IBM Cloud for VMware Solutions

Leverage IBM Cloud for VMware Solutions
to deploy new or existing workloads

IBM Cloud

Executive summary

How do enterprises gain strategic advantage when they leverage VMware solutions on the IBM Cloud™ platform? Whether they plan to expand beyond on-premises infrastructure or depreciate legacy architecture, enterprises can gain flexibility, agility, cloud economics and global presence when adopting a hybrid cloud environment. By deploying new or existing VMware workloads in a hybrid cloud architecture with IBM Cloud, organizations can achieve those benefits while using the same familiar tools, resources and capabilities they currently employ with on-premises VMware deployments.

What is virtualization?

Virtualization is the process of creating a software-based (or virtual) representation of something rather than a physical representation. VMware offers a suite of cloud-based products that enable the virtualization of compute, storage and networking, together with additional management and automation capabilities. As an industry leader in virtualization technology,[1] VMware empowers IT departments to transform static server and network infrastructure into dynamic, virtualized resource pools. Any organization can provision these resources on demand based on its evolving needs.

What is a hybrid cloud?

A hybrid cloud implementation is defined by running workloads in both on-premises or colocated infrastructure and infrastructure that is hosted by a cloud provider. Hybrid clouds enable organizations to maximize the agility and flexibility of a public cloud environment while continuing to take advantage of existing investments.

Imagine being able to manage all these resources using the same tools that you've been using for years. A hybrid cloud can extend your VMware infrastructure to IBM Cloud, enabling you to address vital needs such as expanding capacity or consolidating your data center, building a disaster recovery environment and modernizing applications to meet key security and compliance goals.

Why cloud?

Cloud adoption can greatly benefit enterprises that need to expand quickly to meet demand, gain agility not offered on premises or depreciate older legacy architecture. Consider the key benefits of cloud adoption: flexibility, agility, cloud economics and global presence.

Key benefits of cloud adoption

Flexibility
Scale resources up or down without being concerned about over-procurement or under-utilization. Public clouds help eliminate the need for you to purchase your own hardware, and they can enable you to refocus IT staff on strategic pursuits.

Agility
Expand—and contract—quickly with pay-as-you-go pricing models. You can stay away from the commitments of procuring your own infrastructure or engaging in long contracts.

Cloud economics
Transition from a capital expenditure model to an operational expenditure model. If you need to refresh hardware, you likely have an important need for up-front budgeting and planning to appropriately size the environment for what you may need in three to five years.

Global presence
Move workloads to the geographic areas where you need them running. You can meet business requirements by more quickly reaching new locations or reducing network latency.

---

[1] VMware accounts for 81 percent of virtual machine software revenue. IDC, "Worldwide Virtual Machine Software Market Shares, 2017: Virtualization Still Showing Positive Growth," December 2018, https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/products/vmware-idc-virtual-machine-market-shares-2017.pdf

Why IBM Cloud for VMware Solutions?

IBM Cloud for VMware Solutions is a game-changer for enterprises. VMware is the dominant player in the virtualization market for enterprise.[2]

Historically, VMware environments were run only on premises in customer-owned or shared, colocated data centers. Licenses were purchased in lengthy Enterprise License Agreements (ELAs) that were not friendly to cloud consumption.

If you wanted to run a VMware solution in a public cloud setting, you were limited to what was offered by individual service providers. Those implementations might be incompatible with workloads in your own data center. You could not use your existing VMware licenses in these environments.

Fortunately, the IBM and VMware partnership enables you to use your VMware licenses in a cloud-friendly, monthly subscription model that includes full VMware vSphere and VMware vCenter options. This model improves compatibility and increases cloud agility. Through this partnership, you can use a Bring Your Own License (BYOL) option for your existing VMware licenses in the IBM Cloud.

IBM Cloud offers a well-suited location for your workloads. It specializes in bare metal server implementations that are an excellent fit for customers who need secure, single-tenant deployments—a win-win for enterprises that can't run workloads in multitenant clouds.

What are the benefits of running VMware on IBM Cloud?

VMware deployments on IBM Cloud offer three key advantages: compatibility with VMware workloads, security and control.
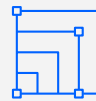
Compatibility with VMware workloads: Many public clouds require you to change to a different hypervisor or unknown API. But the VMware on IBM Cloud solution is compatible with VMware environments. As a result, you don't have to retrain, re-architect or create incompatible environment silos.

Security: Many times public clouds are considered risky, as you may be running on multitenant infrastructure or shared storage. IBM Cloud for VMware Solutions avoids such risk. It runs on single-tenant servers and storage, providing rock-solid security.

Control: Some enterprise leaders believe that moving to the cloud means losing control. But with IBM Cloud for VMware Solutions, you stay in control with full vCenter access. In the familiar vCenter pane of glass, your environment has the same look and feel as when it is operating in your data center. Your environment runs on an IBM network of dozens of secure, interconnected data centers. These same data centers put global expansion and interconnectivity at your fingertips.

---

[2] IDC, "Worldwide Virtual Machine Software Market Shares, 2017: Virtualization Still Showing Positive Growth," December 2018, https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/products/vmware-idc-virtual-machine-market-shares-2017.pdf

What are common use cases for hybrid cloud?

IBM Cloud provides a global cloud platform with on-demand, high-performance compute, networking and storage. As a result, it can deliver the elasticity you need without forcing you to completely rewrite the book on IT operations. You can transform your existing VMware private cloud into a massively scalable hybrid cloud without reinventing your IT department.

Take a look at three common use cases for IBM Cloud for VMware Solutions: data center transformation, disaster recovery and business continuity, and application modernization.

Data center transformation
Migrating VMware workloads from on-premises infrastructure to the IBM Cloud helps expand capacity and consolidate data center infrastructure onto an automated and centrally managed, software-defined data center.

- Choose compute, storage and networking along with a wide range of deployment options among more than 60 global data centers in 19 countries.

- Capitalize on more than 10 years of IBM experience deploying and supporting VMware environments.

- Create a hybrid cloud strategy or fully managed VMware on IBM Cloud service with help from thousands of VMware technical experts.

- Protect mission-critical workloads with geofencing, encryption, and multiple firewall and internet gateway options for cost-effective migration to and from the cloud.

Disaster recovery and business continuity
A robust cloud disaster recovery (DR) and backup strategy with multiple solution options and an expansive network of data center–to–data center replication helps protect enterprises in the event of planned or unplanned outages.

- Select from various IBM and ecosystem partner automated solutions including IBM Spectrum® Protect Plus, Veeam on IBM Cloud and Zerto on IBM Cloud to expand data protection and recovery options.

- Gain value from unlimited, no-cost replication within IBM Cloud data center–to–IBM Cloud data center, and monthly cloud subscription models for VMware workloads.

- Maintain control and expand choice by implementing a multitier backup strategy with options of file, block and object storage for cost-effective long-term retention.

- Retrieve data assets in 15 minutes or less with Veeam on IBM Cloud, and recover data quickly to a point in time with Zerto on IBM Cloud, which can deliver accelerated recovery time objective (RTO) in minutes and recovery point objective (RPO) in seconds.

Application modernization
IBM and VMware can help you fast-track to Day 2 operations with automation, so you can focus on modernizing VMware applications using containers and access high-value services such as artificial intelligence (AI) and blockchain.

- Retain root access control—similar to on-premises solutions—down to the hypervisor level.

- Adopt Kubernetes without breaking governance or security policies while maintaining full control over the entire stack.

- Integrate existing VMware-based applications into a hybrid cloud strategy, and innovate freely between containers and VMware virtual machines (VMs) with Kubernetes-based IBM Cloud Private Hosted.

- Deploy VMware NSX-T to enforce networking security policy across containers and VMs.

- Protect workloads with IBM Cloud secure private network and turnkey solutions from partners such as F5, Fortinet and HyTrust.

What VMware options are available in IBM Cloud for VMware Solutions?

Choose the options you need from a growing list of available VMware solutions in the IBM Cloud for VMware Solutions portfolio. Select a custom build, automated preconfigured bundle or DR environment.

VMware vCenter Server on IBM Cloud

– VMware vCenter Server offers automated installation of vSphere on bare metal servers with attached storage options. Optional features include NSX and additional storage capabilities.

– This solution is offered in a two-node minimum configuration and it can expand to meet changing requirements quickly.

VMware vSphere on IBM Cloud

– Enterprises seeking full flexibility or configuration control can take advantage of a customizable virtualization service that combines VMware-compatible bare metal servers, hardware and licenses to build your own IBM-hosted VMware environment.

– Whether selecting a specific version of vCenter or a true à la carte license, enterprises can build what they need and select the servers they prefer.

Does elasticity gain mean sacrificing control?

Adopting a cloud strategy should not force you to choose between elasticity and control. With IBM Cloud for VMware Solutions, you remain in complete control without having to trade the reliability and security of your existing infrastructure to get the agility your organization needs. You can continue using the tools, capabilities and skill sets that you may have developed using vSphere—and you can extend those skills to the IBM Cloud.

You also don't have to retrain staff on new tools, and you don't need to build silos or hire and train new staff to maintain and operate this cloud. Best of all, you don't have to re-architect because IBM Cloud for VMware Solutions is compatible with your existing VMware environments.

What do ecosystem partnerships offer?

IBM and VMware continue to build out an ecosystem of partners that support VMware solutions.

IBM Cloud Secure Virtualization—Intel and HyTrust

– Security, compliance and data protection can be primary barriers to enterprises adopting cloud. IBM has teamed up with Intel and HyTrust to design a data protection and compliance solution.

– IBM Cloud Secure Virtualization leverages Intel Trusted Execution Technology (Intel TXT), which geofences data to the microchip level.

– HyTrust DataControl Workload Encryption and CloudControl Workload Policy Enforcement software provide advanced levels of encryption, data protection and compliance monitoring. This combination can address security needs and enable clients to be ready for GDPR, minimizing audit risk.

Veeam on IBM Cloud

– High-speed recovery of applications and data can be achieved in minutes with this backup and replication solution, which offers data loss avoidance for lower RPOs and RTOs with streamlined DR.

– Verified recoverability through automated backup and replica testing is available.

– Backups automatically create isolated copies of the production environment for testing, troubleshooting and training.

– Comprehensive visibility of virtual environments helps with environment monitoring and issuing alerts for unseen problems that can impact backup and application performance.

Zerto on IBM Cloud

– Industry-leading Zerto offers DR solutions for virtualized environments, including VMware environments on premises or in the cloud.

– Gain fast replication of VMware environments with adjustable RPO and RTO options.

– Zerto is an automated solution that is offered on vCenter Server bundles.

How are VMware solution bundles licensed?

Each of the IBM Cloud for VMware Solutions is available with an array of deployment options, as well as management self-service or fully managed options. Infrastructure, software and support for these bundles are all included in the monthly subscription price. No contracts are necessary, and you can scale up or down at any time.

You can rent VMware licenses on a monthly subscription basis or bring your own licenses from an existing ELA. Licenses rented from IBM Cloud are offered on a monthly subscription and metered per physical CPU for extremely advantageous pricing.

All of these options are offered exclusively on bare metal servers and are completely single tenant.

IBM Cloud

Are you ready to get started?

Learn more about IBM Cloud for VMware Solutions.
Contact your IBM representative or IBM Business Partner,
or visit: **ibm.com**/cloud/vmware

Check Gartner Peer Insights to see why IBM Cloud:

Received the highest ratings for customer willingness to recommend – 95%

Received the highest ratings for security and compliance (4.7 out of 5 stars)

Received the highest ratings for integration and deployment (4.6 out of 5 stars)

And is rated highest overall among leading cloud providers (4.7 out of 5 stars)

…based on 84 reviews over the last 12 months, as of 28 Feb 2020.

https://www.gartner.com/reviews/
market/public-cloud-iaas/vendor/
ibm/product/ibm-cloud/v1

*Gartner Peer Insights reviews constitute
the subjective opinions of individual end
users based on their own experiences,
and do not represent the views of
Gartner or its affiliates.*

IBM