

VMware Horizon Enterprise Cloud Pod Architecture

Simplifying the management of large-scale and hybrid multi-cloud Horizon deployments

VMware Horizon® enables organizations of all sizes to efficiently and securely deliver virtual desktops and apps. But for organizations with numerous end users with virtual desktops and apps across multiple data centers, the public cloud, or a mix of both, managing and orchestrating these deployments can be complex. To simplify the management of large-scale and hybrid multi-cloud deployments, Horizon uses Cloud Pod Architecture (CPA) federation.

The value of CPA starts with understanding how a Horizon environment is designed. The basic unit of management in the Horizon architecture is a pod. A Horizon pod comprises a group of linked Connection Servers that broker connections to desktops and published applications as well as provide lifecycle management for the desktops and apps. Each Horizon pod has a single user interface and is deployed and upgraded independently of other Horizon pods. CPA links together multiple Horizon pods to provide a single large desktop and application brokering environment called a pod federation. A pod federation can span multiple sites, whether on premises or in the cloud. The multiple pods are managed as a single entity, called a global entitlement, which greatly simplifies the administrative effort required to entitle end-user connections in a large-scale, geographically dispersed, hybrid multi-cloud environment.

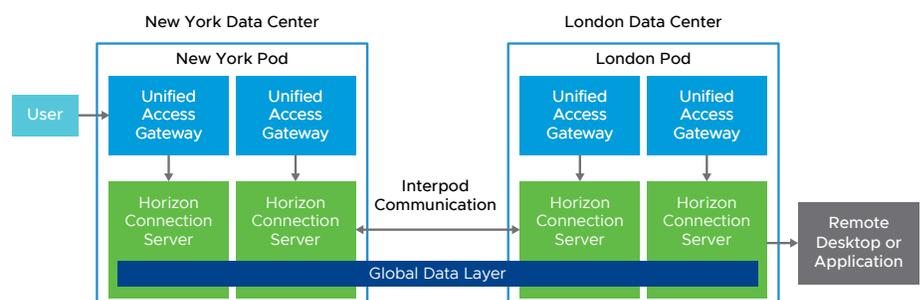


Figure 1: Basic Cloud Pod Architecture Topology

Easily Manage Large-Scale Deployments

Each Horizon pod can support 20,000 virtual desktops or app sessions, thus larger deployments require multiple Horizon pods. This is where CPA is an instrumental feature. The management of multiple tens of thousands of user entitlements across multiple sites and pods can be complex and cumbersome. One powerful capability of CPA allows admins to create global entitlements that connect end users to desktop pools that span multiple Horizon pods across sites. If desktop capacity in one pod becomes constrained, Horizon automatically connects end users to another pod with more capacity in the CPA federation. In essence, desktop pools in different pods act as a single global pool, seamlessly connecting end users to wherever capacity is available. This allows them to access desktops when needed, thereby improving productivity and the virtual desktop and app experience.

Enable Hybrid Multi-Cloud Deployments

Horizon customers are increasingly expanding their virtual desktop and app deployments to public clouds, leveraging the flexibility to scale capacity up and down as needed without having to invest in CapEx. CPA can serve as the basis for management between on-premises data centers and various public clouds. A customer can deploy one or more Horizon pods in their own data center, as well as in the VMware Software-Defined Data Center (SDDC) running on the public clouds of their choice and federate all of them with CPA. Connection policies can be set up to direct end users to a pod that has available capacity regardless of location. Because the same Horizon and VMware SDDC infrastructure is running in all locations, managing this hybrid multi-cloud deployment is simplified. CPA helps fulfill the promise of cloud by giving organizations the flexibility and agility they need for virtual desktop infrastructure (VDI) and app deployments with streamlined management. Additional SaaS services are available from the Horizon Control Plane with a Horizon subscription license and Horizon Cloud Connector. Optionally, CPA can be deployed on closed networks.

Provide Business Continuity

Outages and environmental events can impact organizations at any time. Keeping end users connected to corporate resources and productive is mission and business critical. Implementing CPA helps ensure business continuity and disaster recovery by connecting multiple Horizon pods and sites across geographically dispersed locations. Many organizations maintain two or more active data centers in separate geographic locations with active VDI and app workloads in each site. With CPA, if a pod becomes unavailable, Horizon first tries to connect end users to another pod in that same site. If that site has no pods available, Horizon connects to alternate active sites, ensuring continuous access to resources keeping end users connected and productive. And with the proliferation of VDI in public clouds, more customers are leveraging Horizon running on public clouds to ensure business continuity for on-premises VDI deployments.

Improve Access and Decrease Latency for a Mobile Workforce

With today's mobile and remote workforces, work is not always conducted in the same location. Another benefit of implementing CPA is that it allows administrators to set policies that define where to give access to end users based on their physical location. Regardless of an end user's home location, CPA can configure the policy to provide them with a virtual desktop from the nearest Horizon pod to where they are physically located. When workers are traveling, they can receive a faster response when accessing their desktop, reducing the latency typically experienced when waiting for a pod to respond from a long distance.

Deploy Horizon with Confidence

CPA provides the scale, access and flexibility that large, geographically dispersed organizations require to manage their Horizon deployments with confidence. Organizations can easily add virtual desktops and app support across on-premises data centers as well as in public clouds, keeping end users connected with an exceptional experience.

For more information on Horizon, visit www.vmware.com/go/horizon.