VMware Cloud on AWS GovCloud (US)

Seamlessly extend, migrate, and modernize your vSphere workloads to a public cloud designed for the most stringent security

SOLUTION OVERVIEW

- VMware SDDC running on dedicated Amazon EC2 elastic, bare-metal infrastructure
- Sold, operated and supported by VMware
- On-demand capacity and flexible consumption
- Full operational consistency with on-premises SDDC
- Fast and simple bi-directional workload migration
- Utilizes FIPS 140.2 compliant cryptographic modules for encryption of data at rest and in transit
- Operated and managed by VMware employees who are U.S. citizens on U.S. soil
- Direct access and integration with native AWS services
- Spin up entire SDDC in under 2 hours and scale host capacity in minutes

United States public sector agencies and private sector customers in highly regulated industries want a hybrid cloud service that provides consistent infrastructure and operations across their on-premises and cloud environments to further increase agility and security, while maximizing the use of existing IT investments. The infrastructure supporting these workloads needs to have the scale, performance, availability and hardened security to run highly sensitive government workloads. Government agencies also views public clouds as a way to deliver a higher level of service by managing upfront expenses, operational support and TCO.

However, when considering shifting a on-premises system to the cloud for workloads and sensitive data, government agencies have several concerns, including performance, security, budget, and complexity of refactoring and training for staff.

Challenges

- **Inability to leverage** existing IT skillsets and tools when adopting public clouds
- **Differences in operational model** and inability to leverage established on-premises governance, security and operational policies while taking advantage of cloud-scale and agility
- **Lack of flexibility** when strategically determining where to run your applications due to lack of application portability and compatibility, reducing agility while increasing costs.
- **Inflexibility to develop or modernize** diverse types of applications due to incongruencies between developer needs and IT's ability to consistently deliver and manage in cloud environment
- **Different infrastructures between private cloud and public cloud,** forcing government agencies to re-architect / refactor existing applications while moving to cloud, thus increasing risks, costs and complexity

Solution

VMware Cloud™ on AWS GovCloud (US) is powered by VMware Cloud Foundation™, the unified VMware SDDC platform that integrates VMware vSphere®, VMware Virtual SAN™ and VMware NSX™ virtualization technologies. This service is optimized to run on dedicated, elastic, bare-metal AWS infrastructure to protect highly sensitive government workloads with hardened security. VMware Cloud on AWS GovCloud (US) enables government's IT and Operations teams to continue to add value to their organizations in the AWS GovCloud (US), while maximizing their VMware investments, without the need to buy new hardware. This offering enables for government agencies to quickly and confidently scale up or down capacity, without change or friction, for any workload with access to native AWS cloud services.

KEY VALUE PROPOSITION OF VMWARE CLOUD ON AWS GOVCLOUD (US)

- Run, manage, and secure production applications in a seamlessly integrated hybrid IT environment
- Familiar skills, tools, and processes for managing private and public cloud environments
- Innovate and respond to changing business demands with the enterprise capabilities of VMware SDDC, coupled with the elastic infrastructure, and the breadth and depth of the AWS services
- Seamlessly move workloads bi-directionally between vSphere-based private and AWS GovCloud (US)
- Rapid time to value with the ability to spin up an entire VMware SDDC in under two hours and scale host capacity in a few minutes
- Leverage established on-premises enterprise security, governance and operational policies, and extend that with the cloud scale and security that AWS GovCloud (US) brings

USE CASE #1: CLOUD MIGRATIONS

- Minimizes complexity and risk of transition
- Simplifies and accelerates speed of migrations
- Reduces cost of migrations
- Extends value of existing enterprise app investments

Jointly engineered by VMware and AWS, this on-demand, scalable service enables IT teams to seamlessly extend, migrate, protect and manage their cloud-based resources with familiar VMware tools. With the same architecture and operational experience on-premises and in the cloud, US public sector IT teams can now quickly derive instant value through the AWS and VMware hybrid cloud experience while meeting the most stringent security and compliance requirements.

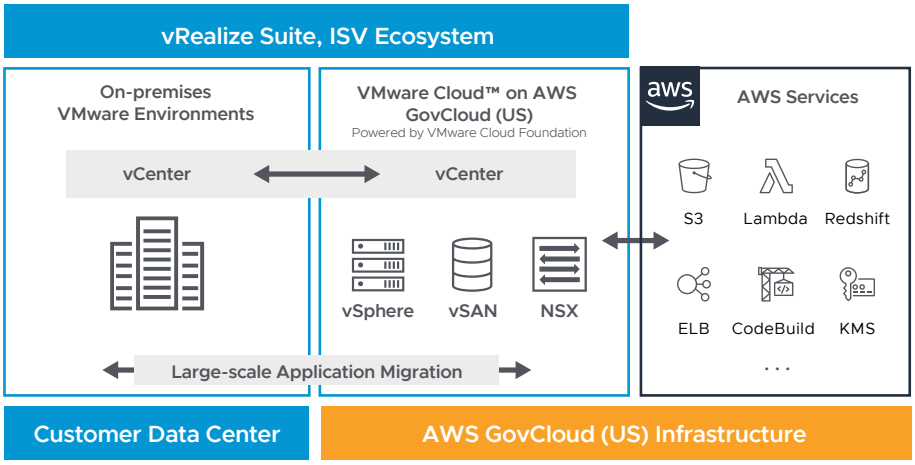

FIGURE 1: VMware Cloud on AWS GovCloud (US) infrastructure

Use cases

VMware Cloud on AWS GovCloud (US) provides a seamlessly integrated hybrid cloud offering addressing use cases that align to a government agency's cloud strategy.

Use case 1: Cloud migrations

Accelerate cloud migration without complex conversions or application re-factoring. Run your applications on VMware Cloud on AWS GovCloud (US), bringing the best of VMware technologies to AWS GovCloud (US). This is ideal for government agencies who want to move to the cloud without having to re-architect applications.

Application specific

Move specific applications to the cloud due to specific business needs or move enterprise applications such as Oracle, Microsoft, SAP, etc. to the cloud.

Data center wide evacuations

Consolidate data centers and move completely to the public cloud.

Infrastructure refreshes

Leverage the opportunity to move to the public cloud while performing infrastructure refreshes (e.g., due to hardware end of life, infrastructure software upgrade etc.).

USE CASE #2:
DATA CENTER EXTENSION

Reduces upfront investment costs and delivers compelling TCO

- Accelerates speed of provisioning
- Reduces the complexity by having the same consistent architecture and operations on-premises and in the cloud
- Improved scalability: Pay as you grow and as much you need

USE CASE #3:
DISASTER RECOVERY

- Reduces secondary DR site costs
- Accelerates time-to-protection
- Increases operational resiliency
- Simplifies DR operations

USE CASE #4:
NEXT-GENERATION APPS

- Fast and seamless path to new modernized applications
- Extends value of existing on-premises enterprise app investments

Use case 2: Data center extension

Extend your data center with VMware SDDC-consistent on-demand, agile capacity to AWS GovCloud (US). This is ideal for government agencies who want to expand their on-premises footprint with cloud capacity for specific needs.

Footprint expansion / on-demand capacity

- Meet geographic capacity needs (such as data sovereignty rules or the need to be closer to their end users), without the expense of building out a new data center.
- Handle capacity constraints on-premises to meet seasonal spikes in demand.
- Handle unplanned temporary capacity needs or capacity for new projects, without investment in over-provisioning or in building new capacity on-premises.

Virtual desktops and published apps

Leverage consistent cloud capacity for scaling on-premises virtual desktops infrastructure .

Testing and development

Perform test and development activities in a cloud environment that is operationally similar to on-premises environments.

Use case 3: Disaster recovery

VMware Site Recovery delivers Disaster Recovery as a Service (DRaaS) for VMware Cloud on AWS GovCloud (US), providing on-demand site protection with native automated orchestration, failover and failback capabilities for government agencies.

New DR

Implement DR for VMware Cloud on AWS GovCloud (US), protecting workloads running on VMware Cloud on AWS GovCloud (US), from one Availability Zone to another, or to an on-premises data center.

Replace existing DR

Reduce secondary DR site costs by moving DR operations to the cloud or modernize their existing DR solutions.

Complement existing DR

Protect additional workloads with a cloud-based DR solution for specific applications.

RESOURCES

Learn more at *cloud.vmware.com/govcloud*

VMware Cloud on AWS GovCloud (US) roadmap

Visit our *Web-based pricing calculator*

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VMware Cloud on AWS TCO 1-Pager

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Use case 4: Next-generation apps

Government agencies can innovate rapidly and provide improved digital experiences by building next-generation applications and modernizing existing enterprise applications. Leverage the enterprise capabilities of VMware SDDC, coupled with the elastic infrastructure of the AWS GovCloud (US), and the breadth and depth of AWS services across different categories such as storage, database and analytics, serverless, compute, networking, security, IoT, machine learning and more.

Application modernization

Utilize cloud-scale infrastructure and services to extend the value of existing enterprise applications, or build infrastructure that is consistent and compatible with their on-premises environments.

Next-generation application build-out

Build new applications using native AWS services, while leveraging infrastructure that is consistent with on-premises vSphere environments.

Hybrid applications

Develop hybrid applications that span data center, cloud and edge, native AWS services or a combination of these.

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