

The VMware vCloud Availability for Cloud-to-Cloud DR solution provides replication and failover capabilities for vCloud Director workloads at both the VM and vApp level.

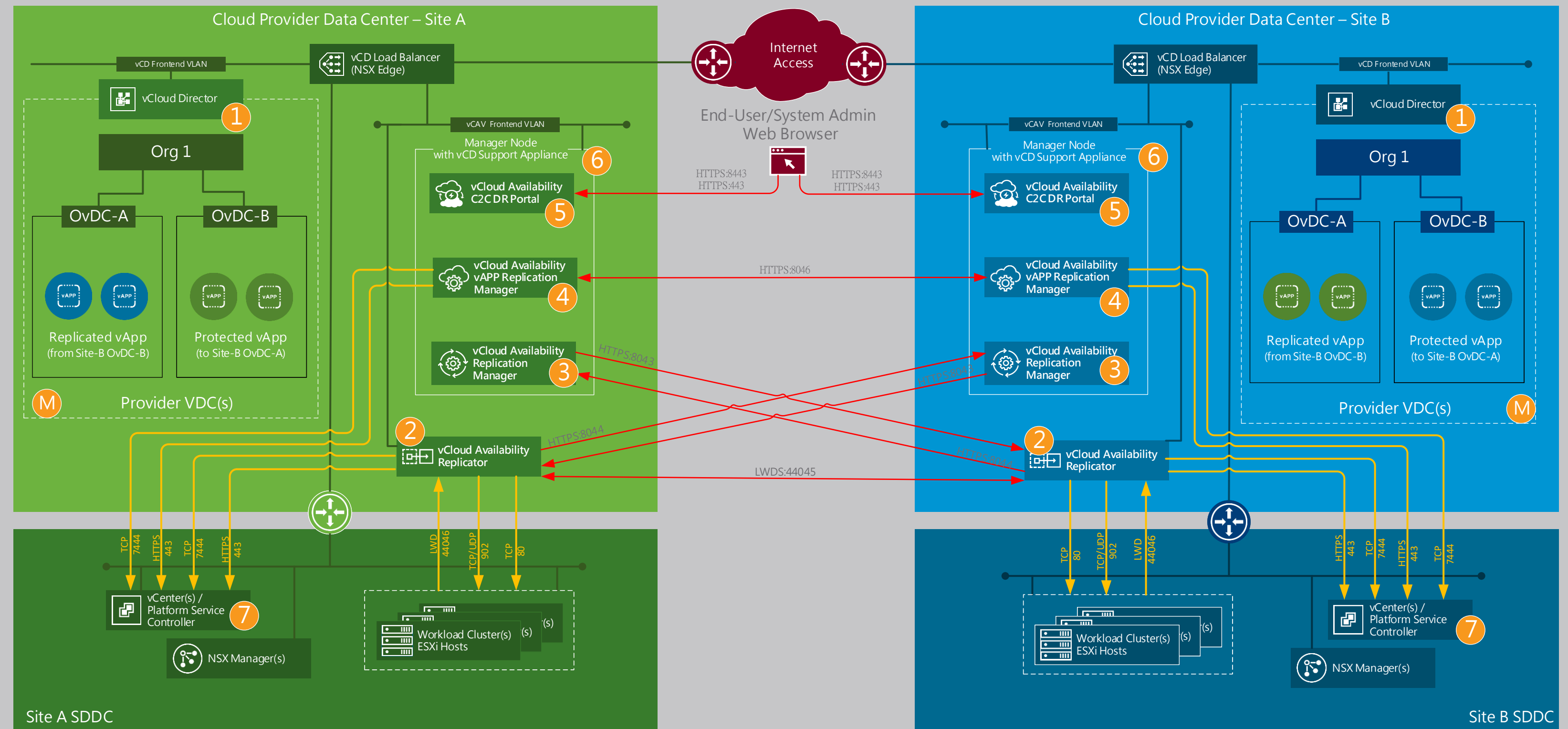
The solution is designed for VMware Cloud Provider partners to run on vCloud Director instances and offer cloud-to-cloud disaster recovery (DR) services, enabling further monetization of existing VMware vCloud Director multi-tenant cloud environments.

- 1 With the vCloud Director solution service providers can build secure, multi-tenant private clouds by pooling infrastructure resources into virtual data centers and exposing them to users through Web-based portals and programmatic interfaces as fully automated, catalog-based services.
- 2 For production deployments, You deploy and configure dedicated vCloud Availability Replicator appliance or appliances, it exposes the low-level HBR primitives as REST APIs.
- 3 A management service operating on the vCenter Server level. It understands the vCenter Server level concepts for starting the replication workflow for the virtual machines. It must have TCP access to the Lookup Service and all the vCloud Availability Replicator appliances in both local, and remote sites.
- 4 Provides the main interface for the cloud-to-cloud replication operations. It understands the vCloud Director level concepts and works with vApps and virtual machines using vCD API calls.
- 5 It provides tenants and service providers with a graphic user interface to facilitate the management of the vCloud Availability for Cloud-to-Cloud DR solution. It also provides overall system and workload information.
- 6 Single appliance that contains the following services:
 - vCloud Availability Replication Manager
 - vCloud Availability vApp Replication Manager
 - vCloud Availability for Cloud-to-Cloud DR portal
- 7 The PSC provides common infrastructure services to the vSphere environment. Services include licensing, certificate management, and authentication with VMware vCenter Single Sign-On.
- 8 This solution requires that each component on a local site has bidirectional TCP connectivity to each component on the remote site, If bidirectional connections between sites are a problem, you must provide connectivity between the vCloud Availability Tunnel appliances on each site. It simplifies provider networking setup by channeling all incoming and outgoing traffic for a site through a single point.
- 9 You must set an IP and port in the local site that is reachable for remote sites and forward it to the private address of the vCloud Availability Tunnel appliance, port 8048, for example, by using destination network address translation(DNAT).

Key

M Logical placement shown, existing VMware vCloud Director multi-tenant cloud environments.

R Red-colored lines represent external network communication, all the other network communications to the workload SDDC are the same as without Cloud-to-Cloud Tunneling model.



Deployment Model without Cloud-to-Cloud Tunneling

Cloud-to-Cloud Tunneling using vCloud Availability Tunnel Appliance

