

Maintenance

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Upgrade procedures

Upgrade through the Cisco Cyber Vision sensor management extension

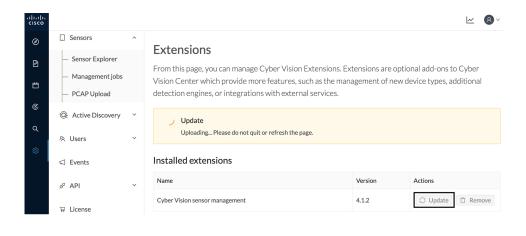
Before updating IOx sensors, the Cisco Cyber Vision sensor management extension must be up-to-date. It is possible to select which sensors to update. The update status will be visible in the Management jobs page.

Update the sensor management extension

The Cisco Cyber Vision sensor management extension must be up-to-date to update IOx sensors.

Procedure

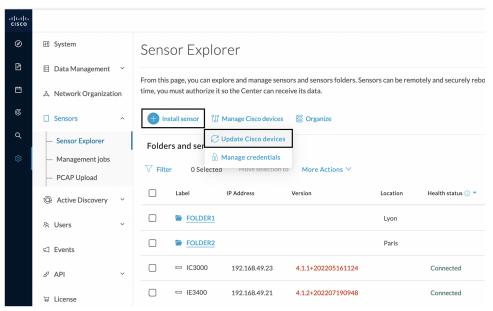
- **Step 1** Retrieve the sensor management extension file (i.e. CiscoCyberVision-sensor-management-<version>.ext) on cisco.com.
- **Step 2** In Cisco Cyber Vision, navigate to Admin > Extensions.
- **Step 3** Click **Update** to browse the new version of the extension file.



Update the sensors

Procedure

- **Step 1** In Cisco Cyber Vision, navigate to Admin > Sensors > Sensor Explorer. Sensors that are not up-to-date have their version displayed in red.
- Step 2 Click Install sensor, then Update Cisco devices.



The update Cisco devices window pops up listing all sensors that have been deployed with the sensor management extension.

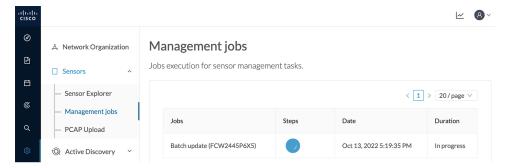


Step 3 Select the sensors you want to update.

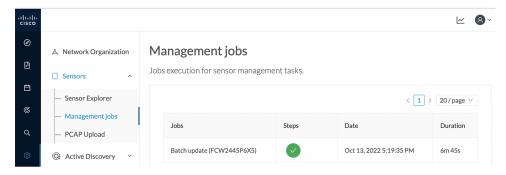


Step 4 Click Update.

The sensors' update status appear in the Management jobs page in batches per sensor type and of maximum ten sensors per batch.



Herebelow the management jobs indicate that the batch of sensors updated successfully.



If the batch update fails, click the red update error icon to see logs.



Upgrade through the IOx Local Manager

The following section explains how to upgrade the sensor through the IOx Local Manager.



Note

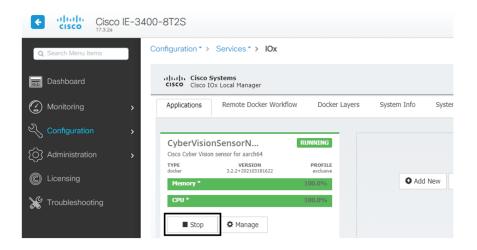
In the case of Cisco Cyber Vision upgrade for a Catalyst 9x00 from a release 4.1.2 or lower to a release 4.1.3, the update will fail due to the addition of the RSPAN option. The sensor application must be removed and deployed again.

In the example below, the sensor is upgraded from Cisco Cyber Vision version 3.2.2 to version 3.2.3.

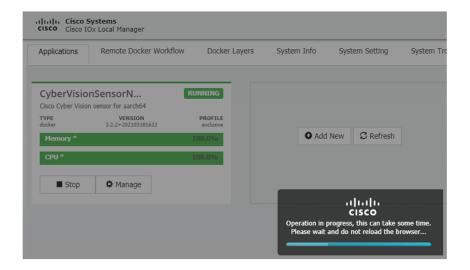
w 8 Sensors æ From this page, you can manage sensors in online and offline modes and generate provisioning packages to deploy Cisco Cyber Vision on remote sensors. Sensors can also be remotely and securely rebooted, shut down, and erased. When a sensor connects for the first time, you must authorize it so the Center can receive its data. - Capture ▼ FOC2334V00H & Users S/N:F0C2334V00H
Name:FOC2334V00H
| Paddress:192.168.69.20
| Version: 3.2.262193181619
System date (UTC):Monday, May 31, 2821 9:17 AM Ø API Deployment: Manual
Uptime: 4d 1h 32m 47s
Capture mode: All
Start recording sensor
Little Go to statistics ≪ Integrations ▶ FCH2312Y047 192.168.70.20 3.2.2+202103181753 Connected

Figure 1: The sensor in version 3.2.2 in the Sensors administration page of Cisco Cyber Vision

- 1. Access the IOx Local Manager.
- **2.** Stop the application.

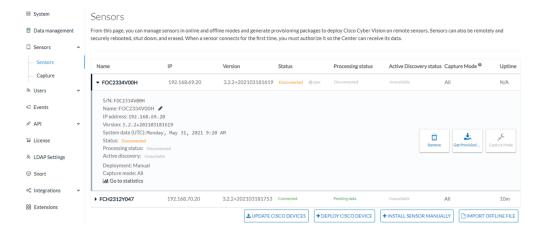


The operation takes a few moments.



The application status switches to STOPPED.

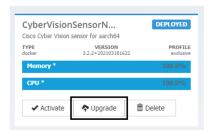
In Cisco Cyber Vision, the sensor status switches to Disconnected.



3. In the IOx Local Manager, click the **Deactivate** button.

The application status moves to DEPLOYED.

4. Click Upgrade.



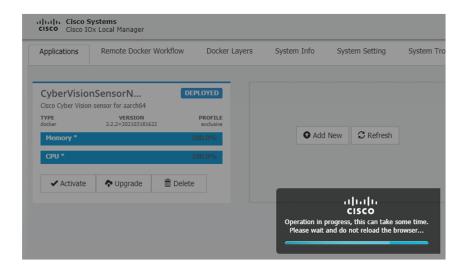
The pop up Upgrade application appears.



- 5. Select the **Preserve Application Data** option.
- **6.** Select the new version of the application archive file.
 - e.g. CiscoCyberVision-IOx-aarch64-3.2.3.tar



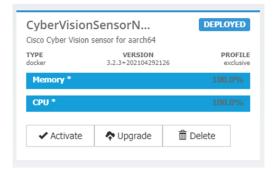
The operation takes a few moments.



A message indicating that the sensor has been successfully upgraded is displayed.



- 7. Check the number of the new version.
- 8. Click Activate.



9. Check configurations.

It can happen that network configurations are lost during the upgrade. If they are, refer to Configure the sensor virtual application in the procedure with the Local Manager corresponding to the switch used and do as explained.

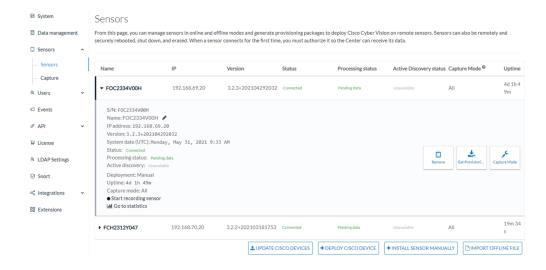
10. Click the **Activate App** button.

The application status moves to ACTIVATED.

11. Click the **Start** button.

The application status changes to RUNNING.

In Cisco Cyber Vision, the sensor is upgraded from version 3.2.2 to 3.2.3 and its status moves to Connected.



Replace SD card

This section explains how to replace a SD card on a Cisco IE3x00.

Procedure

Step 1 Connect to the device CLI and use the following commands to disable IoX:

```
configure terminal
no iox
exit
```

- **Step 2** Replace the SD card.
- **Step 3** Format the SD card using the following command:

format sdflash: ext4

```
IE340CCV#format sdflash: ext4
Format operation may take a while. Continue? [confirm]
Format operation will destroy all data in "sdflash:". Continue? [confirm]
format completed with no errors

Format of sdflash: complete
IE340CCV#
```

Step 4 Enable IOx using the following command:

```
configure terminal
iox
```

```
IE340CCV#
IE340CCV#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
IE340CCV(config)#iox
Warning: Do not remove SD flash card when IOx is enabled or errors on SD device could occur.
IE340CCV(config)#
```

Step 5 Follow the instructions described in the following section to redeploy the sensor.

What to do next

Reconfigure/Redeploy a sensor, on page 9

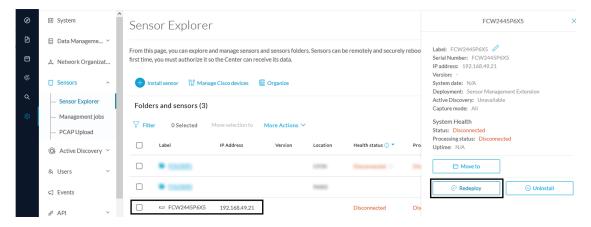
Reconfigure/Redeploy a sensor

The Redeploy button is used when you need to replace a sensor model with another one keeping the same network configurations (e.g. replacing a Cisco IE3400 with a Cat 9300), change configurations, or if you need to reconfigure the sensor (e.g. to enable Active Discovery).

To do so:

Procedure

- **Step 1** On the Sensor Explorer page, click the sensor to reconfigure/redeploy. The sensor right side panel appears.
- Step 2 Click Redeploy.



A pop up asking to confirm the redeployment of the sensor appears.

Step 3 Click OK to proceed.

A summary of the sensor configuration is displayed. In this example, we're going to change the Collection VLAN number.

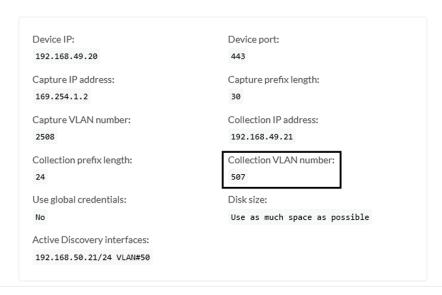
Step 4 Click Start.

Redeploy Cisco device

Get Cisco device configuration

The current configuration of your Cisco device enables you to:

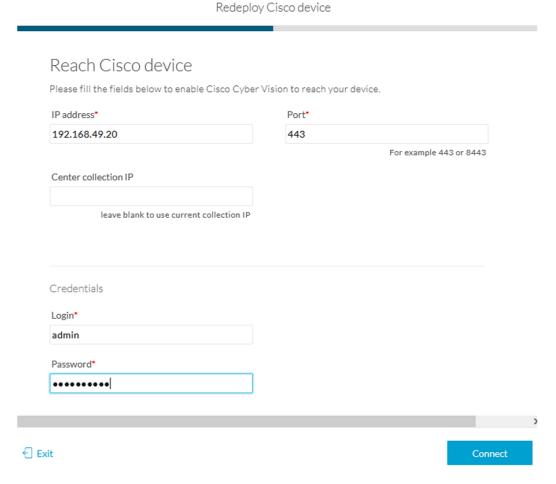
- Reconfigure the Cyber Vision IOx sensor app on this device;
- · Reconfigure your Cisco device for Cyber Vision (i.e modify the IP address);
- Deploy the Cyber Vision IOx sensor app on a new device using this configuration.



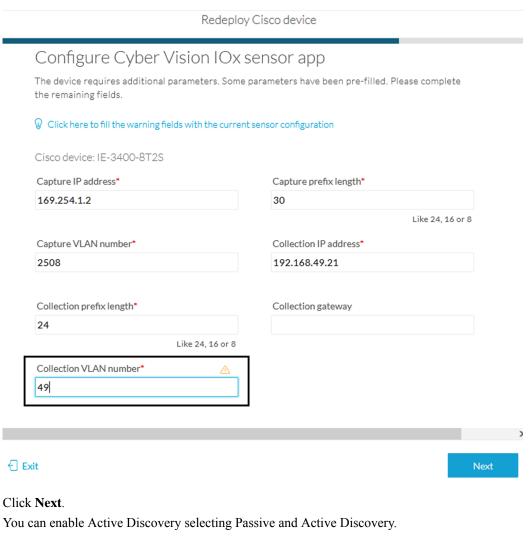


Start

Step 5 Enter the credentials to reach the sensor to redeploy and click **Connect**.



Step 6 Click the blue link to fill the warning fields with the current sensor configuration. We change the Collection VLAN number value to 49.



- Step 7
- Step 8
- Step 9 Click Deploy.

A message saying that the sensor is being redeployed appears. You can either go the jobs page or go back to the Sensor Explorer page.

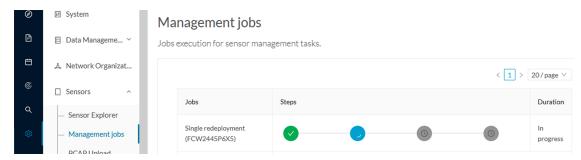
Step 10 Click Go to the jobs page.

Back to Sensor Explorer

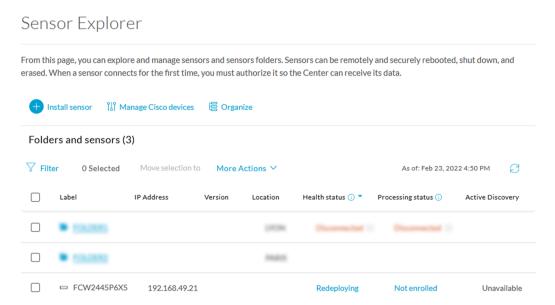
Redeploy Cisco device Done! The Cyber Vision IOx sensor application is being redeployed on your device. A job has been created to track deployment progress. What's next?

Go to the jobs page

You are redirected to the Management jobs page to see the redeployment advancement. This can take several minutes.



If you go back to the Sensor Explorer page, you will see that the sensor is in Redeploying status.



Once the redeployment is finished, the sensor will switch status to connected and the Active Discovery to Enabled.



Certificate renewal

The certificates generated by Cisco Cyber Vision have a validity of two years.

Sensor certificates must be renewed manually. The procedure used differs whether the certificate is already expired or not and whether the sensor has been deployed using the sensor management extension.

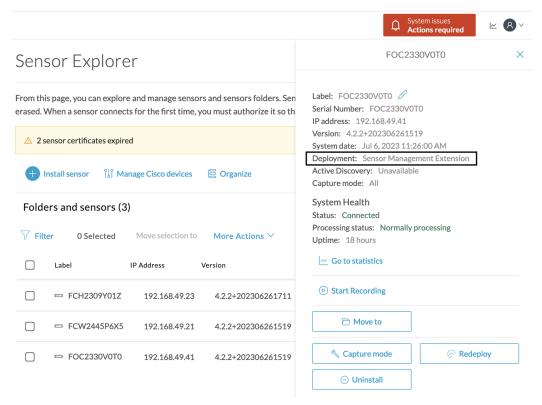
- If the certificate is still valid, refer to Sensor certificate renewal, on page 14.
- If the sensor was deployed with the sensor management extension, refer to Sensor certificate renewal, on page 14.

• If the certificate is outdated, and was deployed manually, refer to Sensor certificate renewal through the Local Manager, on page 17.

Sensor certificate renewal

The following procedure applies to:

• Sensors deployed with the sensor management extension, whether the certificate expiration date is exceeded or not (i.e. the deployment method is indicated in the sensor's right side panel).

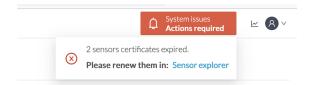


• In the case of sensors deployed manually, it only applies if the sensors certificate have not expired yet (i.e. the sensor certificate status is Expire Soon).

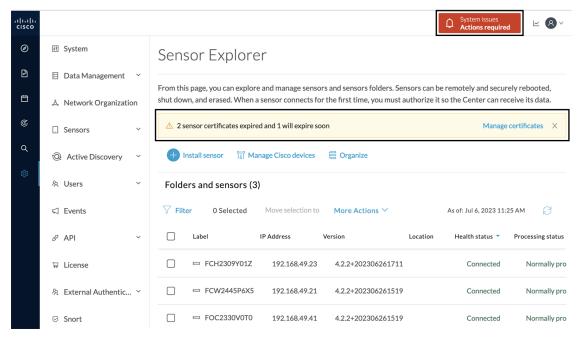
If sensors have been deployed manually and the certificate expiration date is exceeded, refer to Sensor certificate renewal through the Local Manager, on page 17.

Procedure

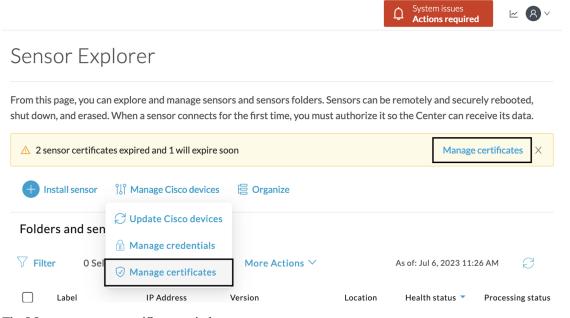
Step 1 In Cisco Cyber Vision, navigate to Admin > Sensors > Sensor Explorer or click the top banner alert to access the Sensor Explorer page directly.



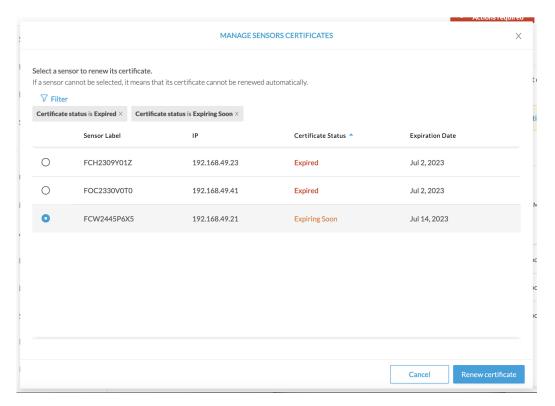
Another alert is displayed.



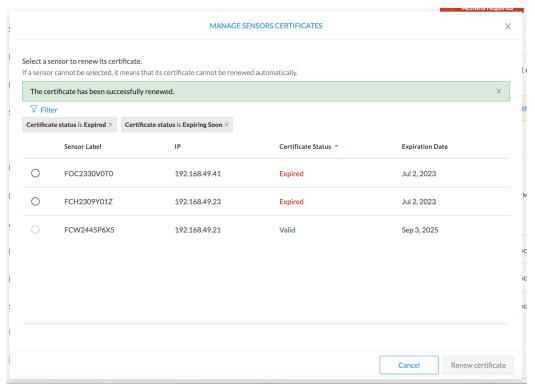
Step 2 Click Manage certificates in the alert or Manage Cisco devices > Manage certificates.



The Manage sensors certificates window opens.



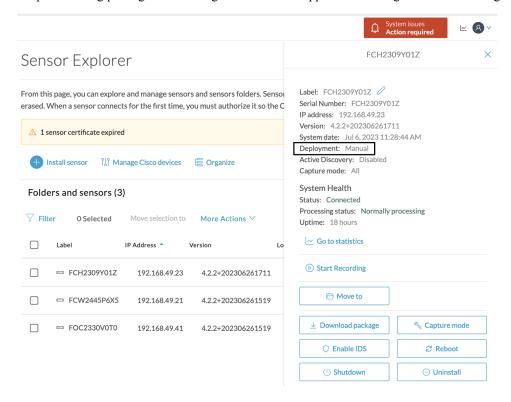
- **Step 3** Select the sensor with the status Expiring Soon.
- Step 4 Click Renew certificate.



The certificate is renewed and automatically sent to the sensor. Its status switches to Valid and the new expiration date appears.

Sensor certificate renewal through the Local Manager

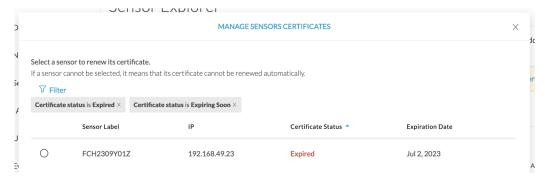
In case of certificate expiration, communication with the sensor is no longer possible if it was deployed manually (i.e. without the sensor management extension). In this case, the certificate is renewed by sending it to the sensor manually. As the certificate is part of the provisioning package, the action consists in generating the provisioning package and sending it to the sensor application through the Local Manager.



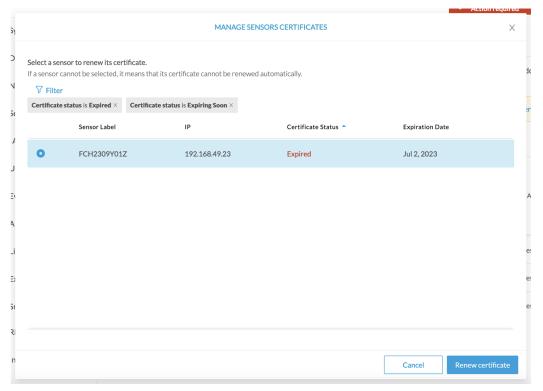
Procedure

- **Step 1** In Cisco Cyber Vision, navigate to Admin > Sensors > Sensor Explorer.
- Step 2 Click Manage Certificates.

The Manage sensors certificates window appears.



Step 3 Select the sensor and click **Renew Certificate**.

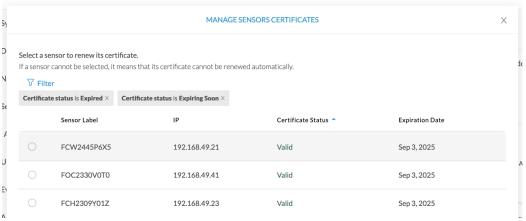


A message is displayed.



Step 4 Click Renew certificate again.

The sensor certificate status appears as valid.

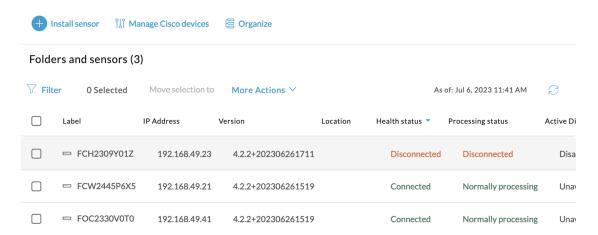


Step 5 Close the Manage sensors certificates window.

The sensor's health and processing status appear as Disconnected.

Sensor Explorer

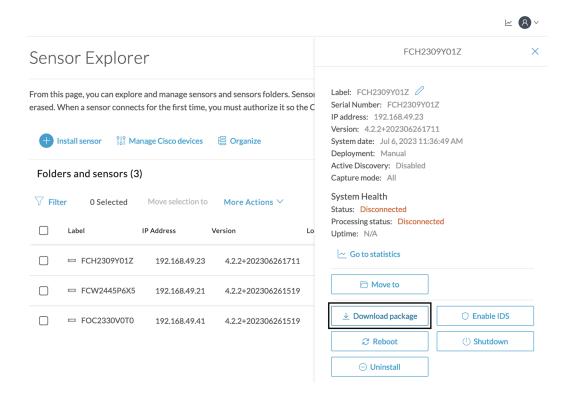
From this page, you can explore and manage sensors and sensors folders. Sensors can be remotely and securely rebooted, shut down, and erased. When a sensor connects for the first time, you must authorize it so the Center can receive its data.



Step 6 Click the sensor in the list.

Its right side panel opens.

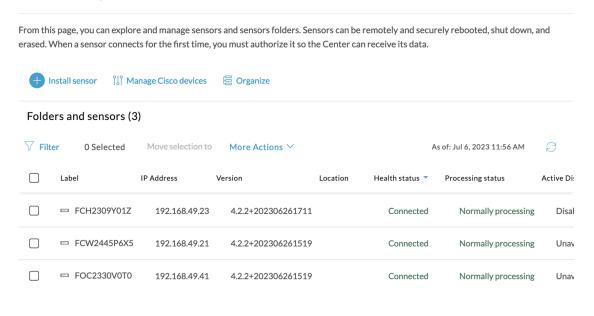
Step 7 Click the **Download package** button.



- Step 8
- **Step 9** Import the provisioning package in the Local Manager. To do so, refer to Import the provisioning package.
- **Step 10** The sensor's health status switches to Connected and its processing status to Normally processing.



Sensor Explorer



Sensor certificate renewal through the Local Manager