Cisco HyperFlex Kubernetes Support

Support Overview

There are two main components that are important to consider when determining support for a Kubernetes version or distribution on Cisco HyperFlex.

- Support for the Kubernetes version or distribution with Cisco HyperFlex.

- Support for the Cisco HyperFlex Container Storage Interface (CSI) storage integration with the specific Kubernetes version or distribution.

Note Kubernetes storage special interest group (K8 SIG community) is not supported on Stretch Clusters.

While in general, Cisco HyperFlex supports any version or distribution of Kubernetes, there is a specific sub-set of versions and distributions that have been tested and are recommended with the Cisco HyperFlex CSI storage integration for Kubernetes. Additionally while it is possible to run Kubernetes and container-based workloads on Cisco HyperFlex without using the HyperFlex CSI storage integration, we strongly recommend that you leverage the native capability when running any stateful Kubernetes-based applications and services that require persistent storage.

The Cisco HyperFlex Kubernetes CSI Integration allows Cisco HyperFlex to dynamically provide persistent storage to stateful Kubernetes workloads running on Cisco HyperFlex. The integration enables orchestration of the entire Persistent Volume object lifecycle to be offloaded and managed by Cisco HyperFlex, while being driven (initiated) by developers and users through standard Kubernetes Persistent Volume Claim objects. Developers and users get the benefit of leveraging Cisco HyperFlex for their Kubernetes persistent storage needs with zero additional administration overhead from their perspective.

Cisco HyperFlex CSI Interoperability Metrics

Cisco HyperFlex CSI and Kubernetes Platform Version and Distribution Interoperability:

HXDP Version HXCSI Version[1]	Kubernetes Version	Cisco Verified Anthos Version[2]	Cisco Verified OpenShift Version[3]
HXDP 4.5(1a)	1.18.2	1.7.2	-
HXDP 4.5(2a) HXCSI 1.2(1a)	1.18.2, 1.19.8	-	-
HXDP 5.0(1a) HXCSI 1.2(2a)	1.19.8	1.9.2	4.8, 4.9
HXDP 5.0(1b) HXCSI 1.2(2a)	1.19.16	-	-
HXDP 5.0(2a) HXCSI 1.2(3a)	1.22.7	-	-

[1] This table shows the completed verification on the specific version, and the HXDP releases compatible with the previous components.

[2] Cisco is an Anthos Ready platform partner. Refer to the Anthos documentation for the version of Kubernetes installed.

[3] Cisco is a certified Red Hat partner. Refer to the OpenShift documentation for the version of Kubernetes installed.

Note HXCSI has been qualified with open-iscsi version 2.0.874-5ubuntu2.10 on Ubuntu 18.04.