



Using identity federation

StorageGRID

NetApp

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Using identity federation

Using identity federation makes setting up tenant groups and users faster, and it allows tenant users to sign in to the tenant account using familiar credentials.

- [Configuring a federated identity source](#)
- [Forcing synchronization with the identity source](#)
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Configuring a federated identity source

You can configure identity federation if you want tenant groups and users to be managed in another system such as Active Directory, OpenLDAP, or Oracle Directory Server.

What you'll need

- You must be signed in to the Tenant Manager using a supported browser.
- You must have specific access permissions.
- You must be using Active Directory, OpenLDAP, or Oracle Directory Server as the identity provider. If you want to use an LDAP v3 service that is not listed, you must contact technical support.
- If you plan to use Transport Layer Security (TLS) for communications with the LDAP server, the identity provider must be using TLS 1.2 or 1.3.

About this task

Whether you can configure an identity federation service for your tenant depends on how your tenant account was set up. Your tenant might share the identity federation service that was configured for the Grid Manager. If you see this message when you access the Identity Federation page, you cannot configure a separate federated identity source for this tenant.



This tenant account uses the LDAP server that is configured for the Grid Manager.

Contact the grid administrator for information or to change this setting.

Steps

1. Select **ACCESS MANAGEMENT > Identity federation**.
2. Select **Enable identity federation**.
3. In the LDAP service type section, select **Active Directory, OpenLDAP, or Other**.

If you select **OpenLDAP**, configure the OpenLDAP server. See the guidelines for configuring an OpenLDAP server.

Select **Other** to configure values for an LDAP server that uses Oracle Directory Server.

4. If you selected **Other**, complete the fields in the LDAP Attributes section.
 - **User Unique Name:** The name of the attribute that contains the unique identifier of an LDAP user. This attribute is equivalent to `sAMAccountName` for Active Directory and `uid` for OpenLDAP. If you are configuring Oracle Directory Server, enter `uid`.
 - **User UUID:** The name of the attribute that contains the permanent unique identifier of an LDAP user.

This attribute is equivalent to `objectGUID` for Active Directory and `entryUUID` for OpenLDAP. If you are configuring Oracle Directory Server, enter `nsuniqueid`. Each user's value for the specified attribute must be a 32-digit hexadecimal number in either 16-byte or string format, where hyphens are ignored.

- **Group unique name:** The name of the attribute that contains the unique identifier of an LDAP group. This attribute is equivalent to `sAMAccountName` for Active Directory and `cn` for OpenLDAP. If you are configuring Oracle Directory Server, enter `cn`.
- **Group UUID:** The name of the attribute that contains the permanent unique identifier of an LDAP group. This attribute is equivalent to `objectGUID` for Active Directory and `entryUUID` for OpenLDAP. If you are configuring Oracle Directory Server, enter `nsuniqueid`. Each group's value for the specified attribute must be a 32-digit hexadecimal number in either 16-byte or string format, where hyphens are ignored.

5. In the Configure LDAP server section, enter the required LDAP server and network connection information.

- **Hostname:** The server hostname or IP address of the LDAP server.
- **Port:** The port used to connect to the LDAP server. The default port for STARTTLS is 389, and the default port for LDAPS is 636. However, you can use any port as long as your firewall is configured correctly.
- **Username:** The full path of the distinguished name (DN) for the user that will connect to the LDAP server. For Active Directory, you can also specify the Down-Level Logon Name or the User Principal Name.

The specified user must have permission to list groups and users and to access the following attributes:

- `sAMAccountName` or `uid`
- `objectGUID`, `entryUUID`, or `nsuniqueid`
- `cn`
- `memberOf` or `isMemberOf`

- **Password:** The password associated with the username.
- **Group base DN:** The full path of the distinguished name (DN) for an LDAP subtree you want to search for groups. In the Active Directory example (below), all groups whose Distinguished Name is relative to the base DN (`DC=storagegrid,DC=example,DC=com`) can be used as federated groups.

The **Group unique name** values must be unique within the **Group base DN** they belong to.

- **User base DN:** The full path of the distinguished name (DN) of an LDAP subtree you want to search for users.

The **User unique name** values must be unique within the **User base DN** they belong to.

6. In the **Transport Layer Security (TLS)** section, select a security setting.

- **Use STARTTLS (recommended):** Use STARTTLS to secure communications with the LDAP server. This is the recommended option.
- **Use LDAPS:** The LDAPS (LDAP over SSL) option uses TLS to establish a connection to the LDAP server. This option is supported for compatibility reasons.
- **Do not use TLS:** The network traffic between the StorageGRID system and the LDAP server will not be secured.

This option is not supported if your Active Directory server enforces LDAP signing. You must use STARTTLS or LDAPS.

7. If you selected STARTTLS or LDAPS, choose the certificate used to secure the connection.
 - **Use operating system CA certificate:** Use the default CA certificate installed on the operating system to secure connections.
 - **Use custom CA certificate:** Use a custom security certificate.

If you select this setting, copy and paste the custom security certificate into the CA certificate text box.

8. Select **Test connection** to validate your connection settings for the LDAP server.

A confirmation message appears in the upper right corner of the page if the connection is valid.

9. If the connection is valid, select **Save**.

The following screenshot shows example configuration values for an LDAP server that uses Active Directory.

LDAP service type

Select the type of LDAP service you want to configure.

Active Directory

OpenLDAP

Other

Configure LDAP server (All fields are required)

Hostname

my-active-directory.example.com

Port

389



Username

MyDomain\Administrator

Password

Group Base DN

DC=storagegrid,DC=example,DC=com

User Base DN

DC=storagegrid,DC=example,DC=com

Related information

[Tenant management permissions](#)

[Guidelines for configuring an OpenLDAP server](#)

Guidelines for configuring an OpenLDAP server

If you want to use an OpenLDAP server for identity federation, you must configure specific settings on the OpenLDAP server.

Memberof and refint overlays

The memberof and refint overlays should be enabled. For more information, see the instructions for reverse

group membership maintenance in the Administrator's Guide for OpenLDAP.

Indexing

You must configure the following OpenLDAP attributes with the specified index keywords:

```
olcDbIndex: objectClass eq
olcDbIndex: uid eq,pres,sub
olcDbIndex: cn eq,pres,sub
olcDbIndex: entryUUID eq
```

In addition, ensure the fields mentioned in the help for Username are indexed for optimal performance.

See the information about reverse group membership maintenance in the Administrator's Guide for OpenLDAP.

Forcing synchronization with the identity source

The StorageGRID system periodically synchronizes federated groups and users from the identity source. You can force synchronization to start if you want to enable or restrict user permissions as quickly as possible.

What you'll need

- You must be signed in to the Tenant Manager using a supported browser.
- You must have specific access permissions.
- The saved identity source must be enabled.

Steps

1. Select **ACCESS MANAGEMENT > Identity federation**.

The Identity federation page appears. The **Sync server** button is at the top right of the page.



If the saved identity source is not enabled, the **Sync server** button will not be active.

2. Select **Sync server**.

A confirmation message is displayed indicating that synchronization started successfully.

Related information

[Tenant management permissions](#)

Disabling identity federation

If you configured an identity federation service for this tenant, you can temporarily or permanently disable identity federation for tenant groups and users. When identity federation is disabled, there is no communication between the StorageGRID system and the identity source. However, any settings you have configured are retained, allowing you

to easily re-enable identity federation in the future.

What you'll need

- You must be signed in to the Tenant Manager using a supported browser.
- You must have specific access permissions.

About this task

Before you disable identity federation, you should be aware of the following:

- Federated users will be unable to sign in.
- Federated users who are currently signed in will retain access to the tenant account until their session expires, but they will be unable to sign in after their session expires.
- Synchronization between the StorageGRID system and the identity source will not occur.

Steps

1. Select **ACCESS MANAGEMENT > Identity federation**.
2. Deselect the **Enable identity federation** check box.
3. Select **Save**.

Related information

[Tenant management permissions](#)

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