



Kubernetes Support in HyperFlex Connect

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Kubernetes Integration in HyperFlex Connect

Kubernetes support must be explicitly enabled within HyperFlex Connect in order to use the HyperFlex Storage Integration for Kubernetes, regardless of whether you are using the Cisco Container Platform (CCP) or RedHat OpenShift Container Platform (OCP). Enabling Kubernetes support in HyperFlex Connect configures the underlying HyperFlex storage subsystem to support the iSCSI-based LUNs (which ultimately maps to Persistent Volume objects). In addition, enabling Kubernetes support configures the required ESXi networking to support iSCSI traffic between the iSCSI target (sevmclient service in each ESXi host) and iSCSI initiators (Kubernetes VMs residing locally on each ESXi host).

Kubernetes Integration Prerequisites

- Enable Kubernetes Integration on HX Release 3.5(x) during a maintenance window. Enabling the feature on a running cluster may impact storage IO operations.

Preventing FlexVolume Traffic Disruption

After you upgrade your Kubernetes cluster from an older HXDP release to 3.5(2a) or later, ensure that the following configuration changes are completed on all the storage controller VM nodes. This will avoid incorrect FlexVolume configuration on Kubernetes nodes.

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- Step 1** Open the `application.conf` file located at `/opt/springpath/storfs-mgmt/stMgr-1.0/conf`. Search for `iscsiTargetAddress`. Modify the value for this parameter from `169.254.254.1` to `169.254.1.1`.
- Step 2** Open the `application.conf` file located at `/opt/springpath/storfs-mgmt/hxSvcMgr-1.0/conf/`. Search for `istgtConfTargetAddress`. Modify the value for this parameter from `169.254.254.1` to `169.254.1.1`.

Step 3 Run the following commands on all the storage controller VM nodes:

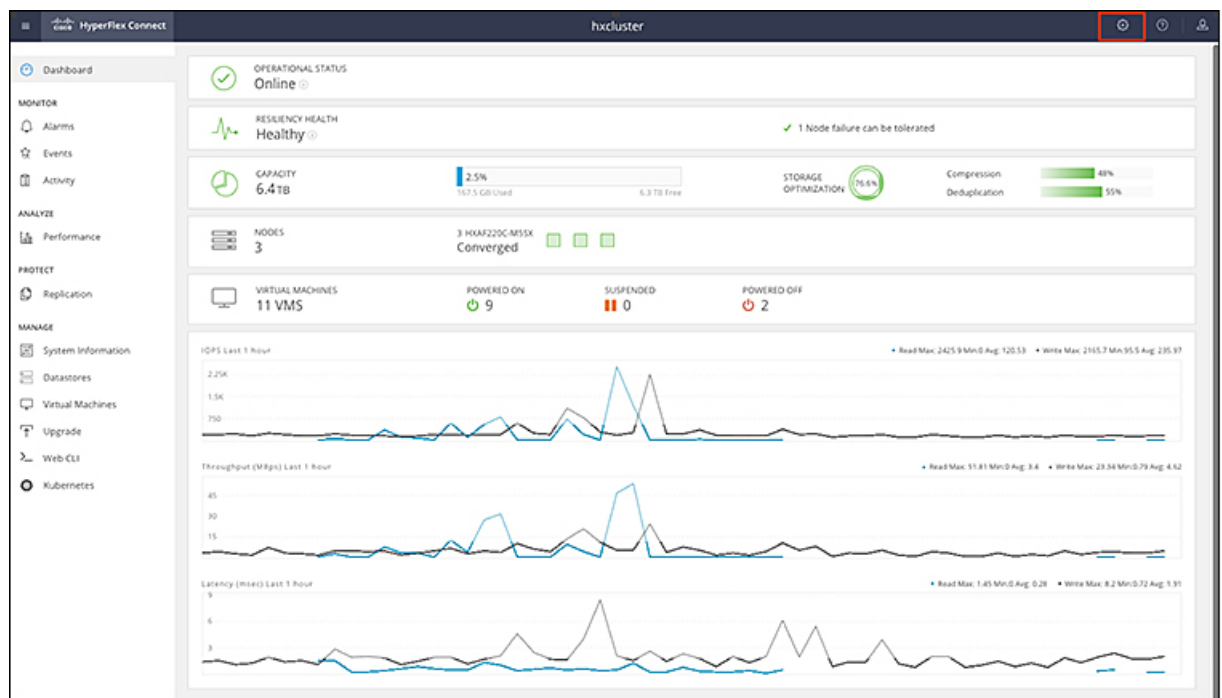
```
# restart hxSvcMgr
# restart stMgr
```

Enabling Kubernetes Integration

The following procedure details the steps that are required to enable Kubernetes support in HyperFlex Connect:

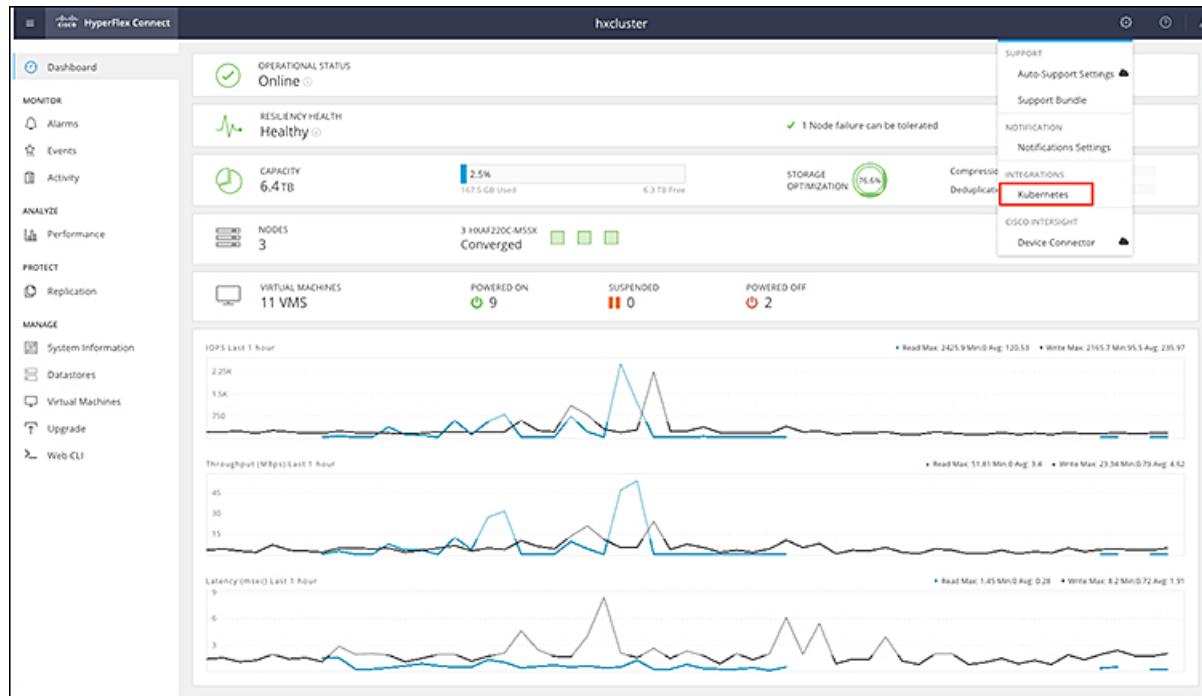
1. Navigate to the HyperFlex cluster by using a supported web browser (for example, https://<hyperflex_cluster_management_IP_address>).
2. Log in to HyperFlex Connect using a VMware SSO account and password with administrative privileges (that is, `administrator@vsphere.local`).
3. In the upper right-hand corner of HyperFlex Connect, click the **Settings** menu icon (represented by a Gear icon).

Figure 1: HyperFlex Connect Settings Menu



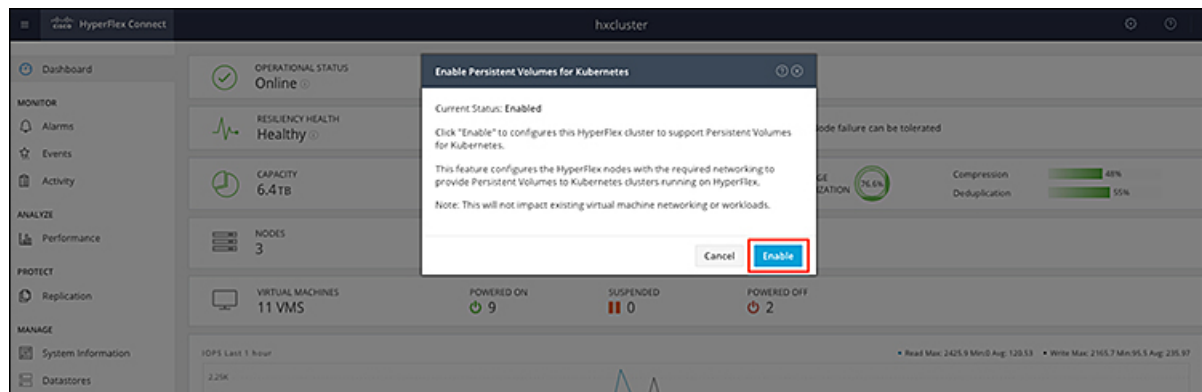
4. Under **Integrations**, click **Kubernetes**.

Figure 2: Selecting Integrations > Kubernetes



5. On the **Enable Persistent Volumes for Kubernetes** page, the Current Status: value is **Disabled** for a new cluster. Click **Enable** to configure the HyperFlex cluster to support Persistent Volumes for Kubernetes.

Figure 3: Enable Persistent Volumes for Kubernetes Page



Partially Enabled Cluster Status

There are certain circumstances where a previously enabled cluster may show a current status of **Partially Enabled**. This status typically appears when one of the following scenarios occur:

- Expansion of the HyperFlex cluster
- Change to required ESXi networking for iSCSI

In either of the preceding scenarios, perform the procedure outlined in [Enabling Kubernetes Integration](#), on [page 2](#) to reenabling Kubernetes support in HyperFlex Connect. HyperFlex will ensure that all hosts are properly enabled and configured. After reenabling Kubernetes support, the current status should change to `Enabled`.