

NFVIS Integration with vManage

In the Cisco SD-WAN Cloud OnRamp for Colocation solution a colo is a stack of computing and networking fabric which brings up multiple networking functions and service chains them to connect branch users or endpoints to hybrid cloud or data center. vManage is used as the orchestrator to provision the devices in a colo. This solution can be deployed in multiple locations where each colo is independent and unaware of other colos in the same site or across sites.

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Establishing DTLS Tunnel with vManage

Before you begin

To establish a DTLS channel with vManage, vDaemon is integrated on NFVIS

Note The device is vManaged and hence any configurations done out-of-band is overwritten by vManage. The show commands continue to work in the same way.

Note If CSP devices are already added into PnP Connect, skip the instructions that are mentioned from steps 1 to 5 in topic, and perform instructions from step 6.

Note If CSP devices are already added into vManage, perform instructions from step 13.

Procedure

Step 1 Get access to PnP devices and log into Plug and Play Connect.

Step 2 Create a virtual account. See the Plug and Play Connect Configuration Guide for more information about creating a virtual account.

Step 3 In the virtual account, create a vbond controller.

Note
Only one vbond controller profile is allowed in a virtual account.

Step 4 In the Add Controller Profile window, provide information about Organization Name, vbond IP address, root CA, and other information. Click **Next**.

Step 5 Go to the **Devices** tab, add your device by using PID and serial number. Assign the vbond profile that is created in step 3 to the device.

Note
You can only choose and add CSP 5444, X1 and X2 devices.

If the switch and CSP devices are already added into PnP Connect, skip steps 1 to 5. Go to the next step.

Step 6 Your device should have DNS servers with connections to Plug and Play Connect.

Step 7 Verify PnP status to determine if redirection is successful. Use the `nfvis# show pnp status` command to determine PnP status.

Step 8 Go to Plug and Play Connect screen and verify if status is displayed as "Redirect Successful".

Step 9 To ensure that VPN configuration are present on NFVIS, use the `nfvis# show running-config vpn` command.

Step 10 To ensure that Organization name and vbond IP address have been configured, use the `nfvis# show running-config viptela-system:system` command.

Step 11 To ensure that root ca have been installed, use the `nfvis# show control local-properties root-ca-chain-status` command.
If the switch and CSP devices are already added into vManage, skip the next step and perform instructions from step 13.

Step 12 Upload WAN edge list into vManage. For more information, see Add Cloud OnRamp for Colocation Devices into vManage in Cisco SD-WAN Cloud OnRamp for Colocation Solution Guide.

Step 13 In vManage, go to **Configuration** > **Network Hub** screen. Create a new cluster by clicking the **Configure & Provision Cluster** button. For more information, see Create and Activate Network Hub Cluster in Cisco SD-WAN Cloud OnRamp for Colocation Solution Guide.

Step 14 After activating the cluster, get the token that you had noted while adding devices into vManage, and then request an activate command on NFVIS. Use the following NFVIS command:

Example:

```
nfvis# request activate chassis-number CSP-5444-X2-FCH2118V0CY token
f3117c35c3206f4adfab5ced0d57db44
```

Step 15 Verify that your system IP address has been configured, VNFs to be run on CSPs such as CSR 1000v, vEdge are already installed, and connections are working. For verification, use the following NFVIS commands:

Example:

```
nfvis# show control local-properties certificate-status
nfvis# show control local-properties system-ip
nfvis# show control connections
```

Step 16 If connections are not running, use the following NFVIS history command to debug:

Example:

```
nfvis# show control connections-history
```

NFVIS Notifications

You can view the NFVIS notifications using the **show notification stream viptela** command. The NFVIS notifications are available at Syslog Messages and the same notifications are sent to viptela stream.

Stats for Host and VM

The stats for cpu/mem/disk/interface are collected periodically and the files are compressed and stored in the device in the required format for vManage. vManage collectes these log files periodically and deletes the older set of log files.

System CLI

In NFVIS integration with vManage, Viptela system model is loaded into NFVIS software, due to which the existing NFVIS **system** commands become **system:system** commands.

Example:

```
show system:system status
```

NFVIS Local Portal

All the configurations from the local portal are blocked as the admin role is changed to view-only for Cisco SD-WAN Cloud OnRamp for Colocation solution. The admin can continue to use the NFVIS portal for troubleshooting and serviceability, but not for provisioning or configuring any functionalities.

Core Allocation for Host and CCM

The host CPU reserve based on the hardware core is :

- less than 12 cores : 1 pCPU for NFVIS 1pCPU=1core
- 16 cores : 2 pCPUs for NFVIS
- greater than 16 cores : 4 pCPUs for NFVIS