MobileIron Access Cookbook

Access with Office 365 and PingFederate

Revised: 01/02/2018

Contents

Overview

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 with Office 365 in a cloud environment.

Disclaimer:
This cookbook is informational to help with the setup flow and actual screenshots. The steps might vary in your deployment scenario due to changes in SP/IdP versions.

Prerequisites for Office 365

- Ensure to download the metadata files for Office 365 from https://nexus.microsoftonline-p.com/federationmetadata/saml20/federationmetadata.xml

Prerequisites for PingFederate

You must perform the following steps before you configure Office 365:

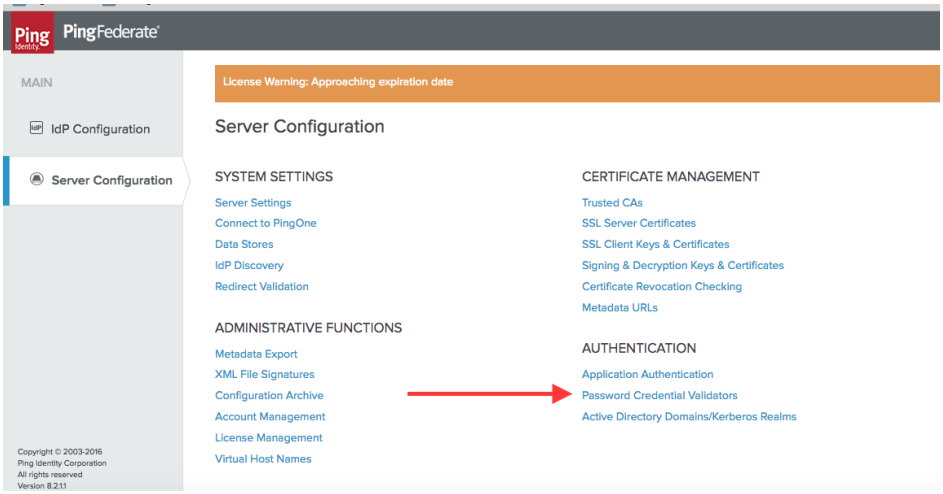
1. Create a Validator
2. Create an Adapter
3. Create a Signing Certificate
4. Add an LDAP Datastore

Create a Validator

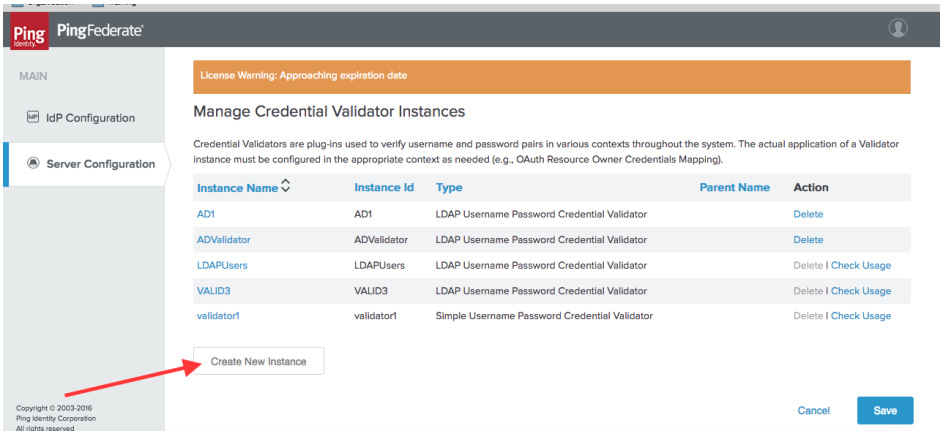
A validator authenticates the user. A user can authenticate in multiple ways with PingFederate such as AD authentication (sync users in AD), local user authentication (create local users in PingFederate), and so on.

Procedure

1. On the **Server Configuration** tab in PingFederate, click **Password Credential validator**.



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



3. Enter the following details for 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.

4. 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

5. Click **Next** > **Done**.

Task Result

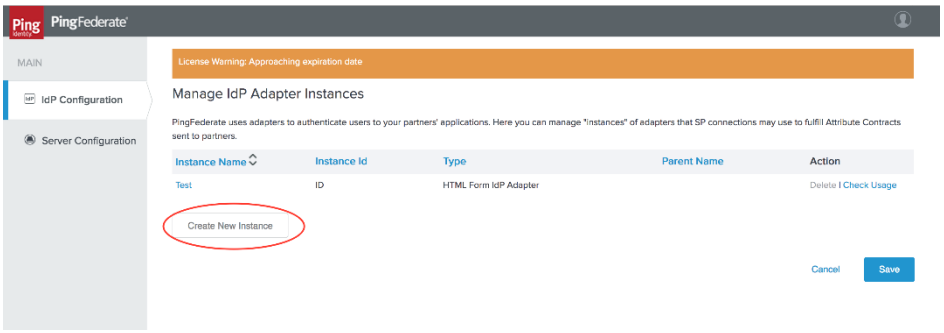
A validator is created. You must use this validator while creating federation data.

Create 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

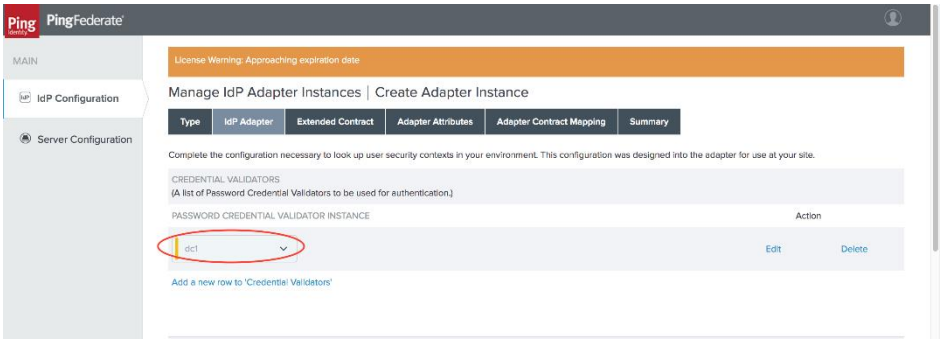
1. On **IDP Configuration** tab, click **Adapters** > **Create New Instance**.



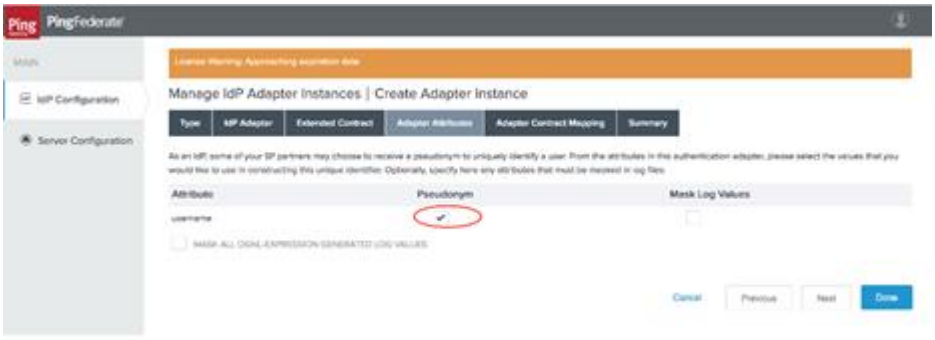
2. Enter the following details for the new instance and click **Next**.

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

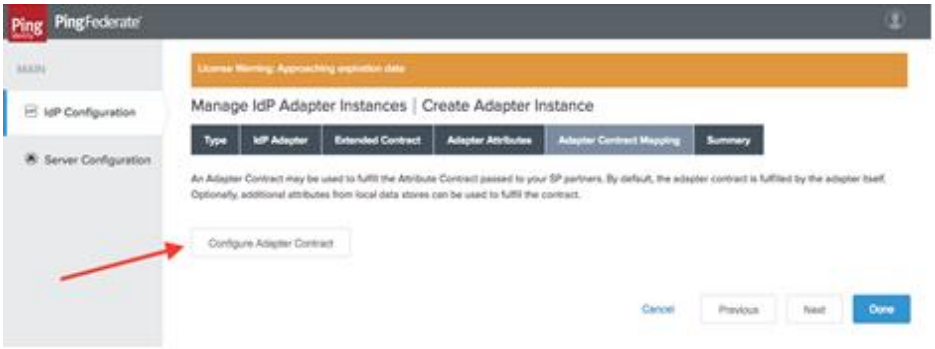
3. On the next screen, select the validator created using **Create a Validator** and click **Update**.



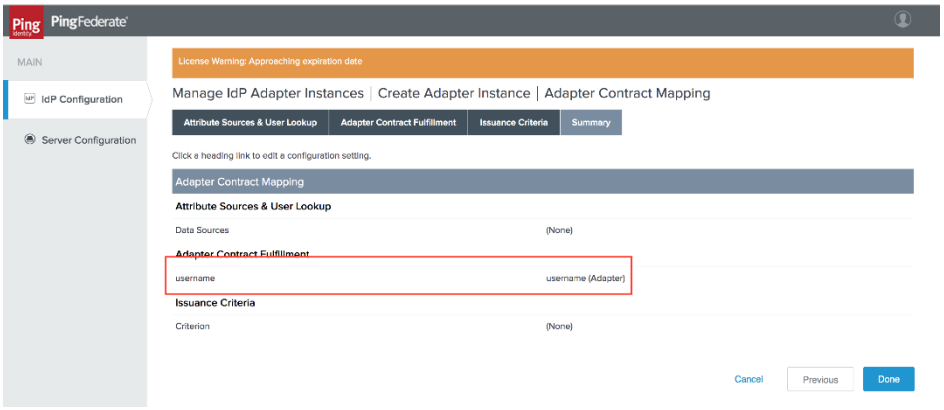
4. Click **Next** > **Next** and select **Pseudonym**. Click **Next**.



5. Click **Configure Adapter Contract**.



6. Click **Adapter Contract Fulfillment** and select **Source** as Adapter**.** Click **Next** > **Next** > **Done**.



Task Result

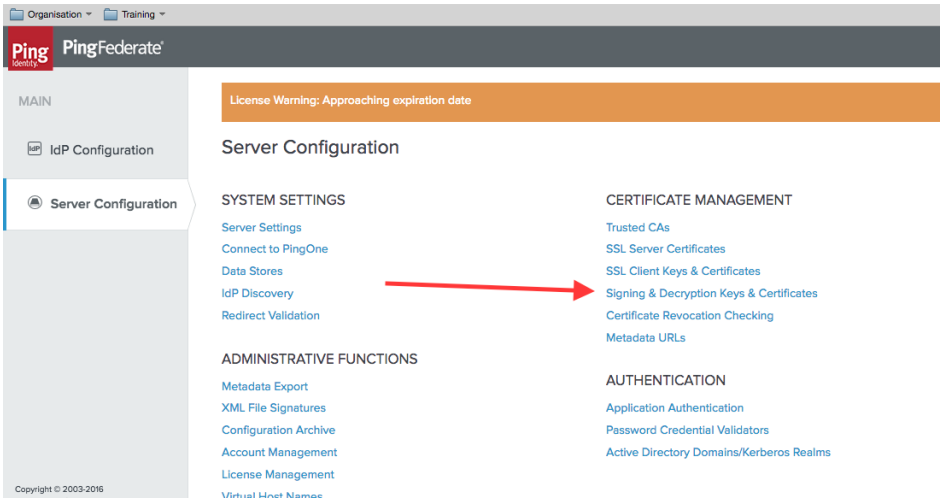
An adapter is created. You must use this adapter while creating the federation pair.

Create a Signing Certificate

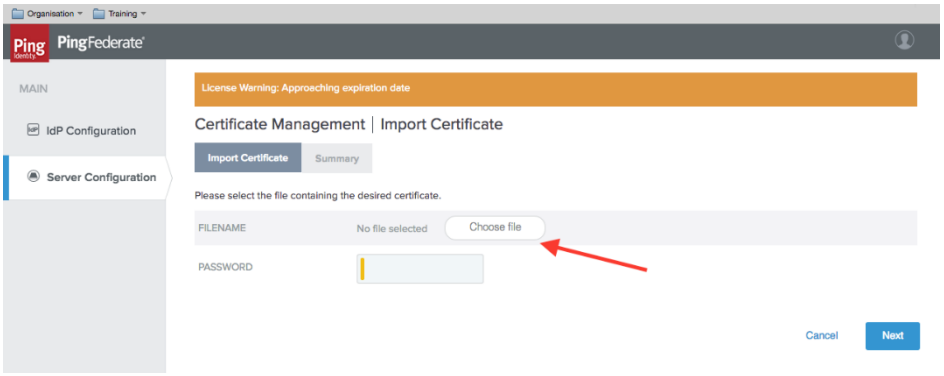
If you are using any self-signed certificate as a signing certificate, you must upload the same certificate to PingFederate such that the uploaded certificate is used as a signing certificate.

Procedure

1. On the **Server Configuration** tab, click **Signing & Decryption Keys & Certificates**.



2. Click **Import** if you already have signing certificates.
3. Click **Choose file** and browse to import the existing **p12 certificate**.
4. Enter the **Password** and click **Next**.



5. Click **Save**.

Task Result

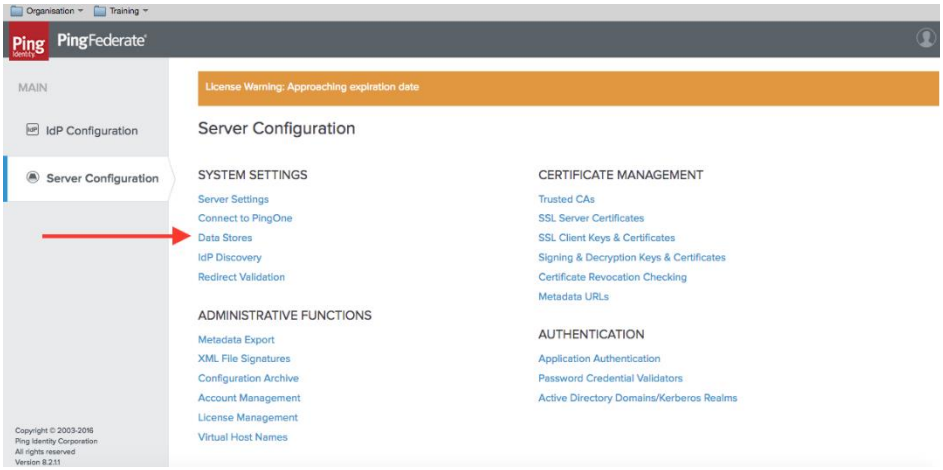
A signing certificate is created. You must use the same exported certificate while creating federation pairs in Access.

Add an LDAP Datastore

PingFederate lets you add an existing LDAP Datastore.

Procedure

1. On the **Server Configuration** tab, click **Data Stores**.



2. Click **Add Data Store**.
3. 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

Task Result

An LDAP Datastore is added. The same data store is referred to in **Create a Validator**.

Configuring Office 365 and PingFederate with MobileIron Access

You must perform the following tasks to configure Office 365 and PingFederate with MobileIron Access:

- Register Sentry to Access
- Configure Access to create a Federated Pair
- Configure the Office 365 environment
- Configure PingFederate environment

Register Sentry to Access

You must register Sentry to Access to fetch the latest configuration from Access.

Prerequisite

Verify that you have registered Sentry earlier. If so, then do not perform this step.

Procedure

1. **Clish** Sentry. In the configuration mode, execute the following command for registration.
   (config)#accs registration https:/<FQDN of Access server><Admin Username of Access Server>
2. Enter the **Tenant password** and complete the registration.
3. In **Access**, click the **Sentry** tab.
4. Select the appropriate Sentry instance, then click **Action** > **Assign**.
5. Click **OK**.
6. **Clish** Sentry and execute the following command in configuration mode to fetch the latest configuration from Access immediately:

   (config)# accs config-fetch update

   Note: All the published configuration changes are fetched by Sentry assigned to the profile in fifteen minutes. However, if you want to see the changes immediately, then perform Step 6.

Configure Access to create a Federated Pair

You must configure Access to create a Federated Pair. For this, you must create a service provider and then associate the identity provider with Access.

Procedure

1. Log in to **Access**.
2. Click **Profiles** > **Get Started**.

3. Enter Access host information and upload the **ACCESS SSL certificate**. All other fields are set to default. Click **Save**.
4. On the **Federated Pairs** tab, click **Add** and select **Office 365** as the service provider.
5. Enter the following details:
    a. Name
    b. Description
    c. Upload the SPProxy Certificate
    d. Select **WS Trust 13** in Office 365 specifics
    e. Enter value for Federated Domain
    f. Enter the original IdP Active Logon URL
    g. Upload the metadata file of service provider downloaded from https://nexus.microsoftonline-p.com/federationmetadata/saml20/federationmetadata.xml
6. Click **Next**.
7. Select **PingFederate** as the Identity provider. Click **Next**.
8. Upload the **IdP certificate** and the **IdP metadata file** download. Click **Done**.
9. Download the **ACCESS SP Proxy** and the **ACCESS IDP Proxy** metadata file.
10. On the **Profile** tab, click **Publish** to publish the profile.

Task Result

The Federated Pair is created.

Configure the Office 365 environment

You must configure Office 365 to use Access.

1. Open Powershell and enter the following command:
   Note: Run the PowerShell script in a Windows server as Administrator.

   Connect-MsolService

   Note: Download the PowerShell script from MobileIron Access for Office 365 and PingFederate federated pair to avoid manual editing.

2. Fetch the existing settings by executing the following command:

   saml= Get-MsolDomainFederationSettings -DomainName example.com

3. Edit the settings for the following components:

   - **ActiveLogOnUri** - saml.ActiveLogOnUri= https://<Alternate fqdn of sentry>/MobileIron/acc/17db9e36-4688-40ae-a981-15c8b81e76a7/idp

   - **IssuerUri** - saml.IssuerUri=https://<Alternate fqdn of sentry>/MobileIron/acc/17db9e36-4688-40ae-a981-15c8b81e76a7/idp

   - **LogOffUri** - saml.LogOffUri=https://<Alternate fqdn of sentry>/MobileIron/acc/17db9e36-4688-40ae-a981-15c8b81e76a7/idp/logout

   - **PassiveLogonUri** - saml.PassiveLogOnUri=https://<Alternate fqdn of sentry>/MobileIron/acc/17db9e36-4688-40ae-a981-15c8b81e76a7/idp

4. PS C:\Users\Administrator\Documents> Get-MsolDomainFederationSettings -DomainName |fl

Field	**Value**
ActiveLogOnUri	https://<Alternate fqdn of sentry>/MobileIron/acc/17db9e36-4688-40ae-a981-15c8b81e76a7/idp
DefaultInteractiveAuthenticationMethod	
FederationBrandName	Company Name
IssuerUri	https://<Alternate fqdn of sentry>/MobileIron/acc/17db9e36-4688-40ae-a981-15c8b81e76a7/idp
LogOffUri	https://<Alternate fqdn of sentry>/MobileIron/acc/17db9e36-4688-40ae-a981-15c8b81e76a7/idp
MetadataExchangeUri	
NextSigningCertificate	
OpenIdConnectDiscoveryEndpoint	
PassiveLogOnUri	https://<Alternate FQDN of sentry>/MobileIron/acc/17db9e36-4688-40ae-a981-15c8b81e76a7/idp
SigningCertificate	MIIDCjCCAfKgAwIBAgIGAVffQk9kMA0GCSqGSIb3DQEBCwUAMEYxCzAJBgNVBAYTAlVTMQswCQYDVQQIEwJDQTEWMBQGA1UEChMNbWlzZW50cnkyLmNvbTESMBAGA1UEAxMJTUlTRU5UUlkyMB4XDTE2MTAxOTIzMjQwN1oXDTE3MTAxOTIzMjQwN1owRjELMAkGA1UEBhMCVVMxCzAJBgNVBAgTAkNBMRYwFAYDVQQKEw1taXNlbnRyeTI

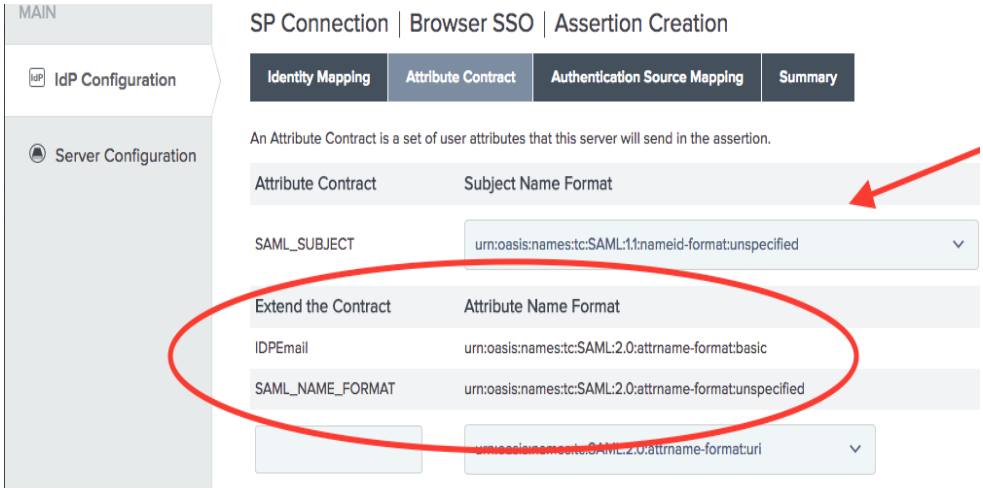
	uY29tMRIwEAYDVQQDEwlNSVNFTlRSWTIwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQCygNhcR9CH1OPFSyKBV/patqgmUemK6Lg9AeaHVFIi2cEdGRCIfHsYIpbJ2WISIT7Nrms48+z5abBwhSLoIjFHj0IT44UZP4JhHrG1frl6gkyNXgMVaSC8w8UNlfroEaOKqkt2bnLYIfPH/8gCupnb1SZQMhPbvjXWeROb3tEMCd5k017DuCfrcj59h4xekUiy2tShL+O/JQ+CtE3hyh+12+YfTbPw4tJrdJdUaN2wQ8r/EMJkQdaIm8WALcgszGfWBjPr/b9jXXBL0GVXD4jtTuLZECMOIXFs6mkLeV1GJDUHtyt6rGUJ3FFbJjSj6meEoklZEya1VKyH7oc2WjjtAgMBAAEwDQYJKoZIhvcNAQELBQADggEBAJBgL5lXjFEW1y0hj2e4IWXK0hMCPu+8Q0VHWAZ9XH+h9cDL1TWUmcfqrif5Em6KfOLP0vggGyvtGLpijyyd7eHBPTcNB9Ez+Tf/O62lKKVuIaK6F5hpFrQSuqvjf9/UxM4NYIIGpU8M5q64Qqf8FQcIksysNv7P1bTX+aDOq9NYhFkP6eety3uckv+hCQk4ix1MrDFKe17ZXHeJGadWxgfrnUSkTj6jY8PGwVAw9SmxS/NQ2SIOtzR4MSPGZUfI7EZToaIKFHWX2kTCRfw+AafB8rFhP1KObgMA9xuFNFXjcAMuHChXJJvav1VjsCcrs9j0mu7QhwtjZ2iNAg5CWZME=
SupportsMfa	False

Configure PingFederate environment

You must configure PingFederate with Access for the setup to complete.

Procedure

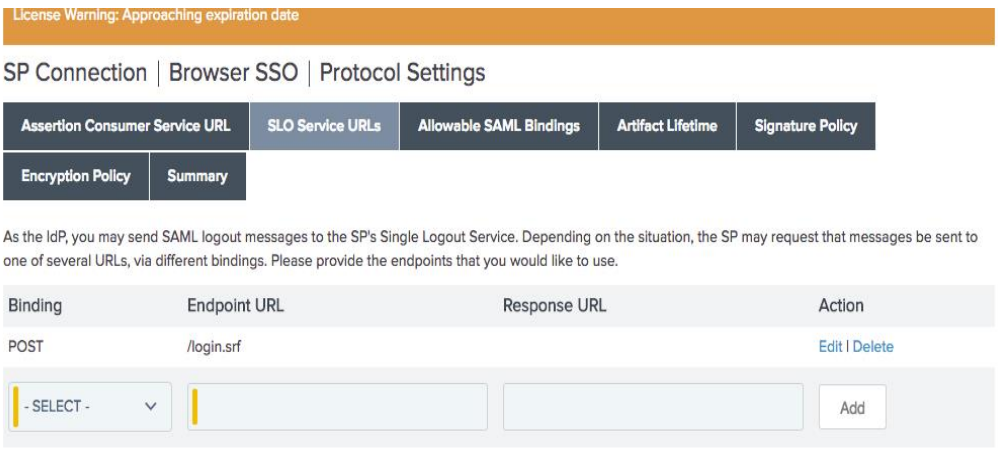
1. Login to **PingFederate** admin portal and click **Create New** to create a new connection in PingFederate.
2. Select **Browser SSO Profiles** (SAML 2.0 is selected by default) as the connection type and click **Next**.
3. Select **Browser SSO** as the connection option and click **Next**.
4. Select **File** to import metadata and click **Choose File**. Upload the Office 365 metadata file that you downloaded.
5. On the **Metadata URL** tab, select **File to import metadata** and select the file.
6. Upload the **Access SP Metadata (Upload to IDP)** file which is downloaded when Configure Access to create a Federated Pair and click **Next**.
7. On the **General Info** tab, click **Next**.
8. On the **Browser SSO** tab, click **Configure Browser SSO**.
    a. On the **SAML Profiles** tab, select **IDP-Initiated SSO** and **SP-Initiated SSO**. Click **Next**.
    b. On the **Assertion Lifetime** tab, Click **Next**.
    c. On the **Assertion Creation** tab, click **Configure Assertion**.
        - On the **Identity Mapping** tab, select **Standard** and click **Next**.
        - On the **Attribute Contract** tab, select the SAML_Subject, IDPEmail, SAML_NAME_FORMAT as follows and click **Next**.



- On the **Authentication Source Mapping** tab, Click **Map New Adapter Instance.**
    1. Select **HTTPForm** from the **Adapter Instance** drop-down and click **Next**.
    2. On the **Mapping Method** tab, click **Next**.
    3. On the **Attribute Contract Fulfillment** tab, select the following attributes and click **Next**.
        - Source – Adapter
        - Value – username for SAML_SUBJECT under attribute contract filling
    4. On the **Issuance Criteria** tab, click **Next**.
    5. On the **Summary** tab, click **Save**. **Assertion Creation** is complete.

d. On the **Protocol Settings** tab, click **Configure Protocol Settings**.
    - On the **Assertion Consumer Service URL** tab, select **POST** as the **Binding** method and the **Endpoint URL** as your Office 365.

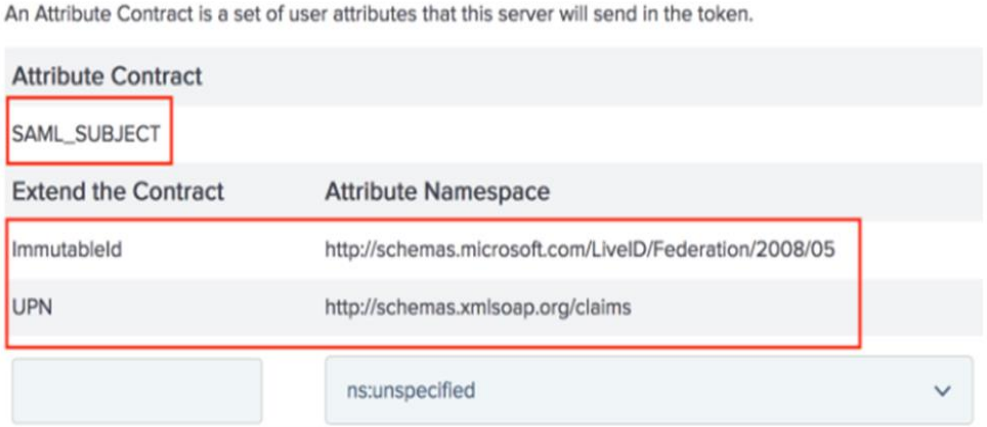
e. On the **SLO Service URLs** tab, select the endpoint URL.



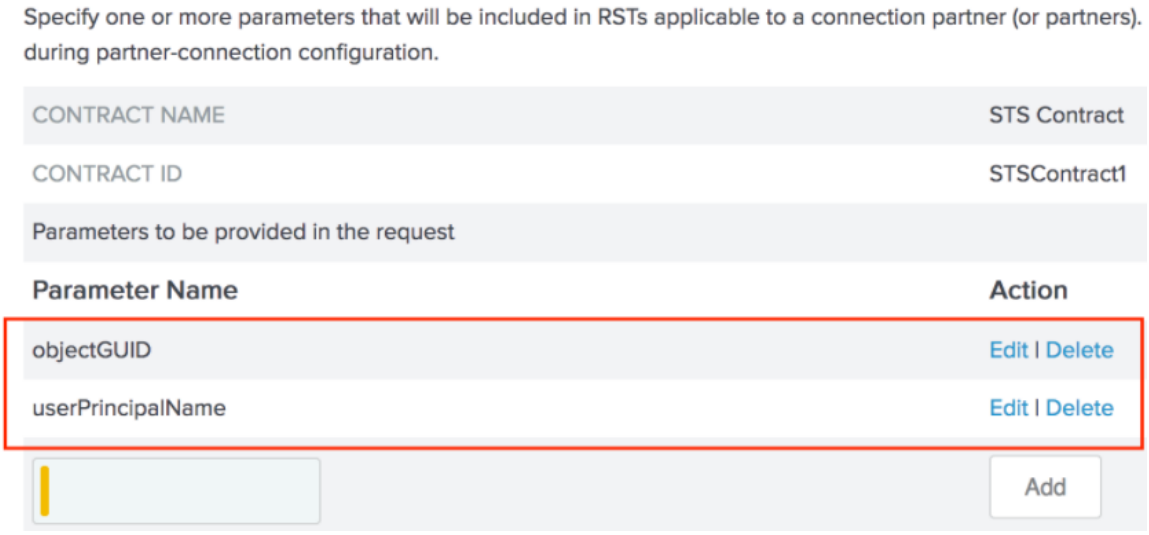
f. On **Allowable SAML Bindings** tab, select **POST** and **REDIRECT** as the allowable bindings, and click **Next**.

g. On the **Signature Policy** tab, select both the check-boxes and click **Next**.

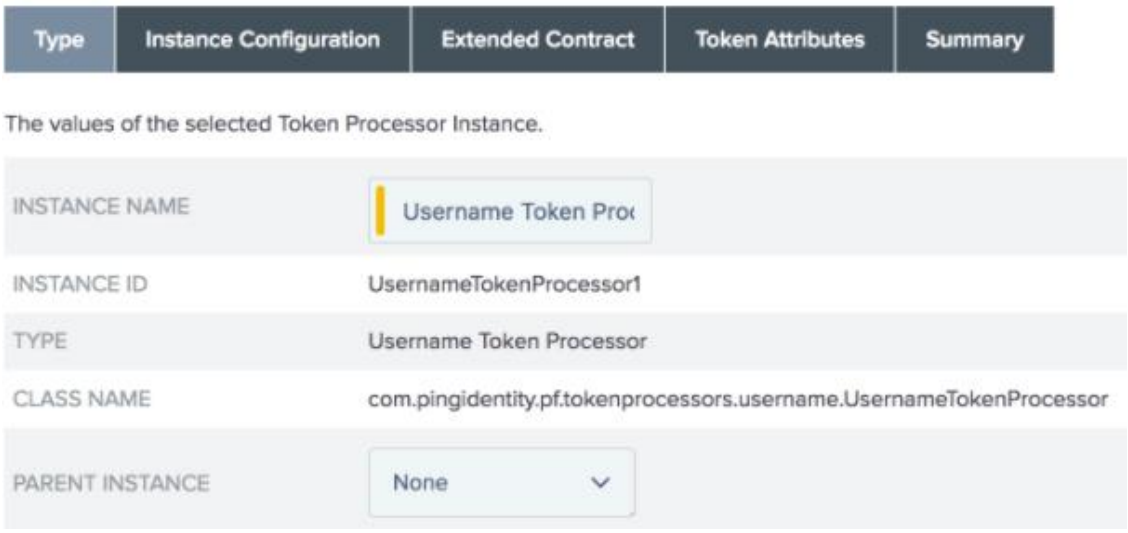
h. On the **Encryption Policy** tab, select **NONE**. Click **Next.**
i. On **WS-Trust STS Policy** tab, click Configure WS-Trust STS.
   - On the **Protocol Settings** tab, configure the **Service Identifier**. Extract the information from Access SP Metadata (Upload to IDP) file which is the Entity ID. Click **Next**.
   - Configure **Token lifetime** timeframe with 5 minutes before and 30 minutes after issuance.
   - On **Token Creation** tab, click **Configure Token Creation**. On the **Attribute Contract** tab, enter the below details:



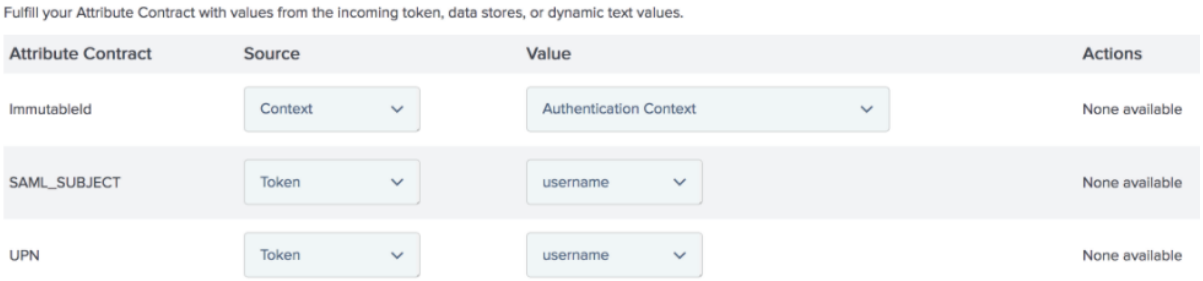
   - On the **Request Contract** tab, click **Manage STS Request Parameters**.
   - Click **Add New Request Contract** and enter the details for **Contract Name** and **ID** as below.



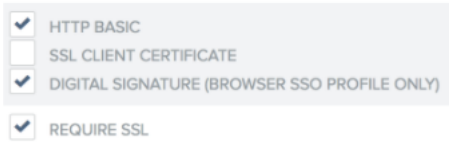
   - Click **Done** > **Save** > **Next**.
   - On **IDP Token Processor Mapping**, click **Map New Token Processor Instance** > **Manage Token Processor Instance** > **Create New Instance**. Configure the settings as below and click **Next**.



- Configure the **Password Credential Validator** and click **Next**.
- Configure the **Extended Contract** and click **Next**.
- Configure **Token Attributes** and click **Next**. Click **Save** > **Next**.
- Configure **Attribute Retrieval** by selecting "Use only the token processor contract values in the outgoing token" option.
- Configure **Attribute Contract Fulfillment** as show below



- Click **Next** > **Save** > **Done** > **Done** > **Next** > **Done**.
- Click **Configure Credentials** > **Back Channel Authentication**.
- Configure the **Inbound Authentication Type** and click **Next**.



- Configure **Basic Authentication** (Inbound) an enter the username and password. Click **Next** > **Done** > **Next**.
- Configure **Digital Signature Settings** and select the **Signing Certificate** and the **Signing Algorithm**. Click **Next**.
- Click **Signature Verification** > and configure the **Trust Model**. Select **Unanchored** option.
- Configure **Signature Verification Certificate** from the **Certificate** dropbox.

- Click **Next** > **Done** > **Next** > **Done**.

9. On the **Activation & Summary** tab, select **Active** to activate the profile. Click **Save**.

Task Result

PingFederate and Office 365 setup with Access is complete.

Verification

Login to https://login.microsoftonline.com. You are now redirected from IdP Proxy to PingFederate.