Configure SAML SSO External Authentication with AD FS for ESA and SMA

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Introduction

This document describes how to configure Active Directory Federation Services as SAML identity provider for external authentication on Cisco ESA and SMA.

Prerequisites

This document provides a view of the third-party application that engineers cannot otherwise see.

- Configuration steps for Security Assertion Markup Language (SAML) external authentication with Active Directory Federation Services (AD FS) 2012 and 2016 for Cisco Email Security Appliance (ESA) and Security Management Appliance (SMA) latest versions.
- Basic lab-based steps that do not include specialized deployment-specific configurations.
- A working example from a lab environment that can differ from a production deployment.

⚠ **Caution**: Complete the service provider (SP) configuration before this procedure. See .

Requirements

- Microsoft Active Directory Federation Services (AD FS) 2012 or 2016
- Cisco Email Security Appliance (ESA) and Security Management Appliance (SMA) latest version.

Components Used

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

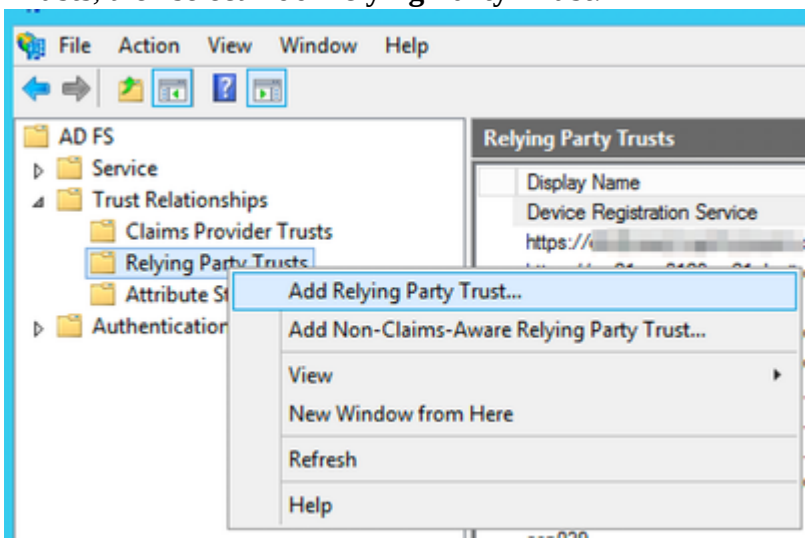
Steps for ADFS IDP Configuration for SAML

Configure the Relying Party Trust

Use one of two options to create the relying party trust in AD FS.

Method A: Create the Relying Party Trust by Importing SP Metadata

1. Open the **AD FS Management** console from **Administrative Tools**.
2. In the AD FS Management console, expand **Trusted Relationships**, right-click **Relying Party Trusts**, then select **Add Relying Party Trust**.



Add Relying Party Trust

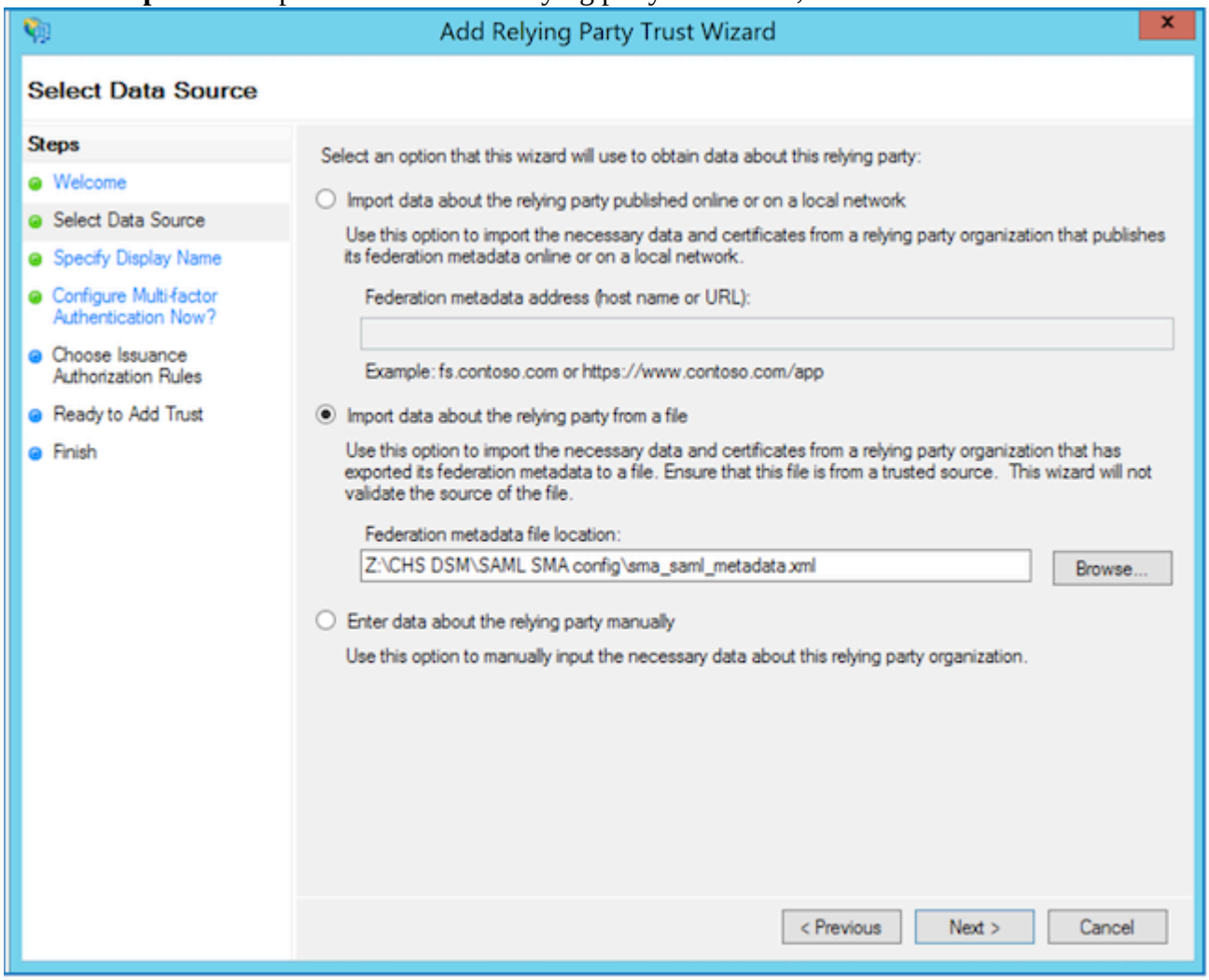
> **Tip**: Microsoft Relying Party Trusts

Proceed using one of two options:

- Option A: Import data about the relying party from a file. Upload the ESA or SMA service provider (SP) metadata.xml file.
- Option B: Enter data about the relying party manually. This option guides you through the manual configuration.

Option A: Import data about the relying party from a file. Upload the **ESA** or **SMA service provider (SP) metadata.xml file**.

1. Select the **option** to import data about the relying party from a file, and then select **Next**.



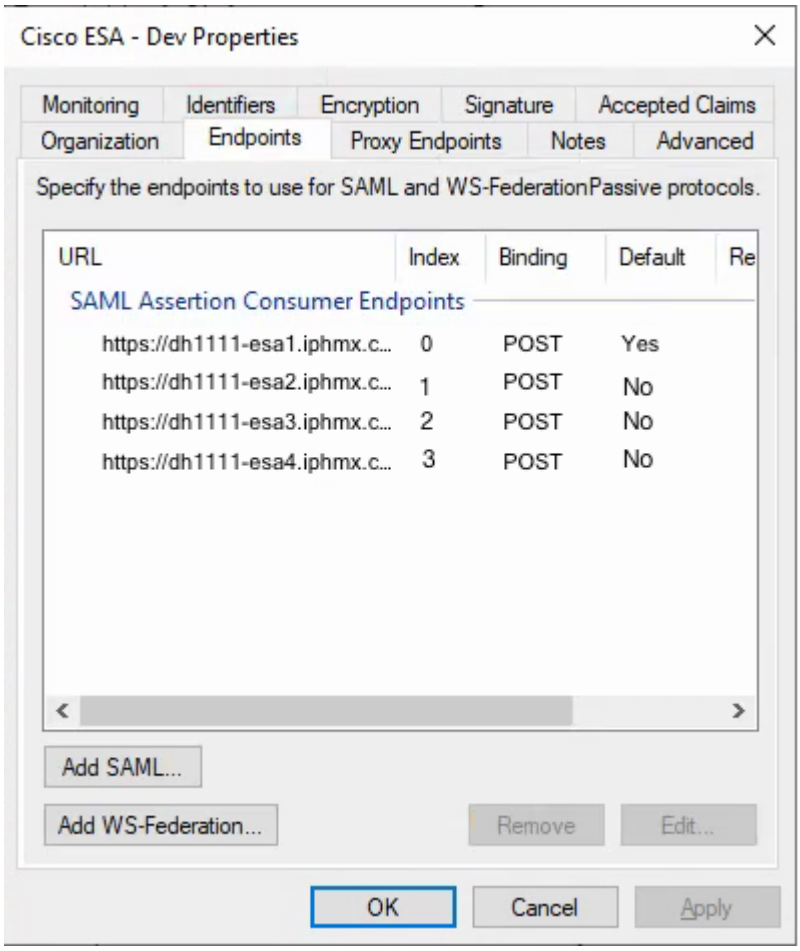
Import the ESA/SMA Metadata File

2. Specify a **display name** to identify this relying party trust, and then select **Next** twice.
3. For issuance authorization rules, select **Permit all users**, then select **Next**.
4. On the **Ready to Add Trust** page, accept the **default settings**, then select **Next**.
5. Select **Finish**. This opens the Edit Claim Rules dialog for the relying party trust, which is covered in Issuance Transform Rules - Claims.

Relying Party Trust Properties - Endpoints

Perform these steps only if multiple ESAs are present in a cluster.

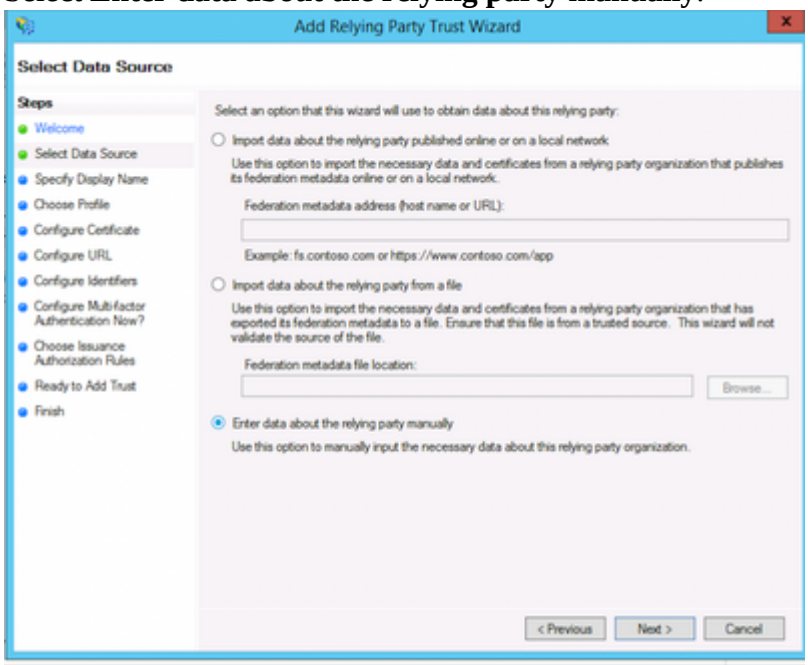
1. Open **Relying Party Trust Properties** > **Endpoints**.
2. Add each **ESA reachable URL address**, and then select **OK**.
3. The index values count from 0, that is, 0, 1, 2, and 3.
4. Set only one entry to **Default = Yes**.
5. Set the remaining entries to **Default = No**.



Relying Party Trust Properties - Endpoints

Option B: Enter data about the relying party manually. This option guides you through the manual configuration.

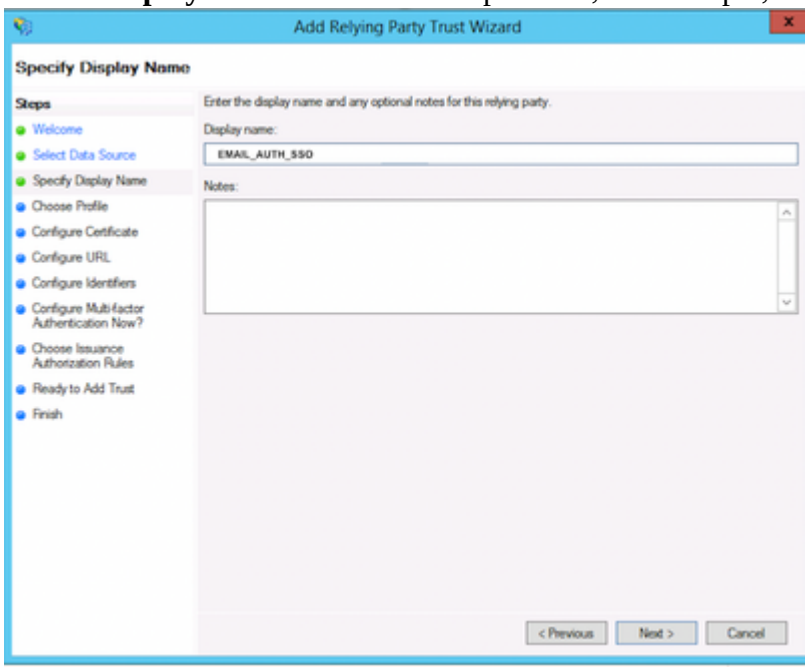
1. Select **Enter data about the relying party manually**.



Add Relying Party Manually

Tip: Display Name is the name that you choose to identify the relying party trust for ESA or SMA SAML.

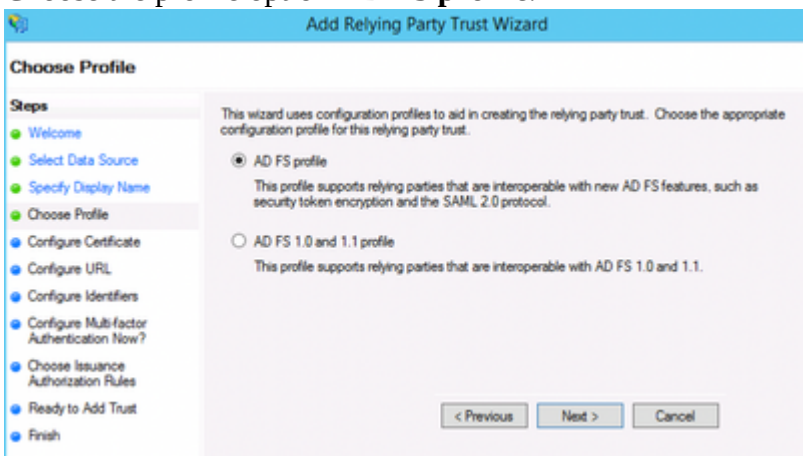
2. Enter a **display name** for the service provider, for example, ESA_SP.



Create a name for the Service Provider Profile

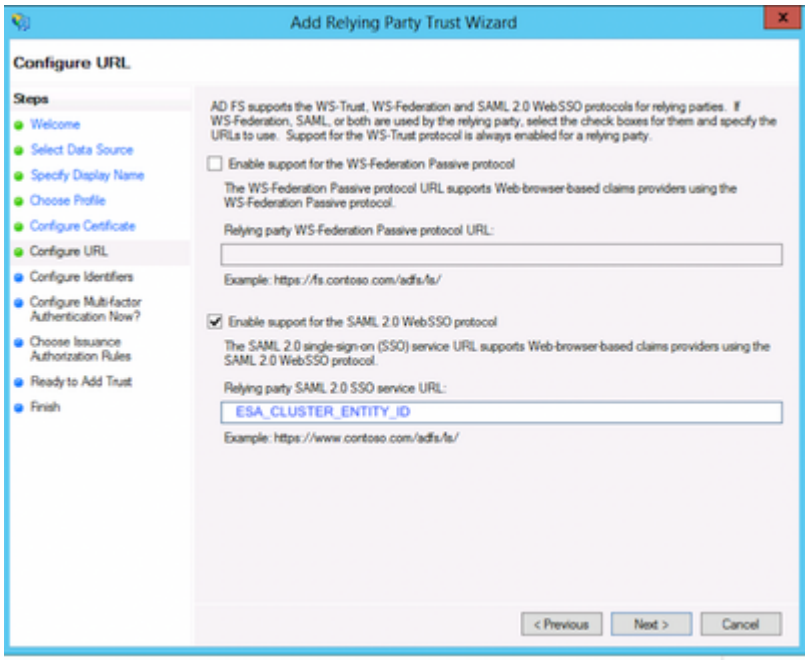
Tip: The Role of Claim Rules and Issuance Transform Rules

3. Choose the profile option **AD FS profile**.



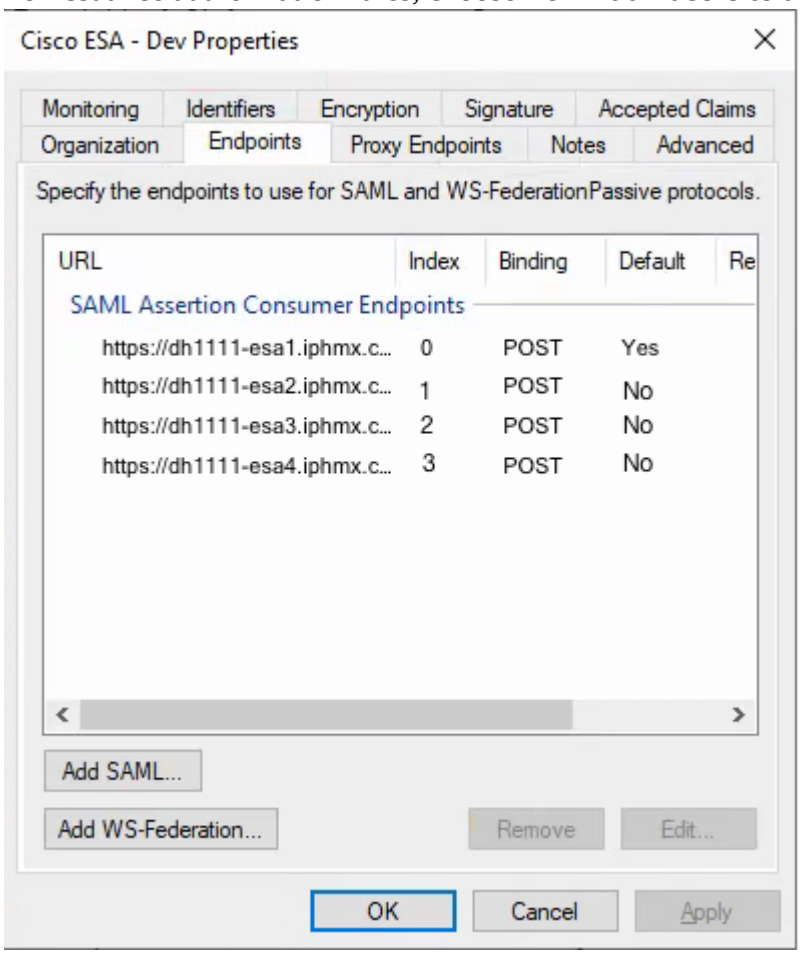
AD FS Profile Option to Utilize SAML 2.0

4. Load the **public certificate** from the ESA service provider (SP) configuration.
5. For Configure URL, choose **Enable support for the SAML 2.0 single-sign-on (SSO)**.
6. Enter the **Relying Party SAML 2.0 SSO service URL** with the SP profile **Entity ID** value.



Issuance Authorization Rules - -Permit All Users

7. For issuance authorization rules, choose **Permit all users to access this relying party**.



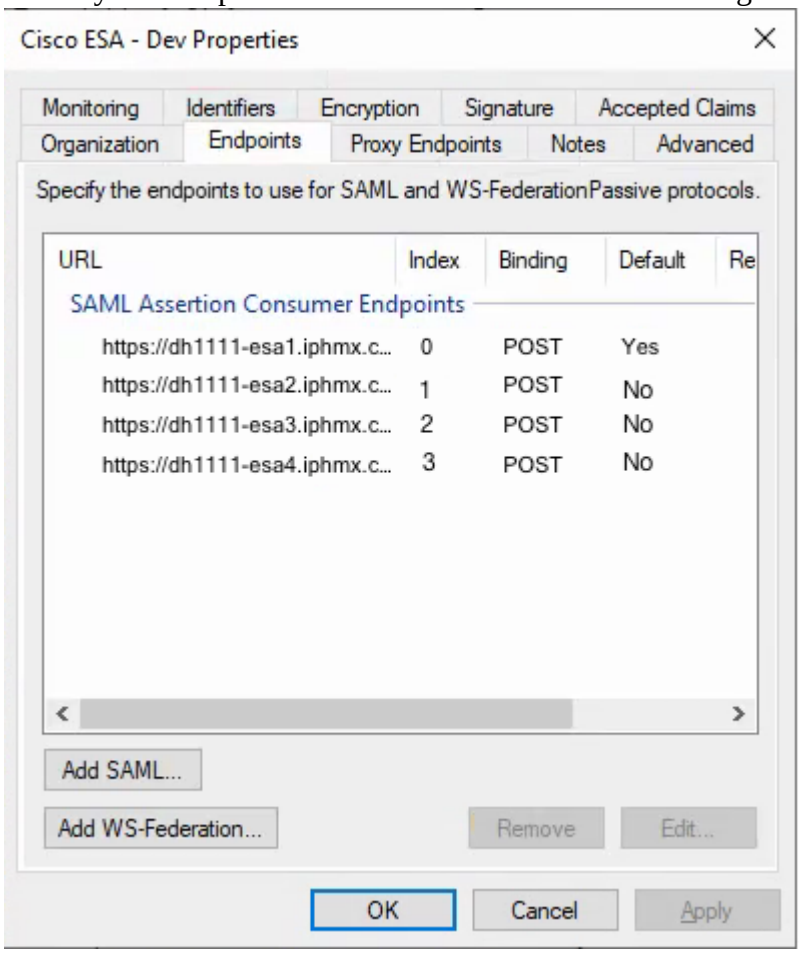
Choose Issuance Authorization Rules

8. Select **Next** to move to the Finish page.

Configure Relying Party Trust Endpoints (Clusters Only)

Perform this step only if multiple ESAs are present in a cluster.

1. Open **Relying Party Trust Properties > Endpoints**.
2. Add each **ESA reachable URL address**, and then click **OK**.
3. Set **endpoint index values** starting at 0 (for example, 0, 1, 2, 3).
4. Set only one endpoint to **Default = Yes**. Set the remaining endpoints to **Default = No**.

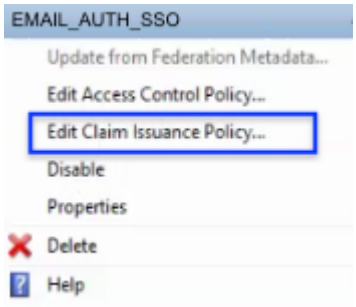


Issuance Authorization Rules - Permit All Users

The final step initiates the **Edit Claim Rules** dialog for the relying party trust, covered in Issuance Transform Rules.

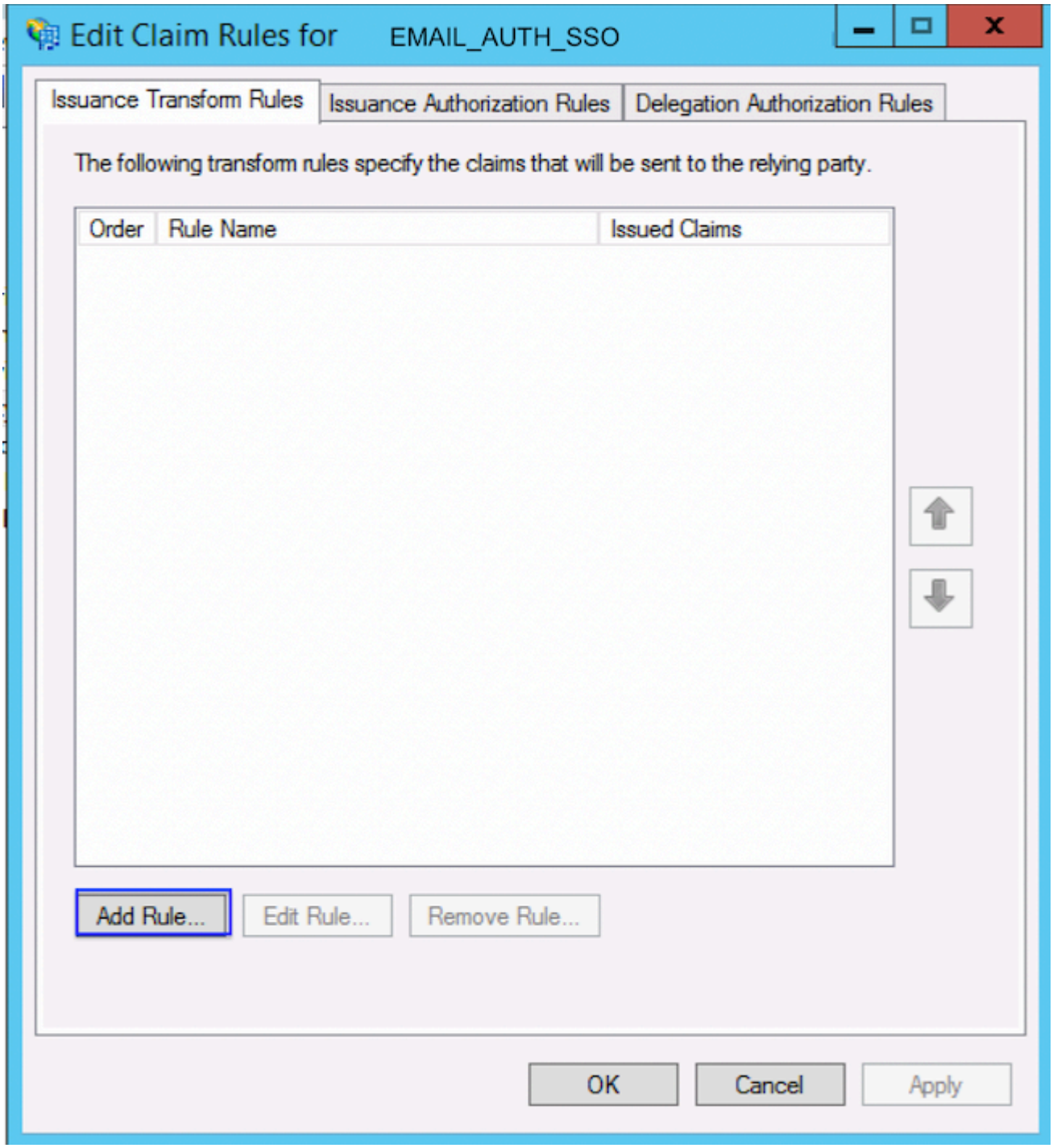
Issuance Transform Rules - Claims

1. Select **Edit Claims Issuance Policy**.



Edit Claims Issuance Policy

2. Select **Add Rule**.



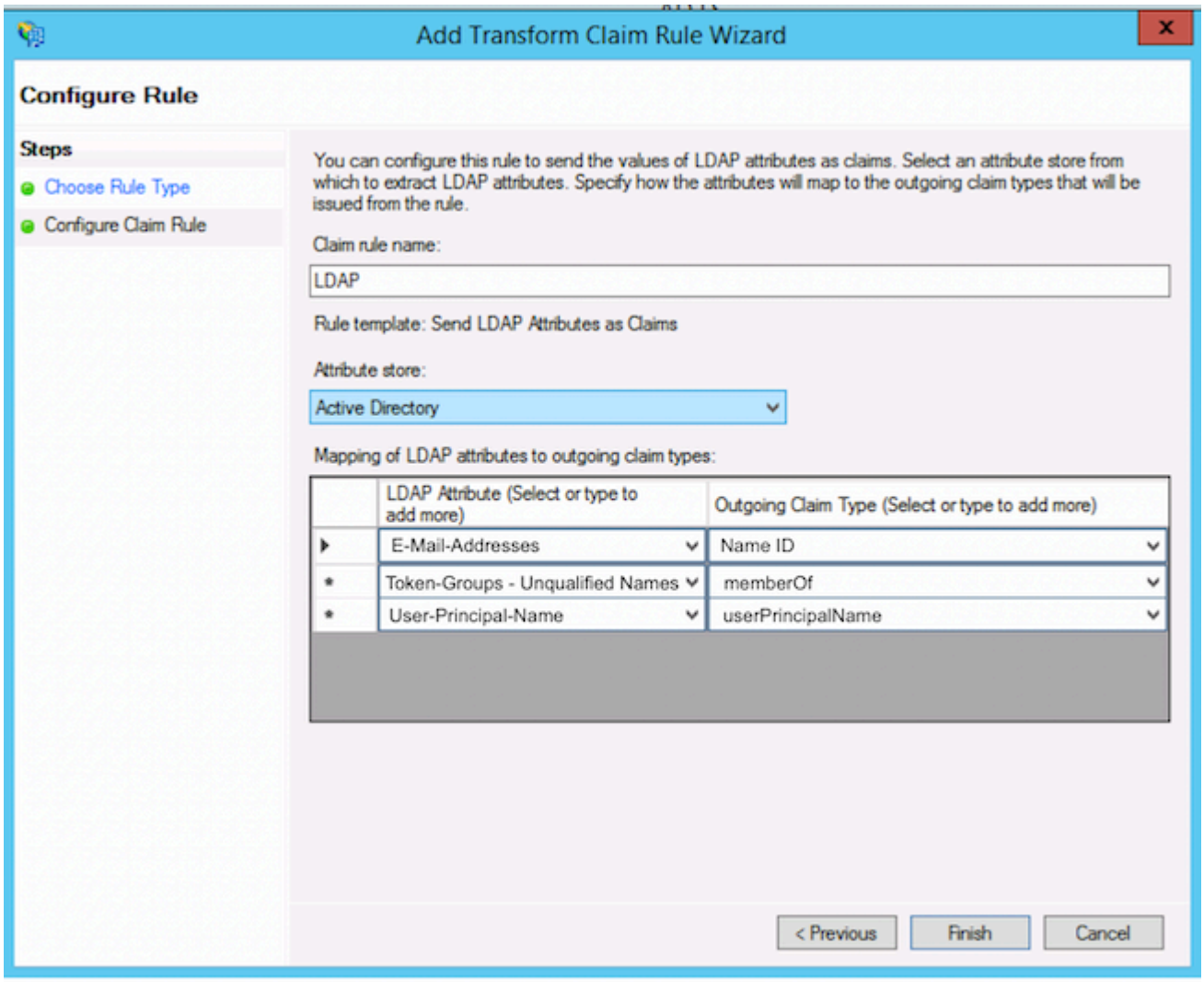
Add Issuance Transform Rule

The values shown here are common values that allow ESA to populate group names in the external authentication settings.

Tip: The values in the mapping can vary based on the administrator preference.

Tip: In the sample listed, enter the **outgoing claim types memberOf** and **userPrincipalName** manually. Select **Name ID** from the drop down list.

3. Select **Finish**.



Transform Claim Rule

Download IdP Metadata and Upload It to ESA

After you complete the relying party trust and claim rule configuration, export the **identity provider (IdP) metadata** and upload it to **ESA**.

⚠ **Caution**: Restarting the AD FS service can interrupt active authentication sessions. Perform this step during a maintenance window if required.

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1. Restart the **AD FS service** if required.
2. Run these commands:

```
net stop adfssrv
net start adfssrv
```

3. Finish and return to the ESA cluster.

Verify

1. In ESA or SMA, confirm that the IdP metadata import completes successfully.
2. Test an administrative log in by using SAML single sign-on (SSO).
3. Verify that the expected group claims are received and that role mapping populates as expected in the external authentication configuration.

Related Information

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- Cisco Email Security Appliance - End-User Guides
- Cisco Content Security Management Appliance - End-User Guides