

VMware Hybrid Cloud Management for High Availability

IBM CIS provides web layer security
across all cloud environments

Highlights

- DDoS protection ensures cloud and on-premises applications are always available
- Standardize security SLAs across on-premises and multi-cloud environments
- Global load balancing and performance optimizations can reduce visitor latency by over 2X
- Simplified DNS management across cloud environments
- Simplified workload migration with [VMware vCloud Suite from IBM](#)

Standardize your VMware Stack with IBM Cloud

Many enterprise datacenters depend on [VMware](#) to manage a variety of business-critical workloads in virtualized environments. However, the public cloud continues to grow and, according to [Gartner](#), it is now estimated that “cloud shift” across key enterprise IT markets will increase to 28% by 2022, up from 19% in 2018. As a result, more and more IT organizations are challenged by a variety of management tools that will only increase in complexity in the coming years.

Besides the growing use of Cloud-based workloads, more businesses use [Kubernetes](#) as a way to build cloud-native systems that provide added services. This recent change is creating further demands on the office of the CIO while stretching the capabilities of IT teams that make it difficult to maintain security and performance SLAs.

The benefits of hybrid cloud management with IBM Cloud

IBM Cloud was designed to support a variety of application workloads and environments, including hybrid cloud models. With IBM, you benefit from an open platform that supports Kubernetes container infrastructure along with integrated solutions, and DevOps support. All together, IBM is there to help with cloud migration, modernization, and cloud-native application. Furthermore, you get all of this with a resilient networking tier that protects your information from DDoS attacks and handles load balancing to avoid network downtime.

How IBM CIS provides resilience and security

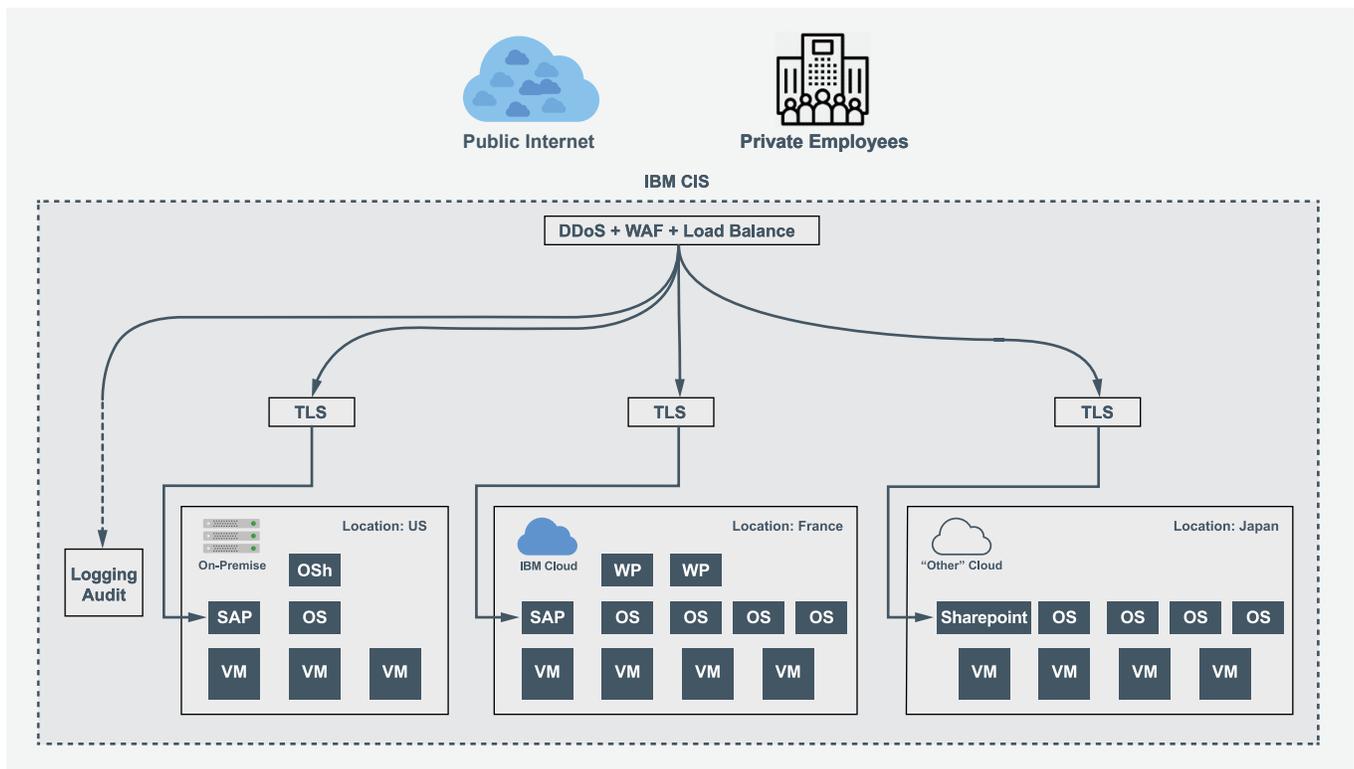
Defending your business against cyber attacks is especially important when critical data is flowing between employees

and data centers scattered around the world. Even some of the best cybersecurity teams have been attacked by denial of service attacks or SQL injections that paralyzed customer transactions.

With IBM CIS you benefit from increased protection from DDoS attacks because the network capacity is 15x bigger than the largest DDoS attack ever recorded. Furthermore, there is ensured availability because IBM CIS has a large edge network that ensures customers can reach your web applications wherever they are on the globe.

VMware Hybrid Cloud Management Reference Architecture

The VMware Hybrid Cloud Management solution is a reference architecture by IBM CIS that ensures high availability across multiple clouds and workloads. It is based on the combination of VMware vSphere, VSAN, NSX, and vRealize Suite with IBM Cloud. By scaling existing VMware on-premises workloads on the IBM Cloud, you benefit from added reliability across your cloud-based applications while end-users are protected from cyberattacks.



IBM CIS multi-cloud security for high availability

As you can see in the reference architecture, VMware Hybrid Cloud Management provides support to all remote employees looking to access critical and non-critical applications behind the firewall. Because it combines with IBM CIS, the IT manager doesn't have to worry about

providing specialized VPNs to every employee because it uses a cloud-based identity & access management service called Access that secures, authenticates, and monitors user access to any domain, application, or path.

Other attributes that make VMware Hybrid Cloud Management a highly available cloud platform include:

- **DDoS attack mitigation** with an “always-on” denial of service solution that provides security at a global scale against some of the largest threats. With over 30 tbps of capacity, CIS can handle any modern distributed attacks, including those targeting DNS infrastructure.
- IBM CIS enterprise-class **web application firewall (WAF)** protects your hybrid cloud environment from vulnerabilities like cross-site scripting, SQL injection attacks, and cross-site forgery requests with no changes to your existing infrastructure.
- **Load Balancing** is another critical piece to our architecture that ensures cloud-based applications don’t suffer performance degradation from increased utilization or the distance between the end-user and application server.

More information about IBM Cloud, IBM CIS, and the VMware and IBM Alliance:

IBM Cloud:

<https://www.ibm.com/cloud/vmware>

IBM CIS:

<https://www.ibm.com/cloud/cloud-internet-services>

VMware and IBM Alliance:

<https://www.vmware.com/partners/iso/ibm-software-solutions.html>



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