Configure Single Sign-on (SSO) with Microsoft AD FS

An overview of how to set up Stack Overflow for Teams Enterprise SAML authentication with Microsoft Active Directory Federation Service (AD FS).

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PDF VERSION

Tags | **Authentication** | **SAML** | **Microsoft AD FS** |

Applies to: Free Basic Business Enterprise

ADMIN PRIVILEGES REQUIRED

*This documentation is for **Stack Overflow for Teams Enterprise**. Free, Basic, and Business users can access their documentation here. Find your plan.*

Overview

This article is an overview of how to set up Stack Overflow for Teams Enterprise (SOE) for single sign-on authentication with Microsoft Active Directory Federation Service (AD FS). This document covers AD FS 4.0 on Windows Server 2016. Previous versions will look and behave differently.

***NOTE:** This article is not a comprehensive guide to AD FS, but rather a quick overview.*

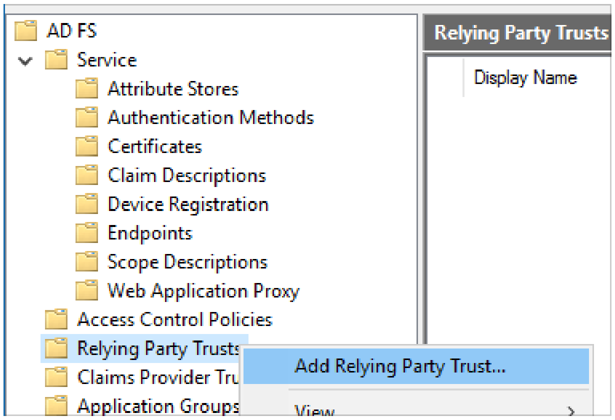
THIS ARTICLE APPLIES TO STACK OVERFLOW FOR TEAMS ENTERPRISE ONLY.
Other Stack Overflow for Teams users should read this article instead. Find your plan.

Create a Relying Party Trust

Manual setup

Before configuring SOE, you must manually set up the relying party trust.

1. In the AD FS folder tree, right-click on **Relying Party Trusts**. Click **Add Relying Party Trust**.

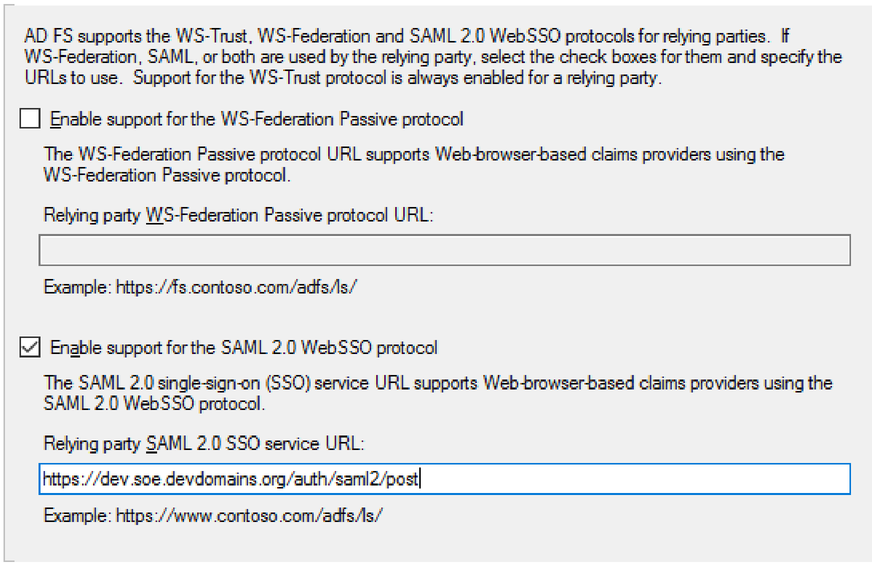


2. Choose **Enter data about the relying party manually**.

3. Enter a name of your choice.

4. Optional: Specify a certificate to encrypt the SAML assertion. This is a public key for which the SOE server has the private key.

5. Check **Enable support for the SAML 2.0 WebSSO protocol** and enter the full SAML 2.0 post URL for your SOE instance (https://[your_site]/auth/saml2/post) into the **Relying party SAML 2.0 SSO service URL**.



AD FS supports the WS-Trust, WS-Federation and SAML 2.0 WebSSO protocols for relying parties. If WS-Federation, SAML, or both are used by the relying party, select the check boxes for them and specify the URLs to use. Support for the WS-Trust protocol is always enabled for a relying party.

☐ Enable support for the WS-Federation Passive protocol

The WS-Federation Passive protocol URL supports Web-browser-based claims providers using the WS-Federation Passive protocol.

Relying party WS-Federation Passive protocol URL:

Example: https://fs.contoso.com/adfs/ls/

☑ Enable support for the SAML 2.0 WebSSO protocol

The SAML 2.0 single-sign-on (SSO) service URL supports Web-browser-based claims providers using the SAML 2.0 WebSSO protocol.

Relying party SAML 2.0 SSO service URL:

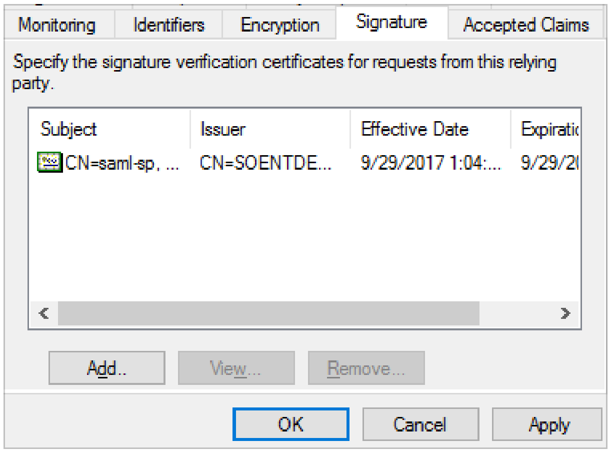
https://dev.soe.devdomains.org/auth/saml2/post

Example: https://www.contoso.com/adfs/ls/

6. Set an **Identifier**. You can make this anything you like. You'll enter this value as **Issuer** on your SOE authentication settings page.

7. Choose your desired **Access Control Policy**.

8. To add an optional certificate, right-click on the new Relying Party Trust. Select **Properties**, then the **Signature** tab. Click **Add** to add a certificate. This allows SOE to sign authentication requests and AD FS to validate the signature.



Specify the signature verification certificates for requests from this relying party.

Subject	Issuer	Effective Date	Expiratio
CN=saml-sp, ...	CN=SOENTDE...	9/29/2017 1:04:...	9/29/20

Additional configuration

Some settings for the Relying Party Trust cannot be configured through the GUI, but require PowerShell. Please refer to the Set-AD FSRelyingPartyTrust cmdlet for a full list of settings.

Here is an example Set-AD FSRelyingPartyTrust cmdlet command:

```
Set-AD FSRelyingPartyTrust -TargetName "SOE" -SignedSamlRequestsRequired $true -SignatureAlgorithm "http
```

Some settings that you might want to check:

- `SignedSamlRequestsRequired` Enforces the need for AuthnRequests to be signed.
- `SignatureAlgorithm` Configures SHA-256 instead of the default SHA-1.
- `SamlResponseSignature` Sets which part of the XML Response are signed.
- `SigningCertificateRevocationCheck` Configures if and how the signing certificate is checked for validity (used when verifying signed AuthnRequests).
- `EncryptionCertificateRevocationCheck` Configures if and how the encrypting certificate is checked for validity (used when encrypting the SAML Response).

Configure the claim issuance policy

You need to configure the claims that are being sent in the SAML response. SOE requires a user identifier, display name, and email address.

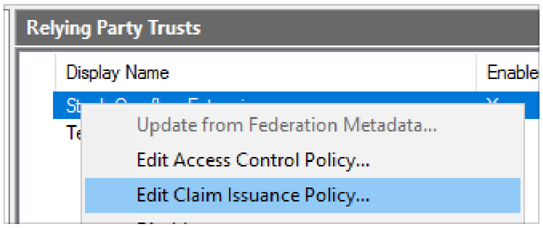
Using rule language

The following command configures FS AD to send the `displayName`, `mail`, and `objectSID` attributes.

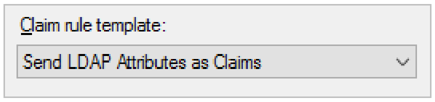
```
c:[Type == "http://schemas.microsoft.com/ws/2008/06/identity/claims/windowsaccountname", Issuer == "AD AU
 => issue(store = "Active Directory", types = ("http://schemas.xmlsoap.org/ws/2005/05/identity/claims/nar
```

Manual setup

1. Right-click your new Relying Party Trust and select **Edit Claim Issuance Policy**.


Relying Party Trusts
Display Name
Enable
Update from Federation Metadata...
Edit Access Control Policy...
Edit Claim Issuance Policy...

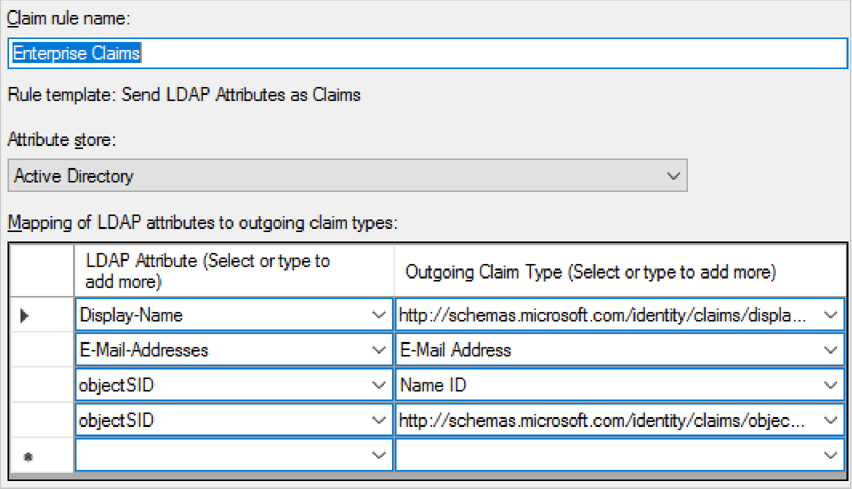
2. Set **Claim rule template** to **Send LDAP Attributes as Claims**.



Claim rule template:

Send LDAP Attributes as Claims

3. Configure the required attributes. Note that SOE does not currently use **Name ID**, but you should set it the same as **User Identifier** in case this changes in the future.



Claim rule name:

Enterprise Claims

Rule template: Send LDAP Attributes as Claims

Attribute store:

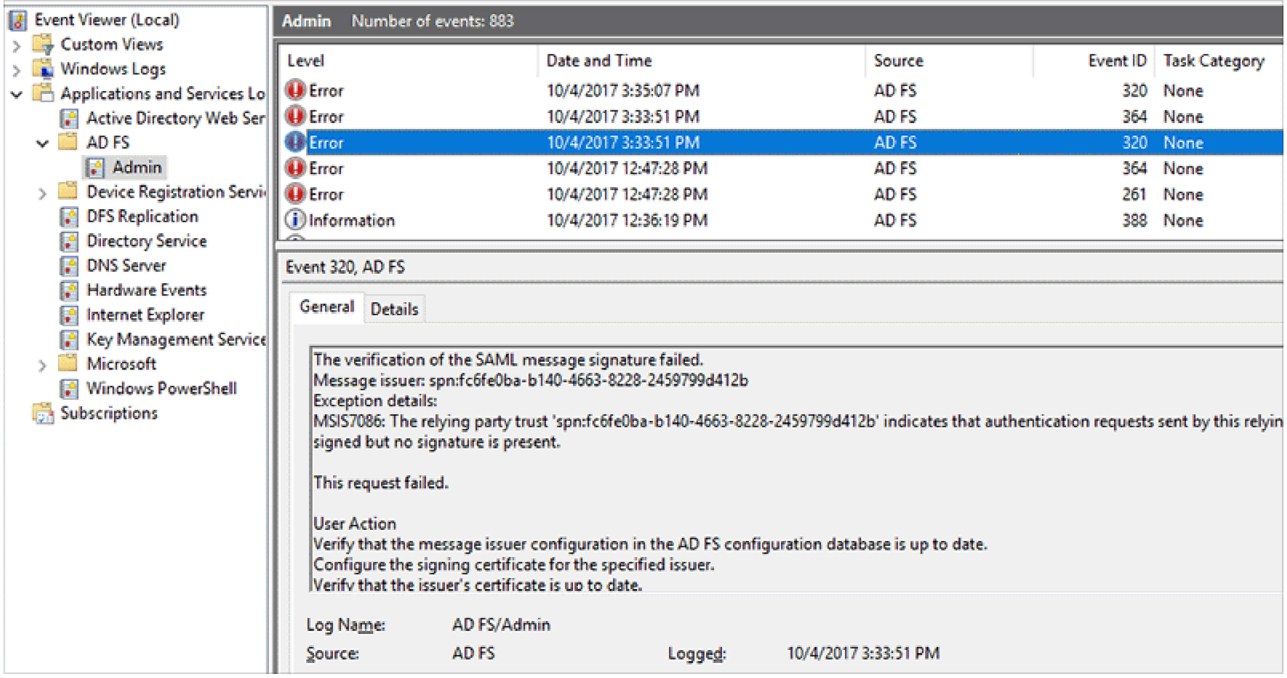
Active Directory

Mapping of LDAP attributes to outgoing claim types:

	LDAP Attribute (Select or type to add more)	Outgoing Claim Type (Select or type to add more)
▸	Display-Name	http://schemas.microsoft.com/identity/claims/displa...
	E-Mail-Addresses	E-Mail Address
	objectSID	Name ID
	objectSID	http://schemas.microsoft.com/identity/claims/objec...
*		

Troubleshooting AD FS

AD FS has an application-specific event log that is informative and helpful when troubleshooting problems. To access the AD FS log, open your local Event Viewer and expand the **Applications and Services Logs** folder. Expand the **AD FS** folder and click **Admin**.



Level	Date and Time	Source	Event ID	Task Category
Error	10/4/2017 3:35:07 PM	AD FS	320	None
Error	10/4/2017 3:33:51 PM	AD FS	364	None
Error	10/4/2017 3:33:51 PM	AD FS	320	None
Error	10/4/2017 12:47:28 PM	AD FS	364	None
Error	10/4/2017 12:47:28 PM	AD FS	261	None
Information	10/4/2017 12:36:19 PM	AD FS	388	None

Event 320, AD FS

```
The verification of the SAML message signature failed.
Message issuer: spn:fc6fe0ba-b140-4663-8228-2459799d412b
Exception details:
MSIS7086: The relying party trust 'spn:fc6fe0ba-b140-4663-8228-2459799d412b' indicates that authentication requests sent by this relyin
signed but no signature is present.

This request failed.

User Action
Verify that the message issuer configuration in the AD FS configuration database is up to date.
Configure the signing certificate for the specified issuer.
Verify that the issuer's certificate is up to date.
```

Log Name: AD FS/Admin

Source: AD FS   Logged: 10/4/2017 3:33:51 PM