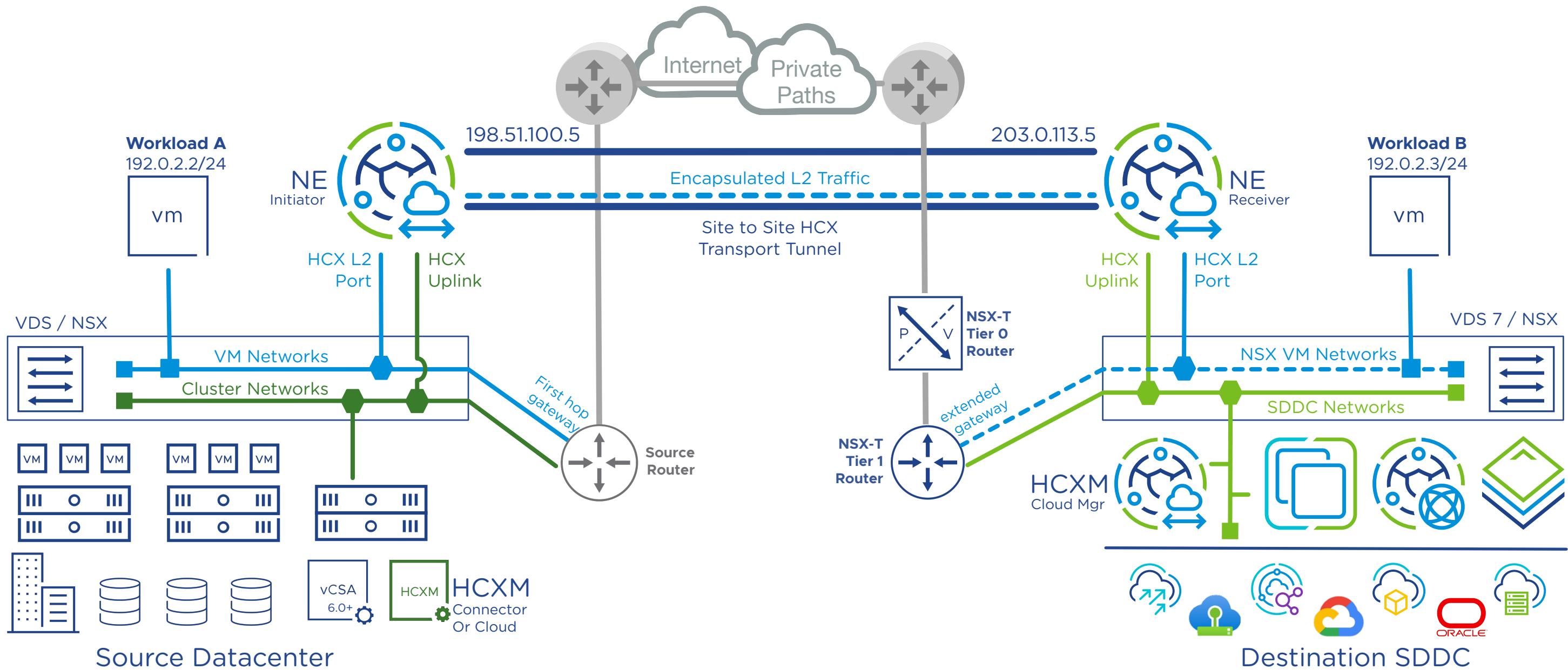


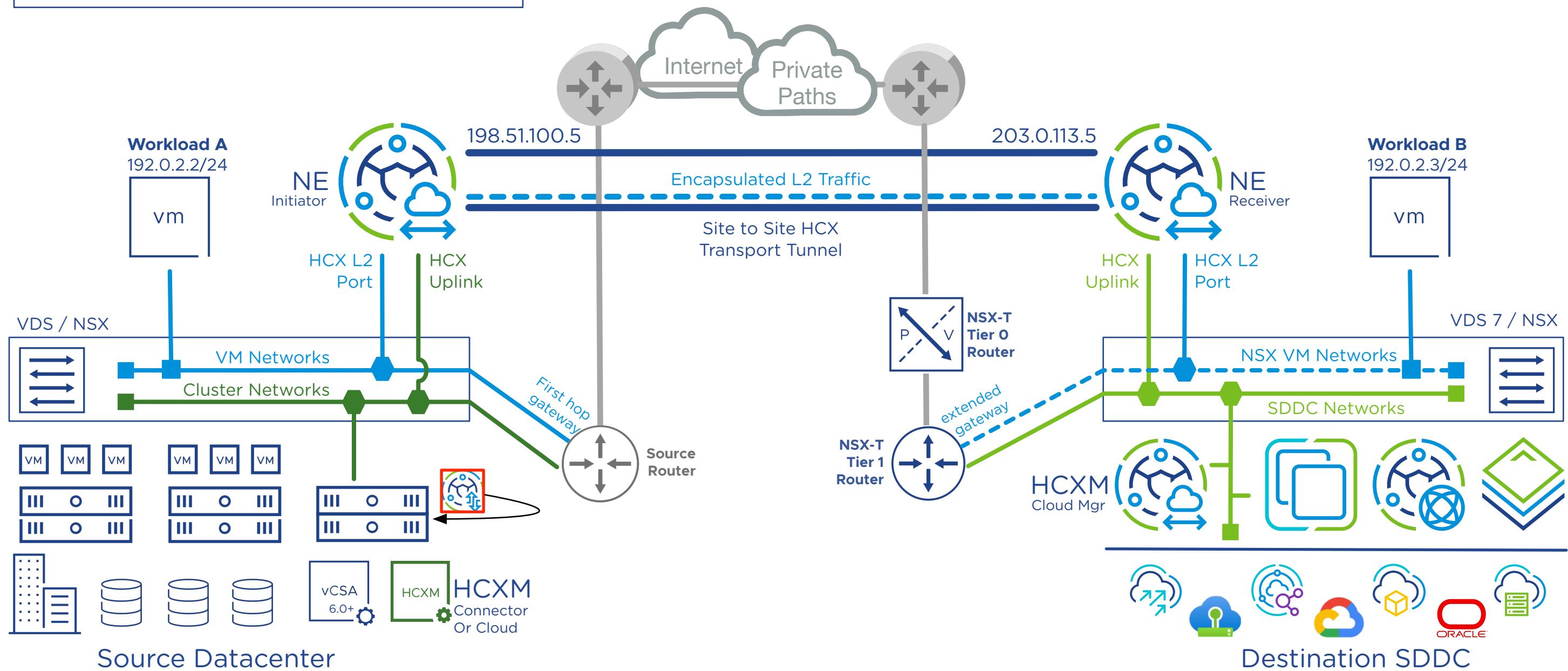
HCX Network Extension Deployment Topology

- ◆ 4-6Gbps appliance per DVS (scales out)
- ◆ Deploys automatically in both sites
- ◆ NE peers auto-connect and negotiate encryption
- ◆ Supports extension of VDS VLANs and NSX Overlays

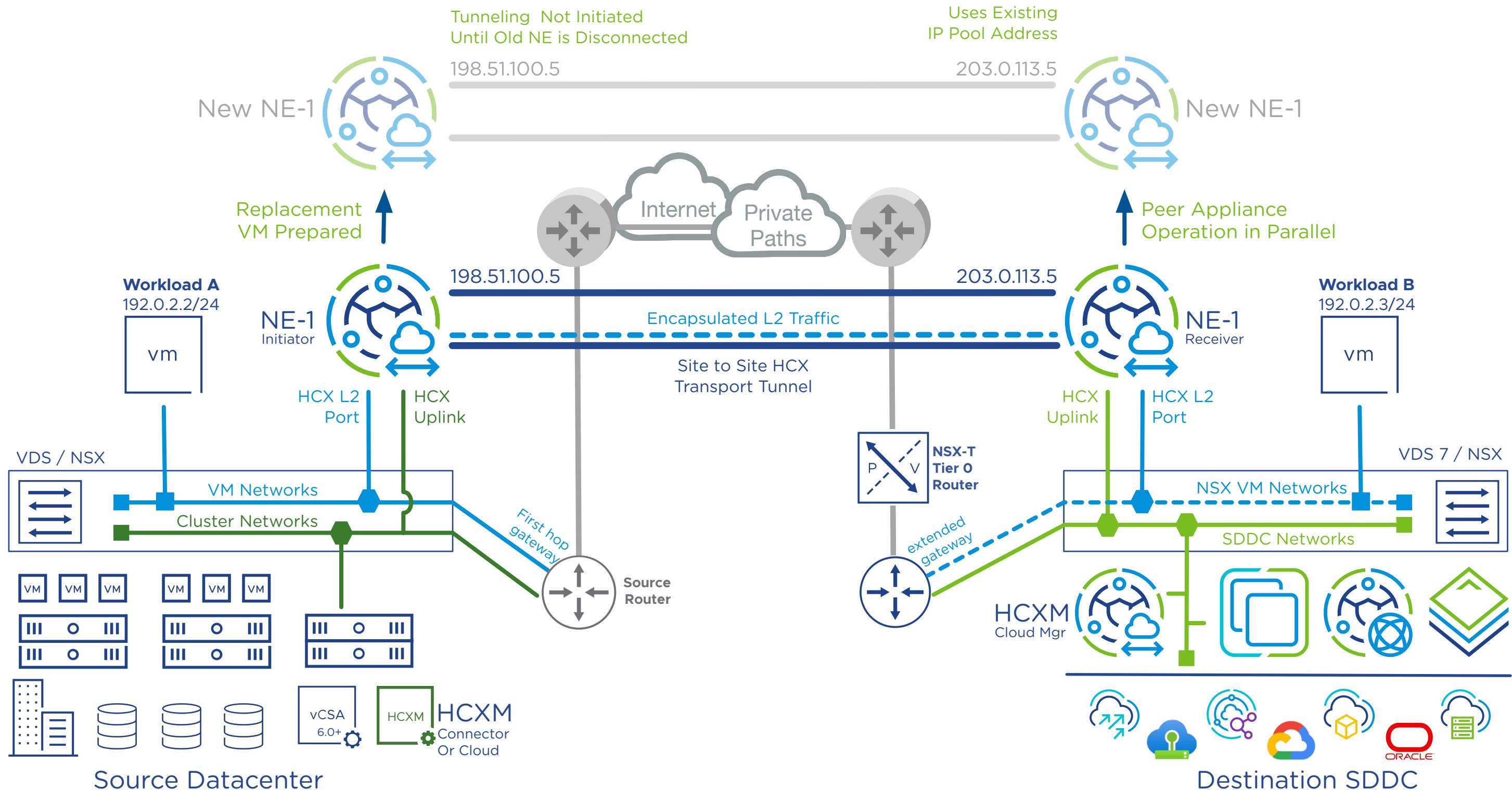


HCX Network Extension Resiliency (No HA, No APR)

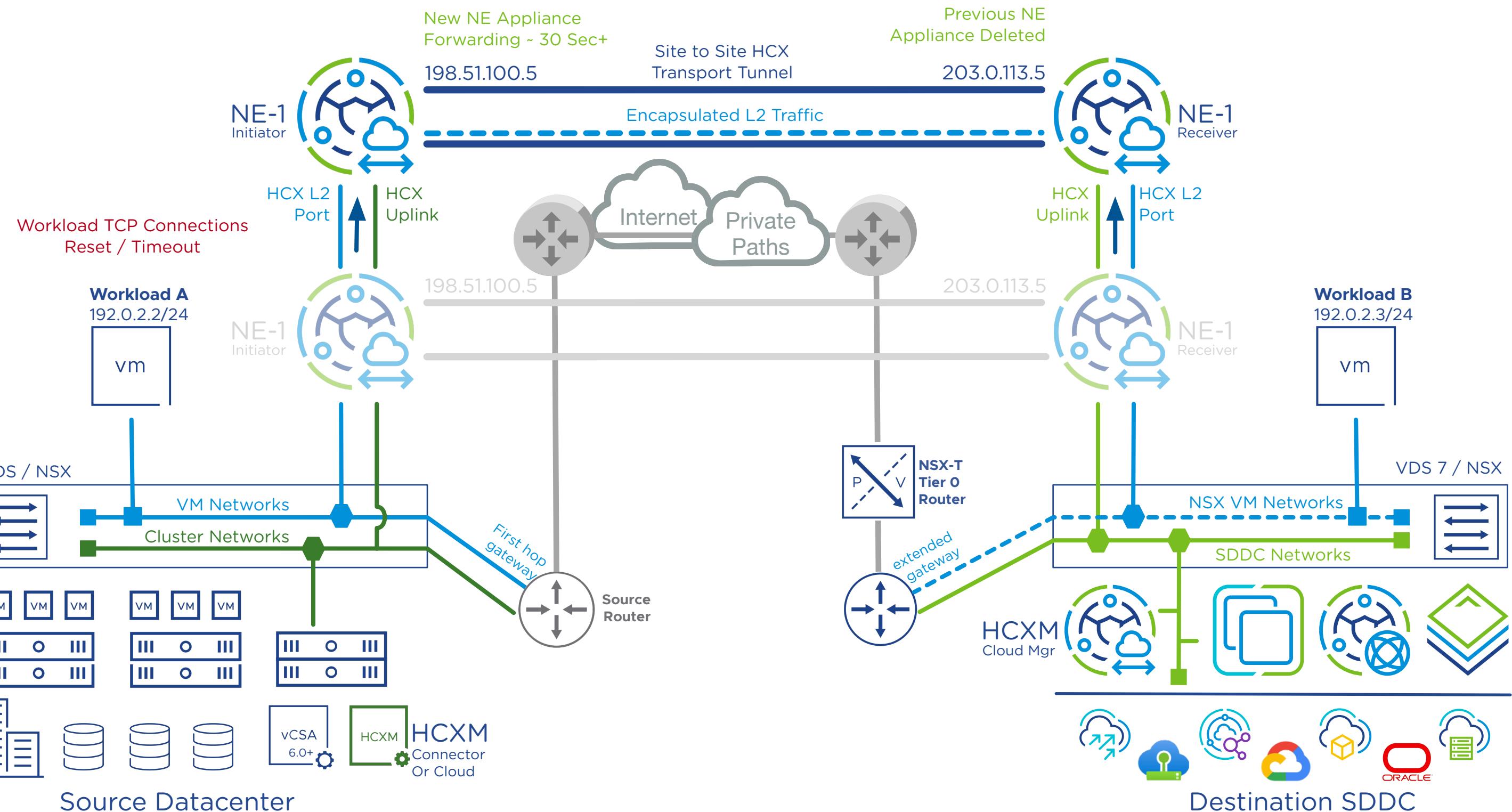
- ◆ Single Node Active Mode
- ◆ Network Extension without HA relies on vSphere HA to:
 - ◆ Detect unplanned appliance or host failures.
 - ◆ Restart the VM
- ◆ Single Path for Site to Site Traffic



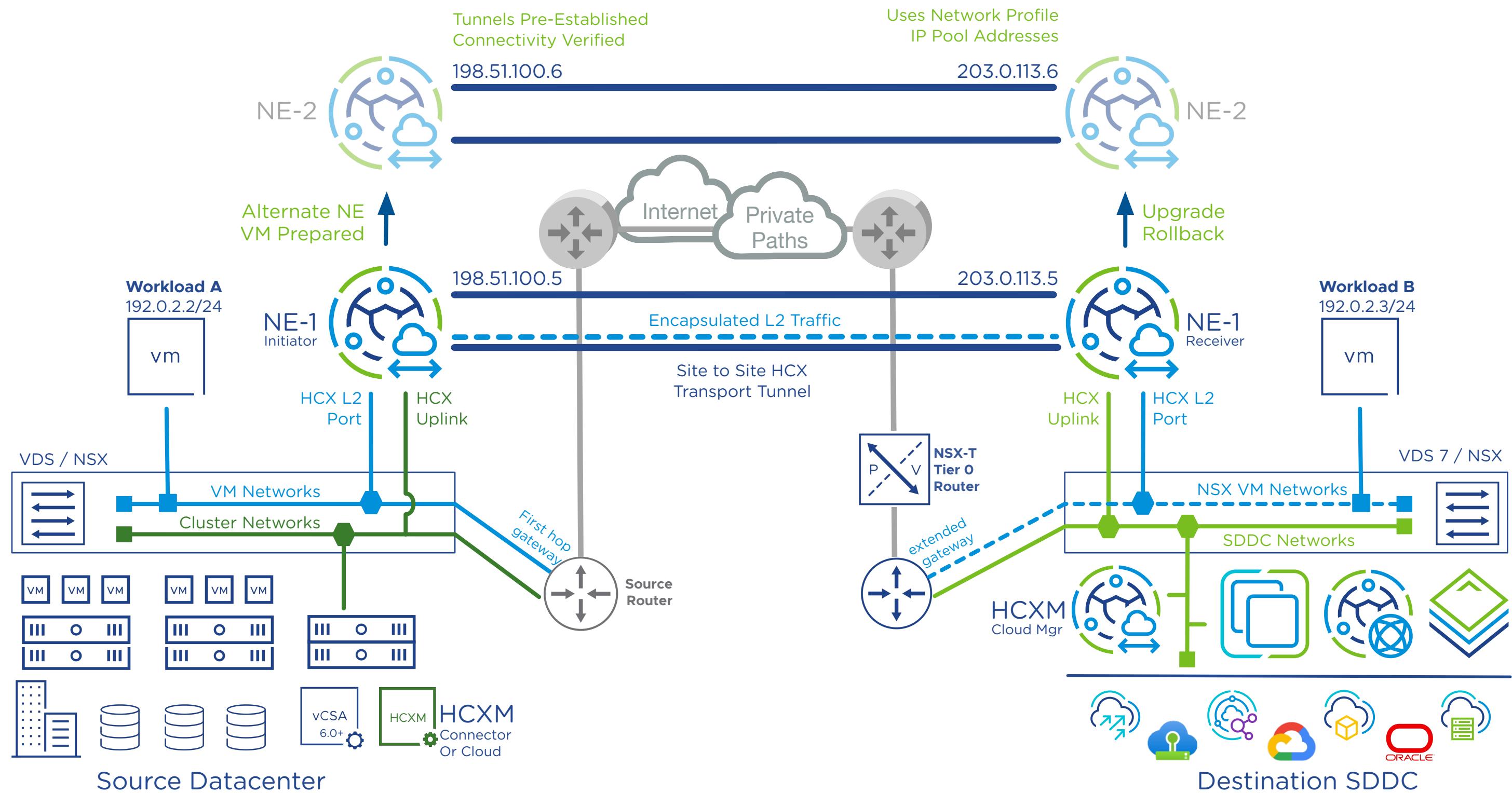
HCX Network Extension Standard Upgrade (In Progress)



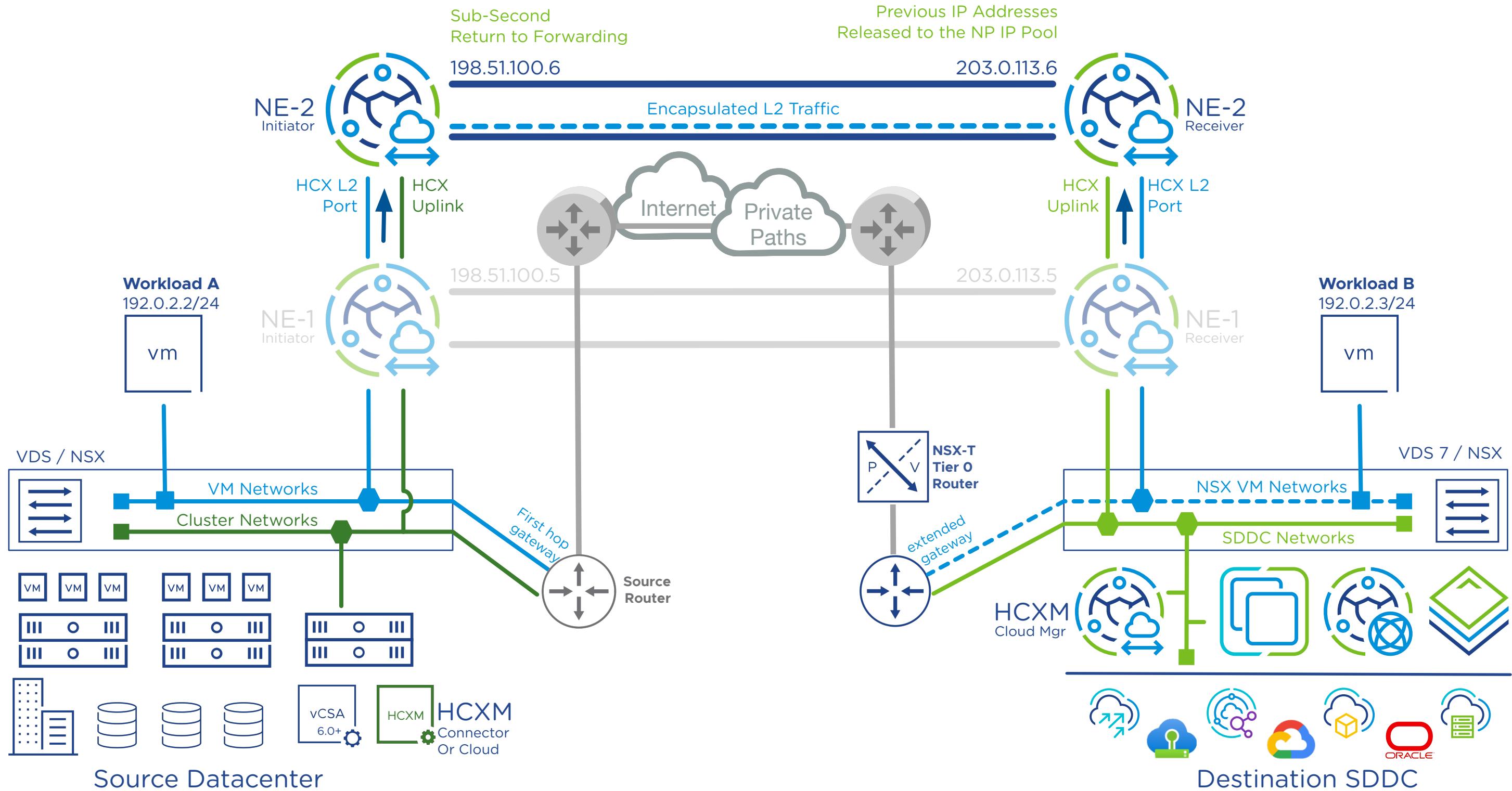
HCX Network Extension Standard Upgrade (Complete)



HCX Network Extension In-Service Upgrade (In Progress)



HCX Network Extension In-Service Upgrade (Complete)

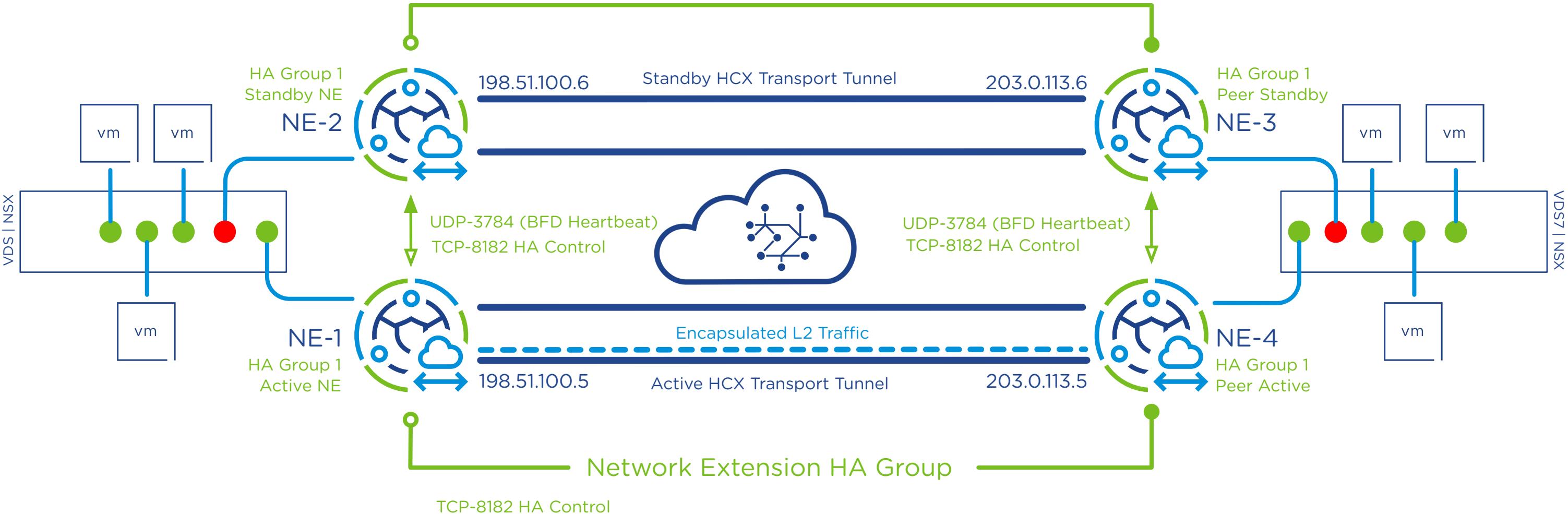


Network Extension HA

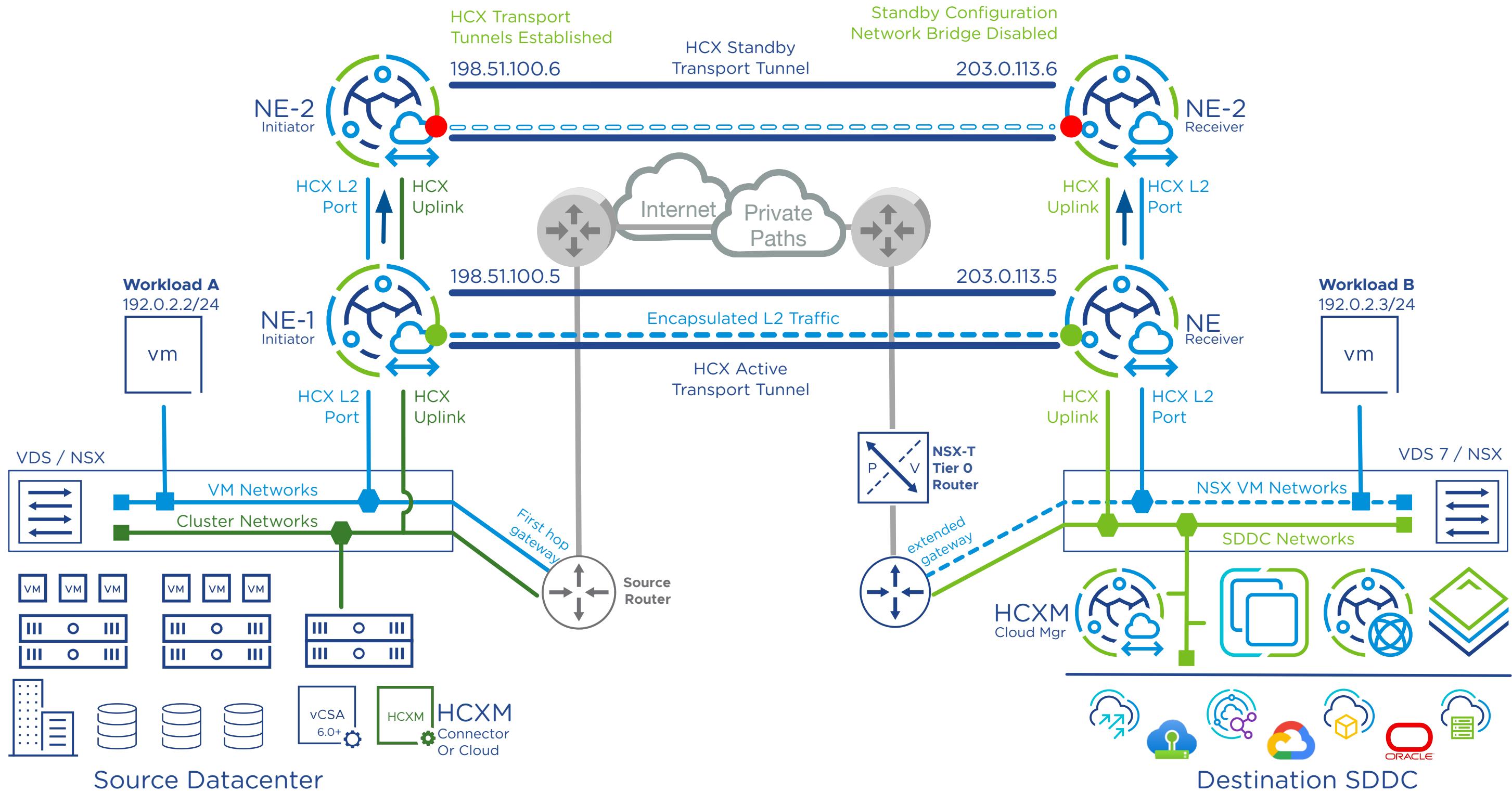
- ◆ High Availability runs as a service on the NE appliances
- ◆ Single node HA Active is paired to HA Standby
- ◆ 500ms heartbeats (3 miss to fail). Tolerates single node failure

Uplink down does not trigger a failover, use with APR/or multiple uplinks!

TCP-8182 HA Control



HCX Network Extension High Availability

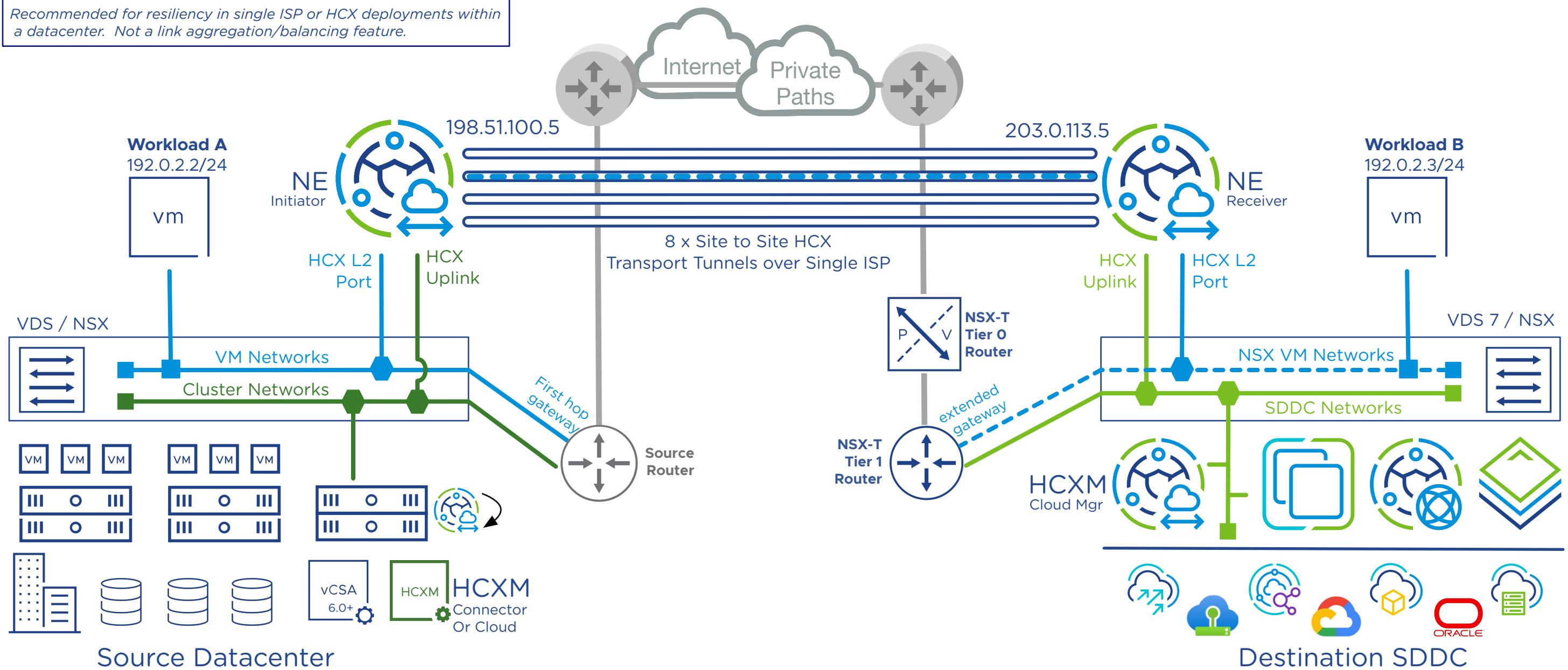


HCX Network Extension Uplink Resiliency - Single vNIC

Single vNIC Multi-Path Redundancy Configuration

- 8 Outer UDP Tunnels per Uplink
- Source Port Variation influences IP Hash placement and ECMP based balancing over switched/routed paths.
- Single HCX Uplink IP Addresses, Single Physical Path
- Enabled at Service Mesh Level (IX + NE)

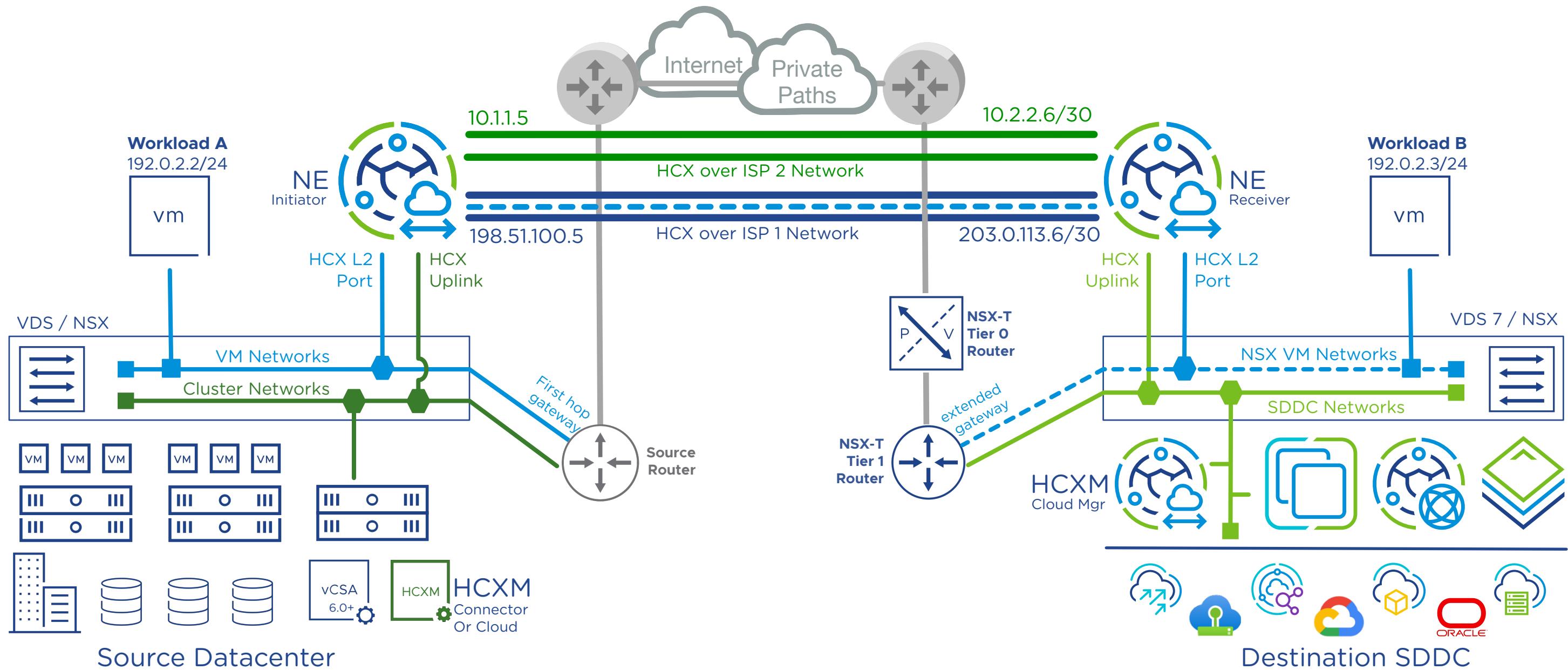
Recommended for resiliency in single ISP or HCX deployments within a datacenter. Not a link aggregation/balancing feature.



HCX Network Extension Uplink Resiliency Multi-vNIC

Multiple HCX Uplink vNIC Configuration

- ◆ 2-3 HCX Uplinks vNICs.
- ◆ Each HCX Uplink connects to different network underlay
- Requires Different Port Groups, Subnet, ISP, Physical Path
- ◆ Enabled at Service Mesh Scope (IX + NE)



HCX Network Extension Standard VM Path

- ◆ Scenario: Workload B migrated to an extended segment
- ◆ ARP reachability to VMs in the blue network
- ◆ Routing & L3 policies enforced at the source

