

## Configure & Run the LDAP Sync Tool

Before the LDAP Sync tool can be used, it must be properly configured. Follow the steps below to install and configure the sync tool.



At this time, this tool should be configured with the assistance of [Resolver Support](#).

### To configure and run the LDAP Sync tool:

1. [Generate an API key](#) for the desired org. Only one org can be synced at a time.
2. Download and [unzip](#) the `LDAP_to_Core_User_Sync.zip` file provided by Resolver.
3. From the extracted folder, open the `Resolver.Core.Mapping.UserImport.LDAP.UI.exe` file to launch the tool. Ensure the file name contains **UI**.

The screenshot displays the Resolver Core LDAP Sync tool interface, organized into three main sections:

- Core Connection:** Contains input fields for 'Core URL' and 'API Key', and a 'Test Core Connection' button.
- LDAP Connection:** Contains input fields for 'LDAP Host', 'Base Dn', 'Port' (pre-filled with '389'), 'User Id', 'Password', and 'Domain'. It also features an 'Authentication Mode' section with radio buttons for 'User/Password' (selected), 'Windows', and 'Anonymous', and a 'Test LDAP Connection' button.
- LDAP Queries:** Divided into two columns:
  - Left Column (Group Query):** 'Query LDAP for a list of the groups that can be mapped to Core'. Fields include 'Search Dn' (OU=Groups), 'Filter' ((objectClass=group)), 'Name attribute' (name), and 'Members' (member). A 'Test Group Query' button is present.
  - Right Column (User Query):** 'Query LDAP for a list of the users in the selected group'. Fields include 'Search Dn' (CN=Users), 'Filter' ((objectClass=person)), 'Name attribute' (name), and 'Membership' (memberOf). A 'Test User Query' button is present.

Below the query sections are two empty table structures. The left table has columns 'Name', 'Members', and 'Dn'. The right table has columns 'Name' and 'Dn'.

*The Resolver Core LDAP Sync tool as it appears upon initial launch.*

4. Enter the Core environment URL in the **Core URL** field (e.g. `https://example.resolver.com`). The URL must include the **https://** prefix.
5. Enter the org's API key in the **API Key** field.
6. Click **Test Core Connection** to confirm the connection is valid.
7. In the **LDAP Connection** section, enter the following information:
  - a. **LDAP Host:** The DNS directory name of the LDAP server. This can be an IP address or fully qualified name (e.g. `test.resolver.com`).
  - b. **Base Dn:** The base path suffixed to all LDAP queries. See the [LDAP DNs and RDNs](#) article on the LDAP website, or contact your LDAP administrator for more information.
  - c. **Port:** The port number the LDAP server is listening on, which is **389** by default.

### LDAP Connection

LDAP Host	<input type="text" value="ldaptestdirectory.resolver.com"/>	User Id	<input type="text" value="Administrator"/>	Authentication Mode:	
Base Dn	<input type="text" value="DC=ldaptestdirectory,DC=resolver,DC=com"/>	Password	<input type="password" value="....."/>	<input checked="" type="radio"/> User/Password	
Port	<input type="text" value="389"/>	Domain	<input type="text" value="CORP"/>	<input type="radio"/> Windows	
				<input type="radio"/> Anonymous	<input type="button" value="Test LDAP Connection"/>

The LDAP Connection section.

8. Select one of the following **Authentication Mode** options:

- **User/Password:** If this option is selected, enter the current user's username and password in the **User Id** and **Password** fields. If required, enter the name of the server domain hosting the Core environment in the **Domain** field.
- **Windows:** If this option is selected, enter the name of the server domain hosting the Core environment in the **Domain** field.
- **Anonymous:** If this option is selected and the directory is configured to allow anonymous access, a username, password, and/or domain name is not required.

9. Click **Test LDAP Connection** to validate if the information entered in the **LDAP Connection** section is correct.

10. In the **LDAP Queries** section, enter parameters into the following fields to define which users and/or groups will be synced into Core:

- **Search Dn:** The path on the LDAP server that stores the details on the groups or users when combined with the **Base Dn** (in step 7 b. above). By default, these fields are populated with **OU=Groups** for group queries and **CN=Users** for user queries.
- **Filter:** Limits the query to sub-directories that match the string. User filters are combined with selected group filters to further limit returned users to members of the selected group. By default, these fields are populated with **(objectClass=group)** for group queries and **(objectClass=person)** for user queries.
- **Name attribute:** The attribute name on the group or user LDAP object, which is usually **name**. For both group and user queries, these fields are auto-populated with **name**.
- **Members/Membership:** An additional attribute filter based on user or group membership. By default, these fields are populated with **Member** for group queries and **memberOf** for user queries.

### LDAP Queries

<p>Query LDAP for a list of the groups that can be mapped to Core</p> <p>Search Dn <input type="text" value="OU=Groups"/></p> <p>Filter <input type="text" value="(objectClass=group)"/></p> <p>Name attribute <input type="text" value="name"/></p> <p>Members <input type="text" value="member"/> <input type="button" value="Test Group Query"/></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Name</th> <th style="width: 20%;">Members</th> <th style="width: 20%;">Dn</th> </tr> </thead> <tbody> <tr> <td style="height: 50px;"></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Members	Dn				<p>Query LDAP for a list of the users in the selected group</p> <p>Search Dn <input type="text" value="CN=Users"/></p> <p>Filter <input type="text" value="(objectClass=person)"/></p> <p>Name attribute <input type="text" value="name"/></p> <p>Membership <input type="text" value="memberOf"/> <input type="button" value="Test User Query"/></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Name</th> <th style="width: 40%;">Dn</th> </tr> </thead> <tbody> <tr> <td style="height: 50px;"></td> <td></td> </tr> </tbody> </table>	Name	Dn		
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The LDAP Queries section, displaying the default values.



See the [Glossary of LDAP Terms](#), [LDAP DNs and RDNs](#) and [LDAP Filters](#) articles on the LDAP website for more information on the values required in these fields.

11. Click **Test Group Query** to display the group results, then select a group. Note that user queries will not be displayed unless a group is selected.

12. Click **Test User Query** to display the results.



Clicking **Test Group Query** or **Test User Query** displays read-only results and does not sync any data into Core.

13. Click **Save Configuration** to save the values entered in the fields, which will be displayed the next time the tool is run.

14. Click the **Sync** button to manually push the LDAP data into Core.

The screenshot shows the Resolver LDAP sync interface. A modal dialog box titled "Sync Complete" is displayed in the center, providing a summary of the synchronization process. The dialog text is as follows:

**Sync Complete**

- Completed the ldap sync of all groups.
- 2 groups identified for synchronisation.
- 1 groups skipped as they are already up to date.
- 1 groups synchronised to ldap.
- 14 users added to groups.
- 0 users removed from groups.
- 0 users already present in groups.
- 14 new users created.
- 1 user inserts failed.
- 0 users disabled.
- 0 users enabled.
- 0 user enablement failures.
- 0 disabled users not added to groups.

The background interface includes the following sections:

- LDAP Connection:** Fields for LDAP Host (ldaptestdirectory.resolver.com), Base Dn (DC=ldaptestdirectory,DC=resolver,DC=com), Port (389), User Id (Administrator), and Password (masked).
- LDAP Queries:** Fields for Search Dn (OU=Groups), Filter ((cn=\*)), Name attribute (name), and Members (member).
- LDAP Query Results:** A table with columns Name, Members, and Dn. The "Admin Soak Group" is highlighted.
- Buttons:** "Test LDAP Connection", "Test User Query", "Sync", and "Save Configuration".

A status bar at the bottom indicates "Processing group #2 of 2".

*A successfully completed sync.*