

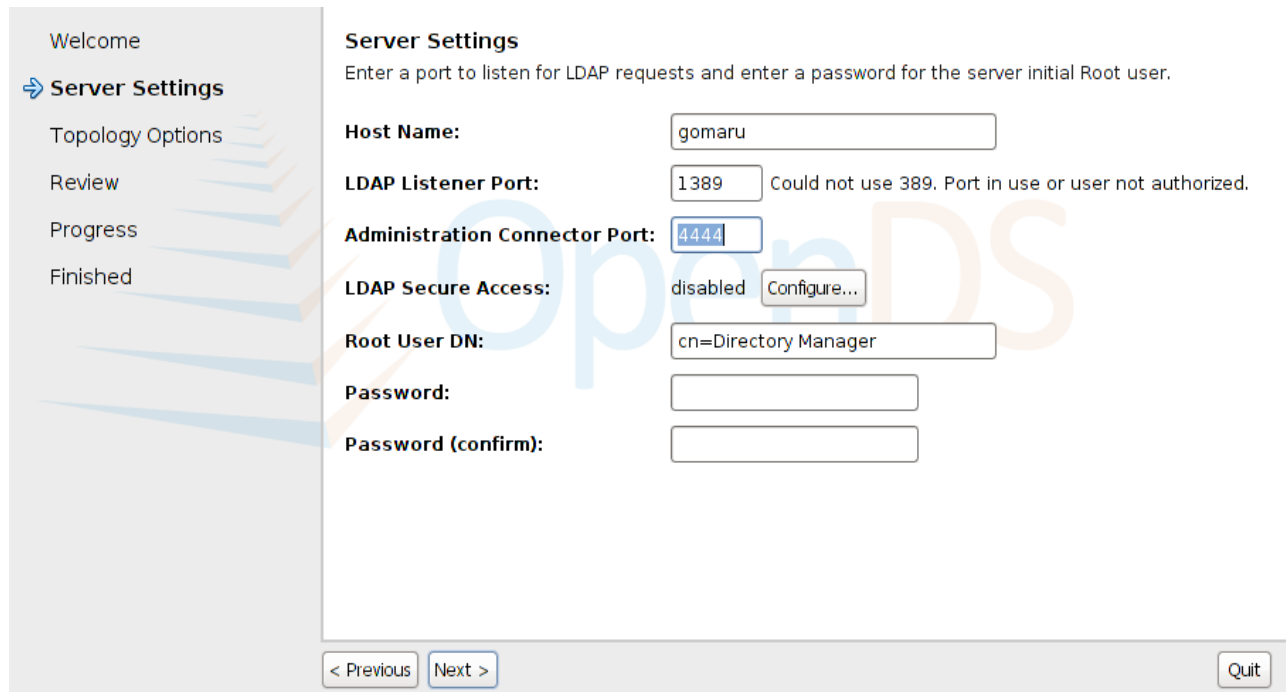
Configuring OpenDS LDAP for use with Merritt Sample Database

OpenDS Install

1. Download a compressed archive of OpenDS (current URL http://opends.java.net/public/downloads_index.html).
2. Extract OpenDS to the directory of your choice.
3. Copy the file *99-user.ldif* to the *config/schema/* directory inside extracted OpenDS files.

OpenDS Setup

1. Execute the script *setup* inside your extracted OpenDS files. (Note, be sure to keep track of the settings you use in this setup since you'll need the settings later.)
2. Click *Next >* at the welcome screen.
3. Click the *Configure. . .* for LDAP Secure Access.



The screenshot shows the 'Server Settings' window of the OpenDS setup utility. On the left is a sidebar with a progress indicator showing steps: Welcome, Server Settings (current), Topology Options, Review, Progress, and Finished. The main area is titled 'Server Settings' and contains the following fields and options:

- Host Name:**
- LDAP Listener Port:** Could not use 389. Port in use or user not authorized.
- Administration Connector Port:**
- LDAP Secure Access:** ☐ disabled
- Root User DN:**
- Password:**
- Password (confirm):**

At the bottom, there are three buttons: '< Previous', 'Next >', and 'Quit'.

4. Enable SSL and set the other options according to your certificate choices. Click Ok.

Configure Secure Access
Specify the options for enabling secure access to the server.

SSL Access: ☒ Enable SSL on Port: Could not use 636. Port in use or user not authorized.

StartTLS Access: ☒

Certificate: ☒ Generate Self-Signed Certificate (recommended for testing only)
☐ Use an Existing Certificate:

Key Store Type: ☐ Java Key Store (JKS) File
☐ JCEKS File
☐ PKCS#12 File
☐ PKCS#11 Token

Key Store Path:

Key Store PIN:

5. Finish configuring the server settings such as your password and click *Next* >.

Welcome

➔ **Server Settings**

Topology Options

Review

Progress

Finished

Server Settings
Enter a port to listen for LDAP requests and enter a password for the server initial Root user.

Host Name:

LDAP Listener Port: Could not use 389. Port in use or user not authorized.

Administration Connector Port:

LDAP Secure Access: Enable StartTLS
Enable SSL on LDAP Port 1636
Create a new Self-Signed Certificate

Root User DN:

Password:

Password (confirm):

6. Choose your LDAP replication options and click *Next >*.

The screenshot shows the 'Topology Options' step of the OpenLDAP configuration wizard. On the left is a sidebar with a progress indicator showing steps: Welcome, Server Settings, Topology Options (current), Review, Progress, and Finished. The main content area is titled 'Topology Options' and instructs the user to 'Choose the Data Replication Options.' There are two radio button options: 'This will be a standalone server' (selected) and 'This server will be part of a replication topology'. Below these are fields for 'Replication Port' (8989) and a checkbox for 'Configure as Secure'. Another checkbox 'There is already a server in the topology' is present. Below that are input fields for 'Host Name', 'Administration Connector Port' (4444), 'Admin User' (cn=Directory Manager), and 'Admin Password'. At the bottom are navigation buttons: '< Previous', 'Next >', and 'Quit'.

Welcome
Server Settings
⇒ **Topology Options**
Review
Progress
Finished

Topology Options
Choose the Data Replication Options.

☒ This will be a standalone server
☐ This server will be part of a replication topology

Replication Port: 8989 ☐ Configure as Secure

☐ There is already a server in the topology

Host Name:
Administration Connector Port: 4444
Admin User: cn=Directory Manager
Admin Password:

< Previous Next > Quit

7. Change the value for the *Directory Base DN* to *ou=uc3,dc=cdlib,dc=org*. Choose the option to *Import Data from LDIF File*. Browse or enter the path to the *example.ldif* file. Click *Next >*.

The screenshot shows the 'Directory Data' step of the OpenLDAP configuration wizard. The sidebar on the left shows the progress: Welcome, Server Settings, Topology Options, Directory Data (current), Review, Progress, and Finished. The main content area is titled 'Directory Data' and instructs the user to 'Choose options for the LDAP data to be hosted by the server.' It features a text field for 'Directory Base DN' containing 'ou=uc3,dc=cdlib,dc=org'. Below this are three radio button options: 'Only Create Base Entry (ou=uc3,dc=cdlib,dc=org)', 'Leave Database Empty', and 'Import Data from LDIF File' (selected). The 'Import Data from LDIF File' option has a 'Path' field containing '/sktop/ldap_db/smallified/example.ldif' and a 'Browse...' button. There is also an option for 'Import Automatically-Generated Sample Data' with a 'Number of User Entries' field set to '2000'. Navigation buttons at the bottom include '< Previous', 'Next >', and 'Quit'.

Welcome
Server Settings
Topology Options
⇒ **Directory Data**
Review
Progress
Finished

Directory Data
Choose options for the LDAP data to be hosted by the server.

Directory Base DN: ou=uc3,dc=cdlib,dc=org

Directory Data:
☐ Only Create Base Entry (ou=uc3,dc=cdlib,dc=org)
☐ Leave Database Empty
☒ Import Data from LDIF File
☐ Import Automatically-Generated Sample Data

Path: /sktop/ldap_db/smallified/example.ldif Browse...
Number of User Entries: 2000

< Previous Next > Quit

8. Review your settings and click *Finish*.

Welcome

Server Settings

Topology Options

Directory Data

➔ **Review**

Progress

Finished

Review

Review your settings and click Finish if they are correct.

Host Name: gomaruu

LDAP Listener Port: 1389

Administration Connector Port: 4444

LDAP Secure Access: Enable StartTLS
Enable SSL on LDAP Port 1636
Create a new Self-Signed Certificate

Root User DN: cn=Directory Manager

Directory Data: Create New Base DN ou=uc3,dc=cdlib,dc=org.
Base DN Data: Import Data from LDIF File (/home/sfisher/Desktop/ldap_db/smallified/example.ldif)

☒ Start Server when Configuration has Completed

< Previous Finish Quit

9. You will see a progress bar and text that show that all items were completed successfully.

10. You will see a final summary screen from which you can launch the OpenDS control panel if you wish. Click *Close*.

Starting, Stopping, Using the OpenDS Control Panel

- You may start the OpenDS server with the *bin/start-ds* script.
- You may stop the OpenDS server with the *bin/stop-ds* script.
- You may open the Control Panel with the *bin/control-panel* script.

LDAP Settings and the Merritt UI Code

- LDAP configuration settings are in the file *config/ldap.yml*.
- In the example ldap database, there are two users (“rjones” and “aschultze”). The password for both users is “testpass”.
- After viewing the structure of the LDAP database, you may create your own modeled after it.
- You may edit the data stored in the LDAP database with the OpenDS Control Panel.
- You may wish to make a copy of the example.ldif file and then edit it to create your own starting data. You can then go through this setup process again and import your own starter data in step 7 instead of using the example data.
- Timezone value strings for the tzRegion field are the same as used in the TZInfo – Ruby Timezone Library (<http://tzinfo.rubyforge.org/>).