



7 Reasons VMware Cloud Foundation™ Is the Premier Cloud Solution: A Guide for State and Local Government Executives



Overview

Application and cloud strategies are inextricably linked. State and local government IT teams are modernizing application portfolios to meet the evolving needs of agencies and citizens. They're also rethinking their infrastructure as they evolve to support new application types and stakeholder requirements.

Because no one size fits all, agency leaders have choices about how to effectively and efficiently modernize both applications and underlying infrastructure. They also have multiple strategies for implementing 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, or 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 application—new or existing—on a VMware platform in any cloud, and adopting a single cloud operating model for all infrastructure services, your agency can embrace the fastest and least disruptive path to app modernization and hybrid cloud:

- Accelerate IT to support your agency's application and workload goals
- Reduce complexity with consistent IT infrastructure and IT operations
- Lower operational cost and risk by using proven solutions

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

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Is Your Agency Future-Ready?

Pandemic Accelerates Digital Transformation

No one was completely prepared for the rapid disruption caused by COVID-19. Although some agencies were able to pivot quickly to offer services and continue work remotely, even those with the most sophisticated tools faced challenges.

While not everything can be moved to the virtual realm, modernization efforts are helping state and local agencies build new digital capabilities where possible. Their IT teams are moving beyond reacting to current circumstances and proactively innovating to ensure future operational success.

Investment in Modern Apps and Infrastructure Boosts Agility

Agencies looking to improve efficiency and resilience are modernizing applications 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 built-in continuous integration/continuous delivery (CI/CD) allows developers to rapidly ship incremental application changes to stay out in front of agency needs.

A TECHNOLOGICAL RECKONING

“The coronavirus crisis has made it clear that technology is essential to continuity of government.”¹

– *Governing*, April 2020

ADDITIONAL RESOURCES

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

1. *Governing*, “Coronavirus Has Potential to Reshape Government Technology,” April 2, 2020



The App-Modernization Spectrum

Often mischaracterized as an all-or-nothing investment, application modernization is instead a diverse spectrum of choices. When adding new digital capabilities for a specific agency need, three primary paths are possible:

- **Re-host** – “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 modernize applications, future-ready agencies are also adopting a cloud operating model—whether on premises, in a hosted environment, or in a public cloud. This hybrid/multicloud model enables consistent service delivery, breaking down traditional infrastructure-specific silos while offering greater flexibility and resilience for the future.

In short, agencies are boosting agility with the key to digital transformation success: a single hybrid cloud platform, operating on a consistent underlying infrastructure, enabling migration across multiple generations of platforms on any cloud, any app, any device.

KEY QUESTIONS

1. What are your agency'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

Offering VMware Cloud
compatible services



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.

Business case analysis of more than 103 VMware customers' data in 2019 and 2020⁴ reveals significant reduction in three-year total cost of ownership (TCO).

CapEx Value Drivers

- Runs on industry-standard servers
- 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 AWS GovCloud](#)

A secure, scalable cloud service that brings VMware's rich Software-Defined Data Center software to AWS GovCloud.

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





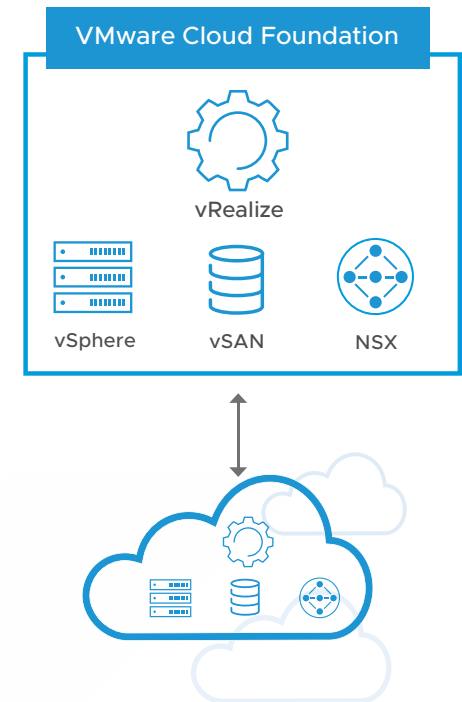
VMware Hybrid Cloud Benefits

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, across consistent infrastructure in any cloud environment—private, hosted, and public—your agency's IT organization can take advantage of 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. A single cloud operating model is adopted wherever workloads are deployed. Depending on your agency's specific situation and needs, additional agility and service consumption benefits can be realized, boosting 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
Lower software license costs – Retire older hosts and increase workload density, cutting unnecessary expenses.	With consolidation
Faster and cheaper workload migration – Move applications without the time and cost of refactoring or replatforming, using familiar VMware tools.	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 agency requirements, then migrate or redeploy without vendor lock-in, should conditions change.	Ongoing when needed across multiple clouds
Quickly deploy resources as needed – Spin up cloud resources in region, seamlessly migrate workloads without refactoring, and upgrade end-of-life legacy infrastructure faster—in weeks, not months.	As needed

ADDITIONAL RESOURCES

Forrester Total Economic Impact™ of VMware Cloud on AWS

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



7 Reasons to Choose VMware

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

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.³

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.

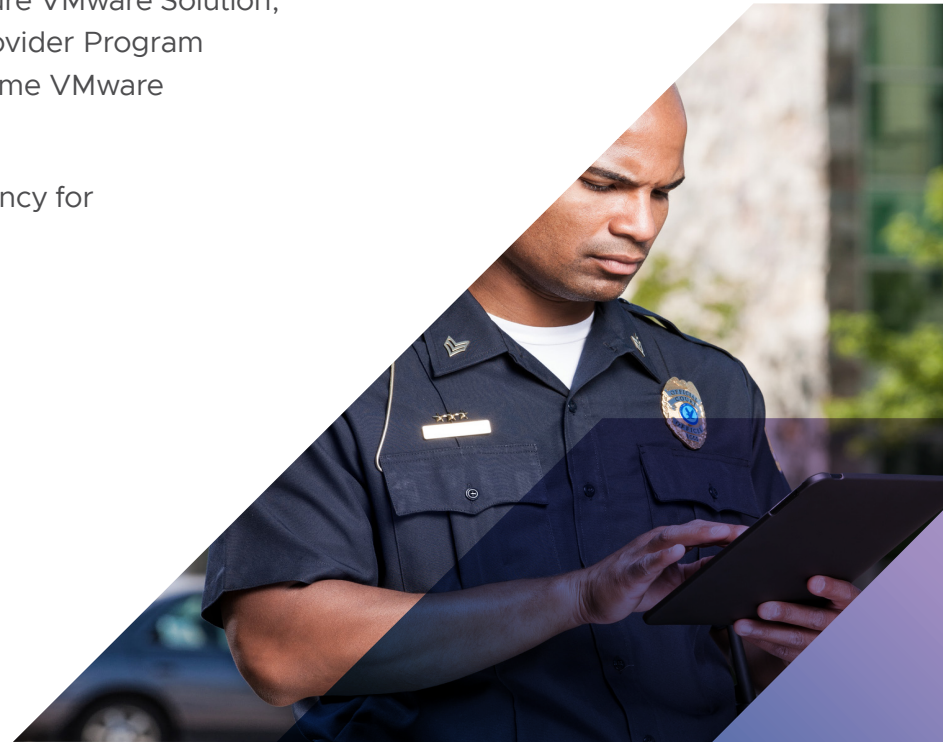
3. Based on 2020 internal VMware testing and expectations for a production environment, where appropriate network settings are preconfigured for consumption.



7 Reasons to Choose VMware (continued)

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—with VMware Cloud on AWS GovCloud, in your data center, or with hosted providers.
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 agencies like yours seeking a private, hybrid, or multi-cloud solution.





State and Local Government Experience

VMware is a committed partner to state and local agencies on their journey of technology infrastructure modernization. We understand the pressure agency IT leaders are under to find the most efficient and effective ways to meet stakeholder needs. Our goal is to reduce IT complexity and ensure secure, compliant delivery of modern applications and IT services so you can focus on meeting your agency's mission.

We work with our government agency partners to achieve the following in each and every engagement:

- Satisfied constituents: Can you deliver more convenient, effective, and personalized digital experiences for citizens?
- Empowered workers: Do employees and contractors enjoy seamless, reliable access to work apps and data anytime, anywhere, and on any device?
- Efficient IT operations: Are your digital services reliable and agile at scale?
- Strategic innovation: Are you providing modern frameworks for digital invention? Are you moving from legacy to modern development approaches to recruit new talent?
- Improved outcomes: Is data a primary decision-making tool? Are you able to reliably deliver that data, quickly and securely, anywhere in the world?
- Reduced risk: Are you creating a zero-trust model, embedding security everywhere? Can you reduce audit times to free IT staff for more important mission work?

VMware offers State Government, Local Government, and Educational entities (SLED) a variety of procurement vehicle options to purchase VMware products and services, including:

University of Michigan – RFP – General Compute and Data Center Infrastructure

NASPO ValuePoint Cloud Solutions Contract

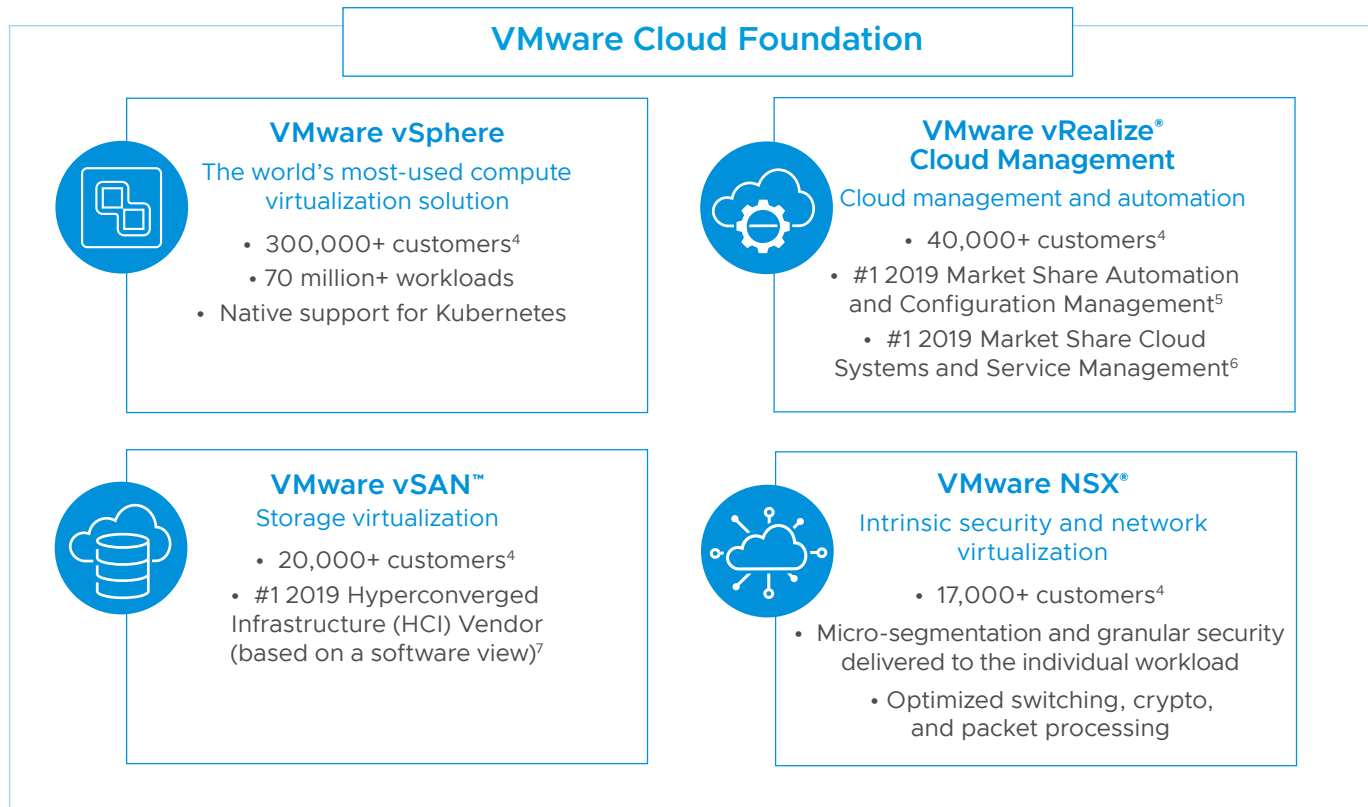
New York State Office of General Services (OGS) IT Umbrella Contract

*North Carolina Department of Information Technology (NC DIT)
IT Infrastructure Solutions Contract*



VMware Market Leadership

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



LEARN MORE ABOUT
*VMware solutions for state
and local government*

4. Customer counts as of Q3 FY21

5. IDC, "IDC Worldwide IT Automation and Configuration Management Software Market Shares, 2019: Market Expands Ahead of Coronavirus Impact," Doc #US46397520, June 2020.

6. IDC, "IDC Worldwide Cloud Systems and Service Management Software Market Shares, 2019: SaaS and ITOM Drive Growth," Doc #US45083420, May 2020.

7. IDC, "IDC Worldwide Quarterly Converged Systems Tracker, Hyperconverged Systems Based on Owner of HCI 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 stakeholder expectations for IT.	Ask IT operations to meet with your key IT stakeholders 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 agency through a purposeful infrastructure and apps modernization transition plan. Identify both transition and end-state metrics to incent desired behavior.
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 agencies 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 cybersecurity experts 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 finance or treasury team to understand the optimal 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.

VMware experts thoroughly understand the opportunities and challenges cloud adoption and operations present for government agencies. Whatever cloud model you choose, we're here to help you get the maximum benefit from your technology investment.

Let us bring our experience, insight, and expertise to your teams and environments, helping you implement the cloud strategy that supercharges your agency in meeting its mission.



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