Managing HX Controller VMs

Managing Storage Controller VMs

Storage controller VMs provide critical functionality for the Cisco HX Distributed Data Platform. A storage controller VM is installed on every converged node in the storage cluster. The storage controller VMs provide a command line interface for running `hxcli` commands on the storage cluster.

Powering On or Off Storage Controller VMs

You can power on or off VMs through the vSphere Web Client or through the ESX command line. This also applies to storage controller VMs, though generally the storage cluster operations handle powering on or off the storage controller VMs.

Step 1 **Using the vSphere Web Client** to power on or off a VM.

a) Log into the vSphere Web Client.

b) Locate the VM.

From the Navigator select, **Global Inventory Lists** > **Virtual Machines** > ***vm***.

Storage controller VMs, have the prefix, `stCtlVM`.

c) From the right-click or Actions menu select, **Power** > **Power On** or **Power** > **Shut Down Guest OS**.

Step 2 **Using the ESX command line** to power on or off a VM.

a) Log into the command line for the ESX host for a VM.

b) Locate the VM `vmid`.

This is specific to the ESX host. Run the command.

```
# vim-cmd vmsvc/getallvms
```

Sample response

```
Vmid   Name    File   Guest OS   Version   Annotation
1   stCtlVM-<vm_number>   [SpringpathDS-<vm_number>]  stCtlVM-<vm_number>/
stCtlVM-<vm_number>.vmx  ubuntu64Guest   vmx-11
3   Cisco HyperFlex Installer  [test]  Cisco HyperFlex Installer/Cisco
HyperFlex Installer.vmx   ubuntu64Guest   vmx-09
Retrieved runtime info
Powered off
```

Storage controller VMs, have the prefix, `stCtlVM`.

c) To power on a VM. Run the command specifying the VM to power on.

```
# vim-cmd vmsvc/power.on 1
```

d) To power off a VM. Run the command specifying the VM to power off.

```
# vim-cmd vmsvc/power.shutdown 1
```

These options will perform a relinquish action for a graceful shutdown versus a hard shutdown which is not desired.

Disabling HA VM Monitoring in HX Controller VMs

To avoid All Paths Down (APD) state in an HX cluster, use the vSphere Web Client to disable HA VM Monitoring for all the HX Controller VMs.

Step 1 Log into the vSphere Web Client.

Step 2 Select the HX cluster that you want to modify.

Step 3 Select **Configure** > **VM Overrides** from the menu.

Step 4 Click **Add**.

Add VM Override Sandbox window is displayed along with the list of VMs in vCenter.

Step 5 Select all the available HX Controller VMs in the window.

Note The HX Controller VM names begin with `stCtlVM-`.

Step 6 Click **Next**.

Add VM Override dialog box is displayed.

Step 7 Locate the **vSphere HA - VM Monitoring** option and select the following:

- **Override** checkbox
- **Disabled** from the drop-down list

Step 8 Click **Finish** to apply the configuration changes.

HA VM Monitoring is disabled for all the HX controller VMs.