



# One Identity Quick Connect for Base Systems 2.4

## Administrator Guide

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### Legend

-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.
-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.
-  **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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# Installing One Identity Quick Connect for Base Systems

Before installing One Identity Quick Connect for Base Systems make sure your system meets the system requirements provided in the *One Identity Quick Connect for Base Systems Release Notes*. For instructions on how to upgrade from an earlier version of One Identity Quick Connect for Base Systems, see the Release Notes supplied with this version of the product.

## **To install the product by using the Setup Wizard**

1. Do one of the following:
  - In a 32-bit edition of Windows, run the **QuickConnectForBaseSystems\_x86.msi** file supplied with the One Identity Quick Connect for Base Systems installation package.
  - In a 64-bit edition of Windows, run the **QuickConnectForBaseSystems\_x64.msi** file supplied with the One Identity Quick Connect for Base Systems installation package.
2. Follow the steps in the Setup Wizard until you are on the Completion page.
3. Select the **Restart Quick Connect service now for changes to take effect** check box.
4. Click **Finish** to close the wizard.

## **To perform a silent installation**

- On a 32-bit system, enter the following command at a command prompt:

```
msiexec /i "<Path to QuickConnectForBaseSystems_x86.msi>"  
RESTART_QCSERVICE=<Value> /qb /1*v  
<Path to file that will store the Setup log>
```
- On a 64-bit system, enter the following command at a command prompt:

```
msiexec /i "<Path to QuickConnectForBaseSystems_x64.msi>"  
RESTART_QCSERVICE=<Value> /qb /1*v  
<Path to file that will store the Setup log>
```

In the above syntax:

**Table 1: Arguments**

<b>Argument</b>	<b>Description</b>
RESTART_QCSERVICE	<p>Specifies whether or not to restart the Quick Connect Service.</p> <p>The changes made by the Setup program may not take effect until the Quick Connect Service is restarted.</p> <p>This argument can take one of the following values:</p> <ul style="list-style-type: none"><li>• <b>0.</b> Specifies not to restart the Quick Connect Service. This value is also used when the RESTART_QCSERVICE argument is omitted.</li><li>• <b>1.</b> Specifies to restart the Quick Connect Service.</li></ul>

For instructions on how to configure connections to supported data systems, see the following sections in this guide:

- [Working with a delimited text file](#)
- [Working with an LDAP directory service](#)
- [Working with Microsoft SQL Server](#)
- [Working with Novell eDirectory](#)
- [Working with an OLE DB-compliant relational database](#)
- [Working with Oracle Database](#)
- [Working with Oracle user accounts](#)
- [Working with Sun One Directory Server](#)
- [Working with OpenDS](#)
- [Working with Red Hat Directory Server](#)
- [Working with MySQL database](#)
- [Working with IBM DB2](#)
- [Working with an ODBC-compliant data source](#)
- [Working with an OpenLDAP directory service](#)



## Working with a delimited text file

This section describes how to create or modify a connection to a delimited text file so that One Identity Quick Connect for Base Systems could work with data in that file.

To create a connection to a delimited text file, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *Delimited Text File Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The Delimited Text File Connector supports the following features:

**Table 2: Supported features**

Feature	
<b>Bidirectional synchronization</b>	No
Allows you to read and write data in the connected data system.	By using this connector, you can only read data in the connected data system.
<b>Delta processing mode</b>	Yes
Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	
<b>Password synchronization</b>	No
Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	

In this section:

- [Creating a delimited text file connection](#)
- [Modifying an existing delimited text file connection](#)

For instructions on how to rename a connection, delete a connection, or modify synchronization scope for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

# Creating a delimited text file connection

## *To create a new connection*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - a. **Connection name**. Type a descriptive name for the connection.
  - b. **Use the specified connector**. Select **Delimited Text File Connector**.
3. Click **Next**.
4. On the **Specify connection settings** page, use the following options:
  - **Delimited text file**. Click **Browse** to locate and select the delimited text file to which you want to connect.
  - **Access delimited text file using**. Select an access option:
    - **Quick Connect Service account**. Access the delimited text file in the security context of the account under which the Quick Connect Service is running.
    - **Windows account**. Access the delimited text file in the security context of the account whose user name and password you specify below this option.
  - **Test Connection**. Click this button to verify the specified connection settings.
5. Click **Next**.
6. On the **Specify delimited text file format** page, use the following options to provide information about the delimited text file format:
  - **Delimiter**. Select the delimiter used in the file you specified.
  - **Use first row for attribute names**. Select this check box if the first line of the specified file contains names of attributes. Otherwise, leave this check box cleared.
  - **Advanced**. Click this button to specify advanced options to access the delimited text file, such as encoding, row delimiter, value delimiter, and text qualifier.
7. Click **Next**.
8. On the **Specify attributes to identify objects** page, use the following options to select the attributes with which you want to uniquely identify each object in the file:
  - **Available attributes**. Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.

- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
  - **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
  - **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
  - **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.
9. Click **Finish** to create a connection to the delimited text file.

## Modifying an existing delimited text file connection

### *To modify connection settings*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing delimited text file connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Specify delimited text file format](#)
- [Schema](#)
- [Specify attributes to identify objects](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

In this expandable item, you can use the following options:

- **Delimited text file.** Click **Browse** to locate and select the delimited text file to which you want to connect.
- **Access delimited text file using.** Select an access option:
  - **Quick Connect Service account.** Access the delimited text file in the security context of the account under which the Quick Connect Service is

running.

- **Windows account.** Access the delimited text file in the security context of the account whose user name and password you specify below this option.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify delimited text file format

This expandable item provides the following options:

- **Delimiter.** Select the delimiter used in the file you specified.
- **Use first row for attribute names.** Select this check box if the first line of the specified file contains names of attributes. Otherwise, leave this check box cleared.
- **Advanced.** Specify advanced options to access the delimited text file, such as encoding, row delimiter, value delimiter, and text qualifier.

## Schema

You can use this expandable item to view and modify the delimited text file schema saved in the Quick Connect configuration database.

When you create a connection to a delimited text file, Quick Connect reads the schema in the file (that is, the fields or columns related to each record in the file), and then saves the schema in the Quick Connect configuration database. Quick Connect then uses the saved file schema to read and modify the data in the connected file. Should the schema in the connected file change, you will need to reflect these changes in the **Schema** option so that Quick Connect could correctly handle (read and write) the data in the changed file.

This expandable item provides the following options:

- **Attributes.** Lists the names of Quick Connect attributes that correspond to certain columns or fields in the connected file. Basically, these are the names of attributes you can select and use in the Quick Connect Administration Console for each object in the connected delimited text file.
- **Add.** Allows you to add a new entry (for example, column or field) to the file schema saved in the Quick Connect configuration database. You can use this button in case a new column or field was added to the connected file and you want to reflect this change in the file schema saved in the Quick Connect configuration database.
- **Edit.** Allows you to edit the name of the selected Quick Connect attribute associated with a certain column or field in the connected file. For example, you can use this button in case a field or column name was changed in the connected file and you want to reflect this change in the file schema saved in the Quick Connect configuration database. Also you can use this button to edit the display name of a Quick Connect attribute associated with a certain column or field in the connected file.

- **Remove.** Allows you to remove the selected attribute from the file schema saved in the Quick Connect configuration database. For example, you can use this button in case a field or column name was deleted from the connected file and you want to reflect this change in the file schema saved in the Quick Connect configuration database.
- **Reload schema.** Allows you to update the file schema saved in the Quick Connect configuration database by reloading the schema from the file to the configuration database. As a result, the file schema saved in the Quick Connect configuration database will be completely rewritten with new data from the file.
- **Up arrow.** Moves the selected attribute up.
- **Down arrow.** Moves the selected attribute down.

## Specify attributes to identify objects

This expandable item provides the following options that allow you to specify the attributes with which you wish to uniquely identify each object in the delimited text file:

- **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
- **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
- **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
- **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.

## Working with an LDAP directory service

This section describes how to create or modify a connection to an LDAP directory service so that you could work with data in that data system.

To create a connection to an LDAP directory service, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *Generic LDAP Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The Generic LDAP Connector supports the following features:

**Table 3: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

In this section:

- [Creating an LDAP directory service connection](#)
- [Modifying an existing LDAP directory service connection](#)

- [Specifying password sync parameters for LDAP directory service](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

## Creating an LDAP directory service connection

### *To create a new connection*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - a. **Connection name**. Type a descriptive name for the connection.
  - b. **Use the specified connector**. Select **Generic LDAP Connector**.
3. Click **Next**.
4. On the **Specify connection settings** page, use the following options:
  - **Server**. Type the fully qualified domain name (FQDN) of the computer running the LDAP directory service to which you want to connect.
  - **Port**. Type the number of the communication port used by the LDAP server to which you want to connect.
  - **Use TLS/SSL**. Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
  - **Use connectionless LDAP**. Enables the use of the connectionless LDAP (CLDAP) protocol for the connection.
  - **User name**. Type the user name of the account with which you want to bind.
  - **Password**. Type the password of the account with which you want to bind.
  - **Domain**. Type the domain to which belongs the user account with which you want to bind.
  - **Bind with Quick Connect Service account**. Allows you to bind with the account under which the Quick Connect Service is running.
  - **Bind with credentials**. Allows you to bind by specifying the credentials of a particular user account.
  - **Use simple bind**. Allows you to bind either without specifying user account credentials or with a user password only. In the latter case, the password you type is transmitted as clear text.
  - **Use custom bind**. Allows you to configure a number of advanced settings for binding. Click **Configure**, and then use the next options.

From the **Authentication method** list, select one of the following methods:

- **Anonymous.** Allows you to establish the connection without passing credentials.
- **Basic.** Specifies to use basic authentication.
- **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
- **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- **Distributed Password Authentication.** Specifies to use DPA authentication.
- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
  - **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
  - **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
  - **Test Connection.** Click this button to verify the specified connection settings.
5. Click **Next**.
  6. On the **Specify directory partitions** page, select the check boxes next to the directory partitions you want to participate in the synchronization operations.

You can also use the following additional options:

    - **Select all.** Selects the check boxes next to all directory partitions in the list.
    - **Add.** Adds a new directory partition to the list.
    - **Remove.** Removes currently selected directory partition from the list.
    - **Test Connection.** Click this button to verify the specified connection settings.
  7. Click **Next**.
  8. On the **Specify attributes to identify objects** page, specify the attributes with which you want to uniquely identify each object in the LDAP directory service.



You can use the following options:

- **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
- **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
- **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
- **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.

9. Click **Finish** to create a connection to the LDAP directory service.

## Modifying an existing LDAP directory service connection

You can modify the various settings for an existing LDAP directory service connection, such as LDAP directory service server, communication port, access credentials, directory partitions participating in the synchronization, the attributes used to uniquely identify objects in the connected data system, and the attributes used for naming objects in the LDAP directory service.

Every object in an LDAP directory service has a naming attribute from which the object name is formed. When you create a connection to an LDAP directory service, a default naming attribute is selected for each object type in the data system. You can view the default naming attribute currently selected for each object type in the data system and optionally specify a different naming attribute.

### ***To modify connection settings***

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing LDAP directory service connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Specify directory partitions](#)

- [Specify naming attributes](#)
- [Specify attributes to identify objects](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **Server.** Type the fully qualified domain name of the computer running the LDAP directory service to which you want to connect.
- **Port.** Type the number of the communication port used by the LDAP server to which you want to connect.
- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
- **Use connectionless LDAP.** Allows you to use the connectionless LDAP (CLDAP) protocol for the connection.
- **User name.** Type the user name of the account with which you want to bind.
- **Password.** Type the password of the account with which you want to bind.
- **Domain.** Type the domain to which belongs the user account with which you want to bind.
- **Bind with Quick Connect Service account.** Allows you to bind with the account under which the Quick Connect Service is running.
- **Bind with credentials.** Allows you to bind by specifying the credentials of a particular user account.
- **Use simple bind.** Allows you to bind either without specifying user account credentials or only with password. In the latter case, the password you specify is transmitted as clear text.
- **Use custom bind.** Allows you to configure a number of advanced settings for binding. Click **Configure**, and then use the next options.

From the **Authentication method** list, select one of the following methods:

- **Anonymous.** Allows you to establish the connection without passing credentials.
- **Basic.** Specifies to use basic authentication.
- **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
- **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.

- **Distributed Password Authentication.** Specifies to use DPA authentication.
- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
- **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
- **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify directory partitions

Allows you to specify the directory partitions you want to participate in the synchronization operations by selecting the check boxes next to such directory partitions. You can also use the following additional options:

- **Select all.** Selects the check boxes next to all directory partitions in the list.
- **Add.** Adds a new directory partition to the list.
- **Remove.** Removes currently selected directory partition from the list.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify naming attributes

Every object in an LDAP directory service has a naming attribute from which the object name is formed. When you create a connection to an LDAP directory service, a default naming attribute is selected for each object type in the data system. You can use the **Specify Naming Attributes** item to view the naming attribute currently selected for each object type in the data system and optionally specify a different naming attribute.

This expandable item provides following options:

- **Default naming attribute.** Displays the default naming attribute currently selected for each object type.
- **Add.** Adds a new naming attribute for the selected object type.

- **Edit.** Allows you to edit the name of the naming attribute currently specified for the selected object type.
- **Remove.** Removes the currently selected entry from the list.

## Specify attributes to identify objects

This expandable item provides the following options that allow you to specify the attributes with which you wish to uniquely identify each object in the connected LDAP directory service:

- **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
- **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
- **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
- **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.

## Specifying password sync parameters for LDAP directory service

To synchronize passwords in an LDAP directory service connected to One Identity Quick Connect Sync Engine through the Generic LDAP Connector, you must specify the following parameters:

- The target object type for which you want to synchronize passwords.
- The object attribute for storing passwords in the LDAP directory service.

### ***To specify the target object type and attribute for storing passwords***

1. Click the **Connection settings** link below the LDAP directory service connection for which you want to specify the target object type and attribute for storing passwords.
2. Open the **Password** tab.
3. Make sure the **Synchronize and manage passwords** check box is selected.

4. Use the **Synchronize passwords for objects of this type** option to specify the object type in LDAP directory service for which you want to synchronize passwords.
5. Use the **Store password in this attribute** option to specify the attribute in which you want to store passwords.
6. Click **Save**.

## Working with Microsoft SQL Server

This section describes how to create or modify a connection to Microsoft SQL Server so that One Identity Quick Connect for Base Systems could work with data in that data system.

To create a connection to Microsoft SQL Server, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *Microsoft SQL Server Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The Microsoft SQL Server Connector supports the following features:

**Table 4: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

In this section:

- [Creating a Microsoft SQL Server connection](#)
- [Modifying an existing Microsoft SQL Server connection](#)
- [Sample queries to modify SQL Server data](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

## Creating a Microsoft SQL Server connection

### *To create a new connection*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - **Connection name**. Type a descriptive name for the connection.
  - **Use the specified connector**. Select **Microsoft SQL Server Connector**.
3. Click **Next**.
4. On the **Specify connection settings** page, use the following options:
  - **SQL Server**. Type or select the name of the SQL Server computer that hosts the database you want to participate in data synchronization operations.
    - **Access SQL Server using**. Select an access option:
      - **Use Windows authentication**. Allows you to access the SQL Server in the security context of the account under which the Quick Connect Service is running.
      - **Use SQL Server authentication**. Allows you to access the SQL Server in the security context of the SQL Server user account whose user name and password you specify below this option.
    - **Connect to database**. Type the name of the database to which you want to connect.
    - **Test Connection**. Click this button to verify the specified connection settings.
5. Click **Next**.
6. On the **Specify how to select and modify data** page, use the following options:
  - **Use data from this table**. Allows you to select a database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
  - **Use an SQL query to specify data**. Allows you to compose an SQL query that provides a more flexible way for specifying the data for synchronization. For example, you can use this option to specify multiple database tables.
  - **Configure Settings**. Click this button to specify settings for modifying data in the connected system during synchronization operations. For example, you can specify the database tables in which you want to insert, update, or delete data during synchronization operations.

7. Click **Next**.
8. On the **Specify attributes to identify objects** page, use the following options:
  - **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
  - **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
  - **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
  - **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
  - **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.
9. Click **Finish** to create a connection to the Microsoft SQL Server database.

## Modifying an existing Microsoft SQL Server connection

### *To modify connection settings*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing Microsoft SQL Server connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Specify how to select and modify data](#)
- [Advanced](#)
- [Specify attributes to identify objects.](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.



## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **SQL Server.** Type or select the name of the SQL Server computer that hosts the database you want to participate in data synchronization operations.
- **Access SQL Server using.** Select an access option:
  - **Use Windows authentication.** Allows you to access the SQL Server in the security context of the account under which the Quick Connect Service is running.
  - **Use SQL Server authentication.** Allows you to access the SQL Server in the security context of the SQL Server user account whose user name and password you specify below this option.
- **Connect to database.** Type the name of the database to which you want to connect.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify how to select and modify data

This expandable item provides the following options that allow you to specify the data you want to participate in the synchronization:

- **Use data from this table.** Allows you to select a database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
- **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying the data for synchronization. For example, you can use this option to specify multiple database tables.
- **Configure Settings.** Click this button to specify settings for modifying data in the connected system during synchronization operations. For example, you can specify the database tables in which you want to insert, update, or delete data during synchronization operations.

## Advanced

Allows you to configure the execution timeout for all SQL queries you specified in the connection settings (for example, those specified in the **Specify How to Select and Modify Data** option). Use the **SQL query execution timeout** box to type the timeout value you want to use.

## Specify attributes to identify objects

This expandable item provides the following options that allow you to specify the attributes with which you want to uniquely identify each object in the connected data system:

- **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
- **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
- **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
- **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.

## Sample queries to modify SQL Server data

This section provides some sample SQL queries illustrating how to modify SQL Server data during synchronization operations. In the sample queries, **Id** refers to an attribute (a column name in an SQL Server table) that uniquely identifies an object in your SQL database. These examples can be used only for configuring connections to Microsoft SQL Server 2005.

## How to insert an object into a table

This sample illustrates how to create a query that inserts an object with specified attributes into the table named **SQLConnTest1**.

**Table 5: How to insert an object into a table**

Database table structure	Sample query
CREATE TABLE [SQLConnTest1]([Id] [bigint] IDENTITY(1,1),[attr1] [nchar](64),[attr2] [nchar](64)))	INSERT into SQLConnTest1(Id) values(@Id)

# How to create a SQL Server account

This sample illustrates how to create a SQL Server account, and then retrieve the UniqueID attribute for that account.

To define the scope where to create the SQL Server account, insert the following query in the **Query Editor** dialog box:

```
SELECT sid as Id,name as login from sys.server_principals
```

Insert the following SQL query into the **Configure SQL Statements** dialog box:

```
EXEC sp_addlogin @login, @newPassword;  
EXEC sp_adduser @login,@login,'db_owner';  
SELECT sid as Id from sys.server_principals where name=@login;
```

**IMPORTANT:** None of attribute names used in SQL queries can include white-space characters. For example, you cannot use names such as "user password".

## Working with Novell eDirectory

This section describes how to create or modify a connection to Novell eDirectory so that One Identity Quick Connect for Base Systems could work with data in that data system.

To create a connection to Novell eDirectory, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *Novell eDirectory Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The Novell eDirectory Connector supports the following features:

**Table 6: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

In this section:

- [Creating a Novell eDirectory connection](#)
- [Modifying an existing Novell eDirectory connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *Quick Connect Administrator Guide*.

# Creating a Novell eDirectory connection

## To create a new connection

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - a. **Connection name**. Type a descriptive name for the connection.
  - b. **Use the specified connector**. Select **Novell eDirectory Connector**.
3. On the **Specify connection settings** page, use the following options:
  - a. **Server**. Type the fully qualified domain name of the Novell eDirectory server to which you want to connect.
  - b. **Port**. Type the number of the communication port used by the Novell eDirectory server.
  - c. **Access Novell Directory Service using**. Type the user name and password with which you want to access Novell eDirectory. Ensure the account has sufficient permissions to perform operations (read, write) on objects in Novell eDirectory.
  - d. **Advanced**. Click this button to specify a number of advanced options to access Novell eDirectory. For example, you can select an authentication method, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.

From the **Authentication method** list, select one of the following methods:

- a. **Anonymous**. Allows you to establish the connection without passing credentials.
- b. **Basic**. Specifies to use basic authentication.
- c. **Microsoft Negotiate**. Specifies to use Microsoft Negotiate authentication.
- d. **NTLM**. Specifies to use Windows NT Challenge/Response authentication.
- e. **Digest**. Specifies to use Digest Access authentication.
- f. **Sicily**. Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- g. **Distributed Password Authentication**. Specifies to use DPA authentication.
- h. **Microsoft Network Authentication Service**. Specifies to authenticate with Microsoft Network Authentication Service.
- i. **External**. Specifies to use an external authentication method for the connection.
- j. **Kerberos**. Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
  - **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
  - **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
  - **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
  - **Test Connection.** Click this button to verify the specified connection settings.
4. Click **Finish** to create a connection to Novell eDirectory.

## Modifying an existing Novell eDirectory connection

You can modify the various settings for an existing connection to Novell eDirectory, such as the Novell eDirectory server to connect to, communication port, access credentials, and the attributes used for naming objects in Novell eDirectory.

Every object in Novell eDirectory has a naming attribute from which the object name is formed. When you create a connection to Novell eDirectory, a default naming attribute is selected for each object type in that data system. You can view the default naming attribute currently selected for each object type in the directory and optionally specify a different naming attribute.

### **To modify connection settings**

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing Novell eDirectory connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
  - [Specify naming attributes](#)
4. When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **Server.** Type the fully qualified domain name of the Novell eDirectory server to which you want to connect.
- **Port.** Type the number of the communication port used by the Novell eDirectory server.
- **Access Novell Directory Service using.** Type the user name and password with which you want to access Novell eDirectory. Ensure the account has sufficient permissions to perform operations (read, write) on objects in Novell eDirectory.
- **Advanced.** Click this button to specify a number of advanced options to access Novell eDirectory. For example, you can select an authentication method, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.

From the **Authentication method** list, select one of the following methods:

- **Anonymous.** Allows you to establish the connection without passing credentials.
- **Basic.** Specifies to use basic authentication.
- **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
- **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- **Distributed Password Authentication.** Specifies to use DPA authentication.
- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
- **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.

- **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify naming attributes

Every object in Novell eDirectory has a naming attribute from which the object name is formed. When you create a connection to the directory, a default naming attribute is selected for each object type in that data system. You can use the **Specify Naming Attributes** item to view the naming attribute currently selected for each object type in Novell eDirectory and optionally specify a different naming attribute.

This expandable item provides following options:

- **Default naming attribute.** Displays the default naming attribute set for the currently selected object type.
- **Add.** Adds a new naming attribute for the selected object type.
- **Edit.** Allows you to edit the name of the naming attribute currently specified for the selected object type.
- **Remove.** Removes the currently selected entry from the list.



## Working with an OLE DB-compliant relational database

This section describes how to create or modify a connection to an OLE DB-compliant relational database so that One Identity Quick Connect for Base Systems could work with data in that database.

To create a connection to an OLE DB-compliant relational database, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *OLE DB Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The OLE DB Connector supports the following features:

**Table 7: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	No By using this connector, you can only read data in the connected data system.
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	No

In this section:

- [Creating an OLE DB-compliant relational database connection](#)
- [Modifying an existing OLE DB-compliant data source connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *Quick Connect Administrator Guide*.

## Creating an OLE DB-compliant relational database connection

### **To create a new connection**

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - **Connection name.** Type a descriptive name for the connection.
  - **Use the specified connector.** Select **OLE DB Connector**.
3. Click **Next**.
4. Use the **Connection string** text box to type the connection parameters to access the OLE DB-compliant relational database. Alternatively, you can click the **Configure** button to specify the connection parameters by using a dialog box provided by Windows.
5. Click **Next**.
6. On the **Specify how to select data** page, use the following options:
  - **Use data from this table.** Allows you to select a database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
  - **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data for synchronization. For example, you can use this option to specify multiple database tables.
7. Click **Next**.
8. On the **Specify attributes to identify objects** page, use the following options:
  - **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
  - **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.

- **Add->**. Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
  - **<-Remove**. Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
  - **Constructed UniqueID**. Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.
9. Click **Finish** to create a connection to the OLE DB-compliant relational database.

## Modifying an existing OLE DB-compliant data source connection

### *To modify connection settings*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing OLE DB-compliant relational database connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Specify how to select data](#)
- [Advanced](#)
- [Specify attributes to identify objects](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

Use the **Connection string** text box to type the connection parameters to access the OLE DB-compliant relational database. Alternatively, you can click the **Configure** button to specify the connection parameters by using a dialog box provided by Windows.

## Specify how to select data

This expandable item provides the following options that allow you to specify the data you want to participate in the synchronization:

- **Use data from this table.** Allows you to select a database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
- **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data for synchronization. For example, you can use this option to specify multiple database tables.

## Advanced

Allows you to configure the execution timeout for all SQL queries you specified in the connection settings (for example, those specified in the **Specify How to Select and Modify Data** option). Use the **SQL query execution timeout** box to type the timeout value you want to use.

## Specify attributes to identify objects

This expandable item provides the following options that allow you to specify the attributes with which you want to uniquely identify each object in the connected data system:

- **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
- **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
- **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
- **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.

## Working with Oracle Database

This section describes how to create or modify a connection to Oracle Database so that One Identity Quick Connect for Base Systems could work with data in that data system.

To create a connection to Oracle Database, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *Oracle Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The Oracle Connector supports the following features:

**Table 8: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to more quickly synchronize identity data by processing only the data that has changed in the source and target systems since their last synchronization.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes Password synchronization is only supported for user accounts that are authenticated entirely by Oracle Database. The Oracle Connector does not support password synchronization for Oracle user accounts that use external or global authentication in Oracle terms.

This section covers:

- [Creating an Oracle Database connection](#)
- [Modifying an existing Oracle Database connection](#)

- [Sample SQL queries](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

## Creating an Oracle Database connection

### **To create a new connection**

1. Make sure that the One Identity Quick Connect Sync Engine computer has the following software installed:
  - Oracle Client. Ensure Oracle Client is configured to connect to the Oracle service that can be used to access Oracle Database that hosts the data you want to work with.
  - Oracle Net Services
  - Oracle Data Provider for .NET

For supported versions of this software, see the System Requirements section in the *One Identity Quick Connect for Base Systems Release Notes*.
2. In the Quick Connect Administration Console, open the **Connections** tab.
3. Click **Add connection**, and then use the following options:
  - a. **Connection name**. Type a descriptive name for the connection.
  - b. **Use the specified connector**. Select **Oracle Connector**.
4. Click **Next**.
5. On the **Specify connection settings** page, use the following options:
  - **Oracle service name**. Specify the name of the Oracle service you want to use to access Oracle Database. You can click **Refresh** to get a list of available Oracle services.
  - **Access Oracle service with**. Type the user name and password of the account with which you want to access the Oracle service.
  - **Test Connection**. Click this button to verify the specified connection settings.
6. Click **Next**.
7. On the **Specify how to select and modify data** page, use the following options:
  - **Use data from this table**. Allows you to select a database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
  - **Use an SQL query to specify data**. Allows you to compose an SQL query that provides a more flexible way for specifying the data for synchronization. For example, you can use this option to specify multiple database tables.
8. Click **Next**.

9. On the **Specify attributes to identify objects** page, use the following options:
  - **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
  - **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
  - **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
  - **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
  - **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.
10. Click **Finish** to create a connection to Oracle Database.

## Modifying an existing Oracle Database connection

### *To modify connection settings*

1. Make sure that the One Identity Quick Connect Sync Engine computer has the following software installed:
  - a. Oracle Client. Ensure Oracle Client is configured to connect to the Oracle service that can be used to access Oracle Database that hosts the data you want to work with.
  - b. Oracle Net Services
  - c. Oracle Data Provider for .NET

For supported versions of this software, see the System Requirements section in the *One Identity Quick Connect for Base Systems Release Notes*.

2. In the Quick Connect Administration Console, open the **Connections** tab.
3. Click **Connection settings** below the existing Oracle Database connection you want to modify.
4. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Specify how to select and modify data](#)

- [Advanced](#)
- [Specify attributes to identify objects](#)

See the next subsections for the descriptions of these items.

5. When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **Oracle service name.** Specify the name of the Oracle service you want to use to access Oracle Database. You can click **Refresh** to get a list of available Oracle services.
- **Access Oracle service with.** Type the user name and password of the account with which you want to access the Oracle service.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify how to select and modify data

This expandable item provides the following options that allow you to specify the data you want to participate in the synchronization:

- **Use data from this table.** Allows you to select the database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
- **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data for synchronization. For example, you can use this option to specify multiple database tables.
- **Configure Settings.** Click this button to specify settings for modifying data in the connected system during synchronization operations. For example, you can specify the database tables in which you want to insert, update, or delete data during synchronization operations.

## Advanced

Allows you to configure the execution timeout for all SQL queries you specified in the connection settings (for example, those specified in the **Specify How to Select and Modify Data** option). Use the **SQL query execution timeout** box to type the timeout value you want to use.



# Specify attributes to identify objects

This expandable item provides the following options that allow you to specify the attributes with which you want to uniquely identify each object in the connected data system:

- **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
- **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
- **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
- **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.

## Sample SQL queries

The sample queries provided in this section are only applicable if One Identity Quick Connect Sync Engine is connected to the target Oracle Database through the Oracle Connector.

### Sample SQL query 1

This SQL query illustrates how to add a new entry to the table named **SQLConnTest1** in Oracle Database to which you want to provision data from another connected system.

**Table 9: Add a new entry to the SQLConnTest1 table**

Database table structure	Sample query
CREATE TABLE "SQLConnTest1"("Id" number,"attr1" nchar(64), "attr2" nchar(64))	Insert into SQLConnTest1(attr1) values (:attr1) returning Id into :Id

In this sample query, **Id** stands for the attribute that uniquely identifies each object in Oracle Database.

## Sample SQL query 2

This SQL query illustrates how to create a new user in Oracle Database:

```
call dbms_utility.exec_ddl_statement('CREATE USER ' || :USERNAME || ' IDENTIFIED BY ' || :newPassword)
```

In this sample query:

- **USERNAME** refers to the name of the attribute that uniquely identifies a user in Oracle Database.
- **newPassword** refers to the name of the attribute that will store the initial password you want to set for the Oracle user being created.

## Working with Oracle user accounts

This section explains how to create or modify a connection to Oracle Database so that One Identity Quick Connect for Base Systems could work with user accounts data in that data system.

To create a connection to Oracle Database so that you could work with user accounts in that data system, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *Oracle User Accounts Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The Oracle User Accounts Connector supports the following features:

**Table 10: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes Password synchronization is only supported for user accounts that are authenticated entirely by Oracle Database. Oracle User Accounts Connector does not support password synchronization for Oracle user accounts that use external or global authentication in Oracle terms.

This section covers:

- [Creating an Oracle user accounts connection](#)
- [Modifying an existing Oracle user accounts connection](#)
- [Sample SQL queries](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

## Creating an Oracle user accounts connection

### *To create a new connection*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - **Connection name.** Type a descriptive name for the connection.
  - **Use the specified connector.** Select **Oracle User Accounts Connector**.
3. Click **Next**.
4. On the **Specify connection settings** page, use the following options:
  - **Oracle service name.** Specify the name of the Oracle service you want to use to access Oracle Database. You can click **Refresh** to get a list of available Oracle services.
  - **Access Oracle service with.** Type the user name and password of the account with which you want to access the Oracle service.
  - **Test Connection.** Click this button to verify the specified connection settings.
5. Click **Finish** to create a connection to Oracle Database.

After connecting One Identity Quick Connect Sync Engine to Oracle Database with the Oracle User Accounts Connector, you can specify custom SQL queries you want to automatically run each time after One Identity Quick Connect Sync Engine has created, updated, or deleted a user account in Oracle Database. For more information, see [Modifying an existing Oracle user accounts connection](#).

# Modifying an existing Oracle user accounts connection

## *To modify connection settings*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing Oracle Database connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Advanced](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **Oracle service name.** Specify the name of the Oracle service you want to use to access Oracle Database. You can click **Refresh** to get a list of available Oracle services.
- **Access Oracle service with.** Type the user name and password of the account with which you want to access the Oracle service.
- **Test Connection.** Click this button to verify the specified connection settings.

## Advanced

This expandable item provides the following options that allow you to specify custom SQL queries which will automatically run each time One Identity Quick Connect Sync Engine has created, updated, or deleted a user account in Oracle Database:

- **SQL queries to run after user provisioned.** Lists the SQL queries you want to run each time One Identity Quick Connect Sync Engine has created a user account in Oracle Database.

- **SQL queries to run after user updated.** Lists the SQL queries you want to run each time One Identity Quick Connect Sync Engine has updated a user account in Oracle Database.
- **SQL queries to run after user deprovisioned.** Lists the SQL queries you want to run each time One Identity Quick Connect Sync Engine has deleted a user account in Oracle Database.

Below each of these options you can use these buttons:

- **Add.** Adds a new SQL query to the list.
- **Edit.** Allows you to edit the SQL query selected in the list.
- **Delete.** Deletes the SQL query selected in the list.

SQL queries run in the order they are listed. If necessary, you can rearrange the SQL queries in the lists: select an SQL query in the appropriate list, and then click the up or down arrow button to move the query as necessary.

## Sample SQL queries

The sample queries provided in this section are only applicable if One Identity Quick Connect Sync Engine is connected to the target Oracle Database system through the Oracle User Accounts Connector.

### Sample query 1

This SQL query illustrates how to call a specific Oracle stored procedure:

```
CALL "<ProcedureName>"('&USERNAME')
```

In this query:

- **ProcedureName** specifies the name of the Oracle stored procedure you want to call.
- **USERNAME** refers to the name of the attribute that uniquely identifies a user in the target Oracle Database system.

### Sample query 2

This SQL query illustrates how to add a new entry to a particular table in the target Oracle Database system:

```
insert into DatabaseTable(ColumnName) values (upper('&USERNAME'))
```

In this query:

- **DatabaseTable** specifies the name of the table into which the entry will be added.
- **USERNAME** refers to the name of the attribute that uniquely identifies a user in the target Oracle Database system.

## Working with Sun One Directory Server

This section describes how to create or modify a connection to a directory managed by Sun One Directory Server so that One Identity Quick Connect for Base Systems could work with data in that data system.

To create a connection to a directory managed by Sun One Directory Server, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *Sun One Directory Server Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The Sun One Directory Server Connector supports the following features:

**Table 11: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

This section covers:



- [Creating a Sun One Directory Server connection](#)
- [Modifying an existing Sun One Directory Server connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

## Creating a Sun One Directory Server connection

### **To create a new connection**

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - **Connection name.** Type a descriptive name for the connection.
  - **Use the specified connector.** Select **Sun One Directory Server Connector**.
3. Click **Next**.
4. On the **Specify connection settings** page, use the following options:
  - **Server.** Type the fully qualified domain name of the computer running Sun One Directory Server that manages the directory to which you want to connect.
  - **Port.** Type the number of the communication port used by Sun One Directory Server.
  - **Access Sun One Directory Server using.** Type the user name and password of the account with which you want to access Sun One Directory Server. Ensure the account has sufficient permissions to perform operations (read, write) on objects in the directory managed by Sun One Directory Server.
  - **Advanced.** Click this button to specify a number of advanced options to access the directory managed by Sun One Directory Server. For example, you can select an authentication method, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.
  - From the **Authentication method** list, select one of the following methods:
    - **Anonymous.** Allows you to establish the connection without passing credentials.
    - **Basic.** Specifies to use basic authentication.
    - **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
    - **NTLM.** Specifies to use Windows NT Challenge/Response authentication.

- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- **Distributed Password Authentication.** Specifies to use DPA authentication.
- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
  - **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
  - **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
  - **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
  - **Test Connection.** Click this button to verify the specified connection settings.
5. Click **Finish** to create a connection to Sun One Directory Server.

## Modifying an existing Sun One Directory Server connection

You can modify the various settings for an existing connection to a directory managed by Sun One Directory Server, such as server computer to which the connection is established, communication port, access credentials, and the attributes used for naming objects in the directory.

Every object in a directory managed by Sun One Directory Server has a naming attribute from which the object name is formed. When you create a connection to the directory, a default naming attribute is selected for each object type in that data system. You can view the default naming attribute currently selected for each object type in the directory and optionally specify a different naming attribute.

### **To modify connection settings**

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing Sun One Directory Server connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
  - [Specify naming attributes](#)
4. When you are finished, click **Save**.

## **Specify connection settings**

This expandable item provides the following options that allow you to modify the connection settings:

- **Server.** Type the fully qualified domain name of the computer running Sun One Directory Server that manages the directory to which you want to connect.
- **Port.** Type the number of the communication port used by Sun One Directory Server.
- **Access Sun One Directory Server using.** Type the user name and password of the account with which you want to access Sun One Directory Server. Ensure the account has sufficient permissions to perform the operations you want (Read, Write) on objects in the directory managed by Sun One Directory Server.
- **Advanced.** Click this button to specify a number of advanced options to access the directory managed by Sun One Directory Server. For example, you can select an authentication method, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.

From the **Authentication method** list, select one of the following methods:

- **Anonymous.** Allows you to establish the connection without passing credentials.
- **Basic.** Specifies to use basic authentication.
- **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
- **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- **Distributed Password Authentication.** Specifies to use DPA authentication.

- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
- **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
- **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify naming attributes

Every object in a directory managed by Sun One Directory Server has a naming attribute from which the object name is formed. When you create a connection to the directory, a default naming attribute is selected for each object type in that data system. You can use the **Specify Naming Attributes** item to view the naming attribute currently selected for each object type in the directory and optionally specify a different naming attribute.

This expandable item provides following options:

- **Default naming attribute.** Displays the default naming attribute set for the currently selected object type.
- **Add.** Adds a new naming attribute for the selected object type.
- **Edit.** Allows you to edit the name of the naming attribute currently specified for the selected object type.
- **Remove.** Removes the currently selected entry from the list.

## Working with OpenDS

This section explains how to create or modify a connection to a directory service based on the OpenDS software so that you could work with data in that data system.

To create a connection to an OpenDS directory service, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *OpenDS Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The OpenDS Connector supports the following features:

**Table 12: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

In this section:

- [Creating an OpenDS directory service connection](#)
- [Modifying an existing OpenDS directory service connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

# Creating an OpenDS directory service connection

## *To create a new connection*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - **Connection name.** Type a descriptive name for the connection.
  - **Use the specified connector.** Select **OpenDS Connector**.
3. Click **Next**.
4. On the **Specify connection settings** page, use the following options:
  - a. **Server.** Type the fully qualified domain name (FQDN) of the computer running the OpenDS directory service to which you want to connect.
  - b. **Port.** Type the number of the communication port used by the OpenDS directory service to which you want to connect.
  - c. **Access OpenDS server using.** Type the user name and password of the account with which you want to access the OpenDS directory service. Ensure the account has sufficient permissions to perform the operations you want (Read, Write) on objects in the OpenDS directory service.
  - d. **Advanced.** Click this button to specify a number of advanced options to access the OpenDS directory service. For example, you can select an authentication method to access the directory service, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.
5. From the **Authentication method** list, select one of the following methods:
  - **Anonymous.** Allows you to establish the connection without passing credentials.
  - **Basic.** Specifies to use basic authentication.
  - **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
  - **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
  - **Digest.** Specifies to use Digest Access authentication.
  - **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
  - **Distributed Password Authentication.** Specifies to use DPA authentication.
  - **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
  - **External.** Specifies to use an external authentication method for the connection.
  - **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
  - **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
  - **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
  - **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.
  5. Click **Finish** to create a connection to the OpenDS directory service.

After establishing the connection, you can define which attributes will be used for naming objects in the data system. For more information, see [Modifying an existing OpenDS directory service connection](#).

## Modifying an existing OpenDS directory service connection

You can modify the various settings for an existing OpenDS directory service connection, such as directory service server, communication port, access credentials, and the attributes used for naming objects in the OpenDS directory service.

Every object in an OpenDS directory service has a naming attribute from which the object name is formed. When you create a connection to an OpenDS directory service, a default naming attribute is selected for each object type in the data system. You can view the default naming attribute currently selected for each object type in the data system and optionally specify a different naming attribute.

### **To modify connection settings**

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing OpenDS directory service connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- a. [Specify connection settings](#)
- b. [Specify naming attributes](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **Server.** Type the fully qualified domain name (FQDN) of the computer running the OpenDS directory service to which you want to connect.
- **Port.** Type the number of the communication port used by the OpenDS directory service to which you want to connect.
- **Access OpenDS directory service using.** Type the user name and password of the account with which you want to access the OpenDS directory service. Ensure the account has sufficient permissions to perform the operations you want (Read, Write) on objects in the OpenDS directory service.
- **Advanced.** Click this button to specify a number of advanced options to access the OpenDS directory service. For example, you can select an authentication method to access the directory service, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.

From the **Authentication method** list, select one of the following methods:

- **Anonymous.** Allows you to establish the connection without passing credentials.
- **Basic.** Specifies to use basic authentication.
- **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
- **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- **Distributed Password Authentication.** Specifies to use DPA authentication.
- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.



- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
- **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
- **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify naming attributes

Allows you to specify a naming attribute for each object type in the connected data system. You can use the following options:

- **Default naming attribute.** Displays the default naming attribute set for the currently selected object type.
- **Add.** Adds a new naming attribute for the selected object type.
- **Edit.** Allows you to edit the name of the naming attribute currently specified for the selected object type.
- **Remove.** Removes the currently selected entry from the list.

## Working with Red Hat Directory Server

This section explains how to create or modify a connection to Red Hat Directory Server so that you could work with data in that data system.

To create a connection to Red Hat Directory Server, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *Red Hat Directory Server Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The Red Hat Directory Server Connector supports the following features:

**Table 13: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

In this section:

- [Creating a Red Hat Directory Server connection](#)
- [Modifying an existing Red Hat Directory Server connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

## Creating a Red Hat Directory Server connection

### To create a new connection

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - **Connection name.** Type a descriptive name for the connection.
  - **Use the specified connector.** Select **Red Hat Directory Server Connector**.
3. Click **Next**.
4. On the **Specify connection settings** page, use the following options:
  - **Server.** Type the fully qualified domain name (FQDN) of the computer running Red Hat Directory Server to which you want to connect.
  - **Port.** Type the number of the communication port used by the Red Hat Directory Server computer to which you want to connect.
  - **Access Red Hat Directory Server using.** Type the user name and password of the account with which you want to access Red Hat Directory Server. Ensure the account has sufficient permissions to perform the operations you want (Read, Write) on objects in Red Hat Directory Server.
  - **Advanced.** Click this button to specify a number of advanced options to access Red Hat Directory Server. For example, you can select an authentication method to access the server, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.

From Authentication method list, select one of the following methods:

- **Anonymous.** Allows you to establish the connection without passing credentials.
- **Basic.** Specifies to use basic authentication.
- **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
- **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.

- **Distributed Password Authentication.** Specifies to use DPA authentication.
- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.

You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
- **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
- **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.

5. Click **Finish** to create a connection to Red Hat Directory Server.

After establishing a connection, you can define attributes to name objects in the data system. For more information, see [Modifying an existing Red Hat Directory Server connection](#).

## Modifying an existing Red Hat Directory Server connection

You can modify the various settings for an existing Red Hat Directory Server connection, such as server name, communication port, access credentials, and the attributes used for naming objects in Red Hat Directory Server.

Every object in Red Hat Directory Server has a naming attribute from which the object name is formed. When you create a connection to Red Hat Directory Server, a default naming attribute is selected for each object type in the data system. You can view the default naming attribute currently selected for each object type in the data system and optionally specify a different naming attribute.

### **To modify connection settings**

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing Red Hat Directory Server connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)

- [Specify naming attributes](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **Server.** Type the fully qualified domain name (FQDN) of the computer running Red Hat Directory Server to which you want to connect.
- **Port.** Type the number of the communication port used by the Red Hat Directory Server computer to which you want to connect.
- **Access Red Hat Directory Server using.** Type the user name and password of the account with which you want to access Red Hat Directory Server. Ensure the account has sufficient permissions to perform the operations you want (Read, Write) on objects in Red Hat Directory Server.
- **Advanced.** Click this button to specify a number of advanced options to access Red Hat Directory Server. For example, you can select an authentication method to access the server, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.

From the **Authentication method** list, select one of the following methods:

- **Anonymous.** Allows you to establish the connection without passing credentials.
- **Basic.** Specifies to use basic authentication.
- **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
- **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- **Distributed Password Authentication.** Specifies to use DPA authentication.
- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.

- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
- **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
- **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify naming attributes

Allows you to specify a naming attribute for each object type in the connected data system. You can use the following options:

- **Default naming attribute.** Displays the default naming attribute set for the currently selected object type.
- **Add.** Adds a new naming attribute for the selected object type.
- **Edit.** Allows you to edit the name of the naming attribute currently specified for the selected object type.
- **Remove.** Removes the currently selected entry from the list.

## Working with MySQL database

This section explains how to create or modify a connection to a MySQL database so that One Identity Quick Connect for Base Systems could work with data in that database.

To create a connection to a MySQL database, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *MySQL Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The MySQL Connector supports the following features:

**Table 14: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

In this section:

- [Creating a MySQL database connection](#)
- [Modifying an existing MySQL database connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

# Creating a MySQL database connection

## To create a new connection

1. Make sure that on the One Identity Quick Connect Sync Engine computer you install Connector/Net, an ADO.NET driver for MySQL.  
For supported versions of Connector/Net, see the System Requirements section in the *Release Notes* supplied with this version of One Identity Quick Connect for Base Systems.
2. In the Quick Connect Administration Console, open the **Connections** tab.
3. Click **Add connection**, and then use the following options:
  - **Connection name.** Type a descriptive name for the connection.
  - **Use the specified connector.** Select **MySQL Connector**.
4. Click **Next**.
5. On the **Specify connection settings** page, use the following options:
  - **MySQL server.** Type the fully qualified domain name of the MySQL server that hosts the MySQL database that you want to participate in data synchronization operations.
  - **Access MySQL server using.** Type the user name and password of the account with which you want to access MySQL server. Ensure the account has sufficient permissions to perform operations (Read, Write) on objects in the database to which you want to connect.
  - **Connect to database.** Type the name of the database to which you want to connect on the MySQL server.
  - **Advanced.** Click this button to specify additional parameters you want to add to the connection string that will be used to access the MySQL server. In the dialog box that opens, click the **Add Parameter** button to specify the name and value of the parameter you want to add to the connection string.
  - **Test Connection.** Click this button to verify the specified connection settings.
6. Click **Next**.
7. On the **Specify how to select and modify data** page, use the following options:
  - **Use data from this table.** Allows you to select the database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
  - **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data that will participate in the synchronization operations. For example, you can use this option to specify multiple database tables. Select this option, and then click the **Configure Query** button to type your SQL query.
  - **Configure Settings.** Click this button to configure settings for modifying data in the connected system during synchronization operations. For example, you



can specify the database tables in which you want to insert, update, or delete data during synchronization operations.

8. Click **Next**.
9. On the **Specify attributes to identify objects** page, use the following options:
  - **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
  - **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
  - **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
  - **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
  - **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.
10. Click **Finish** to create a connection to MySQL database.

## Modifying an existing MySQL database connection

### *To modify connection settings*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing MySQL database connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Specify how to select and modify data](#)
- [Advanced](#)
- [Specify attributes to identify objects](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **MySQL server.** Type the fully qualified domain name of the MySQL server that hosts the MySQL database that you want to participate in data synchronization operations.
- **Access MySQL server using.** Type the user name and password of the account with which you want to access MySQL server. Ensure the account has sufficient permissions to perform operations (Read, Write) on objects in the database to which you want to connect.
- **Connect to database.** Type the name of the database to which you want to connect on the MySQL server.
- **Advanced.** Click this button to specify additional parameters you want to add to the connection string that will be used to access the MySQL server. In the dialog box that opens, click the **Add Parameter** button to specify the name and value of the parameter you want to add to the connection string.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify how to select and modify data

This expandable item provides the following options that allow you to specify the data you want to participate in the synchronization:

- **Use data from this table.** Allows you to select the database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
- **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data that will participate in the synchronization operations. For example, you can use this option to specify multiple database tables. Select this option, and then click the **Configure Query** button to type your SQL query.
- **Configure Settings.** Click this button to configure settings for modifying data in the connected system during synchronization operations. For example, you can specify the database tables in which you want to insert, update, or delete data during synchronization operations.

## Advanced

Allows you to configure the execution timeout for all SQL queries you specified in the connection settings (for example, those specified in the **Specify How to Select and**

**Modify Data** option). Use the **SQL query execution timeout** box to type the timeout value you want to use.

## Specify attributes to identify objects

This expandable item provides the following options that allow you to specify the attributes with which you want to uniquely identify each object in the connected data system:

- **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
- **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
- **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
- **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.

## Working with IBM DB2

This section explains how to create or modify a connection to IBM DB2 so that One Identity Quick Connect for Base Systems could work with data in that data system.

To create a connection to IBM DB2, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *IBM DB2 Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The IBM DB2 Connector supports the following features:

**Table 15: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

In this section:

- [Creating an IBM DB2 connection](#)
- [Modifying an existing IBM DB2 connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

# Creating an IBM DB2 connection

## To create a new connection

1. On the One Identity Quick Connect Sync Engine computer, install IBM Data Server Client supplied with the IBM DB2 version with which you plan to work.
2. In the Quick Connect Administration Console, open the **Connections** tab.
3. Click **Add connection**, and then use the following options on the **Name connection and select connector** page:
  - a. **Connection name.** Type a descriptive name for the connection.
  - b. **Use the specified connector.** Select **IBM DB2 Connector**.
4. Click **Next**.
5. On the **Specify connection settings** page, use the following options:
  - a. **IBM DB2 server.** Type or select the fully qualified domain name of the IBM DB2 computer that hosts the database you want to participate in data synchronization operations. You can click **Refresh** to get a list of available IBM DB2 servers.
  - b. **Access IBM DB2 server using.** Type the user name and password with which you want to access the IBM DB2 server.
  - c. **Connect to database.** Type the name of the database to which you want to connect on the IBM DB2 server.
  - d. **Advanced.** Optionally, you can click this button to specify additional parameters you want to add to the connection string that will be used to access the IBM DB2 server. In the dialog box that opens, click the **Add Parameter** button to specify the name and value of the parameter you want to add to the connection string.
  - e. **Test Connection.** Click this button to verify the specified connection settings.
6. Click **Next**.
7. On the **Specify how to select and modify data** page, use the following options:
  - **Use data from this table.** Allows you to select the database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
  - **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data for synchronization. For example, you can use this option to specify multiple database tables.
  - **Configure Settings.** Click this button to specify settings for modifying data in the connected system during synchronization operations. For example, you can specify the database tables in which you want to insert, update, or delete data during synchronization operations.

8. On the **Specify attributes to identify objects** page, use the following options:
  - **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
  - **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
  - **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
  - **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
  - **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.
9. Click **Finish** to create a connection to the IBM DB2 system.

## Modifying an existing IBM DB2 connection

### *To modify connection settings*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing IBM DB2 connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Specify how to select and modify data](#)
- [Advanced](#)
- [Specify attributes to identify objects](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **IBM DB2 server.** Type or select the fully qualified domain name of the IBM DB2 computer that hosts the database you want to participate in data synchronization operations. You can click **Refresh** to get a list of available IBM DB2 servers.
- **Access IBM DB2 server using.** Type the user name and password with which you want to access the IBM DB2 server.
- **Connect to database.** Type the name of the database to which you want to connect on the IBM DB2 server.
- **Advanced.** Click this button to specify additional parameters you want to add to the connection string that will be used to access the IBM DB2 server. Then, click the **Add Parameter** button to specify the name and value of the parameter you want to add to the connection string.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify how to select and modify data

This expandable item provides the following options that allow you to specify the data you want to participate in the synchronization:

- **Use data from this table.** Allows you to select the database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
- **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data for synchronization. For example, you can use this option to specify multiple database tables.
- **Configure Settings.** Click this button to specify settings for modifying data in the connected system during synchronization operations. For example, you can specify the database tables in which you want to insert, update, or delete data during synchronization operations.

## Advanced

Allows you to configure the execution timeout for all SQL queries you specified in the connection settings (for example, those specified in the **Specify How to Select and Modify Data** option). Use the **SQL query execution timeout** box to type the timeout value you want to use.

## Specify attributes to identify objects

This expandable item provides the following options that allow you to specify the attributes with which you want to uniquely identify each object in the connected data system:

- **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.
- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
- **Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
- **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
- **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.



## Working with an ODBC-compliant data source

This section explains how to create or modify a connection to an Open Database Connectivity-compliant (ODBC) data source so that One Identity Quick Connect for Base Systems could work with data in that data source.

To create a connection to an ODBC-compliant data source, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *ODBC Connector*. This connector is included in the One Identity Quick Connect for Base Systems package. Also, a driver for the ODBC-compliant data source must be installed on the computer running One Identity Quick Connect Sync Engine.

The ODBC Connector supports the following features:

**Table 16: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	No By using this connector, you can only read data in the connected data system.
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	No

In this section:

- [Creating an OLE DB-compliant relational database connection](#)
- [Modifying an existing OLE DB-compliant data source connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

## Creating an ODBC-compliant data source connection

### **To create a new connection**

1. Make sure that on the One Identity Quick Connect Sync Engine computer you install an ODBC driver providing access to the ODBC-compliant data source you want to work with.
2. In the Quick Connect Administration Console, open the **Connections** tab.
3. Click **Add connection**, and then use the following options:
  - **Connection name.** Type a descriptive name for the connection.
  - **Use the specified connector.** Select **ODBC Connector**.
4. Click **Next**.
5. Use the **Connection string** text box to type the connection parameters to access the ODBC-compliant data source.

For more information about the format of the connection string and the required parameters, see the documentation for your ODBC-compliant data source.
6. Click **Next**.
7. On the **Specify how to select data** page, use the following options:
  - a. **Use data from this table.** Allows you to select a database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
  - b. **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data for synchronization. For example, you can use this option to specify multiple database tables.
8. Click **Next**.
9. On the **Specify attributes to identify objects** page, use the following options:
  - **Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.

- **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
  - **UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.
  - **Add->** . Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.
  - **<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.
  - **Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.
10. Click **Finish** to create a connection to the ODBC-compliant data source.

## Modifying an existing ODBC-compliant data source connection

### *To modify connection settings*

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Connection settings** below the existing ODBC-compliant data source connection you want to modify.
3. On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

- [Specify connection settings](#)
- [Specify how to select data](#)
- [Advanced](#)
- [Specify attributes to identify objects](#)

See the next subsections for the descriptions of these items.

4. When you are finished, click **Save**.

## Specify connection settings

Use the **Connection string** text box to edit the connection parameters to access the ODBC-compliant data source.

## Specify how to select data

This expandable item provides the following options that allow you to specify the data you want to read in the data source:

- **Use data from this table.** Allows you to select a database table that includes the data you want to participate in the synchronization operations. You can click **Preview** to preview the database table you have selected.
- **Use an SQL query to specify data.** Allows you to compose an SQL query that provides a more flexible way for specifying data for synchronization. For example, you can use this option to specify multiple database tables.

## Advanced

Allows you to configure the execution timeout for all SQL queries you specified in the connection settings (for example, those specified in the **Specify How to Select Data** option). Use the **SQL query execution timeout** box to type the timeout value you want to use.

## Specify attributes to identify objects

This expandable item provides the following options that allow you to specify the attributes with which you want to uniquely identify each object in the connected data source:

**Available attributes.** Lists the attributes that are available in the external data system. Use this list to select the attributes whose values you want to use to generate a unique identifier for each object in the external data system. You can filter attributes by typing in the text box at the top of this list. To select multiple attributes, hold down CTRL and click to select attributes in the list.

**UniqueID attributes.** Lists the attributes whose values are currently used to generate a unique identifier for each object in the external data system.

**Add->.** Moves the selected attributes from the **Available attributes** list to the **UniqueID attributes** list.

**<-Remove.** Moves the selected attributes from the **UniqueID attributes** list to the **Available attributes** list.

**Constructed UniqueID.** Displays a combination of the attributes whose values will make up a unique identifier for each object in the external data system.

## Working with an OpenLDAP directory service

This section explains how to create or modify a connection to a directory service based on OpenLDAP software so that you could work with data in that data system.

To create a connection to an OpenLDAP directory service, you need to use One Identity Quick Connect Sync Engine in conjunction with a special connector called *OpenLDAP Connector*. This connector is included in the One Identity Quick Connect for Base Systems package.

The OpenLDAP Connector supports the following features:

**Table 17: Supported features**

Feature	Supported
<b>Bidirectional synchronization</b> Allows you to read and write data in the connected data system.	Yes
<b>Delta processing mode</b> Allows you to process only the data that has changed in the connected data system since the last synchronization operation, thereby reducing the overall synchronization operation time.	No
<b>Password synchronization</b> Allows you to synchronize user passwords from an Active Directory domain to the connected data system.	Yes

In this section:

- [Creating an OpenLDAP directory service connection](#)
- [Modifying an existing OpenLDAP directory service connection](#)

For instructions on how to rename a connection, delete a connection, modify synchronization scope for a connection, or specify password synchronization settings for a connection, see the *One Identity Quick Connect Sync Engine Administrator Guide*.

## Creating an OpenLDAP directory service connection

### To create a new connection

1. In the Quick Connect Administration Console, open the **Connections** tab.
2. Click **Add connection**, and then use the following options:
  - **Connection name**. Type a descriptive name for the connection.
  - **Use the specified connector**. Select **OpenLDAP Connector**.
3. Click **Next**.
4. On the **Specify connection settings** page, use the following options:
  - **Server**. Type the fully qualified domain name of the computer running the OpenLDAP directory service to which you want to connect.
  - **Port**. Type the number of the communication port used by the OpenLDAP directory service to which you want to connect.
  - **Access LDAP directory service using**. Type the user name and password of the account with which you want to access the OpenLDAP directory service. Ensure the account has sufficient permissions to perform the operations you want (Read, Write) on objects in the OpenLDAP directory service.
  - **Advanced**. Click this button to specify a number of advanced options to access the OpenLDAP directory service. For example, you can select an authentication method to access the directory service, configure TLS/SSL usage for the connection, and select whether or not you want to use paged search.

From the **Authentication method** list, select one of the following methods:

- **Anonymous**. Allows you to establish the connection without passing credentials.
- **Basic**. Specifies to use basic authentication.
- **Microsoft Negotiate**. Specifies to use Microsoft Negotiate authentication.
- **NTLM**. Specifies to use Windows NT Challenge/Response authentication.
- **Digest**. Specifies to use Digest Access authentication.
- **Sicily**. Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- **Distributed Password Authentication**. Specifies to use DPA authentication.

- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.

You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
- **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
- **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.

5. Click **Finish** to create a connection to the OpenLDAP directory service.

After establishing a connection, you can define attributes to name objects in the data system. For more information, see [Modifying an existing OpenLDAP directory service connection](#).

## Modifying an existing OpenLDAP directory service connection

You can modify the various settings for an existing OpenLDAP directory service connection, such as directory service server, communication port, access credentials, and the attributes used for naming objects in the OpenLDAP directory service.

Every object in an OpenLDAP directory service has a naming attribute from which the object name is formed. When you create a connection to an OpenLDAP directory service, a default naming attribute is selected for each object type in the data system. You can view the default naming attribute currently selected for each object type in the data system and optionally specify a different naming attribute.

### ***To modify connection settings***

In the Quick Connect Administration Console, open the **Connections** tab.

Click **Connection settings** below the existing OpenLDAP directory service connection you want to modify.

On the **Connection Settings** tab, click an appropriate item to expand it and use the options it provides.

You can expand the following items:

[Specify connection settings](#)

[Specify naming attributes](#)

See the next subsections for the descriptions of these items.

When you are finished, click **Save**.

## Specify connection settings

This expandable item provides the following options that allow you to modify the connection settings:

- **Server.** Type the fully qualified domain name (FQDN) of the computer running the OpenLDAP directory service to which you want to connect.
- **Port.** Type the number of the communication port used by the OpenLDAP directory service to which you want to connect.
- **Access OpenLDAP directory service using.** Type the user name and password of the account with which you want to access the OpenLDAP directory service. Ensure the account has sufficient permissions to perform the operations you want (Read, Write) on objects in the OpenLDAP directory service.
- **Advanced.** Click to select an authentication method to access the directory service, configure TLS/SSL usage for the connection, or select whether or not you want to use paged search.

From the **Authentication method** list, select one of the following methods:

- **Anonymous.** Allows you to establish the connection without passing credentials.
- **Basic.** Specifies to use basic authentication.
- **Microsoft Negotiate.** Specifies to use Microsoft Negotiate authentication.
- **NTLM.** Specifies to use Windows NT Challenge/Response authentication.
- **Digest.** Specifies to use Digest Access authentication.
- **Sicily.** Employs a negotiation mechanism (Sicily) to choose the Microsoft Network Authentication Service, Distributed Password Authentication, or NTLM method.
- **Distributed Password Authentication.** Specifies to use DPA authentication.
- **Microsoft Network Authentication Service.** Specifies to authenticate with Microsoft Network Authentication Service.
- **External.** Specifies to use an external authentication method for the connection.
- **Kerberos.** Specifies to use Kerberos authentication.



You can also use the following check boxes:

- **Use TLS/SSL.** Allows you to use the TLS (SSL) encryption to establish and maintain the connection.
- **Switch to TLS/SSL after establishing connection.** Establishes the connection without using the TLS (SSL) encryption. Then, after the connection has been established, enables the TLS (SSL) encryption.
- **Verify TLS/SSL certificate.** Specifies whether or not to check the TLS (SSL) certificate on the server.
- **Use paged search.** Specifies whether or not to use paged search for the connection. When selecting this check box, you can set a page size limit in the text box below.
- **Test Connection.** Click this button to verify the specified connection settings.

## Specify naming attributes

Allows you to specify a naming attribute for each object type in the connected data system. You can use the following options:

- **Default naming attribute.** Displays the default naming attribute set for the currently selected object type.
- **Add.** Adds a new naming attribute for the selected object type.
- **Edit.** Allows you to edit the name of the naming attribute currently specified for the selected object type.
- **Remove.** Removes the currently selected entry from the list.

## Contacting us

For sales or other inquiries, visit <https://www.oneidentity.com/company/contact-us.aspx> or call +1-800-306-9329.

## Technical support resources

Technical support is available to One Identity customers with a valid maintenance contract and customers who have trial versions. You can access the Support Portal at <https://support.oneidentity.com/>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product