

# Configure SAML single sign-on with JumpCloud

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

## Before you begin


- You should be familiar with administrating JumpCloud.
- You should be familiar with administrating ExtraHop systems.

These procedures require you to copy and paste information between the ExtraHop system and JumpCloud, 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 JumpCloud configuration in the next procedure.

## Configure SAML settings in JumpCloud

1. Log in to the JumpCloud administrator console through `https://console.jumpcloud.com/`.
2. In the left pane, click **Applications**.
3. Click the Add Application icon .
4. Click **Custom SAML App**.



5. On the Details page, in the General Info section, type a name to identify the ExtraHop system in the Display Label field.
6. In the **Single Sign On Configuration** section, configure the following fields:

- **IdP Entity ID:**

Type any string of characters. This ID is required when you configure the identity provider on the ExtraHop system.

- **SP Entity ID:** Type or paste the Entity ID from the ExtraHop system.
- **ACS URL:** Type or paste the Assertion Consumer Service (ACS) URL from the ExtraHop system.
- **SP Certificate:** Leave this field empty to have JumpCloud generate a new certificate. Alternatively you can provide your own certificate.
- **SAMLSubject NameID:** Select **email** from the drop-down list.
- **SAMLSubject NameID Format:** Select **urn:oasis:names:tc:SAML:2.0:nameid-format:persistent** from the drop-down list.

- **Signature Algorithm:** Select **RSA-SHA256** from the drop-down list.
- **Default RelayState:** Leave this field blank.
- **IdP-Initiated URL:** Leave this field blank.
- **IdP URL:** Type an identifying name in the field. The URL appears similar to the following example:  
<https://sso.jumpcloud.com/saml2/extrahop>.

7. In the User Attribute Mapping section, click **add attribute** and type the following strings. These attributes identify the user throughout the ExtraHop system.

Service Provider Attribute Name	JumpCloud Attribute Name
urn:oid:0.9.2342.19200300.100.1.3	email
urn:oid:2.5.4.4	lastname
urn:oid:2.5.4.42	firstname

USER ATTRIBUTE MAPPING: ⓘ

Service Provider Attribute Name	JumpCloud Attribute Name
urn:oid:0.9.2342.19200300.100.1.3	email
urn:oid:2.5.4.4	lastname
urn:oid:2.5.4.42	firstname

8. In the Group Attributes section, select **include group attribute** and type a name in the field to identify the group. You will specify this name when you configure user privilege attributes on the ExtraHop system.

GROUP ATTRIBUTES ⓘ

include group attribute

9. Click the **User Groups** tab.
10. Select all the groups that should have access to the ExtraHop system. Three groups are selected in the example below.

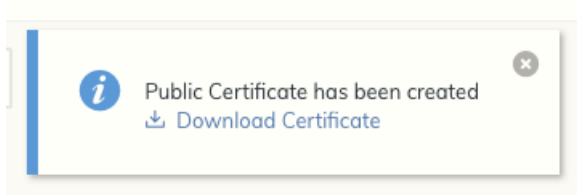
**Details** **User Groups**

The following user groups are bound to saml2. Users will have access in their User Portal.

Search


<input type="checkbox"/>	Type	Group ▲
<input type="checkbox"/>		<b>All Users</b> Group of Users
<input checked="" type="checkbox"/>		<b>Analysts</b> Group of Users
<input checked="" type="checkbox"/>		<b>Contractors</b> Group of Users
<input type="checkbox"/>		<b>ExtraHop Admins</b> Group of Users
<input type="checkbox"/>		<b>Jayhawks</b> Group of Users
<input checked="" type="checkbox"/>		<b>Security Administrators</b> Group of Users


11. Click **activate**.
12. Click **Continue** to confirm the new settings.  
JumpCloud generates a certificate after the application is created. Click **Download Certificate** and save the file to your computer.



## 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 JumpCloud, copy the IDP URL and paste into the SSO URL field on the ExtraHop system.
4. From JumpCloud, copy the IdP Entity ID and paste into the Entity ID field on the ExtraHop system.
5. Open the `certificate.pem` file in a text editor, copy the certificate data, 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 to the system.
  - 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 example 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

groupMemberships

#### Attribute Values

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

9. Optional: Configure packets and session key access. This step is optional and is 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. This step is optional and is 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"/>

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

## Log in to the ExtraHop system

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