

Single Sign-On (SSO) Options

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The UNIFI platform can act as a Service Provider for SAML 2.0-compliant Identity Providers. Documentation is available for the Identity Providers listed below. If you're using an Identity Provider that isn't listed, please reach out to us (support@unifilabs.com) for assistance.

Supported SAML 2.0-based SSO functionality

- Single click user sign-on
- Automatic user creation on first sign-on.

OKTA

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One Login (desktop client)

[Click here to view instructions](#)

One Login (web client)

[Click here to view instructions](#)

Microsoft Azure

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AD FS

Prerequisite: Install and configure an AD FS server

This may already be set up by your company administrator. If not, set up an AD FS (Active Directory Federation Services) Server according to Microsoft's Deployment Guide.

- ADFS 3.0 on (Server 2016 and 2012R2) : <https://docs.microsoft.com/en-us/windows-server/identity/ad-fs/deployment/windows-server-2012-r2-ad-fs-deployment-guide>
- ADFS 2.0 (Server 2008): <http://go.microsoft.com/fwlink/p/?LinkId=191723>

Configure AD FS to use a relying party for UNIFI

Use the procedure in this section to configure a relying party for UNIFI. The relying party defines how AD FS recognizes the relying party application (UNIFI) and issues claims to it. Verify that the user account that is performing this procedure is a member of the Administrators group on the local computer. For additional information about accounts and group memberships, see [Understanding Local Users and Groups](#)

To configure AD FS for a relying party (AD FS 3.0)

1. On the AD FS server, open the AD FS Management console.
2. In the navigation pane, expand **Trust Relationships**, and then click the **Relying Party Trusts** folder.
3. In the right pane, click **Add Relying Party Trust**. This opens the Add Relying Party Trust wizard.

4. On the Welcome to the Add Relying Party Trust Wizard page, click **Start**
5. Select **Enter data about the relying party manually**, and then click next.

The screenshot shows the 'Add Relying Party Trust Wizard' window, specifically the 'Select Data Source' step. The 'Steps' list on the left includes: Welcome, Select Data Source (current), Specify Display Name, Choose Profile, Configure Certificate, Configure URL, Configure Identifiers, Configure Multi-factor Authentication Now?, Choose Issuance Authorization Rules, Ready to Add Trust, and Finish. The main area has three radio button options: 'Import data about the relying party published online or on a local network', 'Import data about the relying party from a file', and 'Enter data about the relying party manually' (which is selected). The 'Enter data about the relying party manually' option is highlighted with a blue border. At the bottom are '< Previous', 'Next >', and 'Cancel' buttons.

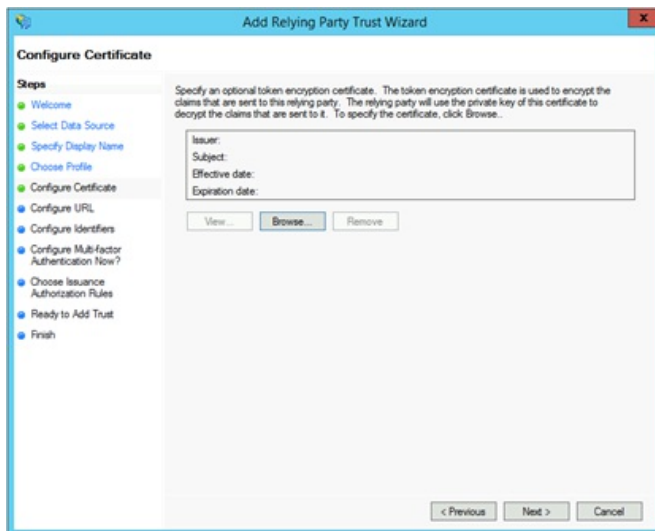
6. Type a relying party name, such as UNIFI, and then click **Next**.

The screenshot shows the 'Add Relying Party Trust Wizard' window, specifically the 'Specify Display Name' step. The 'Steps' list on the left is the same as the previous step, with 'Specify Display Name' now selected. The main area has a 'Display name:' text box containing 'UNIFI' and a 'Notes:' text area below it. At the bottom are '< Previous', 'Next >', and 'Cancel' buttons.

7. Make sure **AD FS Profile** is selected, and then click **Next**.

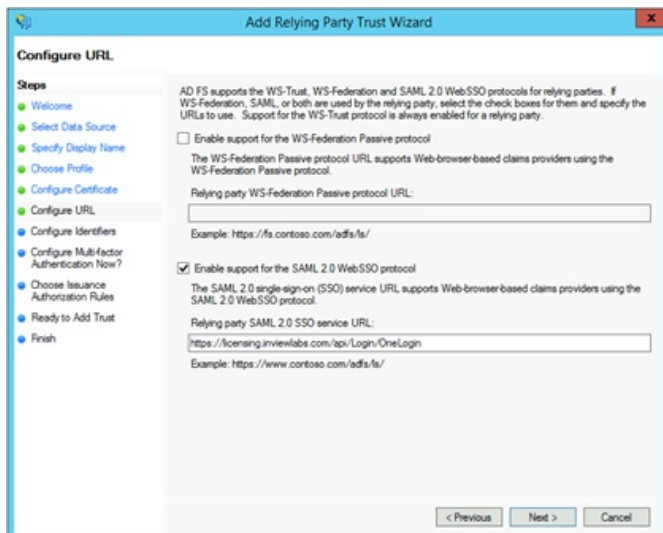
The screenshot shows the 'Add Relying Party Trust Wizard' window, specifically the 'Choose Profile' step. The 'Steps' list on the left is the same as the previous step, with 'Choose Profile' now selected. The main area has two radio button options: 'AD FS profile' (which is selected) and 'AD FS 1.0 and 1.1 profile'. The 'AD FS profile' option is highlighted with a blue border. At the bottom are '< Previous', 'Next >', and 'Cancel' buttons.

8. Do not use a token encryption certificate. Click **Next**.

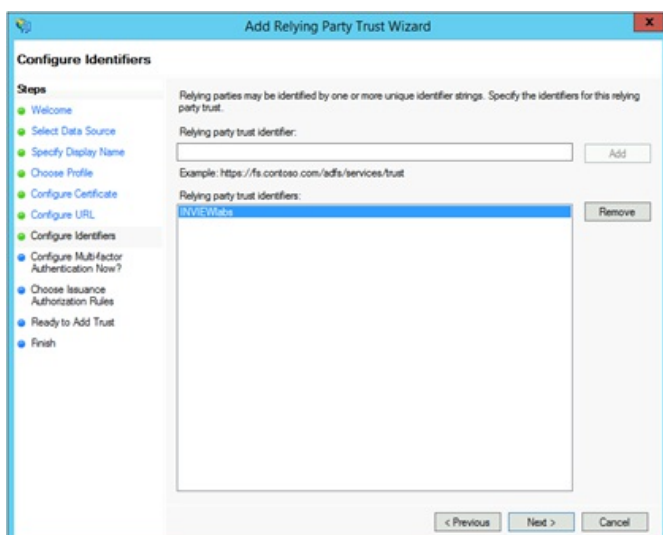


9. Click to select the **Enable support for the SAML 2.0 WebSSO protocol** check box.

10. In the Relying party SAML 2.0 SSO service URL field, type the address <https://licensing.inviewlabs.com/api/Login/OneLogin>. Click **Next**.



11. Type the name of the relying party trust identifier, **INVIEWlabs** (case sensitive), and then click **Add**. Click **Next**.



12. Choose your Multi-factor Authentication settings according to your company policy. This document will use the default option of not using multi-factor authentication.

13. Select **Permit all users to access this relying party** or other selection that applies to your SSO scenario. Click **Next**.

14. On the Ready to Add Trust page, there is no action required, click **Next**.

15. On the Finish page, click **Close**.

Configure the claim rules

Use the procedure in this step to send values of a Lightweight Directory Access Protocol (LDAP) attribute as claims and specify how the attributes will map to the outgoing claim type.

To configure a claim rule:

1. Select the Relying Party Trust you just created in the previous steps. On the Issuance Transform Rules tab, click **Add Rule**.

2. On the Select Rule Template page, select **Send LDAP Attributes as Claims**. Click **Next**.

3. On the Configure Rule page, type a name for the claim rule in the **Claim rule name** field. For example, name it UNIFI LDAP.

4. From the **Attribute Store** drop-down list, select **Active Directory**.

5. In the Mapping of LDAP attributes to outgoing claim types section, under LDAP Attribute, select **E-Mail-Addresses**.

6. Under Outgoing Claim Type, select **E-Mail Address**.

7. Configure additional Incoming Claims (Optional):

- Map **Given-Name** to **Given Name**
- Map **Surname** to **Surname**

8. Click **Finish**

Edit Rule - UNIFI LDAP

You can configure this rule to send the values of LDAP attributes as claims. Select an attribute store from which to extract LDAP attributes. Specify how the attributes will map to the outgoing claim types that will be issued from the rule.

Claim rule name:

Rule template: Send LDAP Attributes as Claims

Attribute store:

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)
▶ E-Mail-Addresses	▼ E-Mail Address
•	▼

9. Under the Issuance Transform Rules tab, click **Add Rule** (to add another rule).
10. On the Select Rule Template page, select **Transform an Incoming Claim**.
11. On the Configure Rule page, type a name for the claim rule in the **Claim rule name** field. For example, UNIFI Transform.
12. From the **Incoming claim type** drop-down list, select **E-Mail Address**.
13. From the **Outgoing claim type** drop-down list, select **Name ID**.
14. From the **Outgoing name ID format** drop-down list, select **Email**.
15. Click **Finish**, then click **OK**.

Add Group Membership Claims (Optional)

Use this section to configure AD FS to send AD Group Membership as claims to Unifi. If a group that does not exist in UNIFI is sent on a claim, it will create the group and add the user to it. The user will be removed from any groups that do not appear in their claims. This means that any non-AD groups created inside of UNIFI will be removed from AD FS authenticated users if this feature is used.

There are two methods for sending group membership as claims. One is to send all group memberships, and the other will require you to set up which groups to send.

To send all group memberships as claims:

1. Right-click on the Relying Party Trust you have created.
2. Select **Edit Claim Rules**
3. Either click **Add Rule** to add a new rule (select the **Send LDAP Attributes as Claims**), or highlight the rule that issues the email and other claims then click **Edit Rule**
4. Under **LDAP Attribute**, add a row with one of the Token-Groups values, depending on how you would like the group name formatted, most likely **Token-Groups – Unqualified Names**
5. Under **Outgoing Claim Type**, select **Group**

6. Click **Ok** or **Finish**

7. If desired, you can at this point add transformation rules to rename the groups before sending them

8. Click **Ok**

To send specific group memberships as claims:

1. Right-click on the Relying Party Trust you have created.

2. Select **Edit Claim Rules**

3. Click **Add Rule**

4. In the Select Rule Template page, select **Send Group Membership as a Claim**

5. On the Configure Rule page, type a name for the claim rule in the **Claim rule name** field.

6. Click **Browse...** and find the group whose members should receive a claim.

7. In Outgoing claim type, select **Group**

8. In Outgoing claim value, type the name of the group as you want it to appear in UNIFI

9. Click **Finish**

10. Repeat from step 3 for additional groups as desired

11. Click **OK**

Edit Rule - UNIFI SSO Test Group

You can configure this rule to send a claim based on a user's Active Directory group membership. Specify the group that the user is a member of, and specify the outgoing claim type and value to issue.

Claim rule name:
UNIFI SSO Test Group

Rule template: Send Group Membership as a Claim

User's group:
INVIEWLABS\SSO Test Group

Outgoing claim type:
Group

Outgoing name ID format:
Unspecified

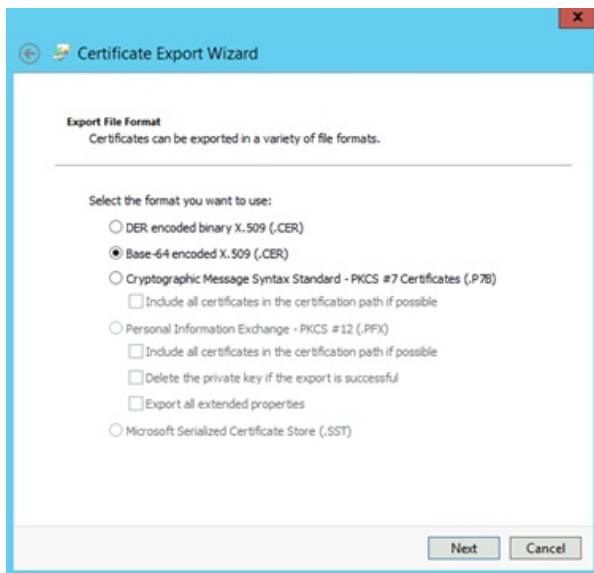
Outgoing claim value:
SSO Test Group

Export the signing certificate

Use the procedure in this section to export the token signing certificate of the AD FS server with which you want to establish a trust relationship, and then copy the certificate to a location that you can access.

To export a token signing certificate:

1. On the AD FS server, open the AD FS Management console.
2. In the navigation pane, expand **Service**, and then click the **Certificates** folder.
3. Under **Token signing**, click the primary token certificate as indicated in the Primary column.
4. In the right pane, click **View Certificate** link. This displays the properties of the certificate.
5. Click the **Details** tab.
6. Click **Copy to File**. This starts the Certificate Export Wizard.
7. On the Welcome to the Certificate Export Wizard page, click **Next**.
8. On the Export Private Key page, click **No, do not export the private key**, and then click **Next**.
9. On the Export File Format page, select **DER encoded binary X.509 (.CER)**, and then click **Next**.



10. On the File to Export page, type the name and location of the file that you want to export, and then click **Next**. For example, enter **C:\ADFS.cer**.
11. On the Completing the Certificate Export Wizard page, click **Finish**.
12. Once exported, use a utility below to convert it to .pem format.

Convert the certificate:

1. OpenSSL on Linux or Mac (Not included with Windows):

Convert the DER encoded file to PEM using OpenSSL with the following command: **openssl x509 -in C:\ADFS.cer -inform DER -out C:\ADFS.pem**

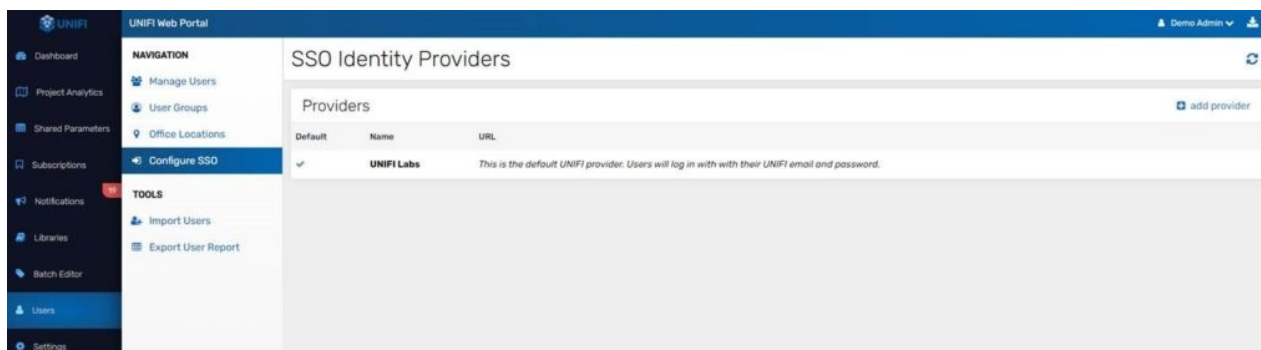
2. SSLShopper.com Website:

Go to <https://www.sslshopper.com/ssl-converter.html> and use the tool provided.

Configure a New Identity Provider in UNIFI

Use this example configuration to create an Identity Provider registration in the <https://licensing.inviewlabs.com> website or in the Unifi Application.

1. In a different web browser window, sign on to your **UNIFI** company site as an administrator.
2. Click on the **Users**.



3. Click on **Configure SSO**.
4. Click on the **Add Provider**.
5. In the **Add SSO Provider** window, perform the following steps:

The screenshot shows a 'Add SSO Provider' dialog box. It contains several input fields: 'Name' (with 'SAML SSO' entered), 'URL' (with 'https://login.microsoftonline.com/' followed by a redacted domain), and 'Token' (with 'Token' entered). There is a checkbox labeled 'Make this the default identity provider' which is currently unchecked. Below this is a 'Certificate' section with a large text area containing '-----BEGIN CERTIFICATE-----' followed by a redacted certificate body. At the bottom right are 'SAVE' and 'CANCEL' buttons.

- a. In the **Name** textbox, type the name of the Identity Provider Name.
- b. In the **URL** textbox paste the Provider Login URL value, which you have copied from Azure portal.
- c. Open the **Certificate** that you have downloaded from the Azure portal in notepad, remove the –BEGIN CERTIFICATE– and –END CERTIFICATE– tag and then paste the remaining content in the Certificate textbox.
- d. Select the “Make this the default identity provider” checkbox.

- **Provider URL** – The SAML endpoint from the AD FS Management tool. Look under **AD FS** -> **Service** -> **Endpoints for SAML 2.0/WS-Federation**.
- **Bearer Token** – Used for SCIM provisioning, optional field.
- **Certificate** – The contents of the **ADFS.pem** file created in the previous step.
- **Is Default Provider** – If checked, this will be used for new users as they are created.

Import Users in UNIFI (Optional)

If you choose not to import users, they can be created through an Identity Provider initiated session. To be able to begin a Service Provider Initiated session (logging into the Portal or the Unifi Client), we need to know to associate the user with the identity provider. Otherwise, they can use a known address, such as the administrator's email in order to get to the SSO provider the first time they log in on a machine.

Use the procedure in this section to batch create users in Unifi and set their identity provider to the newly created identity provider.

1. Open Unifi application
6. Login as company admin user
7. Go to the user management screen
8. Click **Batch Create**
9. You may either paste from excel using the Paste from Excel tab or you can manually import your users by copy and pasting their email addresses into the boxes provided in the Manual Import tab.
10. **You will want to uncheck Automatically send out activation email.** This email would normally notify your users that an account has been created for them with their credentials.
11. Set **Identity Provider** to the identity provider you created in the Create New Identity Provider in the UNIFI section.
12. Click **Import Users**.

