

Cisco SD-Branch ThousandEyes Support

Table 1: Feature History

Feature Name	Release Information	Description
Cisco NFVIS ThousandEyes Container Support	Cisco SD-Branch Release 20.15.2	This feature adds support to use Cisco ThousandEyes as a container within Cisco SD-WAN Manager. This feature also adds support for ThousandEyes Docker Container Upgrade using the NFVIS VM Lifecycle Workflow. It also introduces support for using new NFVIS-specific Docker images provided by ThousandEyes.

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Information About Cisco SD-Branch ThousandEyes Support

Cisco SD-WAN Manager supports a preintegrated solution that allows deploying ThousandEyes Enterprise Agent as a container on Cisco NFVIS devices. Experience ThousandEyes network monitoring and testing capabilities directly on your Cisco SD-Branch network infrastructure. The feature provides visibility into the performance of the underlying network infrastructure.

Benefits of Cisco SD-Branch ThousandEyes Support

- Gain complete visibility into your network performance, including network infrastructure, cloud providers, WAN links, and internal data center networks within Cisco NFVIS.

- Reduce Mean Time To Repair (MTTR) for network issues, improve network reliability, and optimize application performance.

Prerequisites for Cisco SD-Branch ThousandEyes Support

- Ensure that the minimum software version for Cisco NFVIS devices is Cisco NFVIS Release 4.15.2 and your Cisco SD-WAN Manager is running Cisco Catalyst SD-WAN Manager Release 20.15.2.
- You require a minimum of two CPU cores, memory of 2048 MB, and a disk size of 8192 MB to enable a ThousandEyes container.

Restrictions for Cisco SD-Branch ThousandEyes Support

- Add **`TEAGENT_ACCOUNT_TOKEN`** and **`TEAGENT_INET`** to the bootstrap configuration file to deploy the ThousandEyes container.
- Monitoring charts aren't supported for Cisco ThousandEyes container.

Deploy ThousandEyes

Deploy ThousandEyes Container in Cisco SD-WAN Manager Using a CLI Add-On Profile

Create a CLI Add-On Profile

For NFVIS devices managed by Cisco SD-WAN Manager, follow these steps to deploy the ThousandEyes container:

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Adjacent to a configuration group, click **…** and choose **Edit**.
3. In the **Feature Profiles - Unconfigured** area, locate **CLI Profile**.

Note If the configuration group already has a CLI profile configured, this option will not appear.

4. On the **CLI Profile** card, click **Start Configuration**.

   An **Edit Config Feature** pane opens.
5. Enter a name and, optionally, a description for a new CLI add-on profile.
6. Enter configuration commands in the **CLI Configuration** area or click **Import Config File** to import a configuration.

   Use the following sample CLI configuration for image registration and deployment:

```
vm_lifecycle images image thousandeyes-enterprise-agent-0.33.0
 src
```

```
https://downloads.thousandeyes.com/enterprise-agent/thousandeyes-enterprise-agent-0.33.0-nfvis.docker

 locator vim_id container
 properties property vnf_type
  value THOUSANDEYES
 !
!

vm_lifecycle flavors flavor thousandeyes-flavor vcpus 2 memory_mb 1024 root_disk_mb 20480
!
vm_lifecycle tenants tenant admin
 deployments deployment THOUSANDEYES-DEMO
  vm_group THOUSANDEYES-DEMO
   locator vim_id container
   image              thousandeyes-enterprise-agent-0.33.0
   flavor             thousandeyes-flavor
   vim_vm_name        THOUSANDEYES-DEMO
   bootup_time        -1
   config_data configuration bootstrap_config
    data            "{ \"env_variables\" : { \"TEAGENT_ACCOUNT_TOKEN\" :
\"${TEAGENT_ACCOUNT_TOKEN}\", \"TEAGENT_INET\" : \"${TEAGENT_INET}\"} }"
    template_engine VELOCITY
    variable TEAGENT_ACCOUNT_TOKEN
     val [ 53rettywagbuouhw06hu65767rtyuyyui ]
    !
    variable TEAGENT_INET
     val [ 4 ]
   !   !
 !
```

7. To convert a configuration value to a variable, select the value and click **Create Variable**.

   Enter the variable name, and click **Create Variable**. You can also type a variable name directly, in the format {{variable-name}}. Example: {{hostname}}

   Variables enable you to enter values for the variables individually for each device when you deploy a configuration group to devices. During the deployment, you can enter values manually or using a CSV file.

8. To encrypt a plain-text password using type 6 encryption, select the password and click **Encrypt Type 6**.

   In the example below, you can select the password, ABCD, and click **Encrypt Type 6** to encrypt the password.

   ```
   server-private 10.0.0.1 key 0 ABCD
   ```

   For more information about type 6 encryption, see Type 6 passwords.

Note Encrypt only passwords. Encrypting a CLI command may cause a failure when deploying the configuration group to devices.

9. Click **Save** and proceed to associate and deploy the device to the appropriate Configuration Group.

Upgrade ThousandEyes Agent Container in Cisco SD-WAN Manager Using a CLI Add-On Profile

Edit the Existing Add-On CLI Profile:

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.

2. In the CLI add-on profile, adjacent to the config feature, click **…** and choose **Edit Feature**.
3. Modify the deployment payload to replace the existing image path with the path of the new version of the ThousandEyes image in the **CLI Configuration** area or click **Import Config File** to import a configuration.

   Use the following sample CLI configuration for updating the image version:

   ```
   vm_lifecycle tenants tenant admin
    deployments deployment THOUSANDEYES-DEMO
     vm_group THOUSANDEYES-DEMO
      locator vim_id container
      image
   https://downloads.stg.thousandeyes.com/enterprise-agent/thousandeyes-enterprise-agent-0.34.0-nfvis.docker
   ```

4. To convert a configuration value to a variable, select the value and click **Create Variable**.

   Enter the variable name, and click **Create Variable**. You can also type a variable name directly, in the format {{variable-name}}. Example: {{hostname}}

   Variables enable you to enter values for the variables individually for each device when you deploy a configuration group to devices. During the deployment, you can enter values manually or using a CSV file.
5. To encrypt a plain-text password using type 6 encryption, select the password and click **Encrypt Type 6**.

   In the example below, you can select the password, ABCD, and click **Encrypt Type 6** to encrypt the password.

   ```
   server-private 10.0.0.1 key 0 ABCD
   ```

   For more information about type 6 encryption, see Type 6 passwords.



Note Encrypt only passwords. Encrypting a CLI command may cause a failure when deploying the configuration group to devices.

6. Click **Save** to complete the update process.

Monitor Cisco SD-Branch ThousandEyes Support

1. From the Cisco SD-WAN Manager menu, choose **Monitor** > **Devices**.
2. From the list of devices, select the Cisco NFVIS device to monitor the system status, device health and interface packet statistics. View the CPU utilization for the guest VNF as well.
3. You can start, stop, or restart ThousandEyes container.



Note Monitoring charts for ThousandEyes container isn't supported.