PingFederate IIS INTEGRATION KIT (OPENTOKEN AGENT) for an IIS Application

https://docs.pingidentity.com/bundle/integrations/page/tok1563995020974.html#

https://docs.pingidentity.com/bundle/pingfederate-iis-ik/page/rze1563995020861.html

https://docs.pingidentity.com/bundle/pingfederate-iis-ik/page/gaj1563995020916.html

An application that does not support SAML and you want to enable SSO for it.

SSO enabling for your application means that you are offloading authentication to an external third party.

The objective of SSO is that the IDP authenticates who the user is. It may authenticate the user directly or leverage another system (such as Kerberos or other form based authn).

The IDP then generates a verifiable security token that contains a unique identifier for the user: a digitally signed SAML assertion is an example.

The SAML assertion is sent to a Service Provider (SP), that can validate the integrity and trust of the SAML Assertion. Upon doing so, the SP now knows the unique identifier of the user (e.g. their email address) and can trust this information.

The next objective is to get this unique identifier (and any other attributes of interest) to your web server in a secure and verifiable manner. For this you have chosen to use the IIS Integration kit.

The IIS Integration Kit allows the PingFederate Service Provider to generate a secure token (an Opentoken token) and send it to IIS.

IIS can verify the integrity and trust of the token, and upon doing so will have access to the user's identity information.

IIS then needs to convey this identity information to your web application in a secure manner.

For this, it chooses to inject additional HTTP headers into the request being sent to your web application.

Your web application needs to be modified to support this SSO integration.

If your web application does not have an existing session for the user, it should inspect the headers of the incoming request. If it locates the trusted identity headers, then it should use them directly. It doesn't need to present a login form, it just needs to read the information within the headers, trust it automatically, and simply log the person in.

OpenToken Adapter

In order to transfer identity and other user information between the PingFederate® server and an end application, the product architecture allows for custom adapters to be deployed with the server.

PingFederate ships with a deployed OpenToken Adapter, which uses a secure token format (OpenToken) to transfer user attributes between an application and the PingFederate server.

On the IdP side, the OpenToken Adapter allows the PingFederate server to receive a user's identity from the IdP application.

For SAML connections, the IdP application has the option to provide an authentication context to the SP by including the authnContext attribute with the desired value in the secure token. Standard URIs are defined in the SAML specifications (see the OASIS documents oasis-sstc-saml-core-1.1.pdf and saml-authn-context-2.0-os.pdf).

If the secure token does not contain the authnContext attribute, PingFederate sets the authentication context as follows:

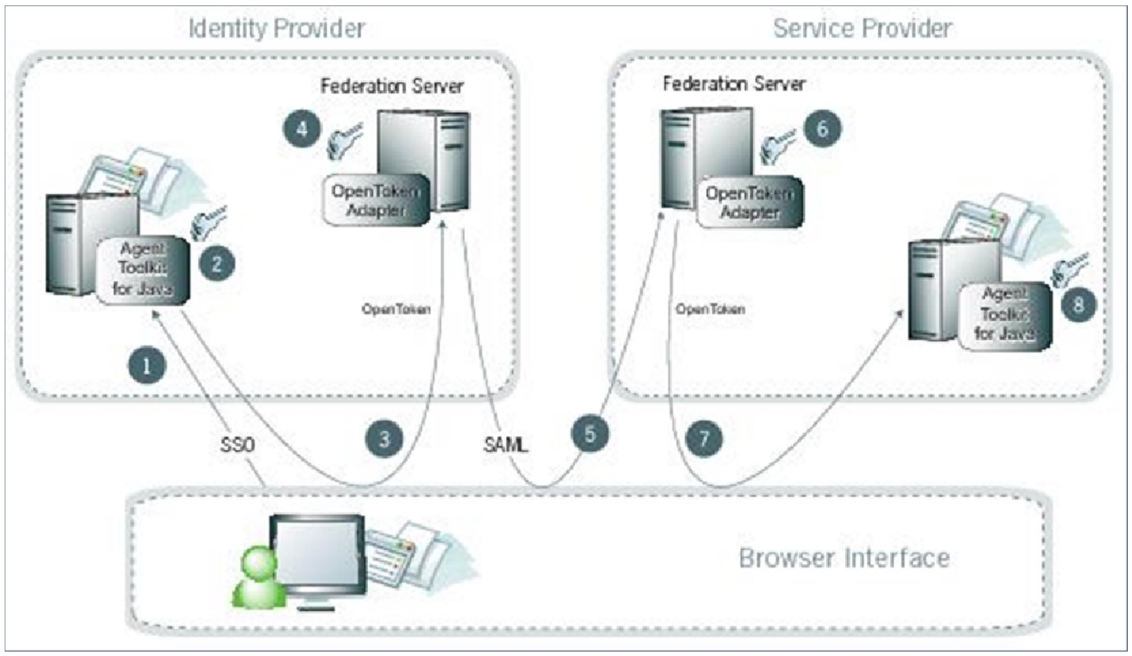
urn:oasis:names:tc:SAML:1.0:am:unspecified for SAML 1.x

urn:oasis:names:tc:SAML:2.0:ac:classes:unspecified for SAML 2.0

As needed, the authentication context can be overridden by either an instance of the Requested AuthN Context Authentication Selector or the SAML_AUTHN_CTX attribute in the SAML attribute contract. (The latter takes precedence.)

On the SP side, the OpenToken Adapter can be used to transfer user-identity information to the target SP application.

Specialized application integration kits are available from the Ping Identity Downloads website. Many kits leverage the OpenToken Adapter to integrate applications with the PingFederate server. The agent portions of the integration kits reside with the application and use the OpenToken to communicate with the OpenToken Adapter.



Processing steps

A user initiates an SSO transaction.

The IdP application inserts attributes into the Agent Toolkit for Java, which encrypts the data internally and generates an OpenToken.

A request containing the OpenToken is redirected to the PingFederate IdP server.

The server invokes the OpenToken IdP Adapter, which retrieves the OpenToken, decrypts, parses, and passes it to the PingFederate IdP server. The PingFederate IdP server then generates a Security Assertion Markup Language (SAML) assertion.

The SAML assertion is sent to the SP site.

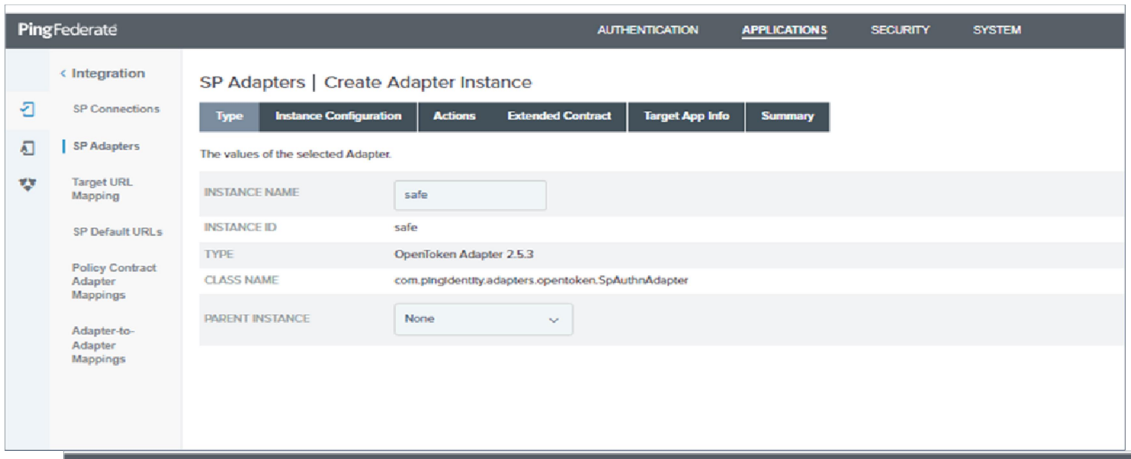
The PingFederate SP server parses the SAML assertion and passes the user attributes to the OpenToken SP Adapter. The Adapter encrypts the data internally and generates an OpenToken.

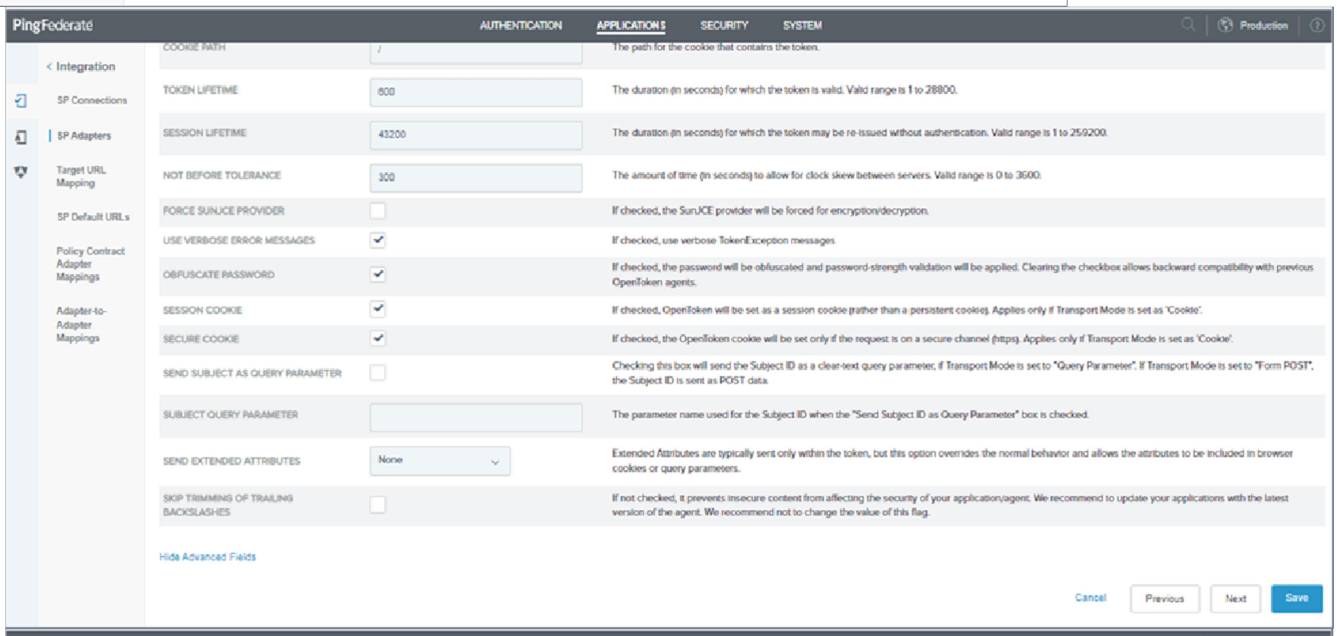
A request containing the OpenToken is redirected to the SP application.

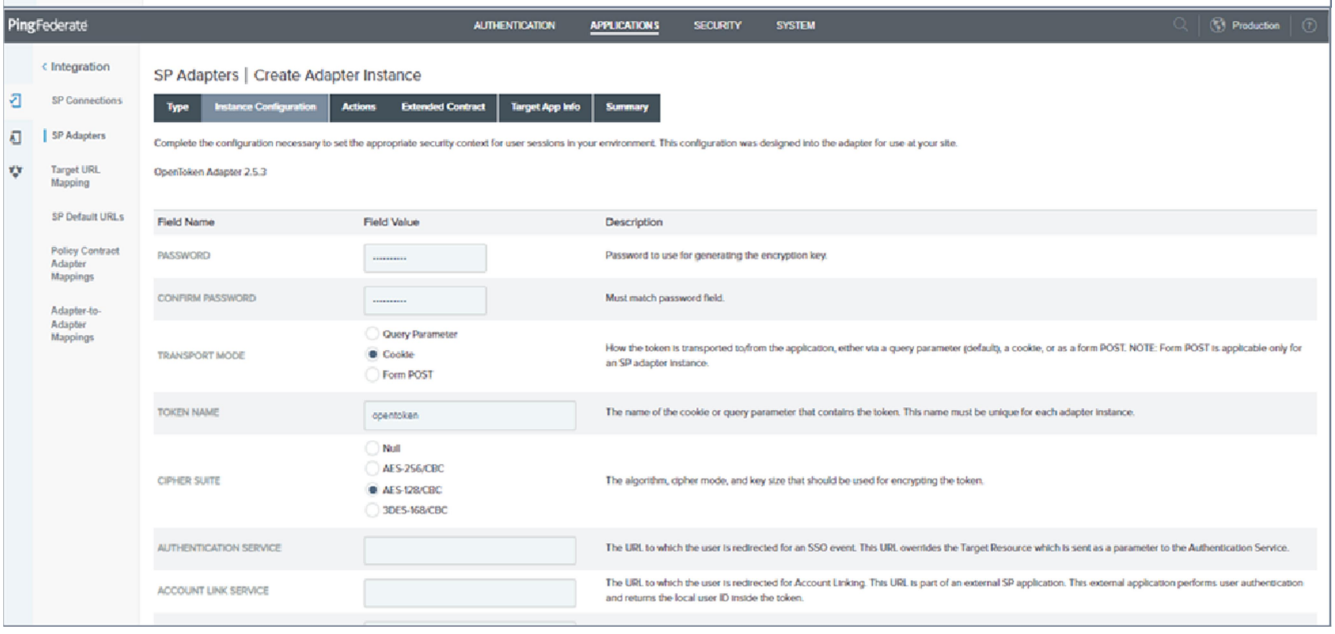
The Agent Toolkit for Java decrypts and parses the OpenToken and makes the attributes available to the SP Application.

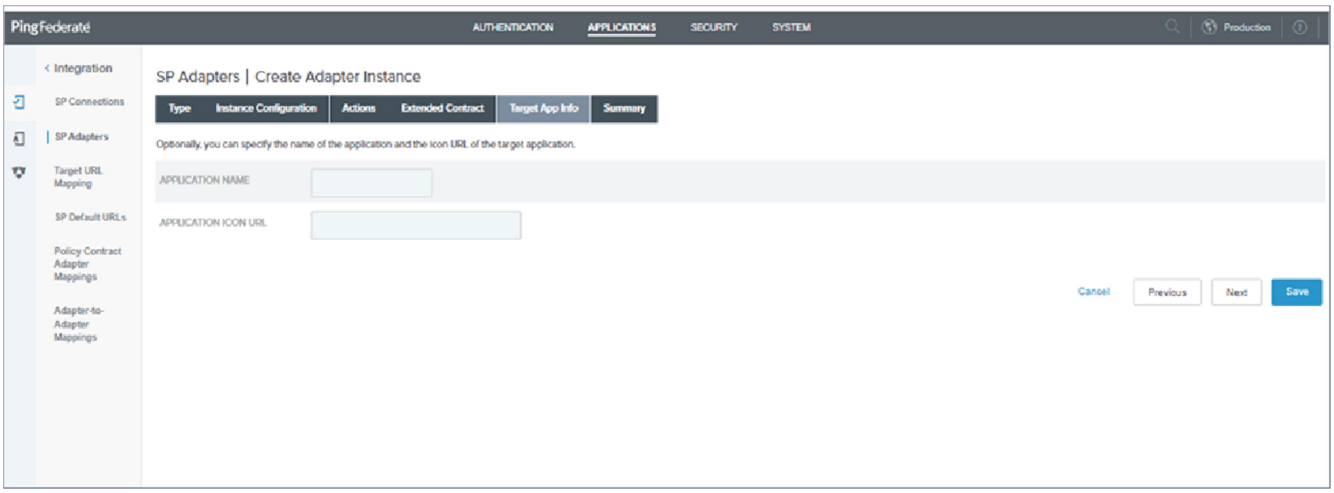
SSO configuration at PingFederate end

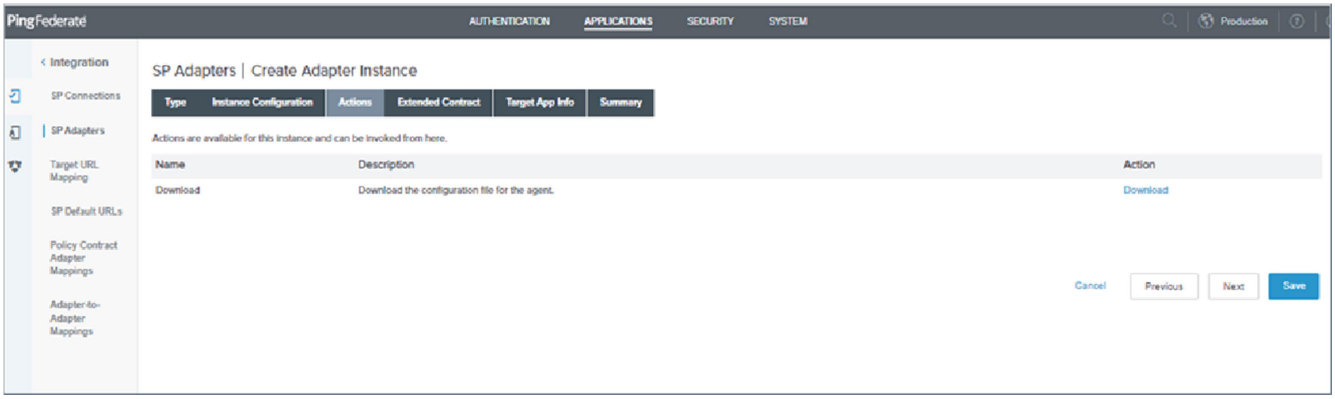
Creating a SP Adapter of Type OpenToken Adapter 2.5

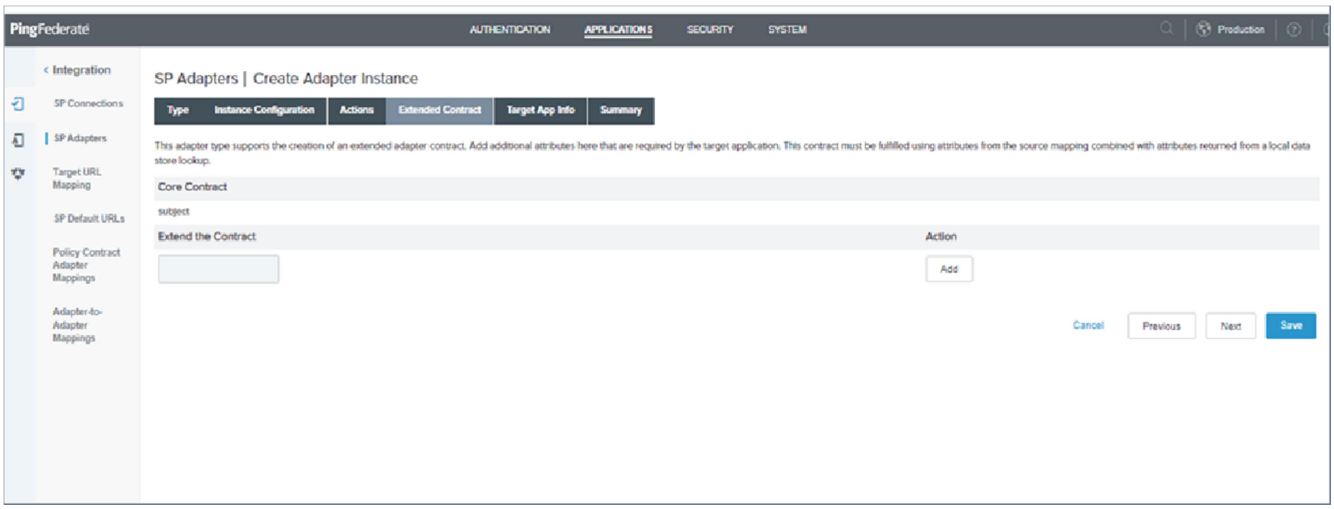






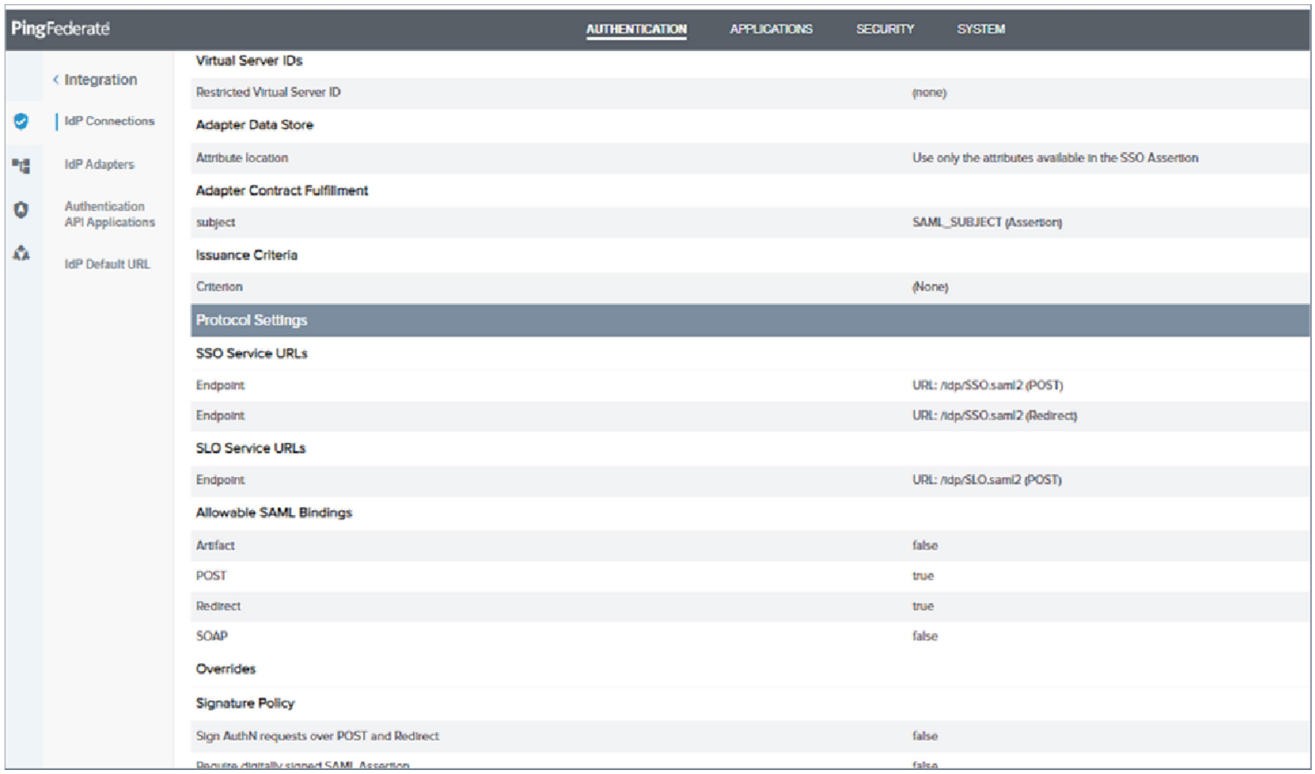

PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Production
Integration
SP Connections
SP Adapters
Target URL Mapping
SP Default URLs
Policy Contract Adapter Mappings
Adapter-to-Adapter Mappings
SP Adapters | Create Adapter Instance
Type
Instance Configuration
Actions
Extended Contract
Target App Info
Summary
Optionally, you can specify the name of the application and the icon URL of the target application.
APPLICATION NAME
APPLICATION ICON URL
Cancel
Previous
Next
Save

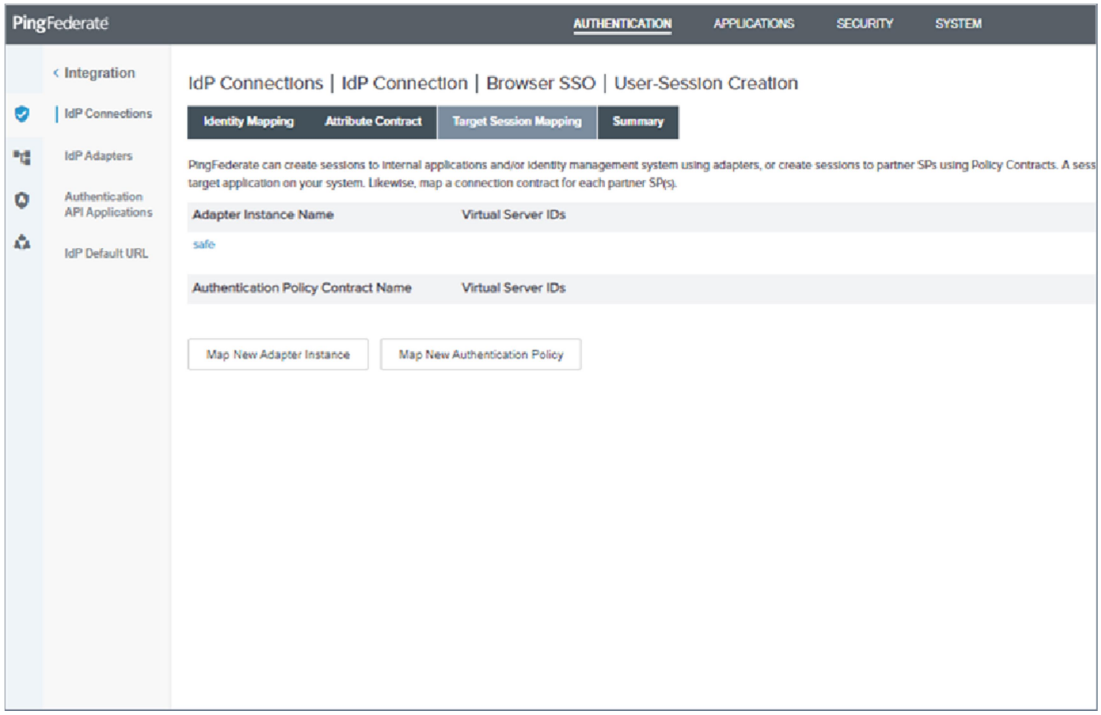

PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Production
Integration
SP Connections
SP Adapters
Target URL Mapping
SP Default URLs
Policy Contract Adapter Mappings
Adapter-to-Adapter Mappings
SP Adapters | Create Adapter Instance
Type
Instance Configuration
Actions
Extended Contract
Target App Info
Summary
Actions are available for this instance and can be invoked from here.
Name
Description
Action
Download
Download the configuration file for the agent.
Download
Cancel
Previous
Next
Save

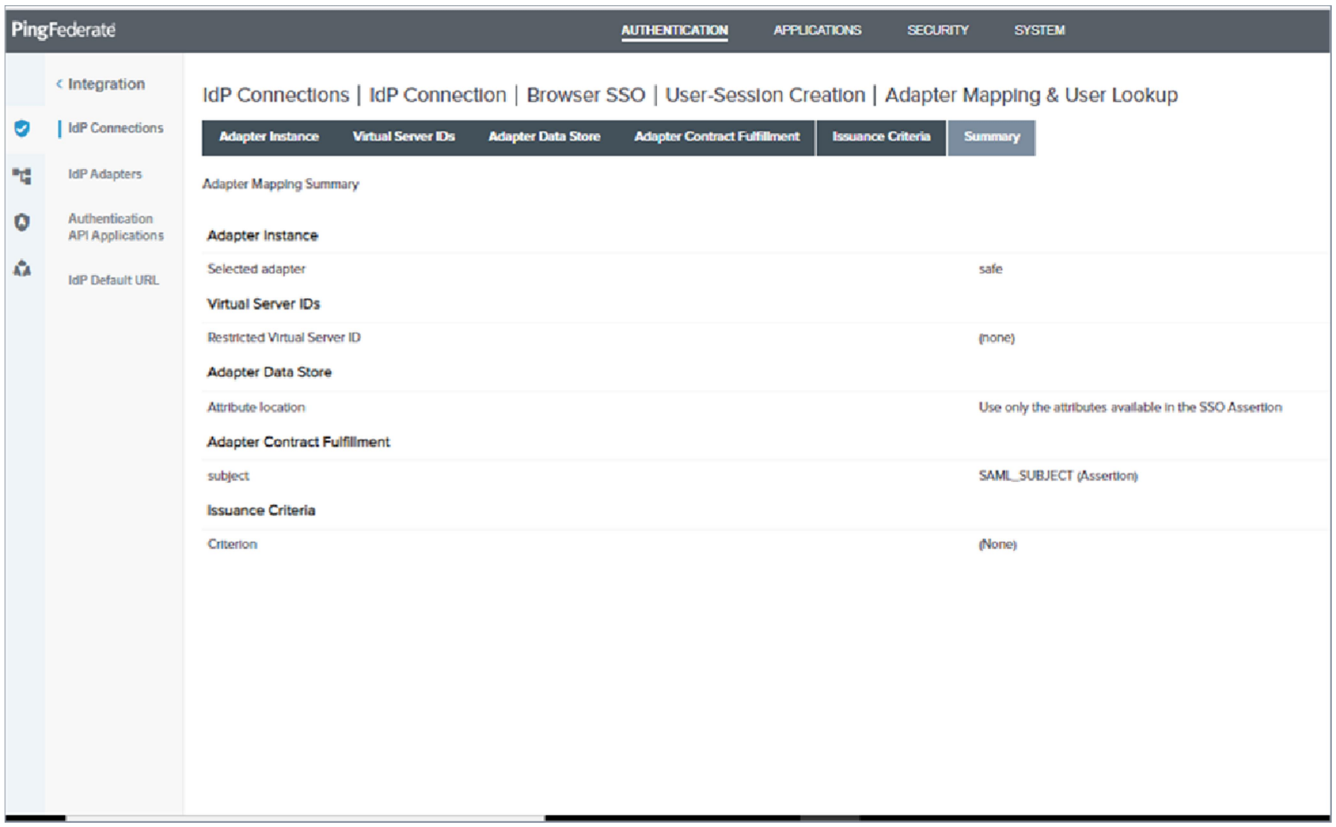

PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Production
Integration
SP Connections
SP Adapters
Target URL Mapping
SP Default URLs
Policy Contract Adapter Mappings
Adapter-to-Adapter Mappings
SP Adapters | Create Adapter Instance
Type
Instance Configuration
Actions
Extended Contract
Target App Info
Summary
This adapter type supports the creation of an extended adapter contract. Add additional attributes here that are required by the target application. This contract must be fulfilled using attributes from the source mapping combined with attributes returned from a local data store lookup.
Core Contract
subject
Extend the Contract
Action
Add
Cancel
Previous
Next
Save

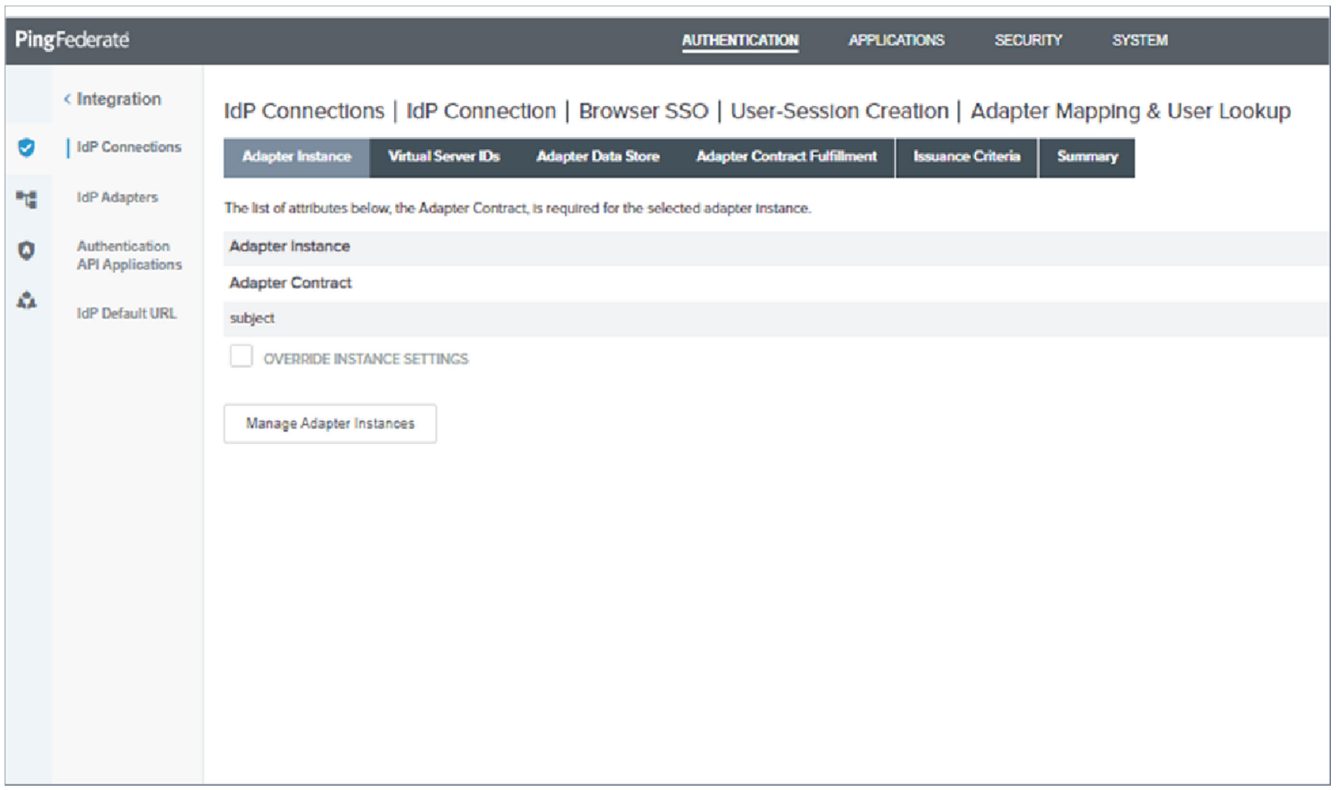
Add the Application URL in Target URL mapping

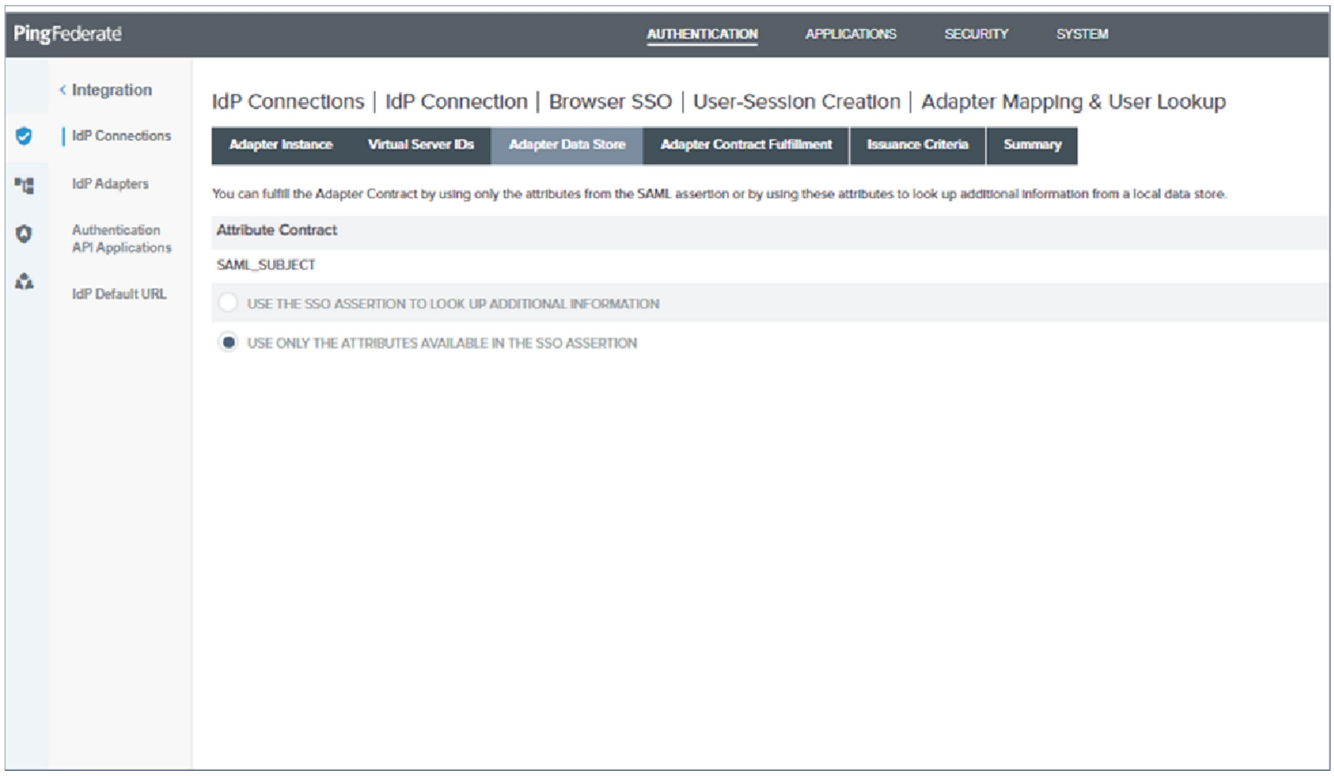
Creating a IDP Connection where PingFederate acting as a Service Provider

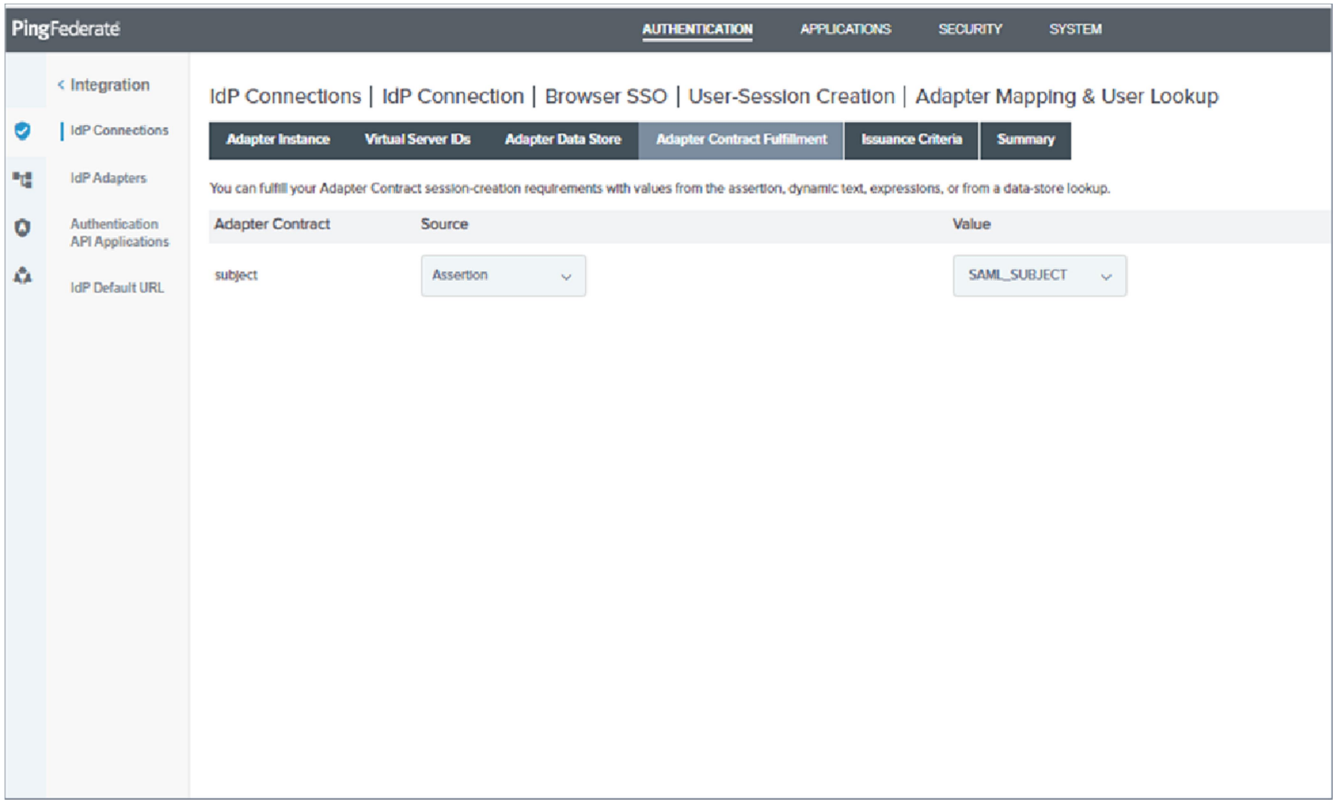

PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Integration
IdP Connections
IdP Adapters
Authentication API Applications
IdP Default URL
Virtual Server IDs
Restricted Virtual Server ID
(none)
Adapter Data Store
Attribute location
Use only the attributes available in the SSO Assertion
Adapter Contract Fulfillment
subject
SAML_SUBJECT (Assertion)
Issuance Criteria
Criterion
(None)
Protocol Settings
SSO Service URLs
Endpoint
URL: /idp/SSO.saml2 (POST)
Endpoint
URL: /idp/SSO.saml2 (Redirect)
SLO Service URLs
Endpoint
URL: /idp/SLO.saml2 (POST)
Allowable SAML Bindings
Artifact
false
POST
true
Redirect
true
SOAP
false
Overrides
Signature Policy
Sign AuthN requests over POST and Redirect
false


PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Integration
IdP Connections
IdP Adapters
Authentication API Applications
IdP Default URL
IdP Connections | IdP Connection | Browser SSO | User-Session Creation
Identity Mapping
Attribute Contract
Target Session Mapping
Summary
PingFederate can create sessions to internal applications and/or identity management system using adapters, or create sessions to partner SPs using Policy Contracts. A sess
target application on your system. Likewise, map a connection contract for each partner SP(s).
Adapter Instance Name
Virtual Server IDs
safe
Authentication Policy Contract Name
Virtual Server IDs
Map New Adapter Instance
Map New Authentication Policy

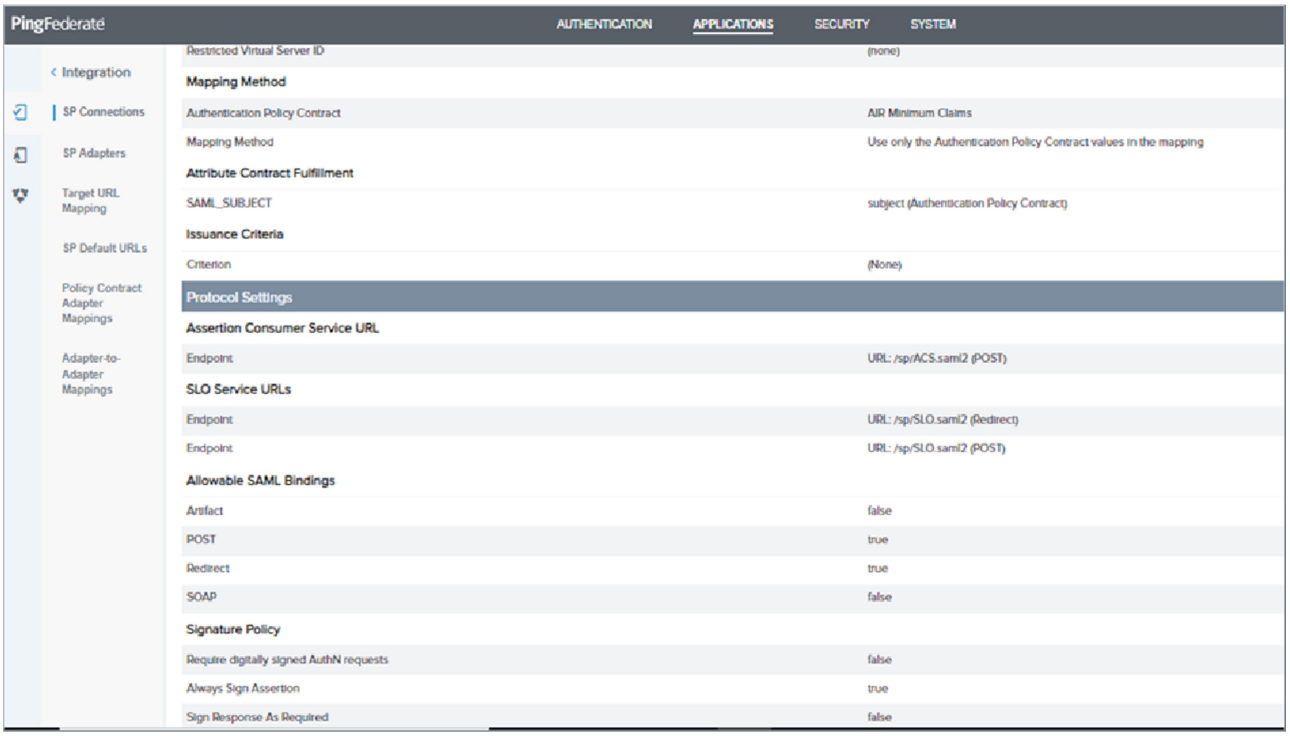

PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Integration
IdP Connections
IdP Adapters
Authentication API Applications
IdP Default URL
IdP Connections | IdP Connection | Browser SSO | User-Session Creation | Adapter Mapping & User Lookup
Adapter Instance
Virtual Server IDs
Adapter Data Store
Adapter Contract Fulfillment
Issuance Criteria
Summary
Adapter Mapping Summary
Adapter Instance
Selected adapter
safe
Virtual Server IDs
Restricted Virtual Server ID
(none)
Adapter Data Store
Attribute location
Use only the attributes available in the SSO Assertion
Adapter Contract Fulfillment
subject
SAML_SUBJECT (Assertion)
Issuance Criteria
Criterion
(None)


PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Integration
IdP Connections
IdP Adapters
Authentication API Applications
IdP Default URL
IdP Connections | IdP Connection | Browser SSO | User-Session Creation | Adapter Mapping & User Lookup
Adapter Instance
Virtual Server IDs
Adapter Data Store
Adapter Contract Fulfillment
Issuance Criteria
Summary
The list of attributes below, the Adapter Contract, is required for the selected adapter instance.
Adapter Instance
Adapter Contract
subject
OVERRIDE INSTANCE SETTINGS
Manage Adapter Instances


PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Integration
IdP Connections
IdP Adapters
Authentication API Applications
IdP Default URL
IdP Connections | IdP Connection | Browser SSO | User-Session Creation | Adapter Mapping & User Lookup
Adapter Instance
Virtual Server IDs
Adapter Data Store
Adapter Contract Fulfillment
Issuance Criteria
Summary
You can fulfill the Adapter Contract by using only the attributes from the SAML assertion or by using these attributes to look up additional information from a local data store.
Attribute Contract
SAML_SUBJECT
USE THE SSO ASSERTION TO LOOK UP ADDITIONAL INFORMATION
USE ONLY THE ATTRIBUTES AVAILABLE IN THE SSO ASSERTION


PingFederate
AUTHENTICATION
APPLICATIONS
SECURITY
SYSTEM
Integration
IdP Connections
IdP Adapters
Authentication API Applications
IdP Default URL
IdP Connections | IdP Connection | Browser SSO | User-Session Creation | Adapter Mapping & User Lookup
Adapter Instance
Virtual Server IDs
Adapter Data Store
Adapter Contract Fulfillment
Issuance Criteria
Summary
You can fulfill your Adapter Contract session-creation requirements with values from the assertion, dynamic text, expressions, or from a data-store lookup.
Adapter Contract
Source
Value
subject
Assertion
SAML_SUBJECT

Creating a SP Connection where PingFederate acting as a Identity Provider

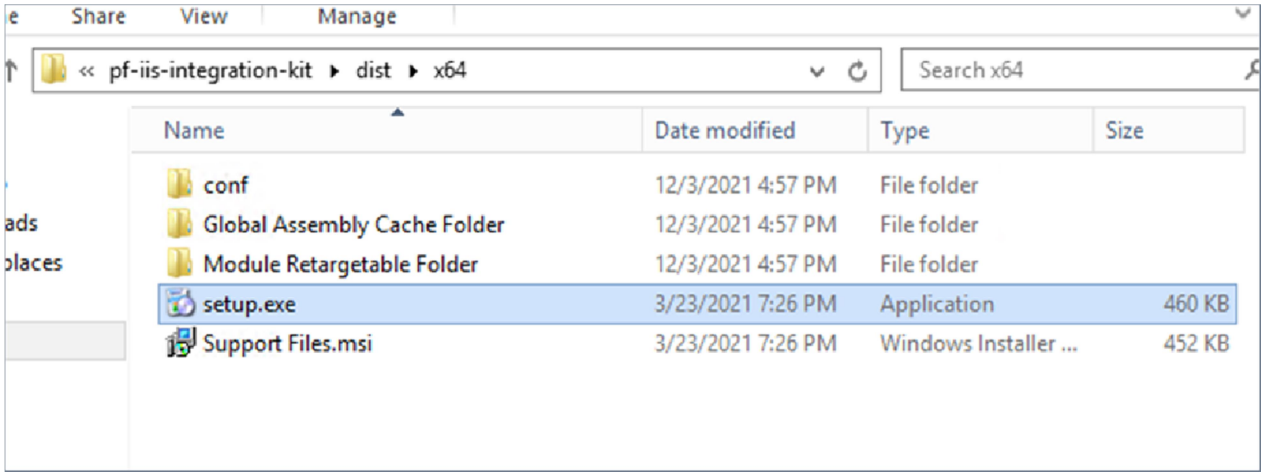


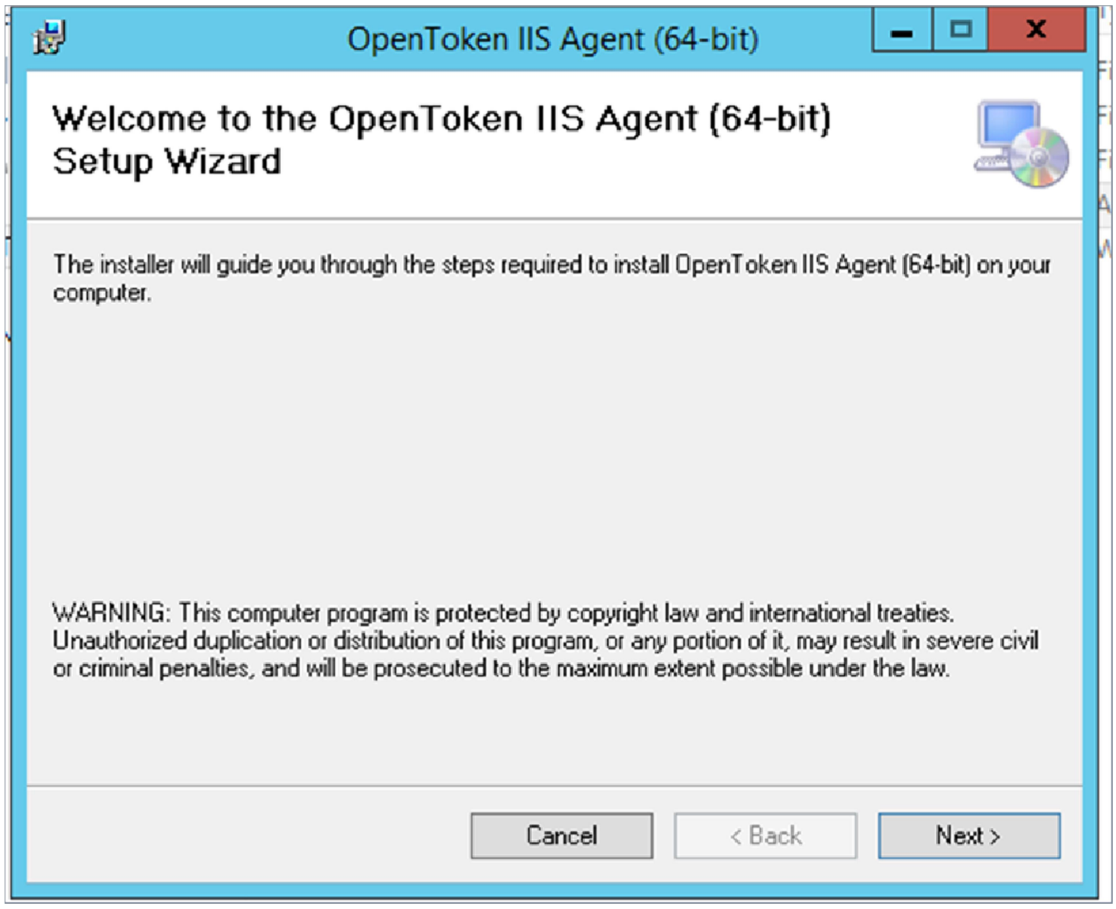
Configuration at IIS end

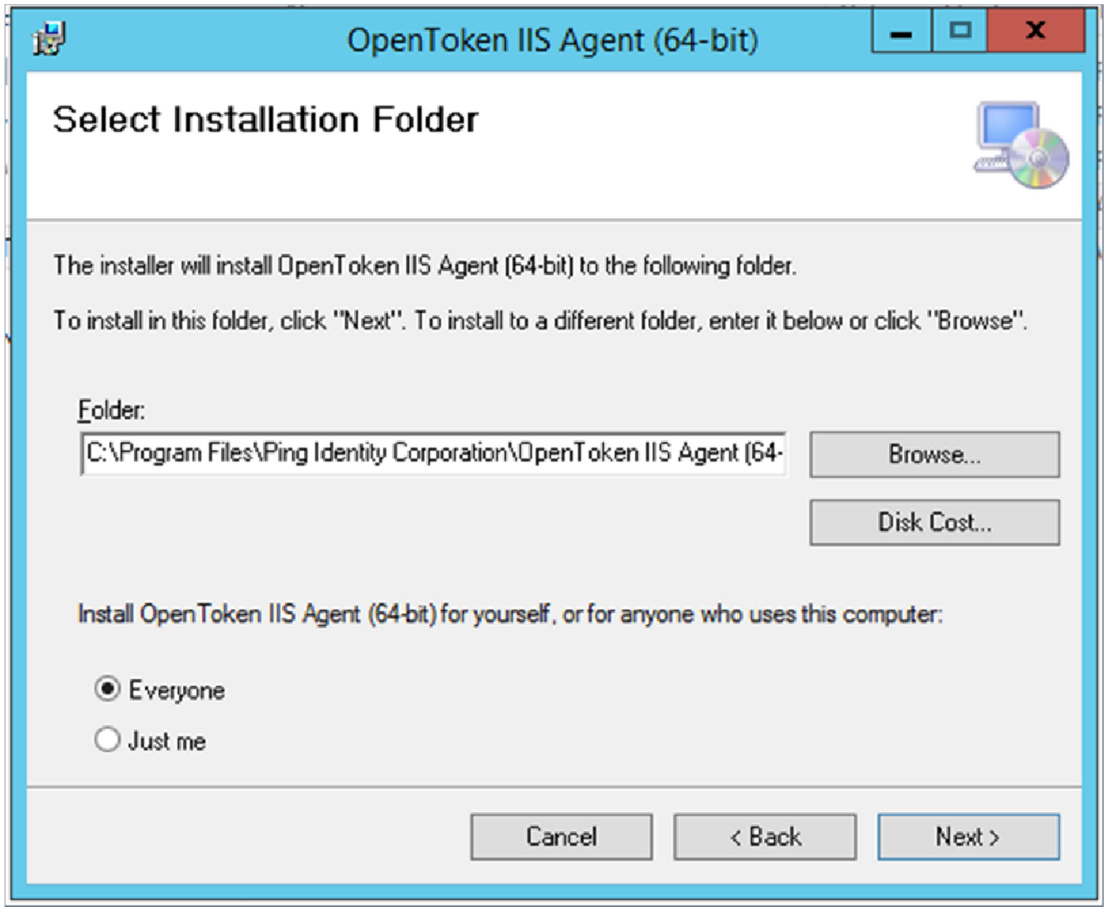
Install and configure the PingFederate IIS web agent

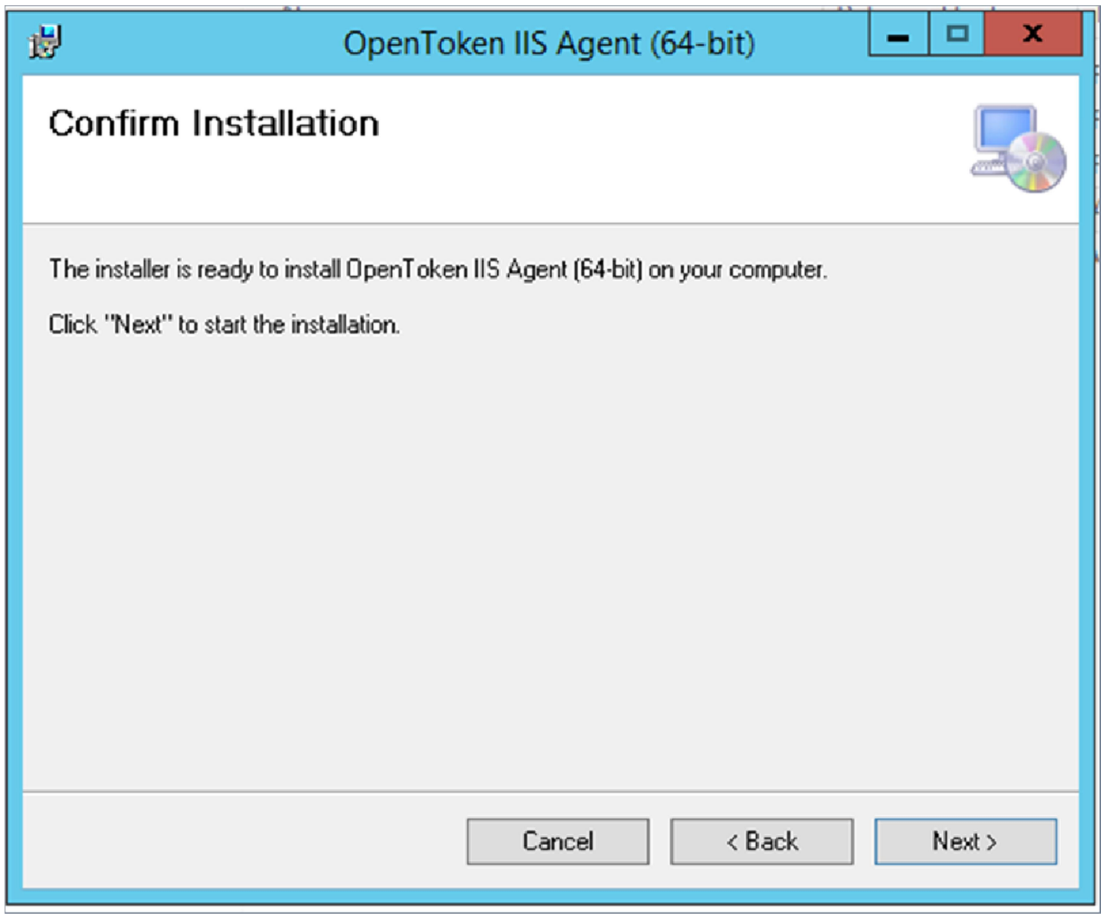
Unzip the Citrix Integration Kit distribution file into a directory on the Citrix Web Interface server

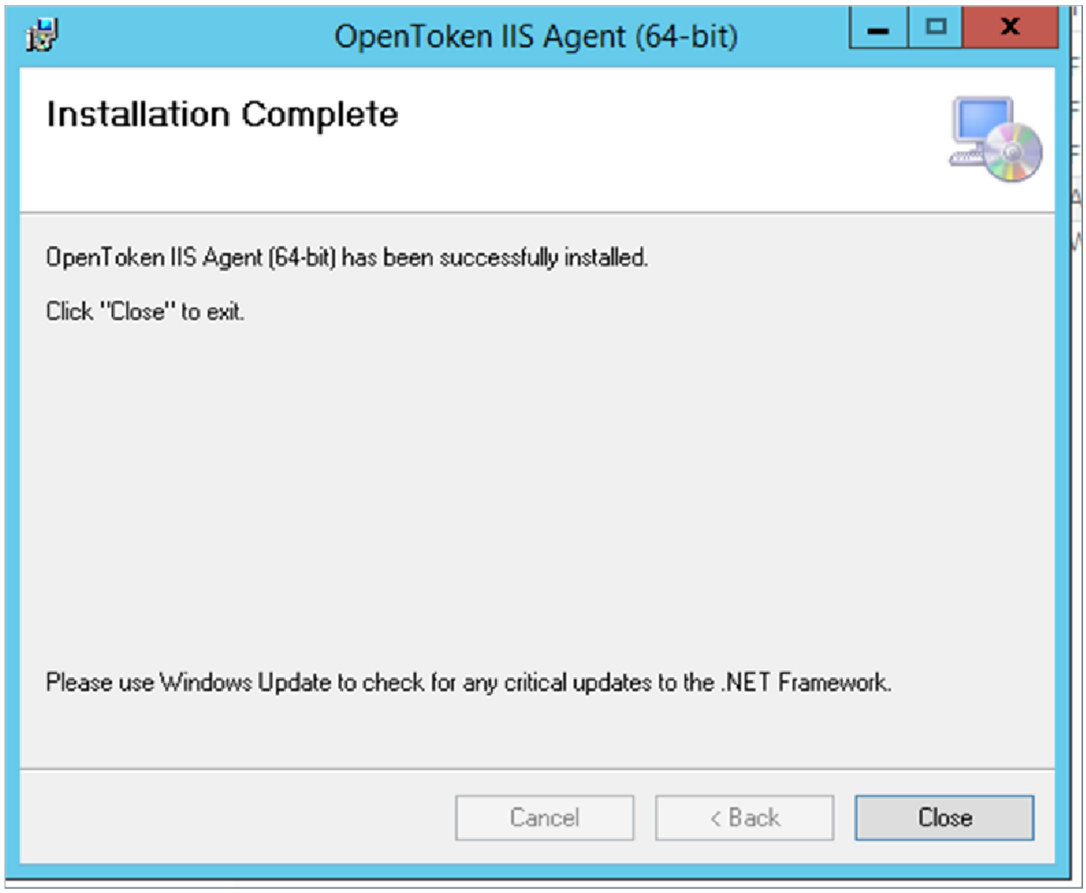
From the /dist folder in the directory where you unzipped the distribution file, run setup.exe and follow the setup screens.




OpenToken IIS Agent (64-bit)
Welcome to the OpenToken IIS Agent (64-bit) Setup Wizard
The installer will guide you through the steps required to install OpenToken IIS Agent (64-bit) on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >


OpenToken IIS Agent (64-bit)
Select Installation Folder
The installer will install OpenToken IIS Agent (64-bit) to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\Ping Identity Corporation\OpenToken IIS Agent (64-
Browse...
Disk Cost...
Install OpenToken IIS Agent (64-bit) for yourself, or for anyone who uses this computer:
Everyone
Just me
Cancel
< Back
Next >

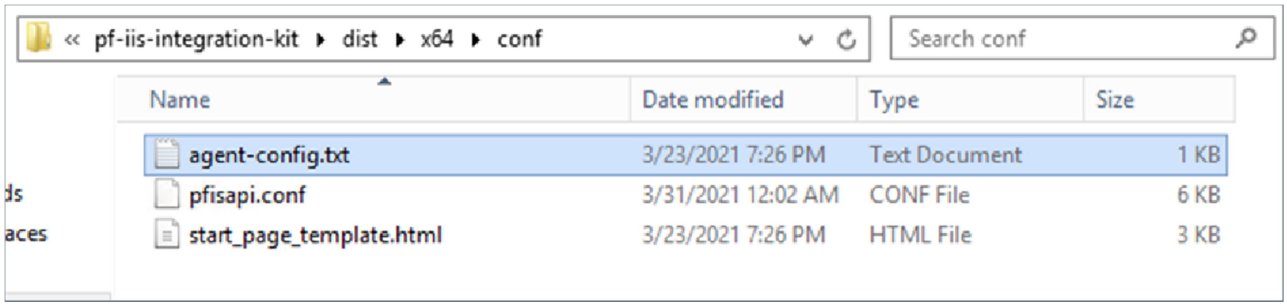

OpenToken IIS Agent (64-bit)
Confirm Installation
The installer is ready to install OpenToken IIS Agent (64-bit) on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >


OpenToken IIS Agent (64-bit)
Installation Complete
OpenToken IIS Agent (64-bit) has been successfully installed.
Click "Close" to exit.
Please use Windows Update to check for any critical updates to the .NET Framework.
Cancel
< Back
Close

Once Installation completed get the agent-config.txt file from SSO team and copy into the \conf directory created by the installer.

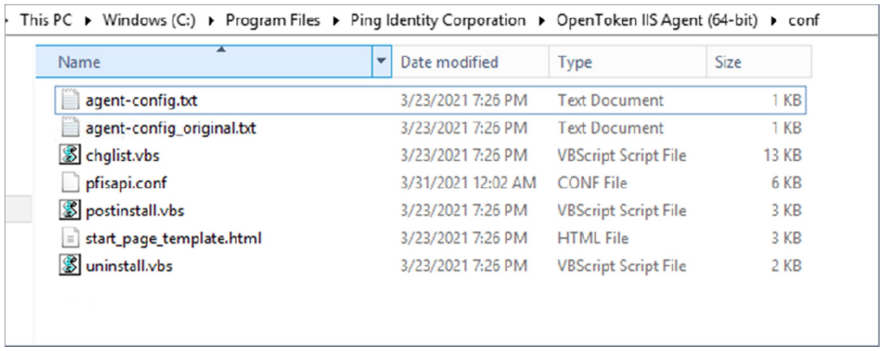
By default, this directory is located in:

C:\Program Files\Ping Identity Corporation\OpenToken IIS Agent



1. Update the given **agent-config** File from the SSO Team .
2. Add the **SSOUrl**, **PingFedBaseUrl** And **SecureCookie=YES** in pfisapi.conf

Update Pfisapi.conf file attributes as recommeded by Ping SSO



After Updating the config files update the Module in IIS .

Steps:

In the Internet Information Services (IIS) Manager, select the IIS server.

On the Features View tab, double-click Modules.

On the Modules screen, in the Actions area, click Add Managed Module.

On the Add Managed Module dialog, in the Name field, type a name, such as OpenTokenHttpModule.

In the Type field, enter the following:

OpenTokenModule.HttpModule, OpenTokenModule, Version=3.5.0.0, Culture=neutral, PublicKeyToken=f5ed9639debbca65

Kindly check the below link for more information.

Adding the OpenToken HTTP Module in IIS (pingidentity.com)

Once Module has been updated reset the IIS and launch the Application URLS.