

This diagram shows how to build a multi-site cloud platform powered and managed by VMware Cloud Director 10.3.

This solution can be utilized by service providers who want to build their cloud platform in multiple locations, where each location has a dedicated cloud management platform. In addition, they want to provide their tenants with a single pane of glass to manage their resources across different locations.

- Each location has a dedicated VMware Cloud Director (VCD) deployment, consists of three or more VCD cells. Each deployment is load-balanced locally using NSX Advanced Load-balancer. Alternatively, NSX-T T1 Gateway can be used as a load balancer.
 - Each VCD deployment is configured with publicly-accessible FQDN as *Public Addresses*. In addition, these FQDNs must be resolvable internally through provider-managed DNS servers for internal users/administrators accessibility and for 3rd party integrations. Each VCD deployment must be able to resolve these Public FQDNs of all VCD deployments (including its own) for Multi-site association to work.
 - Each VCD deployment is configured to use a highly-available, provider-managed identity provider for users authentication and authorization. Active Directory is commonly used for this purpose. The identity provider solution must be shared between all VCD deployments or identity providers servers at all locations must be in synchronization to provide a single source of truth for users information. This is required for VCD Multi-site association to provide mutual transparent authentication between different VCD deployments.
 - A Global Server Local Balancing (GSLB) solution is deployed across locations in a highly-available cluster to ensure service availability to external users/tenants. NSX Advanced Load-balancer can be used as GSLB solution.
 - The GSLB solution acts as an authoritative DNS server for the unified global FQDN which external users/tenants should use to access the cloud platform. Public DNS servers will be able to resolve this global FQDN by sending DNS requests to GSLB.
 - VCD Multi-site association is configured between all VCD deployments with the unified global FQDN as the *Global Load Balancer URL*. All client requests that arrive at this unified global FQDN for a multisite deployment are redirected. When a request arrives at the unified global FQDN, even if the site where the request arrives is the correct one, a redirect is issued and reflected in the user-visible URL to specify that the request was directed to the correct location.
- The provider should configure organization-level association to allow organization users to view their assets across different locations from a single pane of glass.

