

VMware Cloud™ on AWS - Reference Architecture

HCX Multisite Connectivity and Workload Mobility (Over Internet)

This Reference Architecture details how a Customer can extend multiple on-premises datacenters into a VMware Cloud on AWS SDDC using VMware HCX. VMware HCX is a mobility and datacentre migration tool that can be used for the rapid migration of workloads to the cloud without the traditional requirements of legacy hardware upgrades, installing additional hardware, or the installation of dedicated connectivity. HCX provides L2 extension, bulk migration and vMotion (distributed switch required on networks for source VMs for vMotion).

- 1 The VMware Cloud on AWS SDDC is deployed in the desired region and availability zone.
- 2 In this use case, the remote sites do not require management connectivity back to the Cloud SDDC, so after minimal configuration, VMware HCX is enabled and deployed on the Cloud SDDC. During this step, 3 public IPs are procured, one for the Cloud SDDC HCX Manager and 2 for the HCX Fleet appliances. The Cloud and on-prem firewalls should be configured to allow access to the Cloud HCX Manager over TCP port 443. Also make sure that the firewalls allow outbound access to UDP ports 500 and 4500 from on-prem HCX Fleet Appliance IPs/Networks at each on-prem location.
- 3 After completion of Cloud HCX deployment and configuration, HCX Enterprise activation keys are created and the HCX manager OVA can be downloaded and installed on premises at Site 1. Repeat these steps at Site 2.
- 4 Once the HCX manager has been successfully deployed, activated and connected to the on-prem vCenter Server Site 1, perform the Site Pairing operation to link the On-Prem HCX manager with the Cloud HCX manager. Repeat this step on Site 2.
- 5 Next, prepare site one for HCX Service Mesh deployment by creating the Compute Profile and Network Profiles on Site 1. Then create the associated Service Mesh profile and once complete, deploy the service mesh. HCX will then deploy the on-prem and Cloud HCX Fleet components for Site 1.
- 6 Following successful Service Mesh deployment at site 1, create the Network Extension for the required networks associated with the DVSwitch. Site 1 is now ready for workload migrations.
- 7 At site 2, create the Compute and Network Profiles and then create the associated Service Mesh profile for site 2. HCX will then deploy the on-prem and Cloud HCX Fleet components for Site 2.
- 8 On site 2, establish the Network Extension for the required networks associated with the DVSwitch at site 2. Site 2 is now ready for workload migrations.

