

# Extending your data center with VMware Cloud on AWS GovCloud (US)

## Solution highlights

- VMware SDDC running on AWS bare-metal EC2 infrastructure
- Consistent infrastructure delivered by the familiar VMware SDDC stack that agencies use on-premises, with familiar vCenter Server interfaces, templates and APIs
- Consolidated view of the agency's hybrid environment and management of media with vCenter Hybrid Linked Mode and Content Library Sync
- On-demand migration of applications to the cloud with minimal impact to uptime or disruption to end-users
- High-speed, low-latency access to AWS native services

United States government agencies and their partners are looking for the flexibility to expand into cloud solutions that comply with high security standards. This involves a comprehensive, agency-wide approach that aligns with moving from a capital expense (CapEx) model focused on investing in hardware and software to an operating expense (OpEx) model based on day-to-day expenses. Integrating the public cloud with existing data center infrastructures can be challenging for several reasons:

- Mismatched architectures between on-premises and cloud environments
- Different tools, skill sets, operating and security models
- The need to re-architect and re-factor applications for public cloud infrastructure
- Increased security risks, costs and complexity

VMware Cloud™ on AWS GovCloud (US) solves these challenges by delivering a hybrid cloud service that integrates familiar VMware flagship Software-Defined Data Center (SDDC) compute, storage and network virtualization products (VMware vSphere®, VMware vSAN™, and VMware NSX®), with VMware vCenter® management. This service is optimized to run on AWS GovCloud (US) West regions and AWS GovCloud (US) East regions, that are securely operated by U.S. employees on U.S. soil. VMware Cloud on AWS GovCloud(US) recently achieved FedRAMP High JAB Authorization, enabling U.S. public sector agencies to securely run production applications across vSphere®-based private, public, and hybrid cloud environments, with optimized access to AWS services.

VMware Cloud on AWS GovCloud (US) delivers an intrinsically secure, scalable, and cost-efficient solution to support the unique requirements of the U.S. federal, state and local government agencies, solving a variety of needs:



### Enable footprint expansion

Obtain capacity for new projects and expand into AWS GovCloud (US-West) Region and (US-East) Region with a consistent VMware-based cloud environment without building a new data center or investing in over-provisioning existing data centers.



#### **Safeguard sensitive data**

Deployed on dedicated, elastic bare-metal Amazon Elastic Compute Cloud (Amazon EC2) infrastructure, VMware Cloud on AWS GovCloud (US) leverages the extensive certifications of AWS GovCloud (US). It also utilizes FIPS 140.2 compliant cryptographic modules.



#### **Deliver on-demand capacity**

Handle unplanned temporary capacity needs and anticipated seasonal spikes in demand without the capital expense of maintaining idle capacity.



#### **Deliver dynamic test, development and IT lab environments**

Perform test/development and lab/training activities in a flexible pay-by-the-hour environment, with the ability to move between VMware Cloud on AWS GovCloud (US) and VMware-based on-premises environments.



#### **Enable hybrid applications**

Develop new applications that need to integrate with on-premises applications or access innovative AWS native cloud services.

## **Why VMware Cloud on AWS GovCloud (US)?**

### **Cost-effective**

Eliminate re-training by using familiar skills, tools and processes for managing cloud environments, with consistent operations for improved productivity and reduced costs. Rapidly increase or decrease capacity on-demand to adapt to changing business needs with automatic scaling and load balancing.

### **Fast**

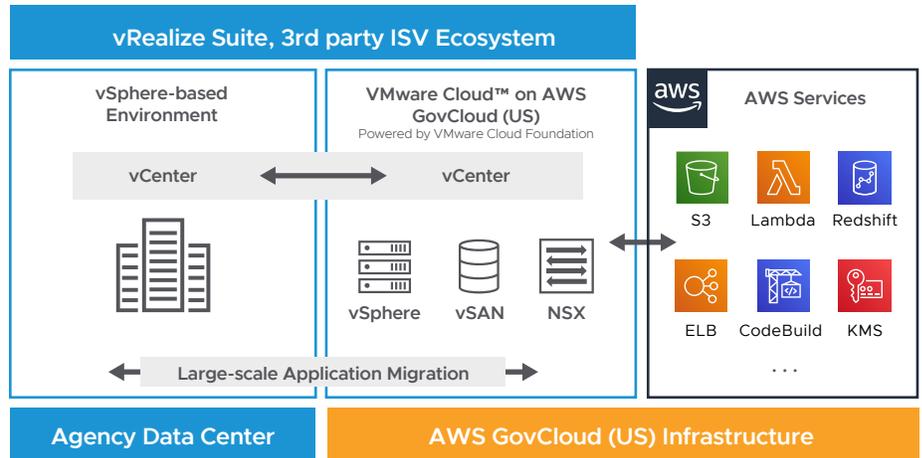
Innovate and respond to changing agency demands with the rich capabilities of VMware SDDC for any application, coupled with elastic infrastructure of VMware Cloud on AWS GovCloud (US), and the breadth and depth of AWS services. Seamlessly move workloads bi-directionally between vSphere-based on-premises infrastructure and VMware Cloud on AWS GovCloud (US). Use VMware vMotion from vCenter to migrate live VMs from on-premises to AWS GovCloud (US) without any downtime.

### **Simple and consistent**

Reduce operational complexity by leveraging familiar and proven VMware environment and the familiar vCenter Server console to manage workloads both on-premises and in VMware Cloud on AWS GovCloud (US). Continue to use established on-premises governance and operational policies and extend that with the cloud security and availability that AWS GovCloud (US) infrastructure brings. Move applications from on-premises without any application changes. Zero reconfiguration, conversion, refactoring, or rearchitecting existing applications.

### Intrinsically secure

Leverage established on-premises enterprise security, governance and operational policies, and extend those to VMware Cloud on AWS GovCloud (US) to achieve additional scale and security. Deployed on dedicated, elastic bare-metal Amazon Elastic Compute Cloud (Amazon EC2) infrastructure. FedRAMP enhances transparency and trust between US government and cloud service providers.



**Figure 1:** VMware Cloud on AWS brings VMware’s enterprise-class Software-Defined Data Center software to the AWS Cloud and enables customers to run production applications across VMware vSphere-based private, public and hybrid cloud environments, with optimized access to AWS services.

### Key Capabilities

1. VMware Cloud on AWS GovCloud (US) leverages the latest innovations in VMware’s SDDC technologies including vSphere, vSAN and NSX-T.
2. With consistent infrastructure delivered by the same vSphere-based SDDC stack that is used on-premises, there is no need to re-architect or re-factor applications. Familiar vCenter-based management, templates, and processes based on vSphere and vCenter APIs enables existing VMware and third-party tools to continue to work without the need for re-training.
3. Delivers a consolidated view of the agency’s hybrid environment and management of resources with vCenter Hybrid Linked Mode, vCenter Cloud Gateway, and Content Library Sync. Agency’s IT teams can manage VMware Cloud on AWS GovCloud (US) resources as an extension of their on-premises data center.
4. IT teams can leverage enterprise-grade infrastructure, delivered as a service with platform level capabilities that deliver the needs of a wide variety of agencies’ most important applications.
  - Entire SDDC provisioned in under 2 hours on average, and hosts added in minutes, as per their needs

## Resources

View the latest status of features in the [public roadmap](#)

Learn more about the offering by reviewing the [service description](#)

Learn about key features and capabilities in [VMWare Cloud on AWS GovCloud \(US\) Solution Brief](#)

Watch the VMware Cloud on AWS GovCloud(US) [on-demand webinar](#)

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Get started now with VMware Cloud on AWS: [cloud.vmware.com/govcloud#get-started](https://cloud.vmware.com/govcloud#get-started)

- Predictable, high-performance compute with vSphere, the industry's leading virtualization platform, running on elastically scalable AWS EC2 bare-metal infrastructure
- Built-in resiliency with failure protection at VM, host, and AWS Availability Zone level with vSphere High Availability, automated host remediation, and stretched clusters
- Zero-click, enterprise-class storage with vSAN, with encryption, deduplication and compression capabilities
- Advanced networking and security services with NSX-T, with features such as security domains integration, micro-segmentation, and distributed firewall
- 24x7 support from VMware's world-class US Federal Technical team for agency needs
- Consume on-demand hourly or take advantage of one-year and three-year subscriptions for better cost savings