vmware | aws

VMware Cloud™ on AWS

Top 5 Challenges of Extending Data Centers to the Public Cloud

START ›

The **public cloud** offers many advantages to organizations

Organizations will continue to benefit from their data center investments – infrastructure, people, processes – for the foreseeable future. Many of these organizations are also looking for the **unique advantages offered by public cloud** that cannot be cost-effectively delivered with today's static data center environments, including:

Access to unlimited on-demand compute and storage capacity

Usage-based pricing

Global data center footprint

Availability of innovative cloud services

89%

OF ORGANIZATIONS

still expect to have a meaningful on-premises footprint in three years.

HYBRID CLOUD TRENDS SURVEY, THE ENTERPRISE STRATEGY GROUP, MARCH 2019 (N=309)

vmware | aws

Challenges of extending data centers to the public cloud

Before reaping the benefits of public cloud, organizations must successfully integrate their on-premises data centers with the off-premises cloud, which is no easy task. There are many technical, process, and skill differences required to leverage these environments. Explore how VMware Cloud™ on AWS helps to address these **five common data center extension challenges:**

CHALLENGE 1

Interoperability between environments

VIEW ❯

CHALLENGE 2

Incompatible skills, tools, and processes

VIEW ❯

CHALLENGE 3

Management of disparate infrastructures

VIEW ❯

CHALLENGE 4

Bi-directional application mobility

VIEW ❯

CHALLENGE 5

Consistent security and governance

VIEW ❯

vmware | aws

CHALLENGE 1:

Interoperability between environments

- Existing applications running in on-premises data centers are not designed to run on public cloud infrastructure and require redesign before migrating.
- Most applications must be rearchitected, machine formats must be converted, and everything must be thoroughly retested.
- Networks must be integrated and reconfigured, data must be transferred, and storage must conform to capabilities available in the public cloud.

The Solution: VMware Cloud on AWS

VMware Cloud on AWS extends your on-premises infrastructure to the cloud, and therefore **no redesign is required** to migrate applications.

The same **industry-leading, proven and mature vSphere hypervisor** that runs tens of millions of workloads is available on a dedicated, bare-metal infrastructure in the AWS Cloud.

CHALLENGE 2:

Incompatible skills, tools, and processes

- Native public cloud infrastructures are built on proprietary technologies that are unique to each cloud provider.
- Infrastructure and operations teams must learn new skills, acquire different tools, and change existing processes to maximize the benefits of public cloud integration.
- Inability to leverage existing skills, tools, and processes creates inefficiencies and increases costs of operating two separate environments.

The Solution: VMware Cloud on AWS

VMware Cloud on AWS offers the same VMware infrastructure as you are using on-premises, enabling you to leverage **familiar and proven VMware skills, tools and processes**.

Your organization does not need to invest in new skills or additional people to immediately take advantage of public cloud capabilities.

CHALLENGE 3:

Management of disparate infrastructures

- On-premises data centers are managed through a variety of feature rich tools developed over many years.
- In contrast, public clouds have their own unique management tools that have been developed to manage applications running on a shared, multi-tenant infrastructure.
- Both toolsets work in isolation to manage their respective environments.

The Solution: VMware Cloud on AWS

VMware vCenter, a **widely-used and proven management tool** used by infrastructure administrators across the world to operate their on-premises vSphere infrastructure, is the management tool for VMware Cloud on AWS.

Hybrid Linked Mode connects the vCenter managing VMware Cloud on AWS with all your on-premises vCenters into a **single pane of glass** for administering both infrastructures.

CHALLENGE 4:

Bi-directional application mobility

- Alternate machine formats between on-premises data centers and public clouds make migration a slow, one-way journey even for simple applications.
- For more complex workloads, the rework required to make the leap is costly and time-consuming.
- Once applications move to the public cloud, it is virtually impossible to move them back on-premises without a significant reverse rework.

The Solution: VMware Cloud on AWS

Applications **require no redesign** to migrate to VMware Cloud on AWS, saving migration costs, time and increasing the likelihood that your cloud integration project will succeed.

VMware Cloud on AWS offers the option to **move applications at large scale** without any downtime both from and back to your on-premises data center.

CHALLENGE 5:

Consistent security and governance

- Organizations give up a certain degree of control over their infrastructure in the public cloud. Security policies and practices must be updated to conform with this new model.
- The differences between on-premises and public cloud infrastructure limits the reuse of established security and governance procedures and tools.
- Public cloud infrastructure has different consumption patterns. Governance models need to be updated to control how cloud resources are acquired.

The Solution: VMware Cloud on AWS

VMware Cloud on AWS enables you to leverage established **existing on-premises enterprise security, governance and operational policies** and 3rd party solutions in the cloud.

Customers can migrate their current on-premises security solution along with established configurations, rules and policies. Further, VMware vRealize Suite provides a platform to establish a **consistent governance model**.

Further Resources

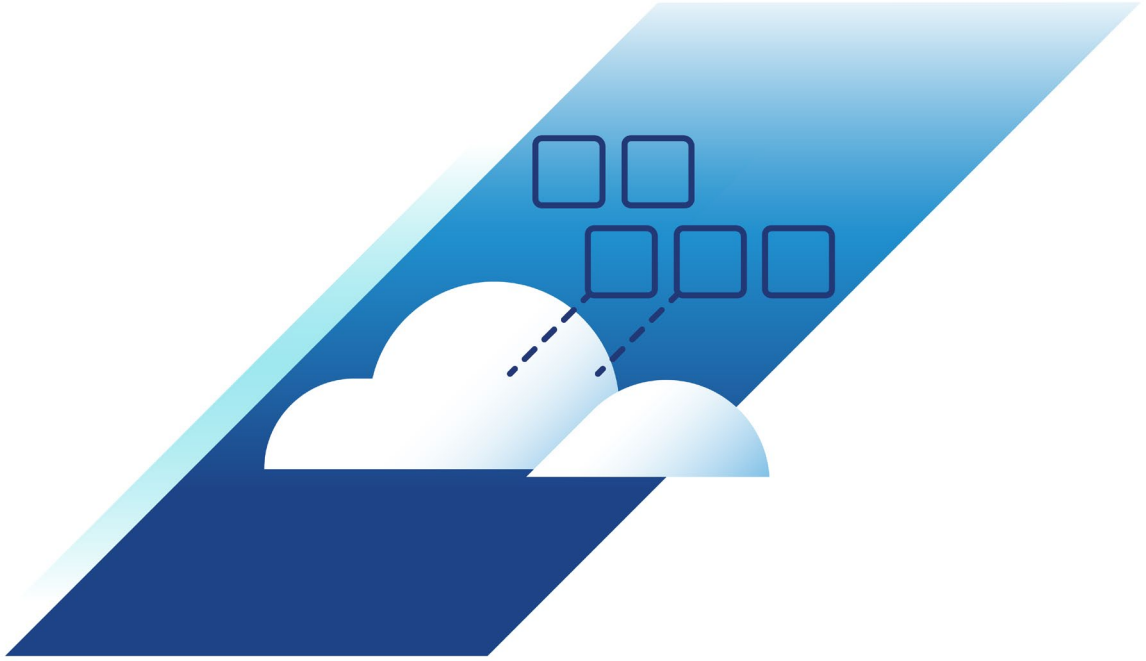
Integrating data centers with public clouds involves a significant number of person hours, an assortment of tools and substantial risk, not to mention the actual time required to move applications from one environment to the other. Lack of familiar management tools that can administer both environments, the need for different skillsets, and inconsistent security postures dampen the speed, flexibility, scale, elasticity, and global reach benefits of public cloud.

VMware Cloud on AWS offers the best of both worlds, allowing organizations to seamlessly integrate their on-premises data center infrastructure with a VMware environment running on elastic, bare-metal AWS infrastructure delivered as a service.

Learn more about VMware Cloud on AWS at the VMware Cloud on AWS website

or by viewing VMware Cloud on AWS: Overview

Try the VMware Cloud on AWS Hands-on Lab for a first-hand immersive experience



vmware | aws