10 Questions, 10 Answers

Get to know VMware Cloud on AWS – The Best-in-Class Hybrid Cloud Service

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The Best-in-Class Hybrid Cloud Service

IT leaders focused on finding ways to become more agile, accelerate innovation, and better optimize costs are finding success with hybrid clouds. They can leverage the enterprise-grade hybrid cloud capabilities to:

Protect, extend, or consolidate on-premises data center investments

Scale capacity up or down without change or friction—for any workload

Take advantage of their **existing teams, skill sets, tools, and processes**

VMware Cloud™ on AWS seamlessly supports workloads on-premises and in the public cloud, and provides the flexibility to choose where the workloads run. It's a best-in-class hybrid cloud service that brings VMware enterprise-class SDDC software to the AWS Cloud, delivered as an on-demand service or longer term commitment, with access to AWS storage, databases, analytics, and more.

If you're looking for more information about how enterprises leverage hybrid clouds, what makes for a best-in-class enterprise cloud, or whether VMware Cloud on AWS is for you, you're sure to find it here. In this guide we've compiled industry statistics, 10 frequently asked questions and answers, and links to additional resources to keep you in the know.

Enterprise Cloud Adoption:
By the Numbers

The public cloud has stepped out of the shadows into the limelight as enterprises across industries and geographies scale their usage of it. It's now a top-of-mind topic among just about everyone from CIOs charged with creating long-term cloud strategies to vSphere administrators tasked with managing complex environments.

Public cloud workloads are expected to grow **3x faster than on-premises** over the next three years.[1]

12% of companies' total applications are running in public cloud today. Expect **32% of total applications** to run in the public cloud in 3 years.[3]

Over the next two years, a 45% increase in the number of organizations running **more than 30% of their production applications** on public cloud infrastructure is expected.[2]

77% of customers see **multi-cloud as the desired end state** for private and public cloud usage.[4]

1. VMware vSphere Share Tracker w11, July 2018 (n=897)
2. Hybrid Cloud Trends Survey, The Enterprise Strategy Group, March 2019 (N=358)
3. VMware Inner Circle Multi-Cloud Research, August 2018 (n=266) (n=301)
4. VMware Inner Circle Multi-Cloud Research, August 2018 (n=252)

Top Ten Frequently Asked Questions

1. Why should an enterprise consider hybrid cloud?

Public cloud adoption is mainstream, driven by the need for greater agility and faster innovation. Hybrid clouds integrate the public cloud with on-premises infrastructure and can give IT the ability to strategically choose where they want to run their workloads.

93% of organizations are committed to or showing interest in hybrid cloud as a long-term strategy.[1]

With hybrid clouds, IT leaders can:

Be agile
Quickly respond to changing business needs

Optimize cost
Shift from CapEx to OpEx

Accelerate innovation
Enable IT, Ops, and DevOps

1. Hybrid Cloud Trends Survey, Enterprise Strategy Group, March 2019 (N=358)

2. What is a 'best-in-class' hybrid cloud?

Many organizations want to run IT workloads on-premises and in public clouds, while taking advantage of existing teams, skill sets, and tools. This requires seamless integration and a common operating platform across on-premises infrastructure and the public cloud.

Best-in-class hybrid cloud solutions, such as VMware Cloud on AWS, enable you to:

Accelerate innovation

- New application development
- Application modernization
- Dynamic capacity needs

Optimize costs

- Cloud mandate
- Shift from CapEx to OpEx
- Application portability

Respond faster to change

- M&A activities
- Data sovereignty, closeness to end user, new capacity
- Continuity of operations

3. What should enterprises keep in mind when considering a hybrid cloud strategy?

Enterprises are adopting or accelerating their use of cloud in order to gain the agility to respond to changing business needs, support innovation, and better align spend to business requirements. But many IT professionals spend too much time trying to manage a public cloud infrastructure that requires different skill sets and tools than their on-premises environment.

Six Considerations to Keep in Mind

1. How can I avoid creating a new **cloud silo**?

2. How can I ensure **operational consistency** and simplicity?

3. How do I get the **maximum leverage** out of my existing investments in skill sets and tooling?

4. How can I better **control, manage, and secure these environments** and my workloads?

5. How do I provide **enterprise-class application SLAs** consistently across private and public clouds?

6. How do I **ensure compatibility** with applications between on- and off-premises?

4. What is VMware Cloud on AWS?

VMware Cloud on AWS is a vSphere-based cloud service that brings enterprise-class Software-Defined Data Center (SDDC) software to the AWS cloud, with seamless access to AWS services. VMware Cloud on AWS is powered by VMware Cloud Foundation™, a unified SDDC platform that integrates vSphere, VMware vSAN™, and VMware NSX® virtualization technologies, and is optimized to run on next-generation, elastic, bare-metal AWS infrastructure. The service provides access to the broad range of AWS services, together with the functionality, elasticity, and security customers have come to expect from the AWS Cloud. Enterprises can manage this service from an existing VMware vCenter Server® interface with the ability to easily scale AWS resources.
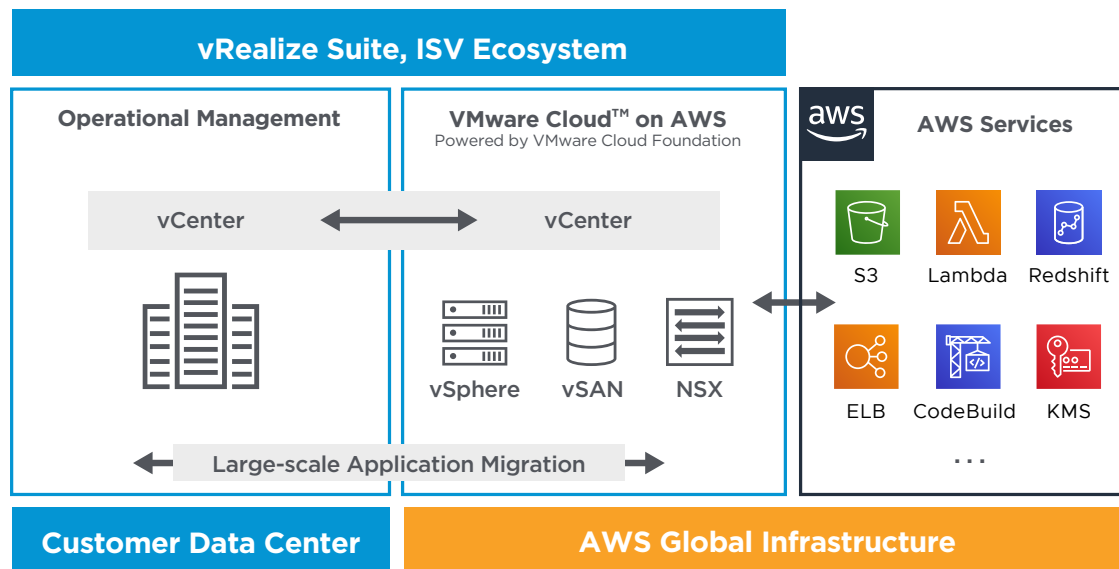
VMWARE CLOUD ON AWS – SERVICE OVERVIEW

5. How does VMware Cloud on AWS benefit enterprises?

VMware Cloud on AWS combines the best of VMware and AWS to enable customers to realize significant benefits including:

Best-in-class hybrid cloud capabilities

Leverage market-leading VMware technologies across compute (vSphere), storage (VMware vSAN), and networking (VMware NSX) optimized to run on next-generation, elastic, bare metal AWS infrastructure.

Simple and consistent operations

Rapidly provision and scale AWS resources that are operationally consistent with vSphere-based clouds—on demand.

Cloud-scale flexibility

Powered by the same platform that powers an enterprise's VMware technology-based, on-premises data centers, VMware Cloud on AWS delivers seamless, large-scale workload portability across clouds with no complex and time-consuming application re-platforming required.

Operated and supported by VMware

All software components of this service are sold, operated, and supported by VMware and its partners.

6. What purchase options are offered for VMware Cloud on AWS?

Organizations can purchase dedicated clusters that combine VMware software and AWS infrastructure, either on demand or as a longer term commitment.

CUSTOMER SPOTLIGHT: DELL TECHNOLOGIES

"The VMware Cloud on AWS solution delivers tremendous efficiencies. Ultimately, it's not as much about the cost savings, but more about stability, high availability, and the ability to burst and then scale down easily, while delivering the best possible experiences to our customers."

MAURICE HARTY
DIRECTOR OF DEMO STRATEGY AND ENABLEMENT
FOR THE CUSTOMER SOLUTION CENTERS
DELL TECHNOLOGIES

DISCOVER
how VMware Cloud on AWS enables Dell Technologies to support massive bursts in capacity at their premier event and transfer content between their VMware Cloud on AWS environment and three private clouds. *Read the case study and watch the video.*

7. Who provides support for VMware Cloud on AWS?

VMware Cloud on AWS is a VMware service that is delivered, operated, sold, and supported by VMware and its partners. That means that customers have one support number to call and all infrastructure lifecycle management, support, billing, and account management is handled by the world-class support team at VMware. In addition, customers have access to resources and tools to ensure success, including chat support and forums.

8. What steps can vSphere administrators take to ready their organizations for success with VMware Cloud on AWS?

Find applications to migrate

Start auditing your environment looking for good application candidates to move to the cloud, and decide in what order they should make the transition. The criteria used to select good candidates is highly subjective, but could include business, cost, compliance, geographic, size and security considerations. You may also want to consider a phased approach to your cloud migration, starting with smaller and less critical applications before moving onto larger, more complex ones.

Speaking of complexity, you should always look for application candidates that have fewer dependencies and aren't tightly intertwined with other applications in your datacenter. Untangled applications are easier to move and less likely to cause on-premise and cloud cross-communication problems. *vRealize Network Insight* helps you to identify such applications by allowing you to easily view dependencies and flows between application components.

Consolidate your content

If you want to create new workloads in VMware Cloud on AWS using VM templates, ISOs, OVAs and scripts, you will need to copy these assets over to the new environment. One of the fastest and easiest ways to onboard content into the SDDC vCenter is by using Content Libraries, which can help you organize and prep content for sharing. You can start today by creating a local content library in your on-premises vCenter.

RUN A COST ASSESSMENT

One of the first questions to ask when preparing for a VMware Cloud on AWS project is "*How much VMware Cloud on AWS do I need?*" To answer this VMware provides an easy to use VMware Cloud on AWS Assessment tool, which can quickly give you the number of hosts you will need, their estimated cost and a simple cost comparison to your current private cloud environment.

Leverage unified management

Unified management allows you to connect your public and on-premise clouds, and provides a consistent management layer between the two environments. To drive unified management you need to ensure your on-premise tools are ready for, and support, VMware Cloud on AWS. VMware provides several solutions that fit the bill here:

- vSphere's Hybrid Linked Mode (HLM) is a key feature available only for VMware Cloud on AWS, which provides the ability to extend the administrator's vCenter management view from on-premises to SDDC cloud. It delivers a single pane of glass to manage on-premises and cloud resources in the VMware Cloud on AWS SDDC vCenter, resulting in operational consistency and visibility across both environments.

- *vRealize Operations* and *vRealize Automation* fully support VMware Cloud on AWS, providing provisioning, capacity management and troubleshooting across on-premise and cloud.

Reclaim before migrating

Once you have chosen your applications and are familiar with their associated workloads you should look at reducing their resource usage, before migrating them to the cloud. Reclaiming unneeded resources from workloads can save you money and space. You can use the Reclaimable Dashboard on vRealize Operations to quickly *identify and reclaim unused disk, CPU and memory* from your virtual environment.

Determine your migration process

There are a number of ways to move workloads into VMware Cloud on AWS and it's important to determine which option or combination of options is best for you:

- **Start fresh** – With simple "cattle" workloads (e.g. web servers) it may be easier to use the Content Library and start the workload afresh within VMware Cloud on AWS.

- **Cold migration** – If you have Hybrid Linked Mode (HLM) configured, you can simply shut down the workload and move it to VMware Cloud on AWS. This is another great option for "cattle" workloads.

- **Live migration** – Live vMotion can be used for more business-critical workloads that you don't want to start and stop. This can be done if HLM is configured and a L2VPN is established.

- **Batch/bulk migration** – VMware has enabled new migration capabilities with *VMware HCX*. HCX enables large-scale datacenter migrations to be executed live, warm or cold. Migrations and connectivity are optimized to leverage datacenter-to-VMware Cloud on AWS WAN links. Bulk migration can be executed immediately or in a scheduled fashion. This allows mass VM migration into the cloud with incremental in-line transformations performed in flight (VM hardware version upgrades, VMware tools, updates, etc.)

- **Migration across different vSphere versions** – HCX provides loosely coupled interconnects across vSphere versions without merging administrative and fault domains. This allows you to migrate VMs across various vSphere versions - 5.x+ to the latest SDDC instances running in VMware Cloud on AWS.

"VMware Cloud on AWS mitigated our risk of moving business-critical apps to the cloud because we could leverage a consistent infrastructure and operational model."

LESLIE ASHMAN
CHIEF INFORMATION OFFICER,
STAGECOACH GROUP

9. How can vSphere administrators maximize the value of VMware Cloud on AWS?

The more software-defined a data center using VMware technologies is, the more valuable VMware Cloud on AWS becomes. Adopting VMware Cloud Foundation on premises is the easiest and fastest way to integrate a VMware Software-Defined Data Center (SDDC). It includes vSphere, vSAN, NSX, and automated lifecycle management, and provides all the foundational components to unlock the maximum value of the hybrid solution, when paired with VMware Cloud on AWS.

Additionally, VMware Site Recovery™ for VMware Cloud on AWS and the VMware vRealize® Suite are valuable tools for mass migrations, intelligent operations management, automation, and governance.

JOINTLY ENGINEERED SOLUTION DELIVERS THE BEST OF VMWARE AND AWS FOR CUSTOMERS

VMWARE

• Leading compute, storage, and network virtualization capabilities

• Support for a broad range of workloads

• De facto standard for the enterprise DC

**AWS**

• Flexible consumption economics

• Broadest set of cloud services

• Global scale and reach

10. What types of enterprises can benefit the most from VMware Cloud on AWS?

Any enterprise that wants to leverage or extend VMware-based infrastructure to the AWS Cloud for reasons such as meeting a cloud mandate, supporting M&A, consolidating infrastructure, expanding to new geographies, accessing capacity on-demand, providing flexible test/dev/lab environments, or modernizing applications can greatly benefit from VMware Cloud on AWS.

VMware Cloud on AWS will enable enterprises to modernize their infrastructure using their existing tools and skill sets. They can do this without the need to do complex conversions, refactoring, or re-architecture. In addition, VMware Cloud on AWS will also provide seamless access to AWS services.
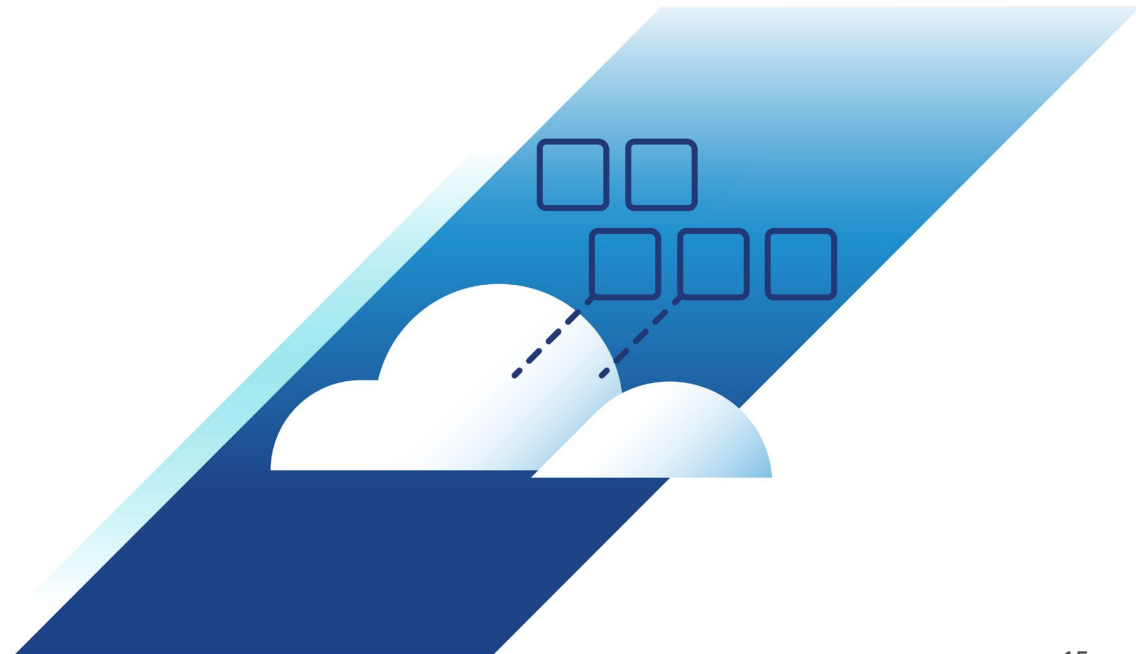
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