

# Configure SAML single sign-on with Okta

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You can configure your ExtraHop system to enable users to log in to the system through the Okta identity management service.

## Before you begin

- You should be familiar with administering Okta. These procedures are based on the Okta Classic UI. If you are configuring Okta through the Developer Console, the procedure might be slightly different.
- You should be familiar with administering ExtraHop systems.

These procedures require you to copy and paste information between the ExtraHop system and the Okta Classic UI, so it is helpful to have each system open side-by-side.

## Enable SAML on the ExtraHop system

1. Log in to the Administration settings on the ExtraHop system through `https://<extrahop-hostname-or-IP-address>/admin`.
2. In the Access Settings section, click **Remote Authentication**.
3. From the Remote authentication method drop-down list, select **SAML**.
4. Click **Continue**.
5. Click **View SP Metadata**. You will need to copy the ACS URL and Entity ID to paste into the Okta configuration in the next procedure.

## Configure SAML settings in Okta

This procedure requires you to copy and paste information between the ExtraHop Administration settings and the Okta Classic UI, so it is helpful to have each UI open side-by-side.

1. Log in to Okta.
2. In the upper-right corner of the page, change the view from **Developer Console** to **Classic UI**.



3. From the top menu, click **Applications**.
4. Click **Add Application**.
5. Click **Create New App**.
6. From the Platform drop-down list, select **Web**.
7. For the Sign on method, select **SAML 2.0**.
8. Click **Create**.
9. In the General Settings section, type a unique name in the App name field to identify the ExtraHop system.
10. Optional: Configure the App logo and App visibility fields as required for your environment.
11. Click **Next**.
12. In the SAML Settings sections, paste the Assertion Consumer Service (ACS) URL from the ExtraHop system into the Single sign on URL field in Okta.



**Note:** You might need to manually edit the ACS URL if the URL contains an unreachable hostname, such as the default system hostname `extrahop`. We recommend that you specify the fully qualified domain name for the ExtraHop system in the URL.

13. Paste the SP Entity ID from the ExtraHop system into the Audience URI (SP Entity ID) field in Okta.
14. From the Name ID format drop-down list, select **Persistent**.
15. From the Application username drop-down list, select a username format.
16. In the Attribute Statements section, add the following attributes. These attributes identify the user throughout the ExtraHop system.

Name	Name format	Value
urn:oid:0.9.2342.19200300	URI Reference	user.email
urn:oid:2.5.4.4	URI Reference	user.lastName
urn:oid:2.5.4.42	URI Reference	user.firstName

17. In the Group Attribute Statement section, type a string in the Name field and configure a filter. You will specify the group attribute name when you configure user privilege attributes on the ExtraHop system. The following figure shows a sample configuration.

**A** SAML Settings

**GENERAL**

Single sign on URL ?  ?

Use this for Recipient URL and Destination URL

Allow this app to request other SSO URLs

Audience URI (SP Entity ID) ?

Default RelayState ?

If no value is set, a blank RelayState is sent

Name ID format ?

Application username ?

Update application username on

[Show Advanced Settings](#)

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**ATTRIBUTE STATEMENTS (OPTIONAL)** [LEARN MORE](#)

Name	Name format (optional)	Value
<input type="text" value="urn:oid:0.9.2342.1920030"/>	<input type="text" value="URI Reference"/>	<input type="text" value="user.email"/>
<input type="text" value="urn:oid:2.5.4.4"/>	<input type="text" value="URI Reference"/>	<input type="text" value="user.lastName"/> <span>×</span>
<input type="text" value="urn:oid:2.5.4.42"/>	<input type="text" value="URI Reference"/>	<input type="text" value="user.firstName"/> <span>×</span>

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**GROUP ATTRIBUTE STATEMENTS (OPTIONAL)**

Name	Name format (optional)	Filter
<input type="text" value="groupMemberships"/>	<input type="text" value="Unspecified"/>	<input type="text" value="Matches regex"/> <input type="text" value=".*"/>

18. Click **Next** and then click **Finish**.  
You are returned to the Sign On settings page.
19. In the Settings section, click **View Setup Instructions**.  
A new browser window opens and displays information that is required to configure the ExtraHop system.

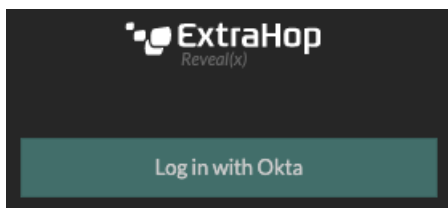
## Assign the ExtraHop system to Okta groups

We assume that you already have users and groups configured in Okta. If you do not, refer to the Okta documentation to add new users and groups.


1. From the Directory menu, select **Groups**.
2. Click the group name.
3. Click **Manage Apps**.
4. Locate the name of the application you configured for the ExtraHop system and click **Assign**.
5. Click **Done**.

## Add identity provider information on the ExtraHop system

1. Return to the Administration settings on the ExtraHop system. Close the Service Provider metadata window if it is still open, and then click **Add Identity Provider**.
2. Type a unique name in the Provider Name field. This name appears on the ExtraHop system login page.



3. From Okta, copy the Identity Provider Single Sign-On URL and paste into the SSO URL field on the ExtraHop system.
4. From Okta, copy the Identity Provider Issuer URL and paste into the Entity ID field on the ExtraHop system.
5. From Okta, copy the X.509 certificate and paste into the Signing Certificate field on the ExtraHop system.
6. Choose how you would like to provision users from one of the following options.
  - Select Auto-provision users to create a new remote SAML user account on the ExtraHop system when the user first logs in.
  - Clear the Auto-provision users checkbox and manually configure new remote users through the ExtraHop Administration settings or REST API. Access and privilege levels are determined by the user configuration in Okta.
7. The **Enable this identity provider** option is selected by default and allows users to log in to the ExtraHop system. To prevent users from logging in, clear the checkbox.
8. Configure user privilege attributes. You must configure the following set of user attributes before users can log in to the ExtraHop system through an identity provider. Values are user-definable; however, they must match the attribute names that are included in the SAML response from your identity provider. Values are not case sensitive and can include spaces. For more information about privilege levels, see [Users and user groups](#).

 **Important:** You must specify the attribute name and configure at least one attribute value other than **No access** to enable users to log in.

In the examples below, the Attribute Name field is the group attribute configured when creating the ExtraHop application on the identity provider and the Attribute Values are the names of your user groups. If a user is a member of more than one group, the user is granted the most permissive access privilege.

## User Privilege Attributes

Specify the attribute name and at least one attribute value to grant privileges to SAML users on the ExtraHop system.

### Attribute Name

### Attribute Values

No access	<input type="text"/>
Unlimited privileges	<input type="text" value="Security Administrators"/>
Full write privileges	<input type="text"/>
Limited write privileges	<input type="text" value="Contractors"/>
Personal write privileges	<input type="text"/>
Full read-only privileges	<input type="text"/>
Restricted read-only privileges	<input type="text"/>

- Optional: Configure packets and session key access. Configuring packets and session key attributes is optional and only required when you have a connected Trace appliance. Users with unlimited or cloud setup (Reveal(x) 360) privileges are automatically granted access to packets and session keys.

## Packets and Session Key Access

Specify an attribute value to grant packet and session key privileges.

### Attribute Name

### Attribute Values

No access	<input type="text"/>
Packets and session keys	<input type="text" value="Security Administrators"/>
Packets only	<input type="text"/>

- Optional: Configure detections access. Configuring detections attributes is optional and only required when the [global privilege policy](#) is set to **Only specified users can view detections**. Users with unlimited or cloud setup (Reveal(x) 360) privileges are automatically granted access to detections.

## Detections Access

Specify an attribute value to grant detection privileges to SAML users. See [global privilege policy settings](#).

### Attribute Name

### Attribute Values

No access	<input type="text"/>
Full access	<input type="text" value="Security Administrators"/>

11. Click **Save**.
12. [Save the Running Config](#).

## Log in to the ExtraHop system

1. Log in to the ExtraHop system through `https://<extrahop-hostname-or-IP-address>`.
2. Click **Log in with** *<provider name>*.
3. Sign in to your provider with your email address and password. You are automatically directed to the ExtraHop Overview page.