



Setting Up Multiple HX Clusters

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Setting Up Multiple Clusters

Multiple HyperFlex clusters may coexist under the same UCS domain (pair of fabric interconnects). The following guidelines should be followed to ensure smooth ongoing operations for all equipment connected to the domain.



Note Having HX clusters with two different HX versions on the same UCSM domain is a supported configuration as long as the UCSM infrastructure release supports the needed server firmware bundles. HXDP versions are mapped to UCSM server firmware bundles per the release notes. The version of UCSM infrastructure is independent.

Recommendations

- The number of compute-only nodes must be less than or equal to the number of converged nodes when using the standard HXDP license. The enterprise HXDP licenses allows a maximum 2:1 ratio of compute to converged nodes.
- To create a new HyperFlex cluster, ensure that all the requirements listed in Chapter 2 are met. In addition, follow the process as outlined in Chapter 4.
- Use the HX Data Platform Installer for the deployment.
- All nodes in an HX cluster should reference the same policies and service profiles.



Note Editing the HyperFlex Service Profile templates is not recommended.

- Assign a unique name for each HX cluster.
- Each HX cluster will be created in a unique sub-org as part of installation. Do not modify this hierarchy as it ensures unique policies are created per cluster.
- Each cluster should use a unique storage data VLAN to keep all storage traffic isolated. Reuse of this VLAN across multiple clusters is highly discouraged.

- When reusing VLANs (e.g. management and guest traffic VLANs), create a new unique VLAN name for each VLAN even if it already exists in UCSM. This will ensure no disruption to other clusters and servers in that domain.
- Ensure that you select the compatible Cisco UCS Manager and Cisco HyperFlex versions.

For the latest compatibility matrix, refer to the *Software Versions* table in the latest [Release Notes for Cisco HX Data Platform](#).

- Ensure that you clear browser cache before setting up a second cluster on a different vCenter using the same Cisco HX Data Platform Installer. This avoids issues such as caching the older cluster's IP address which could result in deployment failure.



Note You may need to add more uplink ports depending on your traffic.



Note It is possible to use the same VLANs across multiple clusters connected to the same pair of Fabric Interconnects, for example - Management, vMotion and VM guest VLANs. This is possible as long as you do not overlap IPs. It is, however, recommended to keep the HX storage VLANs different per cluster to ensure storage traffic is secure and isolated. If deciding to reuse the storage VLAN against best practices, be extremely vigilant to avoid duplicate IPs. A duplicate IP can disrupt existing storage traffic on another cluster.

Procedure

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- Step 1** Log in to the HX Data Platform Installer.
- Step 2** Follow the **Create Cluster** workflow for a standard cluster to create additional clusters. See [Configure Cisco HyperFlex Systems](#) for more details.
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