**IBM Cloud** White paper

# IBM Cloud for VMware Solutions

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

# **Executive Summary**

How do new and existing VMware users gain strategic advantage by leveraging VMware solutions on the IBM Cloud platform? In this paper, we highlight these advantages, including the benefits of cloud economics and cloud infrastructure, while continuing to use the same tools, resources and capabilities of current, on-premises VMware deployments. Our goal is to educate customers on the benefits of migrating new or existing VMware workloads to IBM Cloud in a hybrid cloud architecture.



# What is Virtualization?

Virtualization is the process of creating a software-based (or virtual) representation of something rather than a physical one. VMware is the industry leader in virtualization technology solutions and the infrastructure platform choice of 100 percent of the Fortune 500 . VMware offers a suite of cloud-based products that enable the virtualization of compute, storage, and networking as well as additional management and automation capabilities. They have enabled IT departments to transform their static server and network infrastructures into dynamic virtualized resource pools, which can be provisioned on demand based on the ever-changing needs of any organization.

# What is Hybrid Cloud?

A Hybrid Cloud implementation is defined by running workloads in both on-premises, or co-located, infrastructure as well as in infrastructure hosted by a cloud provider. The benefits include getting the most agility and flexibility of a public cloud while continuing to take advantage of existing investments.

Now imagine that you can actually manage all these resources using the same tools that you've been using for years. This is a hybrid cloud. By extending your VMware infrastructure to IBM Cloud, you can address key needs including capacity expansions or data center consolidation, building a disaster recovery environment and meeting key security and compliance goals.

# Why Consider Cloud?

Cloud adoption is of great benefit to users who may need to expand quickly, require agility not offered onpremises, or who may simply be interested in deprecating older locations or hardware. Let's review the benefits and then hit on the areas where IBM Cloud for VMware Solutions make this move to cloud more appealing.

Flexibility: Scale resources up or down without the concern of over purchasing or under-utilization. Public cloud eliminates the need to purchase your own hardware and it can also provide you with the ability to reduce the IT Staffing that would be need to manage your on premises gear setup and maintenance.

Agility to expand: Public clouds provide users the ability to grow (and contract) quickly with pay as you go pricing models that allow you to stay away from the commitments of purchasing your own infrastructure or long contracts.

**Cloud Economics:** Change Capital Expenditures to Operational Expenditures. If you find yourself needing to do a hardware refresh, there is likely a large need for up front budget and planning to appropriately size the environment for what you may need 3-5 years down the road.

**Global Presence:** Cloud allows you to move workloads to the areas that you need, enabling you to meet business requirements by more quickly reaching new areas or reducing network latency.

Whether needing to add a new location for geographic coverage or just to get more capacity on a temporary or permanent basis, Cloud gives that option. While there are many more Cloud benefits to consider, let's touch on the specific benefits of IBM Cloud for VMware Solutions and what is new with this offering.

# Why IBM Cloud for VMware Solutions?

Let's start by covering why IBM Cloud for VMware Solutions is important and how it changes the game for enterprise customers. VMware, having owned over 70% market share for many years, is the dominant player in the hypervisor market for enterprise. That market leadership does not appear to be changing. Historically, VMware environments were limited to running on-premises in customer owned or shared co-located data centers. The licenses were purchased in lengthy ELAs which were not friendly to cloud consumption. In addition, running VMware products in a public cloud setting was limited to what was offered by individual service providers, many times being limited to lesser, incompatible implementations that weren't compatible with workloads in your data center. Finally, clients could not use their existing VMware licenses in these environments.

Fortunately, with the partnership between IBM and VMware, you can now use your VMware licenses in a cloud-friendly monthly subscription model, including full vSphere and vCenter options. This is a game changer for several reasons, primarily in terms of compatibility and increased cloud agility. Additionally, clients can use their existing VMware licenses in the IBM Cloud, in a Bring Your Own license option.

IBM Cloud is the perfect location for your workloads, specializing in bare metal server implementations that pair well with customers who need to have secure, single tenant implementations. That is a win-win for enterprise clients who can't run in multi-tenant clouds.

#### You Don't Need to Sacrifice Control to Gain Elasticity

Adopting a cloud strategy shouldn't force you to choose between elasticity and control. With IBM Cloud for VMware Solutions, you don't need to trade the reliability and success of your existing infrastructure to get the agility your organization needs.

With IBM Cloud for VMware Solutions, customers can continue to use the tools, capabilities and skillsets that have been developed using vSphere and extend those same skills to the IBM Cloud. There is no retraining on new tools, no need to build silo environments, and no need to hire and train new staff to maintain and operate this cloud environment. Best of all, since IBM Cloud for VMware Solutions is compatible with your existing VMware environments, there is no need to re-architect your environments.

By providing a global cloud platform with high performance compute, networking, and storage you need on demand, IBM Cloud delivers the elasticity your organization needs without forcing you to completely rewrite the book on IT operations. IBM Cloud enables you to transform your existing VMware private cloud into a massively scalable hybrid cloud, without reinventing your IT department.

You remain in complete control.

# Benefits of running VMware on the IBM Cloud



#### **Compatibility with VMware Workloads:**

As many public clouds require you to change to a different Hypervisor or unknown API, the VMware solution, being compatible with vSphere, is compatible with other VMware environments. Thus doesn't require you to retrain, re-architect, or create incompatible environment silos.



#### **Security**

Many times public clouds are considered risky, as you may be running on multi-tenant infrastructure or shared storage. Not so with IBM Cloud for VMware Solutions. You are on single tenant servers and storage, providing you with the security and control that you need.



#### **Maintain Control**

Many believe that moving to the cloud equates to a loss of control. Again, IBM Cloud for VMware Solutions allows you to stay in control as you have full vCenter access. This environment will look and feel, in the same vCenter pane of glass, like it is operating in your data center. It's just like another location, only it being run on IBM's network of dozens of secure, interconnected data centers. These same data centers put global expansion and interconnectivity at your fingertips.

# IBM Cloud for VMware Solutions Portfolio

There is a growing list of options in the VMware Solutions Portfolio from which to choose. Whether it's a custom build, an automated pre-configured bundle or a Disaster Recovery environment, there are several options to choose from.

#### **IBM Cloud for VMware Solutions**

## **VMware Cloud Foundation on IBM Cloud**

- Full Stack of VMware Virtualized infrastructure
- vSphere, NSX, vSAN & SDDC Manager on Single Tenant Infrastructure provides users with a fast and repeatable automated delivery of our preferred reference architecture on IBM Cloud.
- Offered in a 4+ node solution, this capable offering can meet your most rigorous demands.

#### VMware vCenter Server on IBM Cloud

- vCenter Server provides the user with automated installation of vSphere on bare metal with attached storage options.

  Optional features include NSX and additional storage options.
- This solution is offered in 2 node minimum and can expand to meet your needs quickly. Offered in a 4+ node solution, this capable offering can meet your most rigorous demands.

White paper

#### VMware vSphere on IBM Cloud

- If you seek full flexibility or configuration control, you need IBM's "build-your-own" solution.
- Whether a specific version of vCenter or true a-la-carte license selection, clients can build what they need and select the servers they prefer.

#### **Eco-system Partnerships**

## Disaster Recovery with Zerto on IBM Cloud

- Zerto is an industry leader in offering Disaster Recovery solutions for virtualized environments, and they offer just that for VMware environments On Premises or in the cloud.
- Fast replication of VMware environments with adjustable RPO and RTO options
- Offered on either Cloud Foundation or vCenter Server bundles

#### Data Protection & Compliance with IBM Cloud Secure Virtualization (Intel & HyTrust)

- Security, Compliance and Data Protection are the primary barriers to enterprises adopting cloud. IBM has teamed up with Intel and HyTrust and designed a solution.
- IBM Cloud Secure Virtualization leverages Intel TXT technology that will geo-fence data to the microchip level. HyTrust DataControl and CloudControl software provides advanced levels of encryption, data protection and compliance monitoring. This combination addresses the security needs and allows clients to be ready for GDPR and minimize audit risk.
- Offered on the Cloud Foundation bundle as well as via a professional services build

## **Backup & Replication with Veeam on IBM Cloud**

- High speed recovery of your applications and data in minutes.
- Data Loss Avoidance for lower recovery point and time objectives, and streamlined disaster recovery. Verified Recoverability through automated backup and replica recoverability testing.
- Backups automatically create isolated copies of your production environment for testing, troubleshooting and training.
   Complete visibility of your virtual environment to monitor and alert you to unseen issues which can impact backup and application performance.

Each of our solutions is available with a range of deployment and management options ranging from completely self-service to fully managed. For these bundles, infrastructure, software and support are all included in the monthly subscription price. There are no contracts and you can scale up or down at any time.

Customers are able to rent VMware licenses on a monthly subscription basis or to bring their own licenses from an existing ELA. When renting licenses from IBM Cloud, these licenses are offered on a monthly subscription and are metered per physical CPU for extremely advantageous pricing.

All of these options are offered exclusively on Bare Metal Servers and are completely single tenant.

# Common IBM Cloud for VMware Solutions Use Cases



## **Capacity Expansion**





#### **Data Center Consolidation**

Consolidate legacy infrastructures onto an automated and centrally managed, software-defined data center.



#### **Disaster Recovery & Business Continuity**

Whether on premises or in the cloud, customers need to be protected in the event of a catastrophe.



## **Development and Test**

Get the agility, scalability, and security you need to support rapid application development and testing cycles with IBM Cloud for VMware Solutions. Whether it's a periodic lab or full blown dev environment IBM Cloud for VMware Solutions can meet your needs.

# **Get Started**

Deploy your VMware infrastructure on the IBM Cloud today by visiting <a href="www.ibm.com/cloud/vmware">www.ibm.com/cloud/vmware</a> or by calling 1-844-95-CLOUD (Priority code: CLOUD)

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