



Maintenance

- [Upgrade procedures, on page 1](#)
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Upgrade procedures

Upgrade through the Cisco Cyber Vision sensor management extension

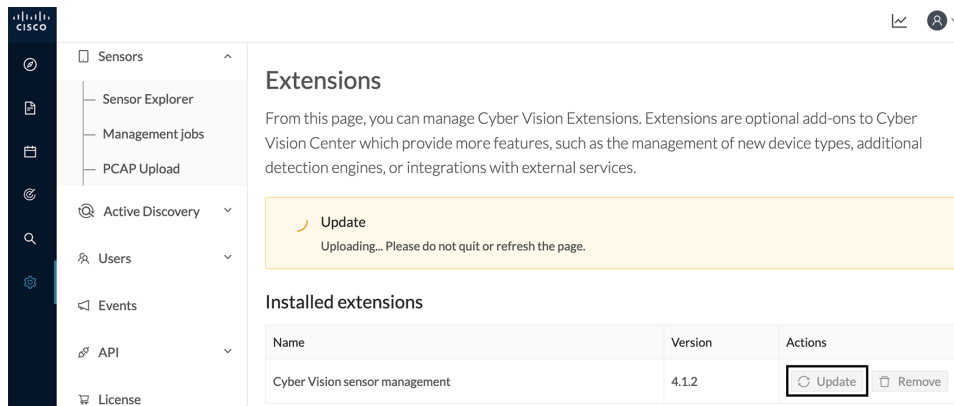
Before updating IOx sensors, the Cisco Cyber Vision sensor management extension must be up-to-date. It is possible to select which sensors to update. The update status will be visible in the [Management jobs](#) page.

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.



Extensions

From this page, you can manage Cyber Vision Extensions. Extensions are optional add-ons to Cyber Vision Center which provide more features, such as the management of new device types, additional detection engines, or integrations with external services.

Update
Uploading... Please do not quit or refresh the page.

Installed extensions

| Name | Version | Actions |
|--------------------------------|---------|---|
| Cyber Vision sensor management | 4.1.2 | Update Remove |

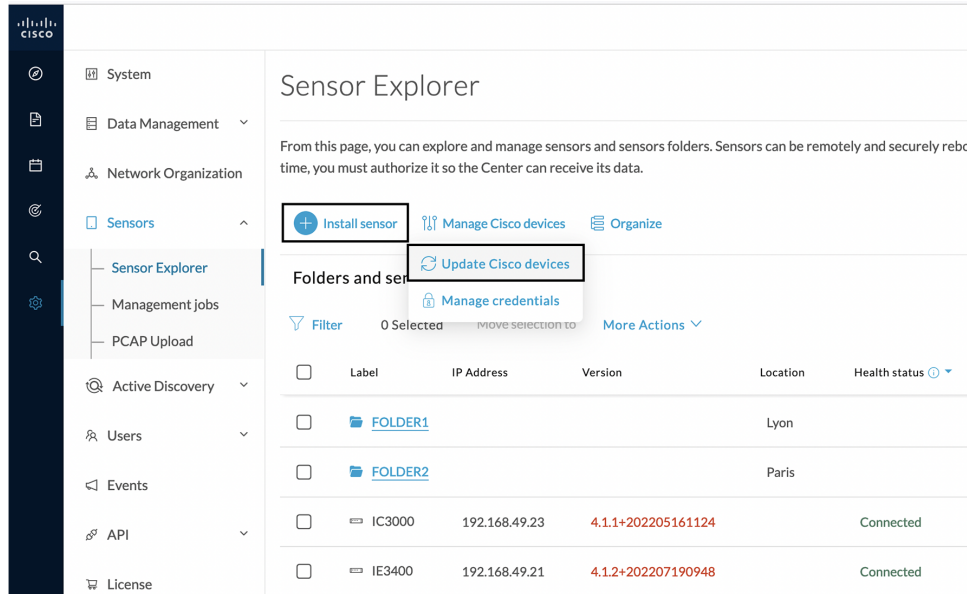
Update the sensors

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**.



Sensor Explorer

From this page, you can explore and manage sensors and sensors folders. Sensors can be remotely and securely rebo time, you must authorize it so the Center can receive its data.

[Install sensor](#) [Manage Cisco devices](#) [Organize](#)

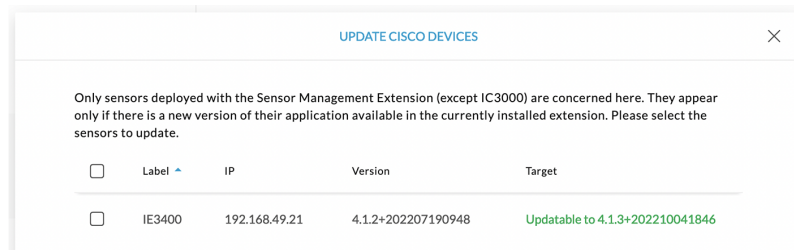
[Update Cisco devices](#) [Manage credentials](#)

Folders and sensors

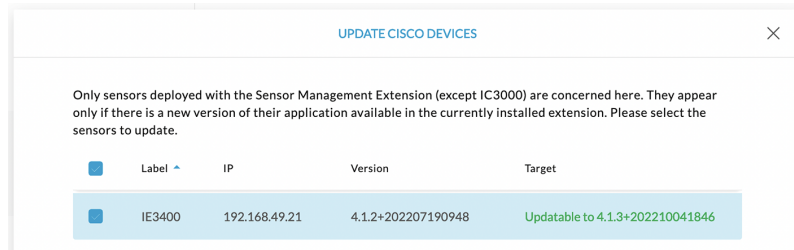
Filter 0 Selected MOVE SELECTION TO More Actions

| | Label | IP Address | Version | Location | Health status |
|--------------------------|-------------------------|---------------|--------------------|----------|---------------|
| <input type="checkbox"/> | FOLDER1 | | | Lyon | |
| <input type="checkbox"/> | FOLDER2 | | | Paris | |
| <input type="checkbox"/> | IC3000 | 192.168.49.23 | 4.1.1+202205161124 | | Connected |
| <input type="checkbox"/> | IE3400 | 192.168.49.21 | 4.1.2+202207190948 | | Connected |

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

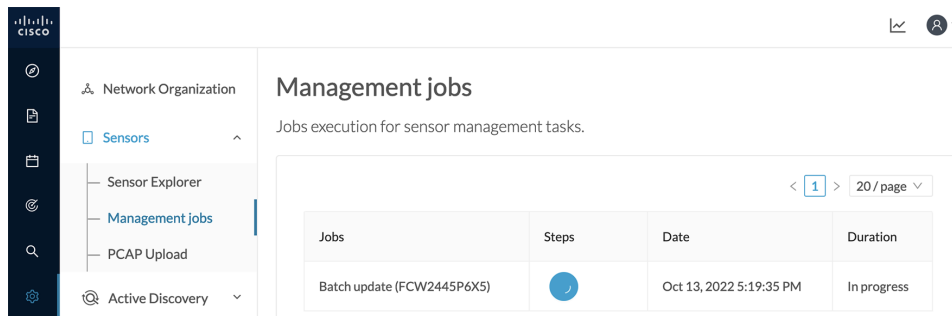


Step 3 Select the sensors you want to update.

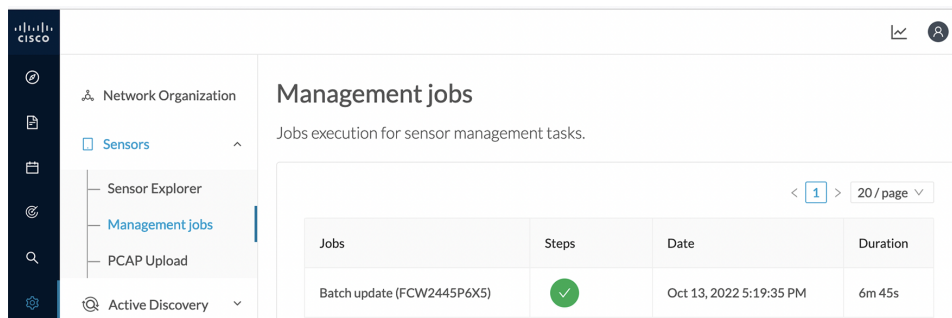


Step 4 Click **Update**.

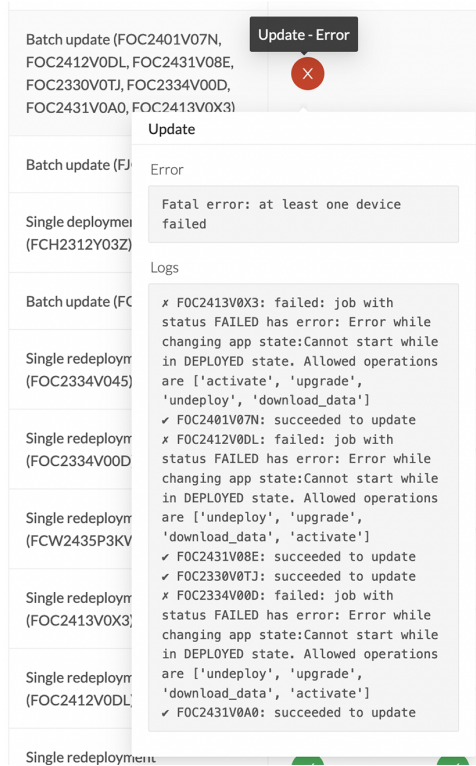
The sensors' update status appear in the Management jobs page in batches per sensor type and of maximum ten sensors per batch.



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.



Batch update (FOC2401V07N, FOC2412V0DL, FOC2431V08E, FOC2330V0TJ, FOC2334V00D, FOC2431V0A0, FOC2413V0X3)

Update - Error

Update

Error

Fatal error: at least one device failed

Logs

```
x FOC2413V0X3: failed: job with
status FAILED has error: Error while
changing app state:Cannot start while
in DEPLOYED state. Allowed operations
are ['activate', 'upgrade',
'undeploy', 'download_data']
✓ FOC2401V07N: succeeded to update
x FOC2412V0DL: failed: job with
status FAILED has error: Error while
changing app state:Cannot start while
in DEPLOYED state. Allowed operations
are ['undeploy', 'upgrade',
'download_data', 'activate']
✓ FOC2431V08E: succeeded to update
✓ FOC2330V0TJ: succeeded to update
x FOC2334V00D: failed: job with
status FAILED has error: Error while
changing app state:Cannot start while
in DEPLOYED state. Allowed operations
are ['undeploy', 'upgrade',
'download_data', 'activate']
✓ FOC2431V0A0: succeeded to update
```

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.

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

Sensors

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.

| Name | IP | Version | Status | Processing status | Active Discovery status | Capture Mode | Uptime |
|-------------|---------------|--------------------|-----------|-------------------|-------------------------|--------------|--------------|
| FOC2334V00H | 192.168.69.20 | 3.2.2+202103181619 | Connected | Pending data | Unavailable | All | 4d 1h 3m 47s |
| FCH2312Y047 | 192.168.70.20 | 3.2.2+202103181753 | Connected | Pending data | Unavailable | All | 3m 27s |

[UPDATE CISCO DEVICES](#)
[DEPLOY CISCO DEVICE](#)
[INSTALL SENSOR MANUALLY](#)
[IMPORT OFFLINE FILE](#)

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

Cisco IE-3400-8T2S 17.3.2a

Configuration > Services > IOx

Cisco Systems
Cisco IOx Local Manager

Applications Remote Docker Workflow Docker Layers System Info System

CyberVisionSensorN... **RUNNING**

Cisco Cyber Vision sensor for aarch64

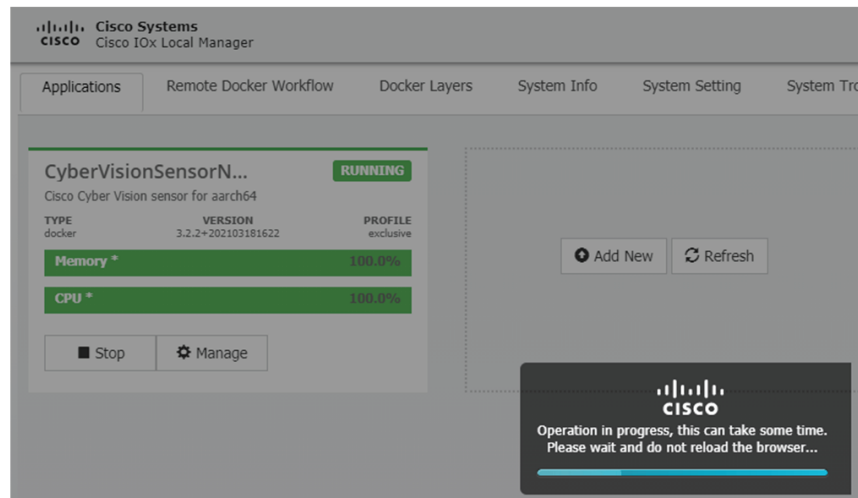
TYPE: docker VERSION: 3.2.2+202103181622 PROFILE: exclusive

Memory * 100.0%

CPU * 100.0%

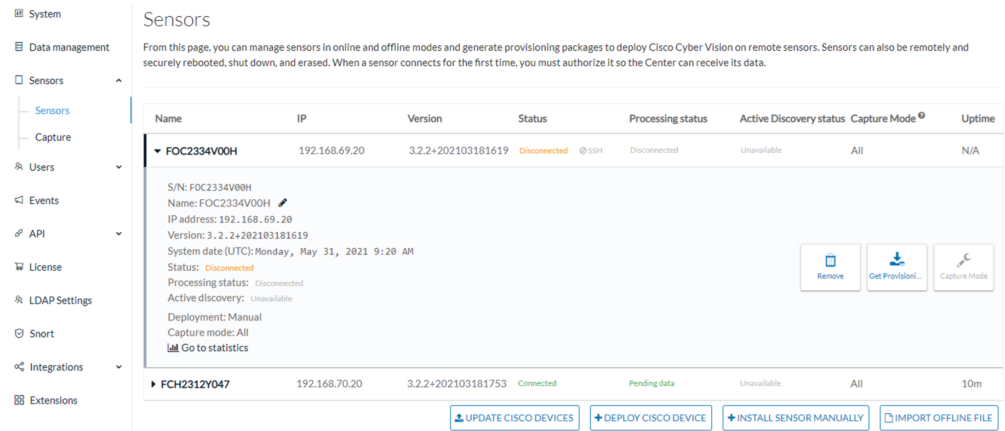
Stop Manage

The operation takes a few moments.



The application status switches to STOPPED.

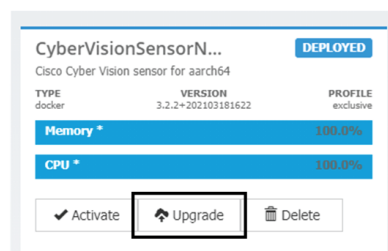
In Cisco Cyber Vision, the sensor status switches to Disconnected.



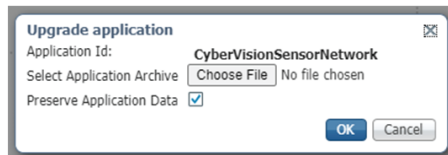
3. In the IOx Local Manager, click the **Deactivate** button.

The application status moves to DEPLOYED.

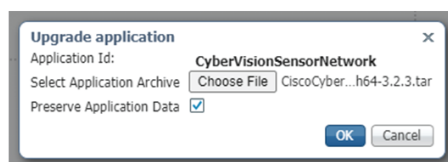
4. Click **Upgrade**.



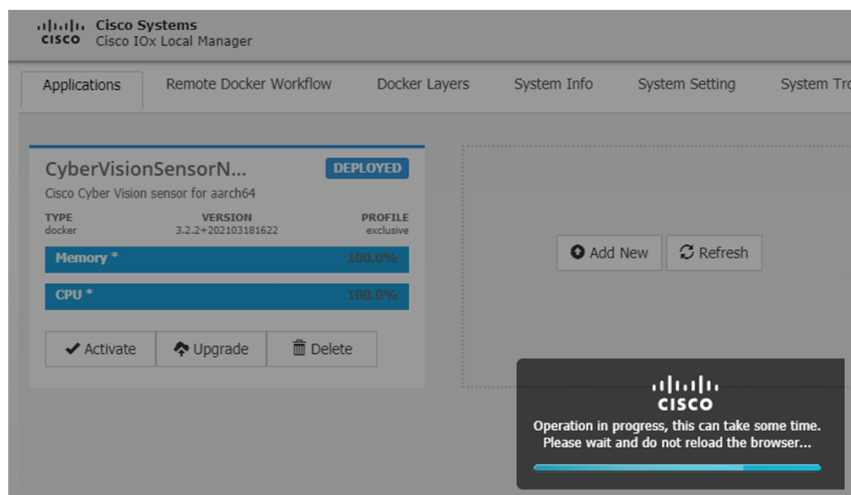
The pop up Upgrade application appears.



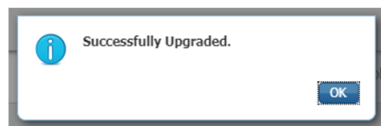
5. Select the **Preserve Application Data** option.
6. Select the new version of the application archive file.
e.g. CiscoCyberVision-IOx-aarch64-3.2.3.tar



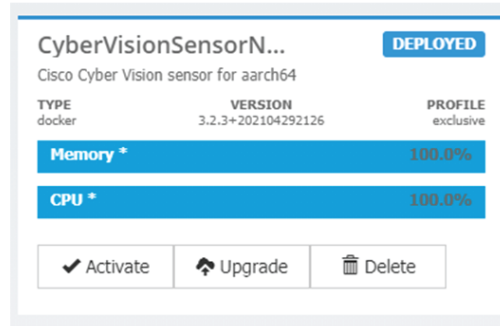
The operation takes a few moments.



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.

| Name | IP | Version | Status | Processing status | Active Discovery status | Capture Mode | Uptime |
|-------------|---------------|--------------------|-----------|-------------------|-------------------------|--------------|------------|
| FOC2334V00H | 192.168.69.20 | 3.2.3+202104292032 | Connected | Pending data | Unavailable | All | 4d 1h 4 9m |
| FCH2312Y047 | 192.168.70.20 | 3.2.2+202103181753 | Connected | Pending data | Unavailable | All | 19m 34 s |

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**.

The screenshot shows the 'Sensor Explorer' interface. On the left is a navigation pane with options like System, Data Management, Network Organization, Sensors, Management Jobs, PCAP Upload, Active Discovery, Users, Events, and API. The main area displays a table of sensors under the heading 'Folders and sensors (3)'. The table has columns for Label, IP Address, Version, Location, Health status, and Pro. One sensor is listed: FCW2445P6X5 with IP address 192.168.49.21 and a 'Disconnected' health status. A red box highlights the 'Redeploy' button for this sensor. On the right, a details pane for the selected sensor shows its label, serial number, IP address, version, system date, deployment, active discovery status, capture mode, system health status (Disconnected), processing status (Disconnected), and uptime (N/A). Below the details are buttons for 'Move to', 'Redeploy', and 'Uninstall'.

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.

| | |
|--|---|
| Device IP: 192.168.49.20 | Device port: 443 |
| Capture IP address: 169.254.1.2 | Capture prefix length: 30 |
| Capture VLAN number: 2508 | Collection IP address: 192.168.49.21 |
| Collection prefix length: 24 | Collection VLAN number: 507 |
| Use global credentials: No | Disk size: Use as much space as possible |
| Active Discovery interfaces: 192.168.50.21/24 VLAN#50 | |

Exit

Start

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

Redeploy Cisco device

Reach Cisco device

Please fill the fields below to enable Cisco Cyber Vision to reach your device.

IP address*

Port*

For example 443 or 8443

Center collection IP

leave blank to use current collection IP

Credentials

Login*

Password*

[Exit](#)

[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.

Redeploy Cisco device

Configure Cyber Vision IOx sensor app

The device requires additional parameters. Some parameters have been pre-filled. Please complete the remaining fields.

 [Click here to fill the warning fields with the current sensor configuration](#)

Cisco device: IE-3400-8T2S

Capture IP address*

Capture prefix length*

Like 24, 16 or 8

Capture VLAN number*

Collection IP address*

Collection prefix length*

Like 24, 16 or 8

Collection gateway

Collection VLAN number*



 Exit

Next

Step 7

Click **Next**.

Step 8

You can enable Active Discovery selecting Passive and Active Discovery.

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**.

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?

[Back to Sensor Explorer](#)

[Go to the jobs page](#)

You are redirected to the [Management jobs page](#) to see the redeployment advancement. This can take several minutes.

The screenshot shows the 'Management jobs' page with a sidebar on the left containing navigation options like System, Data Management, Network Organization, Sensors, Sensor Explorer, and Management jobs. The main content area displays a progress bar for a 'Single redeployment (FCW2445P6X5)' job. The progress bar consists of four steps: the first is a green checkmark, the second is a blue checkmark, and the last two are grey circles with a clock icon. The 'Duration' column indicates the job is 'In progress'.

| Jobs | Steps | Duration |
|-----------------------------------|-------|-------------|
| Single redeployment (FCW2445P6X5) | | In progress |

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

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.

[+ Install sensor](#)
[Manage Cisco devices](#)
[Organize](#)

Folders and sensors (3)

Filter 0 Selected Move selection to More Actions As of: Feb 23, 2022 4:50 PM

| <input type="checkbox"/> | Label | IP Address | Version | Location | Health status | Processing status | Active Discovery |
|--------------------------|-------------|---------------|---------|----------|---------------|-------------------|------------------|
| <input type="checkbox"/> | | | | | Disconnected | Disconnected | |
| <input type="checkbox"/> | | | | | | | |
| <input type="checkbox"/> | FCW2445P6X5 | 192.168.49.21 | | | Redeploying | Not enrolled | Unavailable |

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

| | | | | | | | | |
|--------------------------|-------------|---------------|--------------------|--|-----------|--------------|---------|----------|
| <input type="checkbox"/> | FCW2445P6X5 | 192.168.49.21 | 4.1.0+202202151440 | | Connected | Pending data | Enabled | a minute |
|--------------------------|-------------|---------------|--------------------|--|-----------|--------------|---------|----------|

