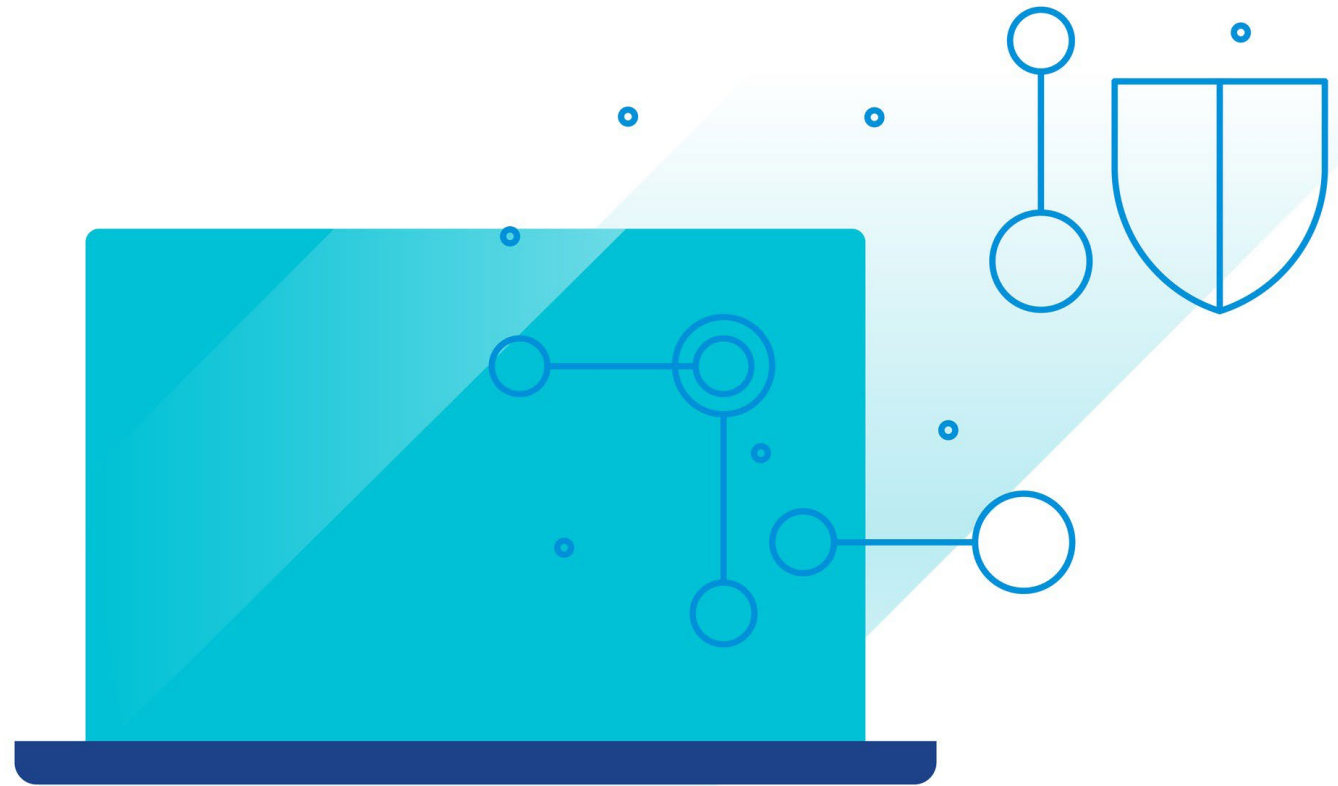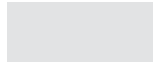**vmware**® | **aws**

VMware Cloud on AWS

Top 5 Challenges for Running Virtual Desktops and Applications in the Cloud

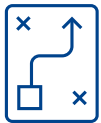# Top 5 Challenges for Running Virtual Desktops and Applications in the Cloud

The need for greater agility and global deployment options is driving workloads to the public cloud as organizations quickly respond to changing business needs while avoiding large investments and ensuring predictable operating costs over time. Migrating or extending a virtual desktop/application environment to the public cloud brings exceptional flexibility but requires a significant number of person hours, an assortment of tools, and introduces substantial risk.

As companies make the move to the public cloud, they also discover that managing and maintaining cloud and hybrid environments efficiently and effectively adds complexity. If you're considering the public cloud for the delivery of virtual desktops and applications, it's vital to understand the challenges and choose the right solution to fit your business needs.

The Solution: VMware Horizon on VMware Cloud on AWS

VMware Horizon® 7 for VMware Cloud™ on AWS delivers a robust, feature-rich cloud platform for virtual desktops and applications. It combines the enterprise capabilities of the VMware Software-Defined Data Center, including compute, storage, and networking, delivered as a service on AWS — all with the market-leading capabilities of VMware Horizon for a simple, secure and scalable solution.

Explore how Horizon on VMware Cloud on AWS helps to address the challenges of moving virtual desktops and applications to the cloud.

CHALLENGE 1
Determining which
public cloud to use

CHALLENGE 2
Interoperability between
on-premises and cloud deployments

CHALLENGE 3
Personalizing virtual
desktops and applications

CHALLENGE 4
On-demand desktops
for cloud economics

CHALLENGE 5
Securing desktops
and applications

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Top 5 Challenges for Running Virtual Desktops and Applications in the Cloud
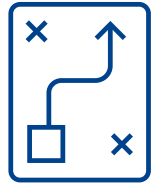
CHALLENGE 1:

Which cloud should I choose?

Many organizations have not yet determined which public cloud — or clouds — they will use. While there are a few well known public cloud options, each of them generally requires a move to a completely new infrastructure, and that means environments that your IT staff may or may not be familiar with.

Reskilling existing staff and migrating current desktop and application environments introduces new challenges, in addition to the major undertaking required to plan and successfully execute such a massive public cloud effort.

The Solution:
VMware Cloud on AWS

VMware Cloud on AWS delivers the **best-in-class hybrid cloud**, allowing organizations to move easily between their private and public cloud resources while providing flexibility and a future with no "dead ends" or lost investments.

Co-locating latency sensitive apps with datacenter workloads **optimizes the user experience**, and the VMware Horizon Universal license brings flexibility to operate on whatever cloud you ultimately choose, whether public or private.

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Top 5 Challenges for Running Virtual Desktops and Applications in the Cloud

CHALLENGE 2:

Interoperability between on-premises and cloud deployments

As organizations journey to the cloud over time, workloads will run in both private and public clouds. Creating desktop and application silos in their respective clouds diminishes the flexibility and benefit of a public cloud deployment.

The Solution:
VMware Cloud on AWS

A hybrid-cloud approach **delivers flexibility for both workloads and the users they serve**, while also enabling key use cases such as disaster recovery, extending data center to public cloud, and full cloud migration.

Global Horizon 7 deployments — on-premises or in VMware Cloud on AWS — are visible through a unified management console and connected through Cloud Pod Architecture (CPA). Cloud Pod Architecture provides **a centralized entitlement for unified desktop and application brokering environment** no matter the scale of your virtual desktop environment. With CPA, end-users can easily access their desktops and applications on a global scale regardless of where they are running.

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CHALLENGE 3:

Personalizing and managing virtual desktops and applications at scale

End-users demand a personalized and customized desktop experience, while enterprises want to keep valuable data and applications secure in the data center. The proliferation of endpoints, operating systems and applications gives rise to increasing complexity when updating and managing images.

Unfortunately, basic cloud desktop services provision simple, standard desktops, but don't provide tools to customize desktops at scale.

The Solution:
VMware Cloud on AWS

With Horizon 7 on VMware Cloud on AWS, virtual desktop and application management is simplified by leveraging the enterprise-grade capabilities and tools of Horizon 7 — familiar tools that administrators already use in their on-premise environments.

A key use case for Horizon 7 is support for Just-in-time Management Platform (JMP), which delivers personalized, non-persistent desktops and applications in seconds. JMP enables administrators to drastically reduce the number of images under management with real time, one-to-many image provisioning and zero downtime updates.

CHALLENGE 4:

On-demand desktops for cloud economics

The sudden lack of datacenter resources due to capacity issues or failure can cripple, or even halt, operations, which can be very costly if there is a business continuity solution is not in place.

Building a datacenter, especially in an on-demand scenario, requires time, planning, capital, and management resources. This can be expensive, especially for temporary use cases, such as seasonal demands, workforce training, or disaster recovery.

The Solution: VMware Cloud on AWS

Public clouds deliver on-demand resources to quickly support changing end-user computing needs with the ability to pay as you go. However, the ability to leverage the benefit of public clouds breaks is diminished if your desktops need to be persistent.

Horizon 7 solves this problem with Instant Clones and the ability to **deliver non-persistent, powered-on desktops in less than 2 seconds**. In addition to efficiently solving the challenge, you also gain the ability to provide the personalization end-users require for their apps, data, and setting — all with the proper security and management policies enforced. When desktops are no longer required, they are destroyed as part of the logoff process, to free-up capacity and save costs.

CHALLENGE 5:

Securing desktops and applications in and across the cloud

Moving to the public cloud brings significant expansion of the threat landscape as attacks become more sophisticated and pervasive. Security policies and practices must be updated to conform with the new hybrid cloud model, but public cloud only allows limited reuse of established security and governance procedures and tools.

While virtual desktops and apps remove data from compromise on the endpoint, but end-user error can still bring malware into the datacenter.

The Solution:
VMware Cloud on AWS

Horizon 7 on VMware Cloud on AWS delivers a consistent and intrinsic security architecture from the data center to the cloud, with end-to-end security built into every level of the infrastructure, from micro-segmentation at the networking layer down to encryption at the storage layer.

Enterprise-grade management tools speed security patching with zero downtime updates, eliminate malware with creation of brand new desktops with a trusted executable at login, and maintain broad and consistent user-based policy and settings across private and public clouds.

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Further Resources

Running virtual desktops and applications in the public cloud improves agility, global reach and the ability to respond to changing business needs. With increased agility, organizations can accelerate innovation and control costs based on business requirements while managing upfront expenses, operational support demands and TCO. Although not all cloud strategies are created equally, the ability to effectively and efficiently manage and maintain hybrid-cloud environments is key to achieving business outcomes.

Horizon 7 on VMware Cloud on AWS offers a robust, enterprise-grade virtual desktop and application solution, allowing organizations to seamlessly integrate their on-premises and VMware Cloud on AWS environments.

Learn more by reading the
Horizon on VMware Cloud on AWS Solution Brief

See a Demo

Experience it first-hand by exploring a
Horizon 7 Hands-on Lab

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