

Hosted edge services

Table 1: Feature history

Feature name	Release information	Description
Hosted edge services	Cisco Catalyst SD-WAN Manager Release 20.18.1	You can monitor hosted edge services (IOx applications) for health, associated devices, version, and IOx state using the Cisco Catalyst SD-WAN Manager interface.You can also start or stop the hosted edge services.

- Hosted edge services, on page 1
- Restrictions for monitoring hosted edge services, on page 1
- Start or stop the hosted edge services, on page 2
- Monitor the hosted edge services, on page 2

Hosted edge services

Hosted edge services are Cisco IOx applications installed on WAN edge devices, improving their features and functionality beyond the core Cisco IOS XE Catalyst SD-WAN software. Cisco IOx applications can include both Cisco and third-party applications. Using Cisco SD-WAN Manager, you can

- monitor all hosted edge services installed on your edge devices for resource usage, device details, version, and more, and
- manage hosted edge services installed on your devices.

Restrictions for monitoring hosted edge services

Disk space calculation

If multiple hosted edge services are running on a device using any version older than Cisco IOS XE Catalyst SD-WAN Release 17.18.x, the disk space usage for some hosted edge services may not reflect correctly.

Upgrade to the latest version of Cisco IOS XE Catalyst SD-WAN Release 17.18.x to ensure proper disk space usage calculation.

Multitenancy

In a multitenant environment, you can monitor hosted edge services only at the tenant level and not at the provider level.

Start or stop the hosted edge services

Control the operation of the edge service installed on the device using these steps in SD-WAN Manager.

Before you begin

- Deploy a hosted edge service to one or more devices in the network and activate it. See the configuration instructions in Cisco Catalyst SD-WAN Integrations guide.

Procedure

Step 1 From the Cisco SD-WAN Manager menu, choose **Monitor** > **Hosted Edge Services**.

Step 2 Select a hosted edge service.

The page shows devices running the selected hosted edge service.

Alternatively, to manage the hosted edge service from the **Devices** page, use these steps:

a) From the Cisco SD-WAN Manager menu, choose **Monitor** > **Devices**.
b) Select a device from the list.
c) Click **App Status Info** to view hosted edge services associated with the device.

Step 3 To start or stop a hosted edge service, click **…** adjacent to the device and select **Start edge service** or **Stop edge service**.

Note
You can stop a hosted edge service only if it is in **Running** state. Similarly, you can start a hosted edge service if it is in **Stopped** state. You cannot perform any operation on the hosted edge service if it is in **Deployed** or **Activated** state.

After the device metrics are refreshed, the **Edge service state** column shows the current state of the edge service.

Monitor the hosted edge services

Monitor the devices running hosted edge services, their resource usage, status of the hosted edge services on individual devices, and so on.

Procedure

Step 1 From the Cisco SD-WAN Manager menu, choose **Monitor** > **Hosted Edge Services**.

The hosted edge services view includes:

Table 2: Hosted edge services

Field	Description
Hosted edge service name	Name of the hosted edge service installed on your edge device to provide additional features.
Edge service author	Name of the organization that developed this edge service.
Number of sites installed	Total number of sites where the hosted edge service is currently installed.
Number of devices installed	Total number of edge devices on which the hosted edge service is installed.

Step 2 To monitor the hosted edge services on specific devices, use these steps:

a) From the **Hosted Edge Services** page, select a hosted edge service name.

The page shows the devices running the selected hosted edge service.

Table 3: IOx states and device details

Field	Description
IOx states	IOx states are hosted edge service states that indicate whether the service is operational. • **Stopped**: Indicates the hosted edge service has stopped and is no longer operational on the device. • **Running**: Indicates the hosted edge service is accessible and operational on the device. • **Deployed**: Indicates the hosted edge service is deployed to the device and the installation is successful. • **Activated**: Indicates the network configurations are successfully added to the hosted edge services and the application is now active. Click any state to filter the network devices as per the state of the hosted edge service.
Network device	Name of the network device on which the selected instance of hosted edge service is running.
Site name	Logical identifier that represents the operational grouping of the network device within the Cisco SD-WAN environment.

Field	Description
Resource usage health	Resource consumed by the hosted edge services. For a hosted edge service, the health status indicates: • **Good**: The hosted edge service's CPU, memory, or disk space resource usage is less than 50 percent of the allocated resources. • **Fair**: The hosted edge service's CPU, memory, or disk space resource usage lies between 50 and 75 percent of the allocated resources. • **Poor**: The hosted edge service's CPU, memory, or disk space resource usage is greater than 75 percent of the allocated resources. This reflects only the resource usage by the service. It does not reflect the total resource usage of the device.
Edge service state	Displays the IOx state of the hosted edge service: stopped, running, deployed, or activated.
Edge service version	The IOx application version running on the device, as defined in the package.yaml file.
Last update	Displays the latest timestamp when the device metrics were updated.

b) For a selected network device, click **...** and select **View edge service info**.

The drawer shows this information:

- **Resource usage**: Current health status along with resource consumption of CPU, RAM, and disk space.
- **Edge service details**: Current IOx state, hosted edge service version, and last data fetch details. Use the **Stop edge service** option to stop the hosted edge service instance on the device. Click **Refresh device metrics** to manually update the device metrics for the selected device.
- **Package information**: Hosted edge service name, CPU architecture, and author information.

Step 3 To monitor the hosted edge services on a specific device from the **Devices** page, use these steps:

a) From the Cisco SD-WAN Manager menu, choose **Monitor** > **Devices**.
b) Select a device from the list.
c) Click **App Status Info**.

The page shows the hosted edge services running on the device.

Field	Description
Edge service name	Name of the IOx application hosted on the device.
Edge service author	Name of the organization that developed the edge service.
Edge service version	The IOx application version running on the device as defined in the package.yaml file.

Field	Description
Resource usage health	Resource consumed by the hosted edge services. For a hosted edge service, the health status indicates: • **Good**: The hosted edge service's CPU, memory, or disk space resource usage is less than 50 percent of the allocated resources. • **Fair**: The hosted edge service's CPU, memory, or disk space resource usage lies between 50 and 75 percent of the allocated resources. • **Poor**: The hosted edge service's CPU, memory, or disk space resource usage is greater than 75 percent of the allocated resources. This reflects only the resource usage by the service. It does not reflect the total resource usage of the device. You can also view the health using the **Edge service resource usage health** column on the **Devices** page for all devices that have any hosted edge service.
Edge service state	Displays the IOx state of the hosted edge service: Stopped, Running, Deployed, or Activated.
CPU usage	Displays CPU resource usage in percentage.
Disk space usage	Displays disk space usage in percentage.
Memory usage	Displays memory usage in percentage.