same VMware Cloud Foundation stack is available as a VMware managed service—in Amazon Cloud as VMware Cloud™ on AWS, in your data center and hosted providers such as VMware Cloud™ on Dell EMC.

7. VMware powers your multi-cloud strategy with leading public cloud providers offering hybrid-compatible services based on the same VMware Cloud stack, including Google Cloud VMware Engine, IBM Cloud for VMware Solutions, Microsoft Azure VMware Solution, and Oracle Cloud VMware Solution. And over 200 VMware Cloud Provider Program Partners offer VMware Cloud Verified hybrid cloud services on the same VMware Cloud stack.

VMware Cloud Foundation delivers enterprise agility, reliability, and efficiency for organizations like yours seeking a private, hybrid, or multi-cloud solution.

VMware Private Cloud Benefits

As a private cloud, VMware Cloud Foundation delivers a full-stack infrastructure solution and a cloud operating model that standardizes and streamlines the consumption of modern infrastructure services.

It can maximize expected value across IT infrastructure and operations in a wide range of business sectors. Business case analysis of more than 103 VMware customers' data in 2019 and 2020[5] reveals significant reduction in three-year total cost of ownership (TCO).

CapEx Value Drivers

- Runs on industry-standard x86 hardware
- Places workloads intelligently, based on planned cost and business outcomes
- Optimizes workload density with automated resource and workload management
- Reduces firewall and load balancer hardware costs

49% average projected three-year total CapEx savings from combined compute optimization, host consolidation, and networking savings.

OpEx Value Drivers

- Integrates and automates initial system deployment, configuration, and ongoing lifecycle management
- Optimizes service delivery with orchestrated and automated infrastructure resources
- Streamlines service consumption with standardized and repeatable logical infrastructure topologies
- Accelerates mass migration of workloads into VMware Cloud Foundation environments

69% average projected three-year total OpEx savings from combined system lifecycle management, service blueprinting, and service delivery automation savings.

ADDITIONAL RESOURCES

Download the VMware Cloud Foundation *Business Case* to see estimated OpEx and CapEx savings across key industries and segments.

LEARN MORE ABOUT

VMware Cloud on Dell EMC

A full-stack VMware managed private cloud in your environment

5. Analysis findings and data based on average projected business case savings for 103 VMware customers assessed in 2019 and 2020.

VMware Hybrid Cloud Benefits

As a hybrid cloud, VMware Cloud Foundation extends consistent infrastructure and consistent operations across on-premises and public cloud environments.

It now supports both VM and container-based applications while streamlining workload migration, enabling standardized and automated service consumption, and powering a cloud operating model that reduces operational complexity and risk.

By running both modern and traditional applications on a single VMware platform in a private cloud, hosted provider cloud, and public cloud, your IT organization enjoys the fastest, least-disruptive way to support the spectrum of application modernization.

Cost optimization and operational efficiency benefits resulting from VMware Cloud Foundation deployment are driven by reduced complexity—when IT adopts a single cloud operating model wherever workloads are deployed. Additional agility and service consumption benefits are often business specific and can have a significant boost for strategic IT service delivery.

Benefit	Timeframe
Fastest and least disruptive path to cloud – Extend VMware solutions to the cloud to migrate workloads or add capacity—all with familiar tooling, skills, and core processes.	Immediate
Faster time to market – Automate and standardize cloud services to reduce application deployment times so apps and features get to users sooner.	After integrating the application release process
Reduced risk – Link policies to workloads for consistent and streamlined compliance across environments, reducing hybrid cloud and modern application complexity.	Immediate
Reduced data center footprint – Tap cloud resources on demand for either temporary or long-term use to reduce resources needed to manage infrastructure.	After cloud migration

ADDITIONAL RESOURCES

Forrester Total Economic Impact™ of VMware Cloud on AWS

Analysis of customer benefits derived from workload migration and reduced operating costs

Benefit	Timeframe
Lower software license costs – Retire older hosts and increase workload density, cutting unnecessary expenses.	With consolidation
Faster and cheaper workload migration – Move applications without refactoring or replatforming using familiar VMware tools, migrating workloads more efficiently and cost effectively.	Immediate
Support new cloud-native apps with existing teams and tools – Manage container-based and VM-based applications side by side with the same team, tools, and processes—wherever they are deployed.	After upgrade to VMware vSphere® with VMware Tanzu™
Avoid lock-in – Deploy workloads to best-fit environments based on technical or business requirements, then migrate or redeploy without vendor lock-in should conditions change.	Ongoing when needed across multiple clouds
Speed mergers and acquisitions – Spin up cloud resources in region, seamlessly migrate workloads without refactoring, and end-of-life legacy infrastructure faster—in weeks not months.	As needed

VMware Unique Value

If your organization is modernizing applications and wants to simplify the management of private, hybrid, or multi-cloud infrastructure, your workloads should be deployed on a VMware digital foundation.

- VMware transformed the IT industry with virtualization and Software-Defined Data Center (SDDC) technology.
- VMware leads the private cloud market with solutions based on VMware SDDC technology.
- VMware now leads the hybrid cloud market having forged key partnerships with leading public cloud providers. Now the same VMware Cloud Foundation stack you run in your private cloud is also available from all six global hyperscalers as well as more than 200 Cloud Certified VMware Partners.
- VMware has made significant investments in containerized application solutions through acquisitions (e.g., Heptio, Bitnami, and Pivotal) as well as the development of VMware Tanzu with its app modernization and Kubernetes capabilities.
- VMware has product support for Kubernetes-based applications on familiar VMware platforms—vSphere, VMware vRealize® Cloud Management™, VMware vSAN™, VMware NSX® and others—to ensure IT organizations can support container and VM-based workloads on VMware architecture and enable digital business success now and into the future.

By running traditional and modern applications on the VMware architecture (any application, any cloud), your organization can take the fastest and least-disruptive path to app modernization and hybrid cloud:

– Accelerating IT processes to support digital business initiatives

– Reducing complexity with familiar and trusted VMware solutions

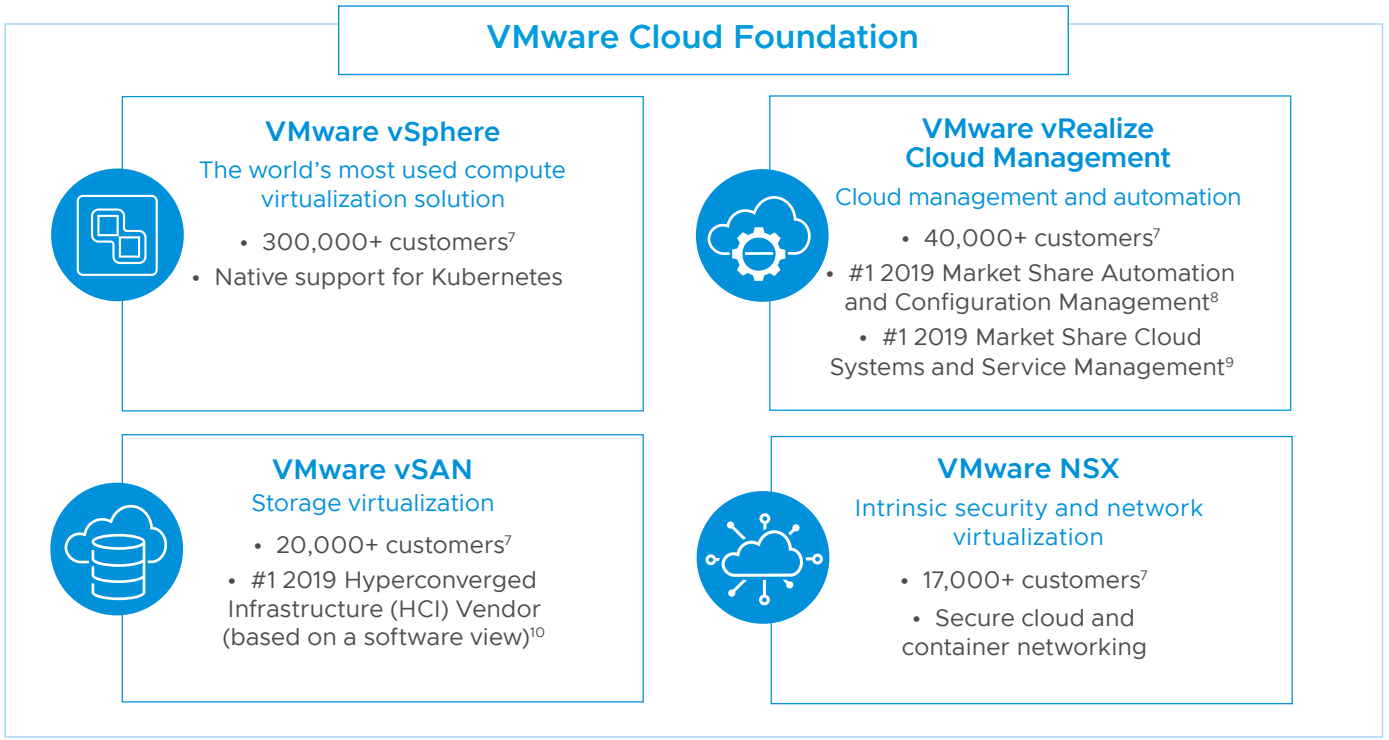
– Lowering operational costs and business risk with a proven partner

VMware is the second most active contributor to the Kubernetes open-source community.[6]

6. K8s.devstats.cncf.io

VMware Market Leadership

VMware Cloud solutions—based on VMware Cloud Foundation—combine trusted, proven products into a full-stack solution that work with both new and existing applications, on premises and in the public cloud.



7. Customer counts as of Q3 FY21
8. IDC. "IDC Worldwide IT Automation and Configuration Management Software Market Shares, 2019: Market Expands Ahead of Coronavirus Impact," Doc #US46397520, June 2020.
9. IDC. "IDC Worldwide Cloud Systems and Service Management Software Market Shares, 2019: SaaS and ITOM Drive Growth," Doc #US45083420, May 2020.
10. IDC. "IDC Worldwide Quarterly Converged Systems Tracker, Hyperconverged Systems Based on Owner of HCU Software, September 17, 2020. VMware leading market share based on revenue attributed to owner of HCI software.

Key Hybrid Cloud Considerations and Actions

Leading a shift to hybrid cloud service delivery requires intentional action to ensure success. And VMware is the ideal partner to get you there.

Consideration	Action
Consumption expectations – Public cloud is setting the gold standard for instantly accessible and highly standardized service consumption, raising user expectations for IT.	Ask IT operations to meet with your key IT consumer groups (e.g., lines of business, developers, etc.) and understand service requirements to meet or exceed their expectations.
Inertia and status quo – IT organizations often have a vested interest in the old way of delivering services, and may actively resist change to a cloud operating model.	Identify an IT executive sponsor willing to be the change agent to lead your IT organization through a purposeful infrastructure and apps modernization transition plan. Identify both transition and end-state metrics to incent desired behavior. Architects – Find solutions that can manage both VM and container-based workloads as first-class citizens.
Skills gap – Modern container-based workloads often require different management tools and processes than existing VM-based workloads.	Choose a solution that can manage both VM and container-based workloads and leverage existing investment in intellectual property found in process and run-books.
Risk mitigation – For organizations of all sizes, new application technologies and cloud environments can increase complexity and potentially impact security, compliance, and service-quality risk profiles.	Team with your CISO to understand key risk considerations. Architects – Look for solutions that deliver intrinsic security at the infrastructure layer, and apply policies at the application layer that are deployed consistently across environments.
Cloud economics – A cloud operating model is service oriented, and it may change a cost structure that was previously infrastructure oriented.	Meet with your CFO to understand his or her preferred mix of CapEx and OpEx. Architects – Evaluate the hidden costs of cloud migration and workload refactoring that may impact cost analysis.
Pilot-based launch – The transition to a cloud operating model is best approached intentionally.	Plan a staged rollout as part of your change transition plan. Architects – Identify key workload types or influencer groups, and gain and promote their buy-in to ensure momentum after early successes.

Team with VMware

VMware has built some of the largest and most successful private and hybrid clouds in the world. Now, VMware is making multi-cloud a reality by introducing VMware Cloud on all major cloud provider platforms.

VMware Cloud solutions are based on VMware Cloud Foundation—the proven hybrid cloud platform combining trusted products that work with both new and existing applications, on premises and in the public cloud.

VMware can help with the following steps to ensure private or hybrid cloud adoption and success:

1. Develop a cloud strategy that supports the spectrum of application modernization
2. Assess your application portfolio and identify expected changes
3. Assess and plan IT operational readiness for a single cloud operating model
4. Plan for a pilot-based launch and scale over time

VMware experts thoroughly understand the opportunities and challenges cloud adoption and operations present. And VMware delivers a complete solution that includes a full suite of the software products and services you need to gain the maximum benefit from whatever cloud model you choose.

Let us bring our experience, insight, and expertise to your teams and environments, helping you achieve cloud's benefits.

GET STARTED

Realize the value of VMware Cloud Foundation today. Calculate your estimated cost savings and get a free *Total Cost of Ownership* comparison report for your organization in minutes.

Join us online:

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