Cookbook for PingFederate

SAML provides single sign-on capability for users accessing their services hosted in a cloud environment. Generally, a service provider such as Office 365 is federated with an identity provider such as PingFederate for authentication. The user gets authenticated by PingFederate and obtains a SAML token for accessing applications in a cloud environment, such as Office 365. This guide serves as step-by-step configuration manual for users using PingFederate as an authentication provider in a cloud environment.

Prerequisites for PingFederate

- Configure the following components in PingFederate:
  - Step 1a. Adding an LDAP Store
  - Step 1b. Creating a Password Credential Validator
  - Step 1c. Creating an Adapter
  - Step 1d. Creating a Signing Certificate
- Fetching the PingFederate metadata file

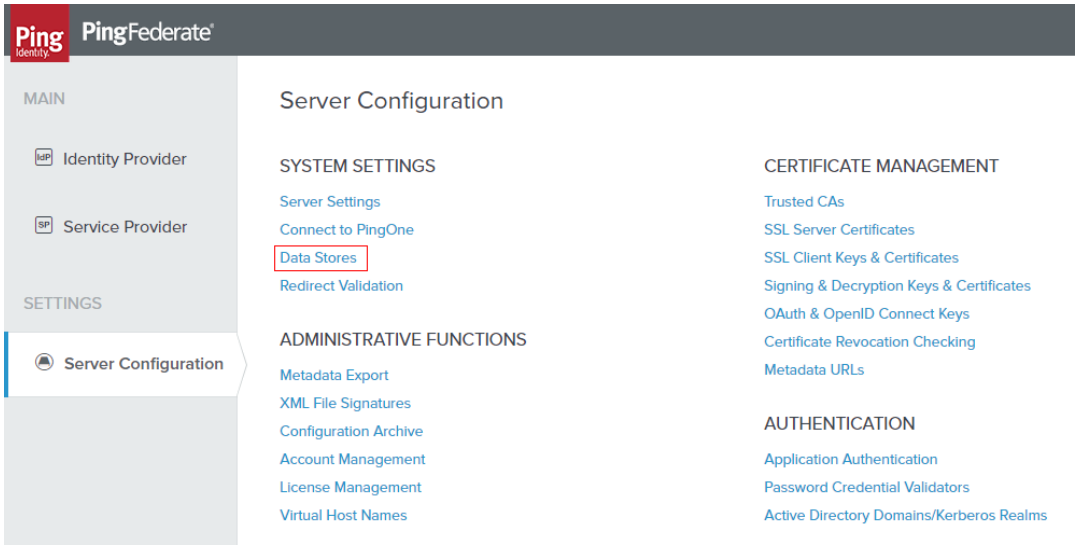
Configuring the components in PingFederate

Step 1a. Adding an LDAP Store

PingFederate lets you add an existing LDAP Datastore.

Procedure

1. Login to PingFederate with admin credentials.
2. Click **Server Configuration** > **Data Stores**.



3. Click **Add New Data Store**.
4. Enter the following details for Data Store and click **Save**.

Field	Value
Hostname	dc.example.com
User DN	domain\administrator
Password	Enter an appropriate password

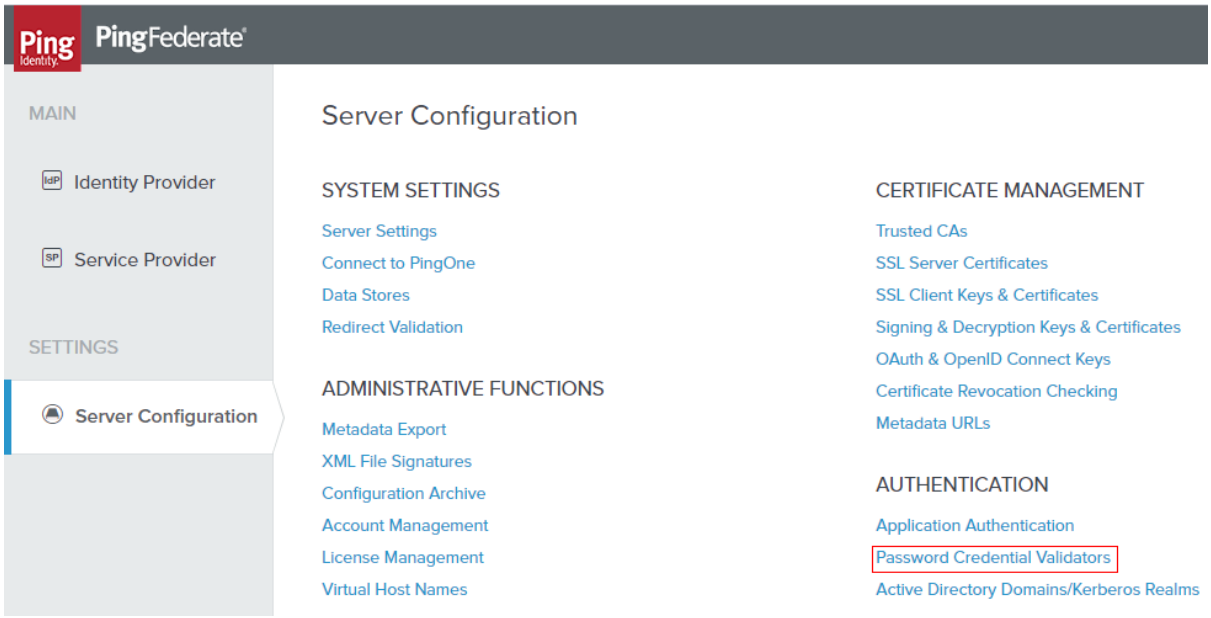
LDAP Data Store is added. The same Data Store is referred to in **Create a Validator**.

Step 1b. Creating a Password Credential Validator

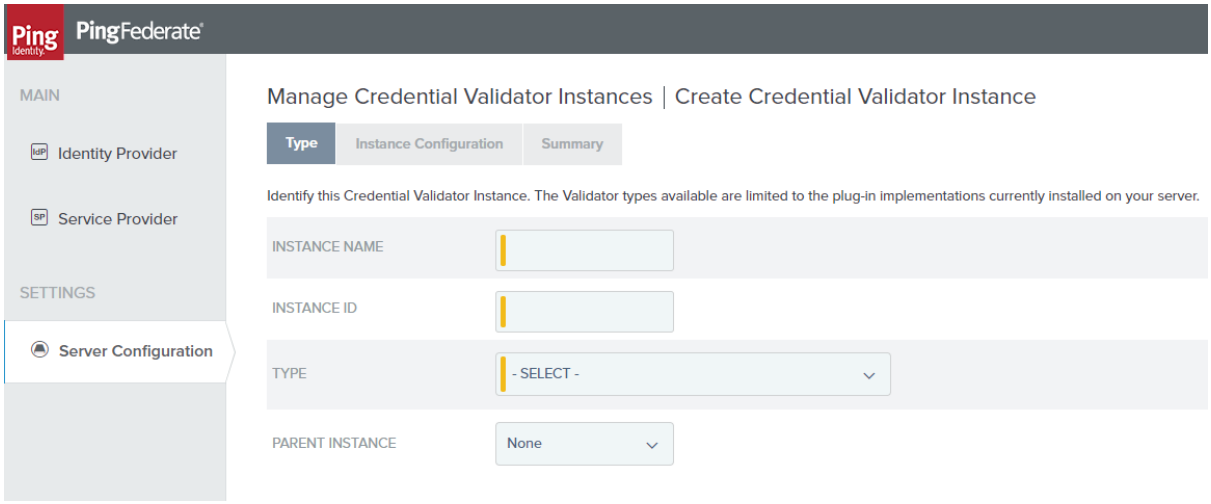
A validator authenticates the user. A user can authenticate in multiple ways with PingFederate such as AD authentication (sync users in AD), local user authentication (create local users in PingFederate), and so on.

Procedure

1. Login to PingFederate with admin credentials.
2. Click **Server Configuration** > **Password Credential Validator**.



3. Click **Create New Instance**. The **Manage Credential Validator Instance** page opens.



4. Enter the following details in the new instance and click **Next**.

Field	**Value**
Instance Name	Enter an appropriate instance name
Instance ID	Enter an ID
Type	Select **LDAP Username and Password Credential Validator** from the drop-down list.

5. Select the appropriate values for LDAP and click **Next**.

Field	**Value**
LDAP Datastore	dc.example.com
Search Base	DC=example,DC=com
Search Filter	userPrincipalName=${username}
Scope of Search	Subtree

6. Click **Next** > **Done**.

The Validator is created. You must use this validator while creating the federation data.

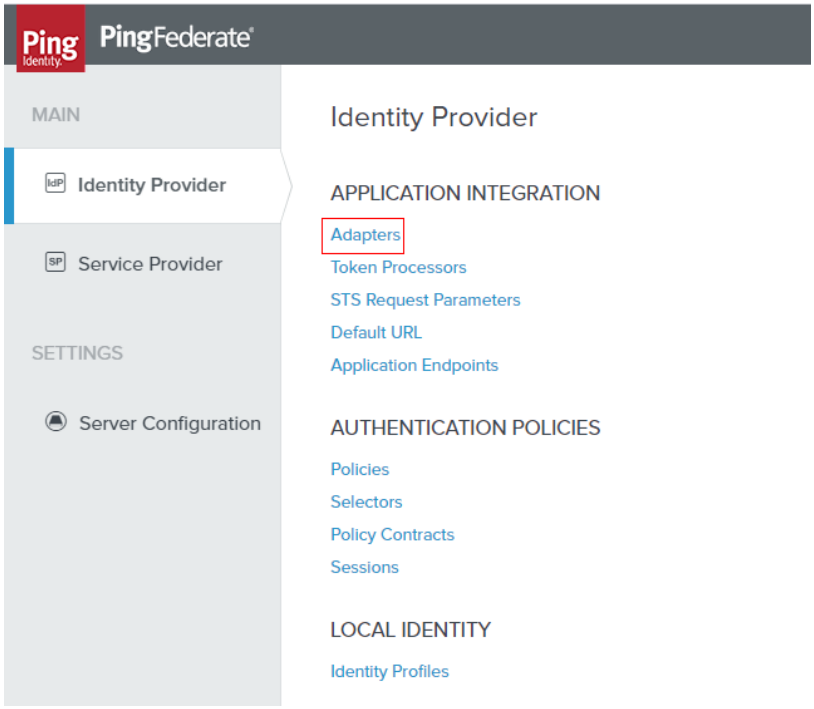
Step 1c. Creating an Adapter

An adapter is a simulator for the authentication page. It can be form-based or pop-up based. PingFederate uses terms such as HTMLFORM for form-based and httpBasic for pop-up based adapters. You must create a new adapter instance.

Procedure

1. Login to PingFederate with admin credentials.

2. Click **Identity Provider** > **Adapters** > **Create New Instance**.



3. Enter the following details for the new instance and click **Next**.

Field	**Value**
Instance Name	Enter an appropriate instance name
InstanceID	Enter an ID
Type	HTML Form IDP Adapter

4. On the next screen, select the validator created using **Creating a Password Credential Validator** and click **Update**.
5. click **Next** > **Next** again and on the Adapter Attributes tab, select **Psuedonym**. Click **Next**.
6. Click **Configure Adapter Contract**.
7. Click **Adapter Contract Fulfillment** and select **Source** as Adapter. Click **Next** > **Next** > **Done.**

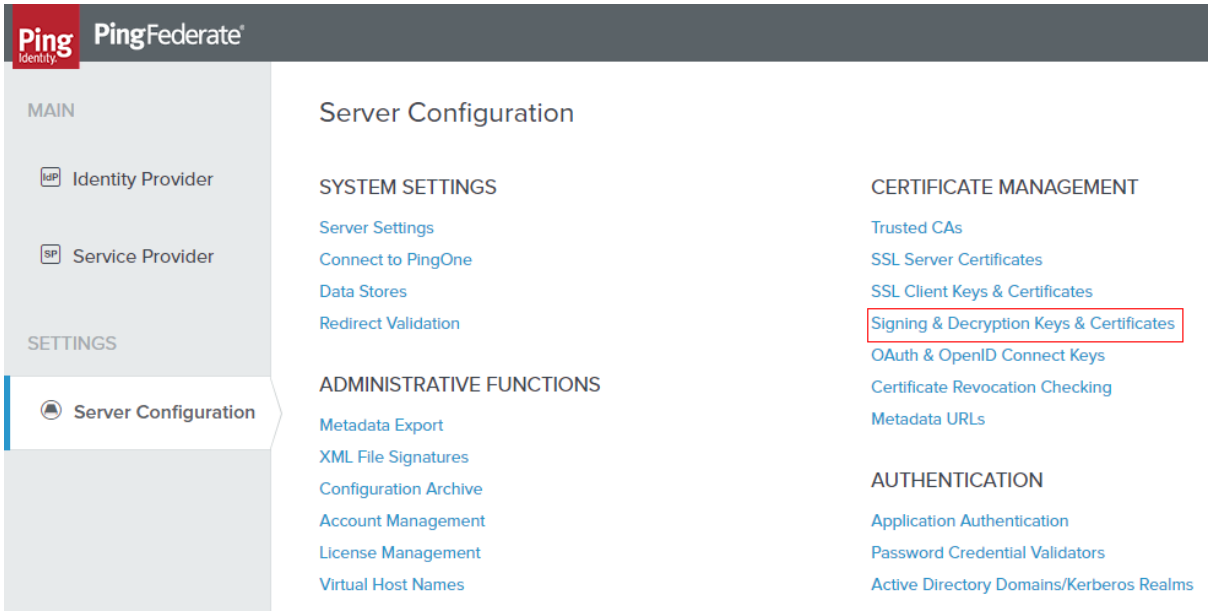
An Adapter is created. You must use this adapter while creating the federation pair.

Step 1d. Creating a Signing Certificate

If you are using any self-signed certificate as a signing certificate, you must upload the same certificate to PingFederate such that the uploaded certificate is used as a signing certificate.

Procedure

1. Login to PingFederate with admin credentials.
2. Click **Server Configuration** > **Signing & Decryption Keys & Certificates.**



3. Click **Import** if you already have the signing certificates.
4. Click **Choose File** and browse to import the **p12 certificate**.
5. Enter the password and click **Next**.
6. Click **Save**.

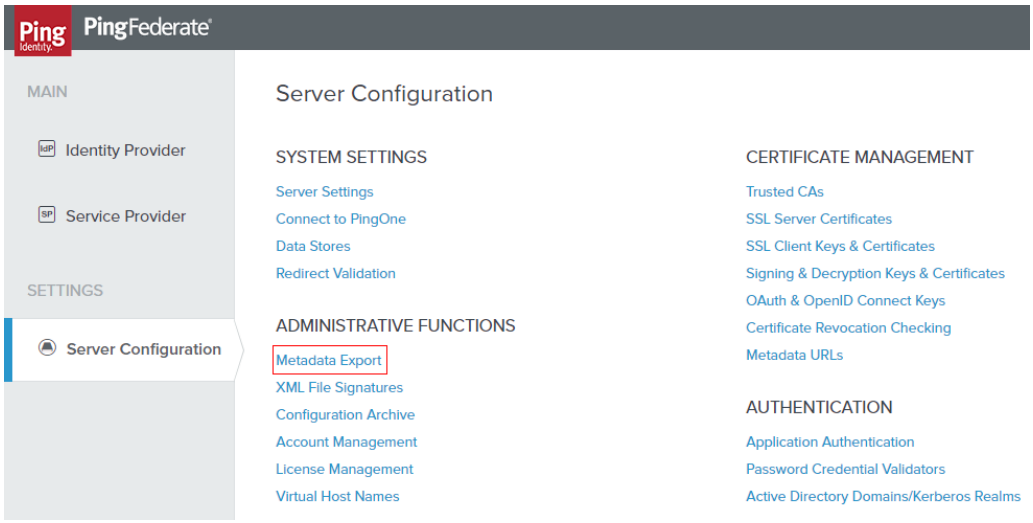
A signing certificate is created. You must use the same exported certificate while creating federation pairs in Access.

Fetching the metadata file for PingFederate

You must export and save the metadata for PingFederate to configure the federated pair.

Procedure

1. Login to PingFederate with admin credentials.
2. Click **Server Configuration** > **Metadata Export**.



3. Select **I am the Identity Provider** and click **Next**.
4. On the **Metadata Mode** tab, select "**Select information to include in Metadata manually**" and click **Next**.
5. Select **SAML 2.0** as the protocol and click **Next**.
6. On **Attribute Contract**, click **Next**.
7. On the **Signing Key** tab, select the signing key user for the service provider configuration and click **Next**.
8. On **Metadata Signing** tab, click **Next**.
9. On **XML Encryption Certificate**, click **Next**.
10. On the **Export & Summary** tab, review the export details and click **Export**. Save this **metadata.xml** file.

Configuring PingFederate in MobileIron Access

You must configure an appropriate service provider in Access and then proceed to configure PingFederate as your identity provider.

Prerequisites

- Ensure that you have completed **Step 1a** to **Step 1d** in PingFederate.
- Ensure that you have the metadata file for the service provider and for PingFederate (identity provider).

Procedure

1. Login to MobileIron Access administrative portal with admin credentials.
2. Click **Profile** > **Federation**.
3. Click **Add Pair** > **Federated Pair**.
4. Select the appropriate service provider from the catalog and click **Next** to configure the desired service provider.
5. Click **Next** to configure PingFederate.
6. Select **PingIdentity** as the identity provider.

7. Select the Access Signing Certificate from the drop-down list else click **Advanced Options** to **Generate certificate** or **Add new certificate**.
8. Use one of the following methods to upload the metadata information from PingFederate.

- Select **Upload Metadata** and click **Choose file** to upload the metadata.xml file downloaded in #Fetching the metadata file for PingFederate.
- Select **Add Metadata** and enter the following details from the metadata.xml file.
    - Extract the **Entity ID URL** and the Base64 Encoded Certificate from the metadata file.
    - Enter the same URL for the **Entity ID**, **POST SSO URL**, and **Redirect SSO URL**.
    - Enter the **Base64 Encoded Certificate** for Signing.

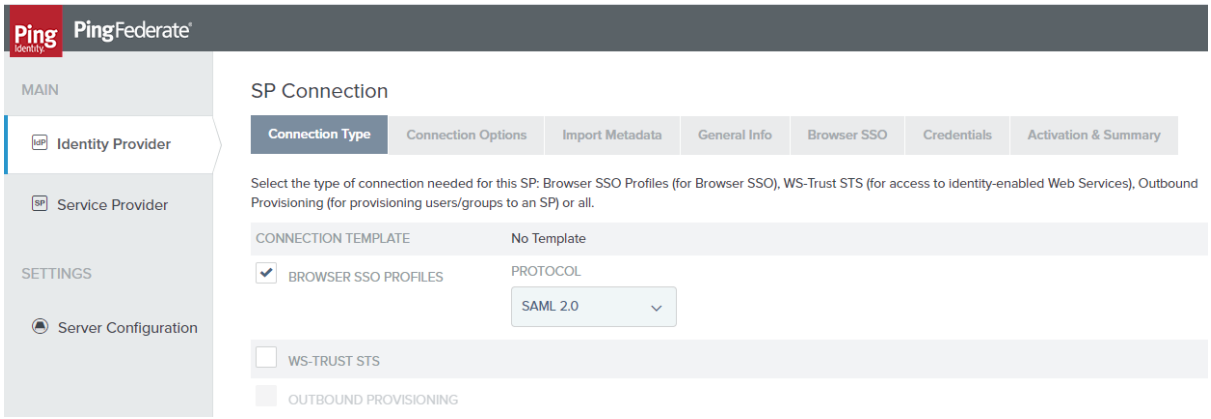
9. Click **Done**.
10. On the Federation page, download **Access IDP Metadata (Upload to SP)** and **Access SP Metadata (Upload to IDP)** as proxy metadata files.

Updating PingFederate configuration

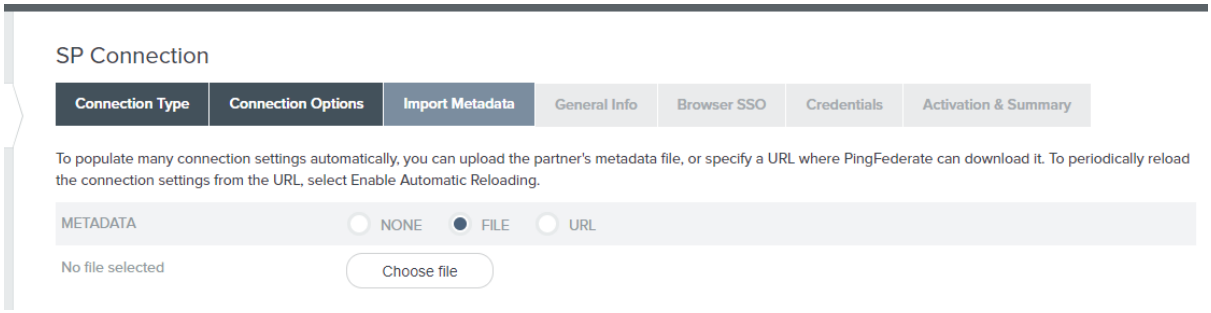
You must update PingFederate with the proxy metadata file for the configuration to complete.

Procedure

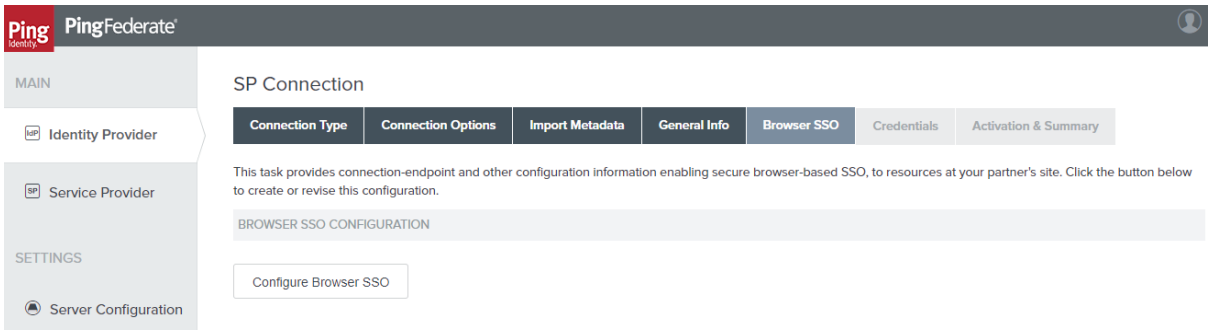
1. Login to PingFederate portal with admin credentials.
2. Click **Identity Provider** > **Create New**.
3. Select **Browser SSO Profiles** (SAML 2.0 is selected by default) as the connection type and click **Next**.



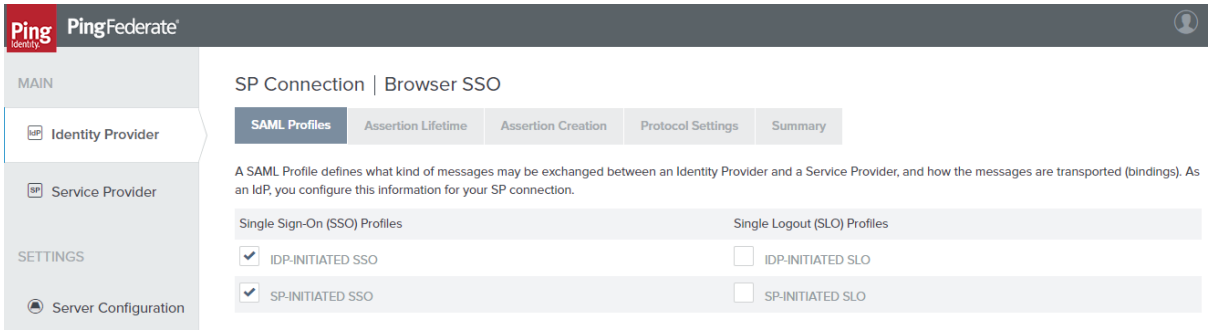
4. Select **File** to import metadata and click **Choose File**. Upload the **Access SP Metadata (Upload to IDP)** metadata file that you downloaded in #Configuring PingFederate in MobileIron Access and click **Next**.



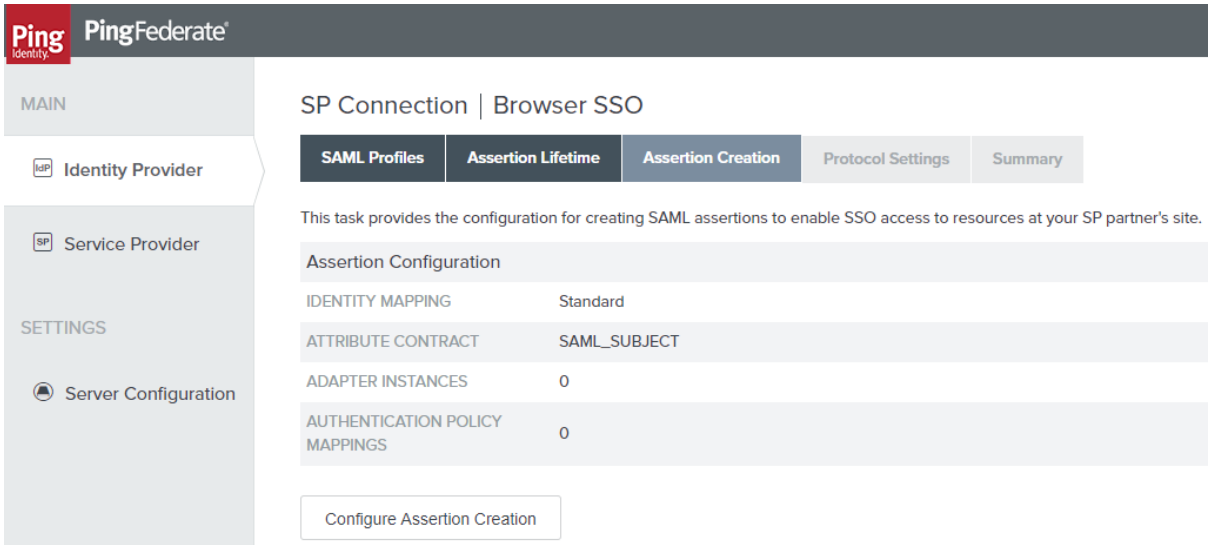
5. Review **Metadata Summary** and click **Next**.
6. On the **General** Info tab, click **Next**.
7. On the **Browser SSO** tab, click **Configure Browser SSO**.



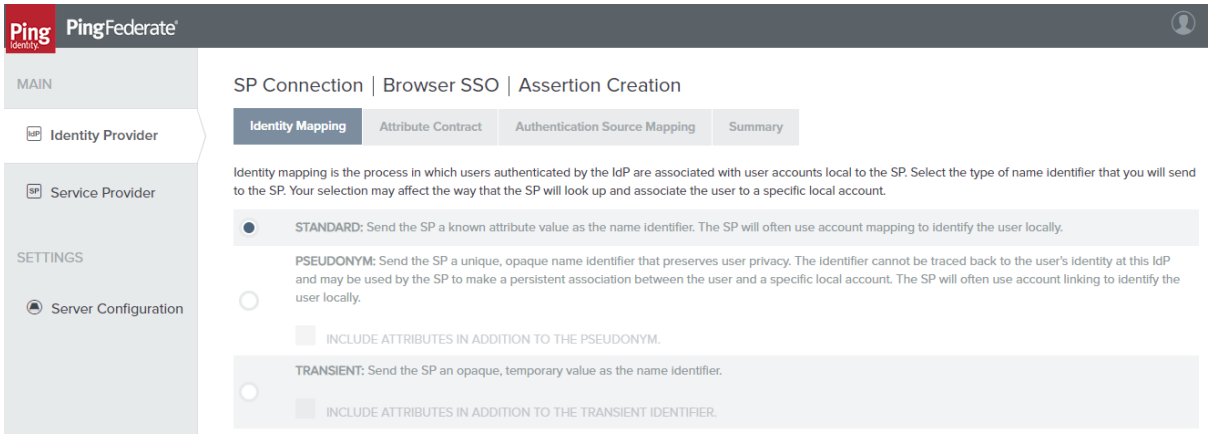
8. On the **SAML Profiles** tab, select **IDP-Initiated SSO** and **SP-Initiated SSO**. Click **Next**.



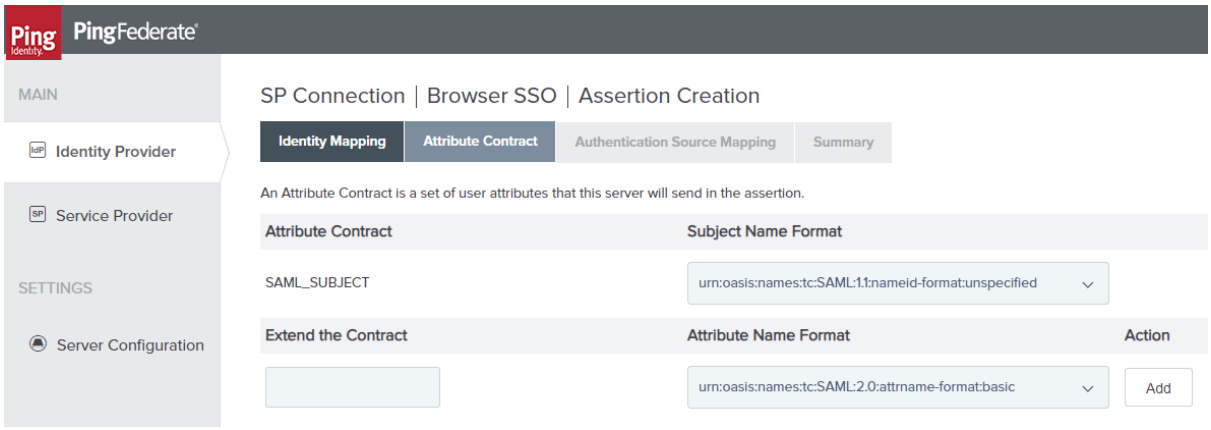
9. On the **Assertion Lifetime** tab, click **Next**.
10. On the **Assertion Creation** tab, click **Configure Assertion Creation**.



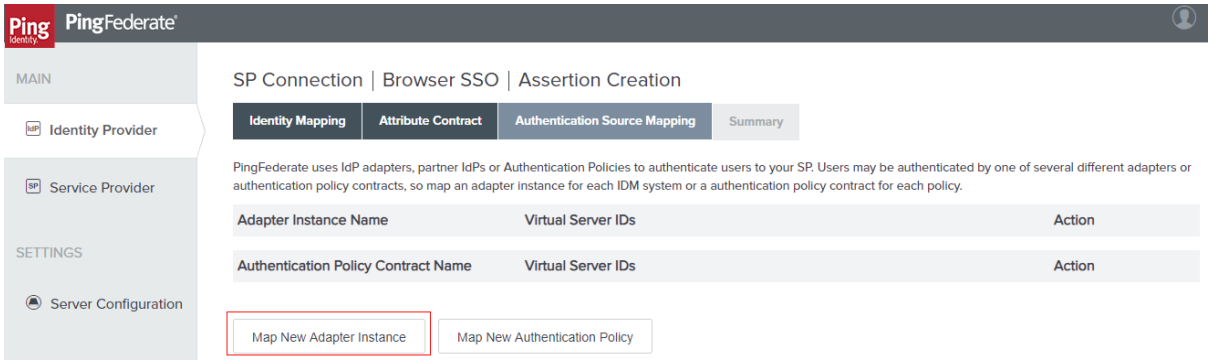
11. On the **Identity Mapping** tab, select **Standard** and click **Next**.



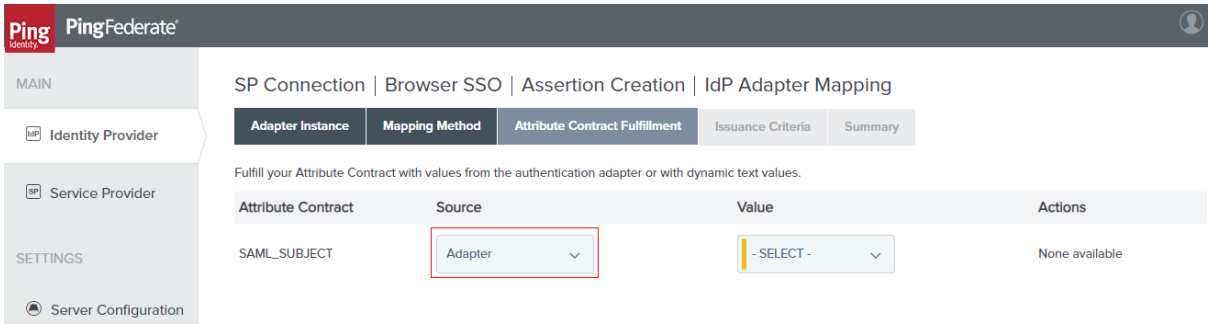
12. On **Attribute Contract** tab, extend the Contract and configure IDPEmail as urn:oasis:names:tc:SAML:2.0:attrname-format:basic and SAML_NAME_FORMAT as urn:oasis:names:tc:SAML:2.0:attrname-format:unspecified.



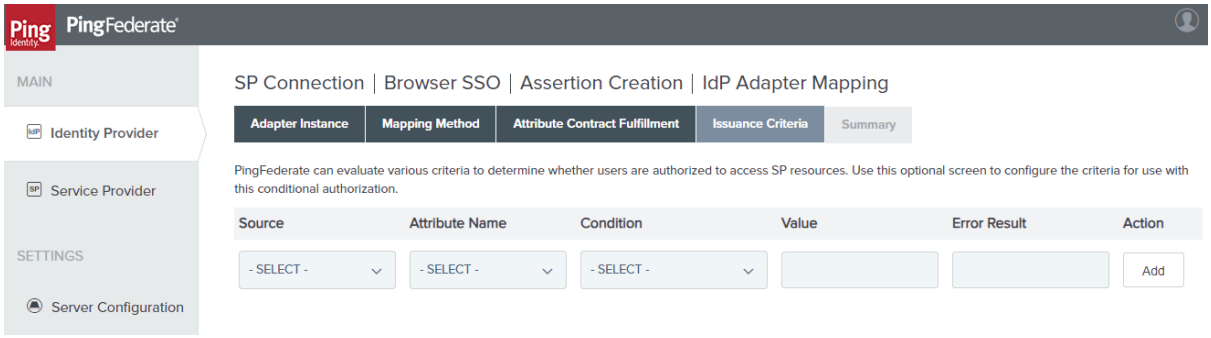
13. On **Authentication Source Mapping** page, click **Map New Adapter Instance** and select the **Adapter**.



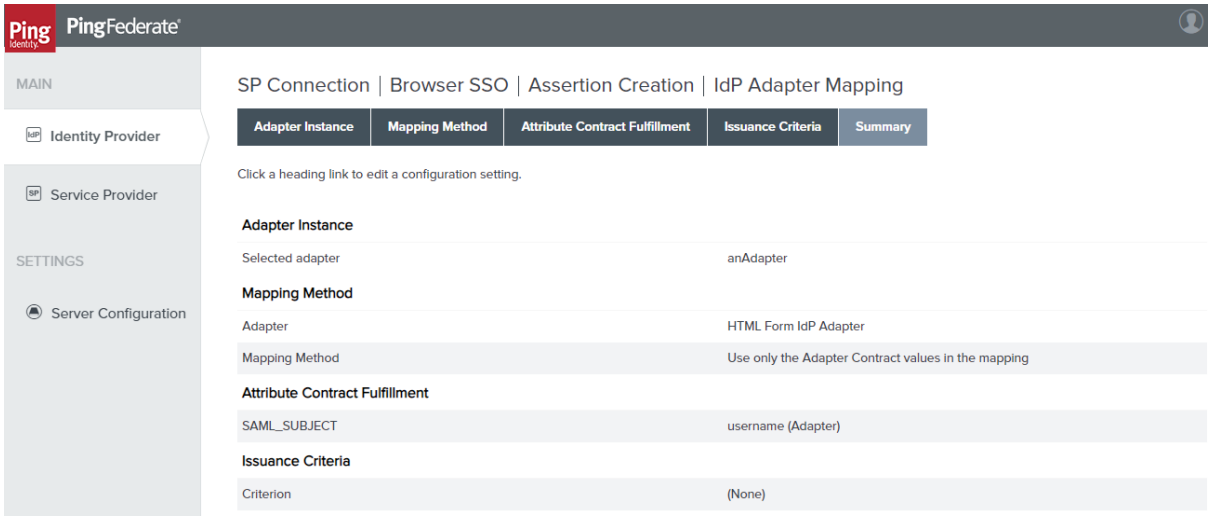
14. On **Mapping Method**, click **Next**.
15. Configure **Attribute Contract Fulfilment**. Select source as Adapter and choose username as value.



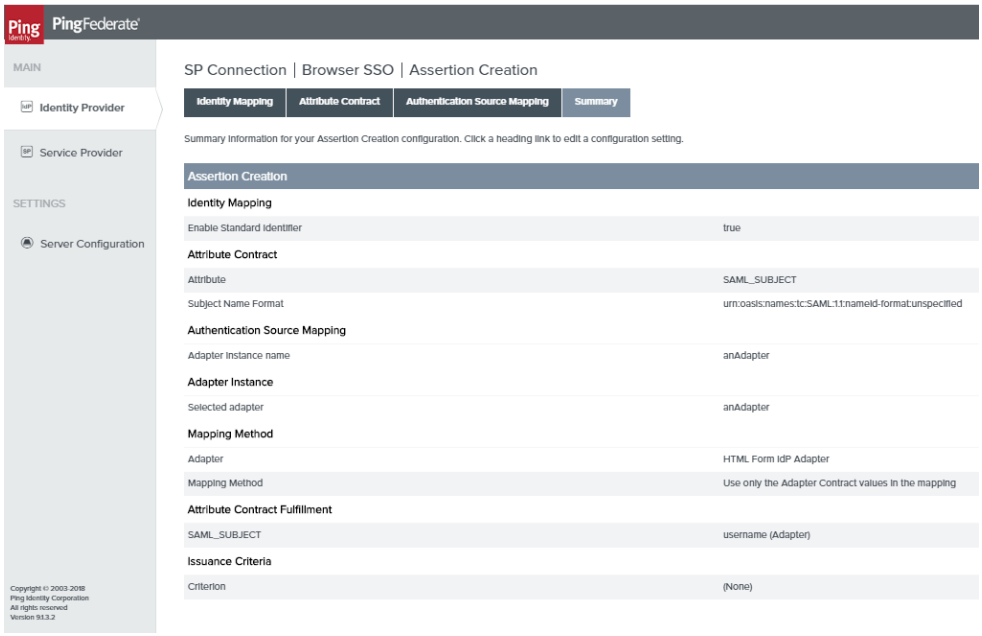
16. On **Issuance Criteria** page, click **Next**.



17. Review the summary and click **Done**. Return to **Authentication Source Mapping**. Ensure that the adapter is listed on the page.



18. Review the summary and click **Done**. Return to **Browser SSO**.



19. Under **Credentials**, click **Configure Credentials** and select the Signing Certificate for this connection.
20. Review the configuration and click **Save**. Ensure that the connection is marked as **Active**.