Reveal(x) 360 Setup and Administration Guide

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After you receive your initial email from ExtraHop Networks, there are a few procedures you must complete before you can start analyzing your traffic. This guide provides procedures for basic setup and administration of the Reveal(x) 360 system.

Video the related training: Reveal(x) 360 Administration Overview

Activate your administrator account

The System and Access Administration privilege is granted to the email address that you provided during sign up.

1. Open your Welcome to ExtraHop Reveal(x) 360 email.
2. Click the URL link to your Reveal(x) 360 environment.
3. At the login page, enter your email address and temporary password included in the email.
4. Click **Sign In**.
5. On the Change Password screen, enter a new password in both password fields and then click **Send**.
6. From the Multi-Factor Authentication Setup page, scan the QR code or manually enter the code that appears into your authenticator app.
7. Enter the code provided by your authentication app into the **Code** field and then click **Complete Setup**.
8. On the Success page, click **Continue**.

Configure your firewall rules

If your ExtraHop system is deployed in an environment with a firewall, you must open access to ExtraHop Cloud Services. For Reveal(x) 360 systems that are connected to self-managed sensors, you must also open access to the ExtraHop Cloud Recordstore.

Open access to Cloud Services

For access to ExtraHop Cloud Services, your sensors must be able to resolve DNS queries for *.extrahop.com and access TCP 443 (HTTPS) from the IP address that corresponds to your sensor license:

- 35.161.154.247 (Portland, U.S.A.)
- 54.66.242.25 (Sydney, Australia)
- 52.59.110.168 (Frankfurt, Germany)

Open access to Cloud Recordstore

For access to the ExtraHop Cloud Recordstore, your sensors must be able to access outbound TCP 443 (HTTPS) to these fully-qualified domain names:

- `bigquery.googleapis.com`
- `bigquerystorage.googleapis.com`
- `oauth2.googleapis.com`
- `www.googleapis.com`
- `www.mtls.googleapis.com`
- `iamcredentials.googleapis.com`

You can also review the public guidance from Google about computing possible IP address ranges for googleapis.com.

In addition to configuring access to these domains, you must also configure the global proxy server settings.

Add and manage users

1. From the Overview page, click **System Settings** and then click **User Access**.
2. In the Users section, click **View Users**.
3. Click **Create**.
4. Enter the email address, first name, and last name of the new user.
5. In the System Access section, select one of the following privileges.

Privilege	Description
System and access administration	Create and modify all objects and settings, including Administration pages, in Reveal(x) 360.
System administration	Create and modify objects and settings, excluding User Access and API Access on the Administration page.
Full write	Create and modify all objects and settings, excluding Administration pages.
Limited write	Create, modify, and share dashboards. Create and modify tuning rules. Create and modify detection and threat briefing notification rules.
Personal write	Create personal dashboards and modify dashboards shared with the logged-in user.
Full read-only	View objects in the ExtraHop system.
Restricted read-only	View dashboards shared with this user.

6. In the NDR Module Access section, select one of the following privileges.

Privilege	Description
Full access	Access to network detections.
No access	No access to network detections.

7. In the NPM Module Access section, select one of the following privileges.

Privilege	Description
Full access	Access to performance detections.
No access	No access to performance detections.

8. In the **Packet and Session Key Access** section, select one of the following privileges:

Privilege	Description
Packets and session keys	Search and download packets and associated session keys.
Packets only	Search and download packets.
Packet slices only	Search and download the first 64 bytes of a packet.
No access	No access to packets.

9. Click **Save**.
The user is sent an email that includes the URL of the Reveal(x) 360 environment and their temporary password. The temporary password expires in 7 days.

10. Click **Done**.

Change user settings

You can change the assigned privilege levels, reset the multi-factor authentication configuration, or delete the user.

Change user privileges

1. In the Users section, click the name of the user you want to modify.
2. In the left pane, select the new privilege level for the user and then click **Save**.

Reset multi-factor authentication

1. In the Users section, click the name of the user you want to modify.
2. Clear the **Reset MFA configuration for this user**.
   The user is required to configure multi-factor authentication the next time they log in to Reveal(x) 360.

Delete a user

1. In the Users section, click the name of the user you want to modify.
2. Click **Delete**.
3. Select one of the following options:
   - **Transfer dashboards, collections, and activity maps owned by *<username>* to the following user:** and then select a new user from the drop-down list.
   - **Delete all dashboards, collections, and activity maps owned by *<username>***
4. Click **Delete**.

Manage global policies

Administrators can configure global policies that apply to all users who access the system.

1. From the Overview page, click **System Settings** and then click **User Access**.
2. From the Global Policies section, specify one or more of the following options.

Option	Description
Device Group Edit Control	Select to control whether all users with limited write privileges can create and edit device groups. When this policy is selected, all limited write users can create device groups and add other limited write users as editors to their device groups.
Default Dashboard	Specify the dashboard that users see when they log in to the system. Only dashboards shared with all users can be set as a global default. Users can override this default setting from the command menu of any dashboard.

3. Click **Save Changes**.

Configure an allow list

Configure a list of IPv4 addresses and CIDR blocks that are allowed to access Reveal(x) 360.

1. From the Overview page, click **System Settings** and then click **User Access**.
2. In the Allow List section click, **Enable Allow List**.
3. Type a comma-separated list of the IPv4 addresses or CIDR blocks that are allowed to access the system. IPv6 addresses are not supported.

4. Click **Save**. It can take several minutes for the allow list to become active.

Configure the system time

The System Time page displays the default system time settings and the default display time configured for your ExtraHop system.

Here are some considerations about system time settings in Reveal(x) 360:

- You must have System Administrator privileges or better to make changes.
- The default system time is a global time zone applied to your ExtraHop system.
- The default display time for users is the time zone that all users see in the ExtraHop system unless a user manually changes their displayed time zone.

1. From the Overview page, click **System Settings** and then click **All Administration**.
2. From the Console Settings section, click **System Time**.
3. From the Default System Time drop-down list, select the time zone you want.
4. From the Default Display Time for Users section, select one of the following options:
   - Browser time
   - System time
   - UTC
5. Click **Save Changes**.

Enable AI Search Assistant

The AI Search Assistant enables you to search for devices with questions, or prompts, written in natural, everyday language to quickly build complex queries.

The AI Search Assistant leverages a third-party LLM. User prompts are not provided for LLM training or stored by the LLM, but can be retained by the ExtraHop system for product improvement purposes. See the AI Search Assistant FAQ for more information.

Before you begin

- Your user account must have privileges on Reveal(x) 360 for System and Access Administration.
- Your Reveal(x) 360 system must be connected to ExtraHop Cloud Services.
- AI Search Assistant cannot currently be enabled on ExtraHop systems that connect to ExtraHop Cloud Services from the following regions:
  - Asia Pacific (Singapore, Sydney, Tokyo)
  - Europe (Frankfurt, Paris)

1. From the Overview page, click the **System Settings** icon and then click **All Administration**.
2. From the Console Settings section, click **AI Search Assistant**.
3. Enable the AI Search Assistant by selecting **I agree to enable AI search assistant and send natural language searches to ExtraHop Cloud Services**.
4. Click **Save Changes**.

Next steps

Find devices with AI Search Assistant

Configure device name precedence

Discovered devices are automatically named based on multiple sources of network data. When multiple names are found for a device, a default order of precedence is applied. You can change the order of precedence.

1. From the Overview page, click **System Settings** and then click **All Administration**.
2. From the Console Settings section, click **Device Name Precedence**.
3. Click and drag device names to create a new order of precedence.
4. Click **Save**.

   Click **Revert to Default** to undo your changes.

Enable detection tracking

Detection tracking enables you to assign a detection to a user, set the status, and add notes. You can track detections directly in the ExtraHop system, with a third-party external ticketing system, or with both methods.

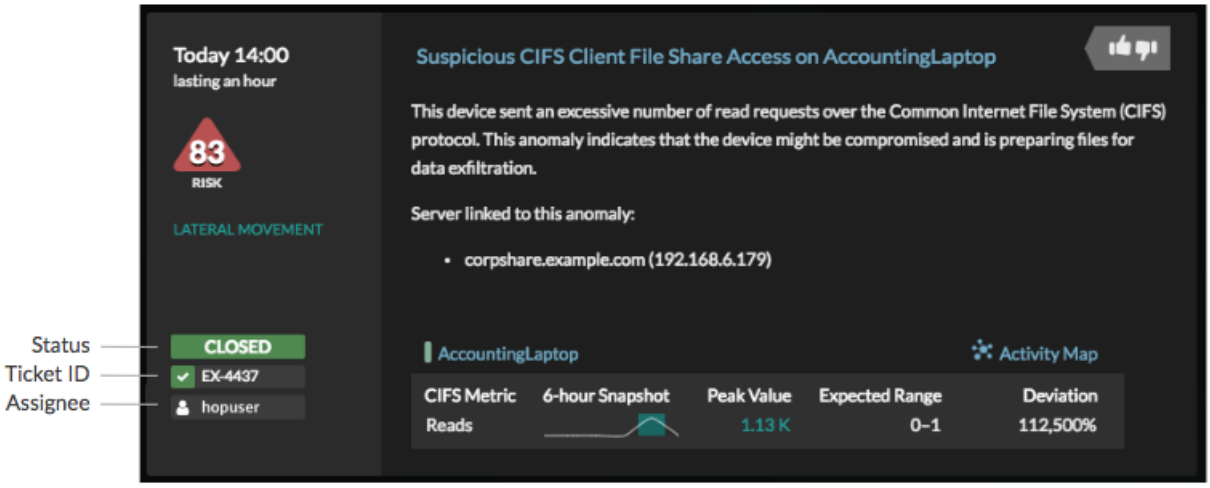
Note: You must enable ticket tracking on all connected sensors.

Before you begin

- You must have access to an ExtraHop system with a user account that has Administration privileges.
- After you enable external ticket tracking, you must configure third-party ticket tracking by writing a trigger to create and update tickets on your ticketing system, then enable ticket updates on your ExtraHop system through the REST API.
- If you disable external ticket tracking, previously stored status and assignee ticket information is converted to ExtraHop detection tracking. If detection tracking from within the ExtraHop system is enabled, you will be able to view tickets that already existed when you disabled external ticket tracking, but changes to that external ticket will not appear in the ExtraHop system.

1. From the Overview page, click **System Settings** and then click **All Administration**.
2. From the Console Settings section, click **Detection Tracking**.
3. Select one or both of the following methods for tracking detections:
   - Select **Enable ExtraHop users to track detections from within the ExtraHop system**.
   - Select **Enable external integrations, such as SOAR or ticket tracking systems, to track detections through the ExtraHop Rest API**.
4. Optional: After you select the option to enable external integrations, specify the URL template for your ticketing system and add the *$ticket_id* variable at the appropriate location. For example, type a complete URL such as `https://jira.example.com/browse/$ticket_id`. The *$ticket_id* variable is replaced with the ticket ID associated with the detection.

   After the URL template is configured, you can click the ticket ID in a detection to open the ticket in a new browser tab.



Next steps
If you enabled external ticket tracking integrations, you must continue on to the following task:

- Configure third-party ticket tracking for detections

Configure third-party ticket tracking for detections

Ticket tracking enables you to connect tickets, alarms, or cases in your work-tracking system to ExtraHop detections. Any third-party ticketing system that can accept Open Data Stream (ODS) requests, such as Jira or Salesforce, can be linked to ExtraHop detections.

Before you begin

- You must have selected the third-party detection tracking option in Administration settings.
- You must have access to an ExtraHop system with a user account that has System and Access Administration privileges.
- You must be familiar with writing ExtraHop Triggers. See Triggers and the procedures in Build a trigger.
- You must create an ODS target for your ticket tracking server. See the following topics about configuring ODS targets: HTTP, Kafka, MongoDB, syslog, or raw data.
- You must be familiar with writing REST API scripts and have a valid API key to complete the procedures below. See Generate an API key.

Write a trigger to create and update tickets about detections on your ticketing system
This example shows you how to create a trigger that performs the following actions:

- Create a new ticket in the ticketing system every time a new detection appears on the ExtraHop system.
- Assign new tickets to a user named `escalations_team` in the ticketing system.
- Run every time a detection is updated on the ExtraHop system.
- Send detection updates over an HTTP Open Data Stream (ODS) to the ticketing system.

The complete example script is available at the end of this topic.

1. Log in to the ExtraHop system through `https://<extrahop-hostname-or-IP-address>`.
2. Click the System Settings icon and then click **Triggers**.
3. Click **New**.
4. Specify a name and optional description for the trigger.
5. From the Events list, select **DETECTION_UPDATE**.

   The DETECTION_UPDATE event runs every time that a detection is created or updated in the ExtraHop system.

6. In the right pane, specify Detection class parameters in a JavaScript object. These parameters determine the information that is sent to your ticketing system.

   The following example code adds the detection ID, description, title, categories, MITRE techniques and tactics, and risk score to a JavaScript object called `payload`:

```
const summary = "ExtraHop Detection: " + Detection.id + ": " +
 Detection.title;
const description = "ExtraHop has detected the following event on your
 network: " + Detection.description
const payload = {
    "fields": {
        "summary": summary,
        "assignee": {
            "name": "escalations_team"
        },
        "reporter": {
            "name": "ExtraHop"
        },
        "priority": {
            "id": Detection.riskScore
        },
        "labels": Detection.categories,
        "mitreCategories": Detection.mitreCategories,
        "description": description
    }
};
```

7. Next, define the HTTP request parameters in a JavaScript object below the previous JavaScript object.

   The following example code defines an HTTP request for the payload described in the previous example: defines a request with a JSON payload:

```
const req = {
    'path': '/rest/api/issue',
    'headers': {
        'Content-Type': 'application/json'
    },
    'payload': JSON.stringify(payload)
};
```

   For more information about ODS request objects, see Open data stream classes.

8. Finally, specify the HTTP POST request that sends the information to the ODS target. The following example code sends the HTTP request described in the previous example to an ODS target named ticket-server:

```
Remote.HTTP('ticket-server').post(req);
```

The complete trigger code should look similar to the following example:

```
const summary = "ExtraHop Detection: " + Detection.id + ": " +
 Detection.title;
const description = "ExtraHop has detected the following event on your
 network: " + Detection.description
const payload = {
    "fields": {
        "summary": summary,
        "assignee": {
            "name": "escalations_team"
        },
        "reporter": {
            "name": "ExtraHop"
```

```
        },
        "priority": {
            "id": Detection.riskScore
        },
        "labels": Detection.categories,
        "mitreCategories": Detection.mitreCategories,
        "description": description
    }
};

const req = {
    'path': '/rest/api/issue',
    'headers': {
        'Content-Type': 'application/json'
    },
    'payload': JSON.stringify(payload)
};

Remote.HTTP('ticket-server').post(req);
```

Send ticket information to detections through the REST API
After you have configured a trigger to create tickets for detections in your ticket tracking system, you can update ticket information on your ExtraHop system through the REST API.

Ticket information appears in detections on the Detections page in the ExtraHop system. For more information, see the Detections topic.

The following example Python script takes ticket information from a Python array and updates the associated detections on the ExtraHop system.

```
#!/usr/bin/python3

import json
import requests
import csv

API_KEY = '123456789abcdefghijklmnop'
HOST = 'https://extrahop.example.com/'

# Method that updates detections on an ExtraHop system
def updateDetection(detection):
    url = HOST + 'api/v1/detections/' + detection['detection_id']
    del detection['detection_id']
    data = json.dumps(detection)
    headers = {'Content-Type': 'application/json',
               'Accept': 'application/json',
               'Authorization': 'ExtraHop apikey=%s' % API_KEY}
    r = requests.patch(url, data=data, headers=headers)
    print(r.status_code)
    print(r.text)

# Array of detection information
detections = [
                {
                    "detection_id": "1",
                    "ticket_id": "TK-16982",
                    "status": "new",
                    "assignee": "sally",
                    "resolution": None,
                },
                {
                    "detection_id": "2",
                    "ticket_id": "TK-2078",
```

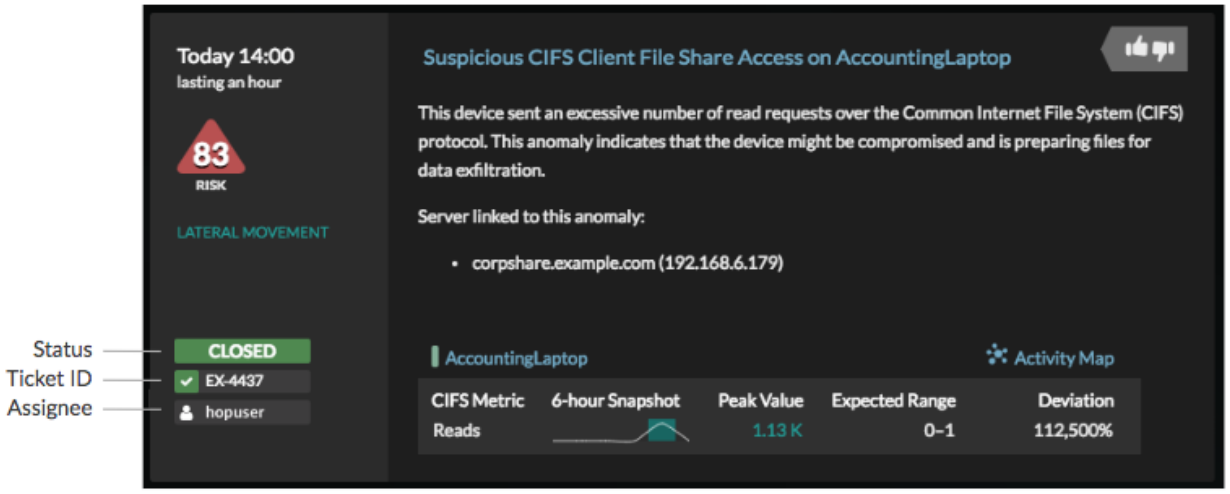
```
                    "status": None,
                    "assignee": "jim",
                    "resolution": None,
                },
                {
                    "detection_id": "3",
                    "ticket_id": "TK-3452",
                    "status": None,
                    "assignee": "alex",
                    "resolution": None,
                }
            ]

for detection in detections:
    updateDetection(detection)
```

Note: If the script returns an error message that the SSL certificate verification failed, make sure that a trusted certificate has been added to your sensor or console. Alternatively, you can add the `verify=False` option to bypass certificate verification. However, this method is not secure and not recommended. The following code sends an HTTP GET request without certificate verification:

```
requests.get(url, headers=headers, verify=False)
```

After ticket tracking is configured, ticket details are displayed in the left pane of the detection details, similar to the following figure:



Status

The status of the ticket associated with the detection. Ticket tracking supports the following statuses:

- New
- In Progress
- Closed
- Closed with Action Taken
- Closed with No Action Taken

Ticket ID

The ID of the ticket in your work-tracking system that is associated with the detection. If you have configured a template URL, you can click the ticket ID to open the ticket in your work-tracking system.

Assignee

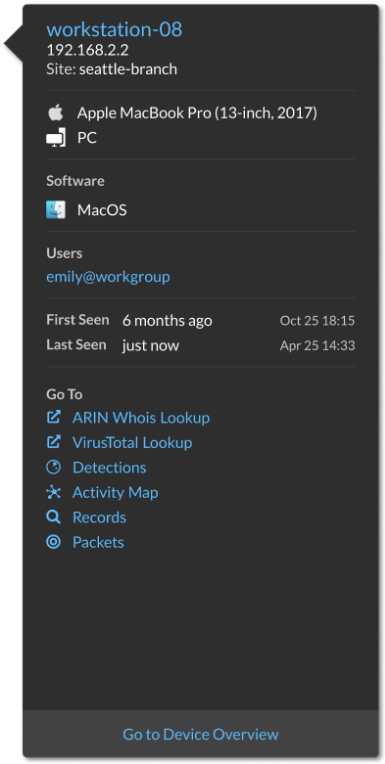
The username assigned to the ticket associated with the detection. Usernames in gray indicate a non-ExtraHop account.

Configure endpoint lookup links

Endpoint lookup enables you to specify external IP address tools that are available for retrieving up information about endpoints within the ExtraHop system. For example, when you click or hover over an IP address, lookup tool links are displayed so that you can easily find information about that endpoint.

The following lookup links are configured by default and can be modified or deleted:

- ARIN Whois Lookup
- VirusTotal Lookup



1. From the Overview page, click **System Settings** and then click **All Administration**.
2. From the Console Settings section, click **Endpoint Lookup**.
3. In the **URL Template** field, type the URL of the lookup tool.

   The URL must include the `$ip` variable, which is replaced with the IP address of the endpoint upon lookup. For example, `https://search.arin.net/rdap/?query=$ip`
4. In the **Display Name** field, type the name link as you want it to appear.
5. Select one of the following Display Options:
   - Show this link on all endpoints
   - Show this link on external endpoints
   - Show this link on internal endpoints
   - Do not show this link
6. Click **Save**.

Connect sensors

Add sensors to Reveal(x) 360 to monitor your network traffic.

ExtraHop-managed Reveal(x) sensors for AWS can be selected and deployed from within the Reveal(x) 360 console.

- Deploy Reveal(x) 360 sensors for AWS

Self-managed sensors and packetstores can also be connected from within the Reveal(x) 360 console. Note that if you have an existing console, you must disconnect the console before connecting your self-managed sensors to Reveal(x) 360.

- Connect to Reveal(x) 360 from self-managed sensors

Integrations

The Integrations page displays a catalog of products and solutions from third-party vendors that work with the ExtraHop system. Integrations can provide insight into how your devices are communicating in your environment or improve your ability to investigate threats and issues.

Requirements and configurations vary by integration. Some integrations require that you install and configure an app or add-on, and most integrations require that you create credentials to access the ExtraHop REST API.

Click a tile to view more information about the integration.

Multi-factor authentication

Multi-factor Authentication (MFA) is a security enhancement that requires you to provide two forms of credentials when you log in to your account. In addition to your ExtraHop credentials, you must supply credentials from a 3rd-party authenticator app.

Select and download an authentication application to your device and generate secure, six-digit codes when you log in to your Reveal(x) 360 system.

There are many authenticator apps to select from. The following steps are a general guideline, but you should also review the help documentation for the app you select.

1. Choose a device, such as a computer or mobile device (phone or tablet), on which you can install apps.
2. Download and install an authentication app on the device. Here are some popular options:
   - Android and iOS: Google Authenticator, Authy
   - Windows and macOS: 1Password, OTP Manager
   - Chrome extensions: Authenticator
3. Open a new browser and sign in to your ExtraHop Reveal(x) 360 system.
4. Follow the instructions to scan or enter the code that appears on the ExtraHop Multi-Factor Authentication setup screen, and then enter the credentials provided by your authenticator app.

Upgrade connected sensors in Reveal(x) 360

Administrators can upgrade sensors that are connected to Reveal(x) 360.

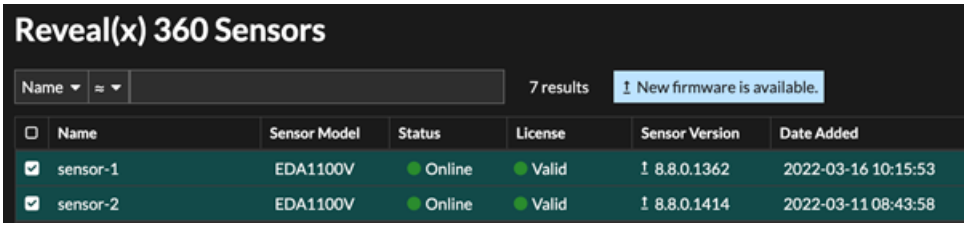
Before you begin

- Your user account must have privileges on Reveal(x) 360 for System and Access Administration or System Administration.

Here are some considerations about upgrading sensors:

- Sensors must be connected to ExtraHop Cloud Services
- Notifications appear when a new firmware version is available
- You can upgrade multiple sensors at the same time

1. From the Overview page, click **System Settings** and then click **Sensors**.
   Sensors that are eligible for upgrade display an up arrow in the Sensor Version field.



2. Select the checkbox next to each sensor that you want to upgrade.
3. In the Sensor Details pane, select the firmware version from the **Available Firmware** drop-down list.

   The drop-down list only displays versions that are compatible with the selected sensors.

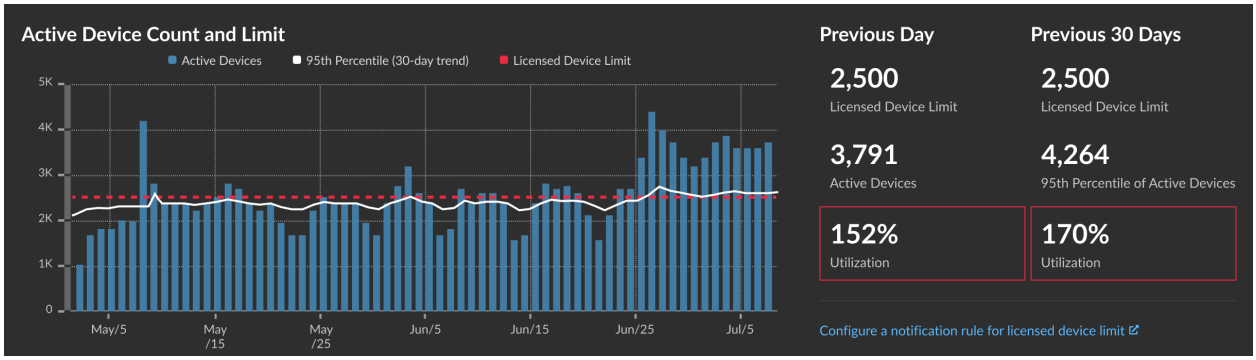
   Only the selected sensors that have a firmware upgrade available appear in the Sensor Details pane.
4. Click **Install Firmware**.

   When the upgrade completes, the Sensor Version field is updated with the new firmware version.

Active device count and limit

The Active Device Count and Limit chart on the main Administration page enables you to monitor whether your active device count has exceeded the licensed limit. For example, an ExtraHop system with a 20,000-50,000 devices band is allowed up to 50,000 devices.

Click **System Settings** and then click **All Administration** to view the chart.



The Active Device Count and Limit chart displays the following metrics:

- The dashed red line represents the licensed device limit.
- The solid black line represents the 95th percentile of active devices observed each day for the last 30 days.
- The blue bars represent the maximum number of active devices observed each day for the last 30 days.

This page also displays the following metrics:

- The licensed device limit for the previous day and for the last 30 days.
- The number of active devices observed the previous day.
- The 95th percentile of active devices observed over the last 30 days.

- The utilization percentage of the licensed device limit for the previous day and for the last 30 days. Utilization is the active device count divided by the licensed limit.

You can create a system notification rule to warn you if utilization is near (exceeds 80%) or over (exceeds 100%) your licensed device limit. Limit percentages are customizable when you create a rule. If you find that you are consistently approaching or over your licensed limit, we recommend that you work with your sales team to move to the next available capacity band.

Record ingest and capacity

The Record Ingest and Capacity chart on the main Administration page enables you to monitor the record ingest and capacity levels and confirm that the capacity limit is optimal for your environment.

The dashed red line on the chart represents the record capacity of your subscription, and the blue bars represent the amount of ingest each day up to the last 60 days.

You can create a system notification rule to warn you if recordstore ingest is near (exceeds 80%) or over (exceeds 100%) your daily record ingest capacity.

If you find that you are consistently over your allotted capacity, contact your ExtraHop sales representative.