



Base infrastructure configuration

FlexPod

NetApp
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Base infrastructure configuration

Network connectivity

The following network connections must be in place before configuring the infrastructure:

- Link aggregation using port channels and virtual port channels is used throughout, enabling the design for higher bandwidth and HA.
 - Virtual port channel is used between the Cisco FI and Cisco Nexus switches.
 - Each server has vNICs with redundant connectivity to the unified fabric. NIC failover is used between FI for redundancy.
 - Each server has vHBAs with redundant connectivity to the unified fabric.
- The Cisco UCS FI are configured in end-host mode as recommended, providing dynamic pinning of vNICs to uplink switches.

Storage connectivity

The following storage connections must be in place before configuring the infrastructure:

- Storage ports ifgroups (vPC)
- 10G link to switch N9k-A
- 10G link to switch N9k-B
- In- band management (active-passive bond):
 - 1G link to management switch N9k-A
 - 1G link to management switch N9k-B
- 16G FC end-to-end connectivity through Cisco MDS switches. Single initiator zoning configured.
- FC SAN boot to fully achieve stateless computing. Servers are booted from LUNs in the boot volume hosted on the AFF storage cluster.
- All Epic workloads are hosted on FC LUNs, which are spread across the storage controller nodes.

Host software

The following software must be installed:

- ESXi is installed on the Cisco UCS blades.
- vCenter is installed and configured, with all the hosts registered in vCenter.
- VSC is installed and registered in vCenter.
- A NetApp cluster is configured.

[Next: Cisco UCS Blade Server and Switch Configuration](#)

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