

Revised: May 15, 2025

Onboard Cisco ThousandEyes Enterprise Agent on SD-Routing Devices, Release 17.16.x

What's new and changed

Cisco IOS XE Release	Feature Name and Description	Supported Platforms
Cisco IOS XE 17.16.1a	Onboard Cisco ThousandEyes Enterprise Agent on SD-Routing Devices From Cisco IOS XE 17.16.1a, you can configure Cisco ThousandEyes Enterprise agent on SD-Routing devices to gather granular details of network and application performance. This facilitates end-to-end traffic visibility, supporting optimization and troubleshooting.	<ul style="list-style-type: none">• Cisco Catalyst 8500 Series Edge Platforms• Cisco Catalyst 8300 Series Edge Platforms• Cisco Catalyst 8200 Series Edge Platforms• Cisco 1000 Series Integrated Services Routers• Cisco 4000 Series Integrated Services Router• Cisco ASR 1000 Series Aggregation Services Routers

Cisco ThousandEyes on SD-Routing devices

Cisco ThousandEyes is a SaaS application that provides you an end-to-end view across networks and services that impact your business. It monitors the network traffic paths across internal, external, and carrier networks and the Internet in realtime to provide network performance data. Cisco ThousandEyes provides intelligent insights into your WAN and the cloud and helps you optimize application delivery and end-user experience.

From Cisco IOS XE 17.16.1a, you can configure and deploy the Cisco ThousandEyes Enterprise agent on Cisco IOS XE Catalyst SD-Routing devices to enable extensive monitoring of the WAN traffic for enhanced visibility within and beyond the Cisco Catalyst SD-WAN fabric.

The workflow involves the following steps:

- Establish a connection to the ThousandEyes platform through Cisco SD-WAN Manager.
- Configure tests in ThousandEyes directly from Cisco SD-WAN Manager.
- Choose applications, sites, and devices for testing and configure the necessary parameters in Cisco SD-WAN Manager.
- Monitor the agents and tests from the ThousandEyes Monitoring dashboard in Cisco SD-WAN Manager.

Prerequisites for onboarding Cisco ThousandEyes on SD-Routing devices

- Deploy Cisco IOS XE Catalyst SD-Routing devices using the configuration group. For more details see, [Associate and Deploy the Configuration Group to an SD-Routing Device](#)
- Configure an IP Pool. To add an IP Pool, navigate to **Configuration > Network Hierarchy**. For more details see, [Create an IP Pool for the ThousandEyes Agents](#)
- Upload the ThousandEyes image to SD-WAN Manager using **Maintenance > Software Repository > Virtual Images**. For more details see, [Upload ThousandEyes Image to Software Repository](#)
- Ensure you have a ThousandEyes account before using the workflow to configure a ThousandEyes agent in Cisco SD-WAN Manager. You must be a user with the Organization Admin role to access the ThousandEyes account.
- Ensure an appropriate NAT configuration exists to enable the Cisco ThousandEyes Enterprise agent to discover and connect to the Cisco ThousandEyes application.
- Add IPv4 DNS server details in Transport Global VRF feature of the Configuration Group associated with the device.

Restrictions for onboarding Cisco ThousandEyes on SD-Routing devices

- The workflow does not support editing tests or updating agent parameters for sites with deployed ThousandEyes agents.
- The simplified workflow supports only devices that are associated with configuration groups.
- In the workflow, you can select only one device in a site to deploy the ThousandEyes Agent and configure tests associated with it. To deploy ThousandEyes Agent on multiple devices in a site, see [Configuration Groups for SD-Routing Devices](#)

Configure Cisco ThousandEyes Enterprise Agent on SD-Routing devices

Upload ThousandEyes image to Software Repository

To upload the Cisco ThousandEyes Image to Cisco SD-WAN Manager, follow the below steps:

- Step 1** From [Cisco ThousandEyes Agent Settings](#) page, download the latest version of Cisco ThousandEyes Enterprise agent software.
- Step 2** From the Cisco SD-WAN Manager menu, choose **Maintenance > Software Repository**.
- Step 3** Select **Virtual Images**.
- Step 4** From the **Add New Virtual Image** Drop down, choose **Manager**.
- Step 5** In the **Upload VNF's Package to Manager** dialog box, browse to the location of the downloaded Cisco ThousandEyes Enterprise agent software file and select the file. Alternatively, drag and drop the Cisco ThousandEyes Enterprise agent software file.
- Step 6** Enter a **description** for the file.
- Step 7** (Optional) Add **desired tags**.
- Step 8** Click **Upload**.

Create an IP Pool for the ThousandEyes Agents

To create an IP Pool, follow the below steps:

- Step 1** From the Cisco SD-WAN Manager menu, choose **Configuration** > **Network Hierarchy**. The page displays the site pool and region pool for the Global node.
- Step 2** Click **Pools**.
- Step 3** Click **Add Pool**.
- Step 4** In the **Pool Name** field, enter a name for the pool.
- Step 5** (Optional) In the **Pool Description** field, enter a description of the pool.
- Step 6** From the **Pool Type** drop-down list, choose **ThousandEyes agents**.
- Step 7** In the **IP Subnet** field, enter an IP address.
- Step 8** In the **Prefix Length** field, enter the prefix length of the IP pool.
- Step 9** Click **Add**.

Edit an IP Pool for the ThousandEyes Agents

Follow the steps below to edit a ThousandEyes agent IP Pool

- Step 1** From the Cisco SD-WAN Manager menu, choose **Configuration** > **Network Hierarchy**.
- Step 2** The page displays the site pool and region pool for the Global node. The ThousandEyes IP pool is also displayed if you have already created it.
- Step 3** Click the **ellipsis (...)** adjacent to the IP name and choose **Edit**.
- Step 4** Edit the options as per requirement.
- Step 5** Click **Save**.

Workflow to configure ThousandEyes Agent on SD-Routing devices

To configure ThousandEyes Agent, follow the below steps

- Step 1** From Cisco SD-WAN Manager, choose **Workflows** > **Workflow Library**.
- Step 2** From the Workflows screen, select **Configure ThousandEyes** and Click **Start**.
- Step 3** In the Configure ThousandEyes dialogue box, click **Let's do it**
- Step 4** In the **Connect ThousandEyes** tab,
 - a) Read the terms and conditions. After accepting the terms and conditions, click **Connect ThousandEyes** to link the device.
 - b) When the ThousandEyes portal opens, log in to your account using your login credentials. The page redirects to Cisco SD-WAN Manager.
- Step 5** In the **Select Account Group** tab,
 - a) Select the preferred **Account Group** from the drop down list.
 - b) Click **Next**.
- Step 6** In the **Select Application** tab,
 - a) Choose an application to monitor.
 - b) Click **Next**

Step 7 In the **Configure Test** tab, configure selected application to enable enhanced application monitoring

- Enter the **Subdomain** and **Time Interval** and the preferred Individual Application Details.
- Click **Next**.

Step 8 In the **Select Sites** tab,

- Select the Sites on which you prefer to deploy the agent. Up to 10 sites can be selected.
- Under the Configure selected sites area, select the **Device Name** and **VPN** for the preferred site.
- (Optional) Use the **Edit Proxy settings** option to update the proxy settings of your selected sites.
 - Choose one of the following as proxy type:
 - Static
 - PAC
 - None
 - Enter the **hostname** of the proxy server.
 - Enter the **port number** of the proxy server.
- Click **Next**.

Step 9 In the **Summary** tab, review and edit the details if required and click **Start Monitoring**.

What's next

- Monitor the status of agents and enable or disable agents in the **ThousandEyes Monitoring** dashboard in the Cisco SD-WAN Manager.
- Launch **ThousandEyes Monitoring** dashboard to view test results.

Monitor onboarded ThousandEyes Agents

To monitor the status of ThousandEyes agents and configured tests in the Cisco SD-WAN Manager monitoring dashboard, navigate to **Tools > ThousandEyes Monitoring**.

You can view the online, offline, and disabled agents, and launch ThousandEyes from the dashboard.

The monitoring dashboard includes two sections:

- Tests:** Provides information about the tests configured using the simplified workflow.
- Agents:** Provides information about the status of ThousandEyes agents configured using the simplified workflow. It also provides a list of configured devices and sites for the test, allowing you to enable, disable, or delete a ThousandEyes agent.

Troubleshoot Cisco ThousandEyes Enterprise Agent on SD-Routing device

- Review the following log files in Cisco SD-WAN Manager for error messages or relevant information:

```
/var/log/nms/vmanage-server.log  
/var/log/nms/vmanage-server-deviceconfig-template.log.
```

- Examine the audit logs to determine if the ThousandEyes test was posted or it failed.