Guidelines and Limitations

Guidelines

Consider the following guidelines when creating a HyperFlex Stretched Cluster:

- HXDP Enterprise Edition licensing is required to use the HyperFlex Stretched Cluster feature.
- vSphere Enterprise Plus licensing is required for full featured HyperFlex Stretched Cluster functionalities like VM load balancing and VM migration.
- Ensure that DRS is enabled.
- Supported Stretched Cluster scale:
  - There must be a minimum of 2 nodes on each site. The minimum overall cluster size across both sites is 4.
  - Small Form Factor (SFF). The maximum cluster size across both sites is 64. The maximum converged node count is 16 per site. The compute to converged node ratio can be 2:1, while the maximum limit of nodes per site must not exceed 32. For example, you can have 11 converged and 21 compute nodes per site.
  - Large Form Factor (LFF). The maximum cluster size is 48. The maximum converged node count is 8 per site. The compute to converged node ratio can be 2:1, while the maximum limit of nodes per site must not exceed 24. For example, you can have 8 converged and 16 compute nodes per site.
- There must be a redundant fabric interconnect configuration on each site.
- There must be symmetric cluster configuration across both sites. The number of nodes and the model of HX nodes should be the same on both sites.
- VMs are placed correctly within site affinity only if VMware HA and DRS are enabled before VM creation. Otherwise, the correct placement of VM for proper affinity is not guaranteed.
- HyperFlex Native Replication is supported between Stretched Clusters, and between Stretched Clusters and standard clusters.
- It is a best practice to have two datastores one per site, with the respective affinity.

Limitations

Consider the following limitations when creating a HyperFlex Stretched Cluster:

- Self Encrypting Drives (SEDs) are not supported. However, VM based third-party software encryption is supported.
- Overlay networking and L3 protocols are not supported. L2 adjacency is required for the data and management networks.
- Stretched Cluster is not supported on Hyper-V platform.
- Online rolling upgrades are supported only for the HX Data Platform. Cisco UCS Manager upgrades and VMware ESXi upgrades must be performed manually on one node at a time or performed offline.
- Upgrade from standalone cluster to Stretched Cluster configuration is not supported.
- Stretched Cluster is supported only on M5 nodes. M4/M5 mixed cluster is not supported.
- All NVMe converged nodes are not supported.
- Shared Witness VM is not supported for Stretched Cluster deployments.