



Sendio® E-mail Security Platform Appliance

# Open LDAP Tutorial

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# INTRODUCTION

The ESP appliance works best with a local directory server on the network, such as an Active Directory. It seamlessly synchronizes with any LDAP v3 compliant server in that all users that are added, modified or deleted are automatically synchronized to the appliance (by default, at 10 p.m. every night). In cases where a compatible directory server is not available, it is possible to use the optional on-board LDAP service on the appliance to manage the list of organizational units (OUs), users and e-mail addresses. This document describes how to set up and manage the on-board directory.

# GETTING STARTED

To manage the on-board directory, download and unzip the *OpenLDAP Browser* software from <http://www.sendio.com/support/downloads> to a PC (Mac or Windows) that has network access to the ESP appliance. This application provides all necessary features to add, edit and remove various directory entries, including organizational units (OUs), users and e-mail addresses.

Prior to attempting a connection to the directory server, make sure the PC's IP address is added to the appliance's *Directory Access List* setting. This setting is located in the *System Configuration* section of the console interface (see the *Installation Guide* for further details)

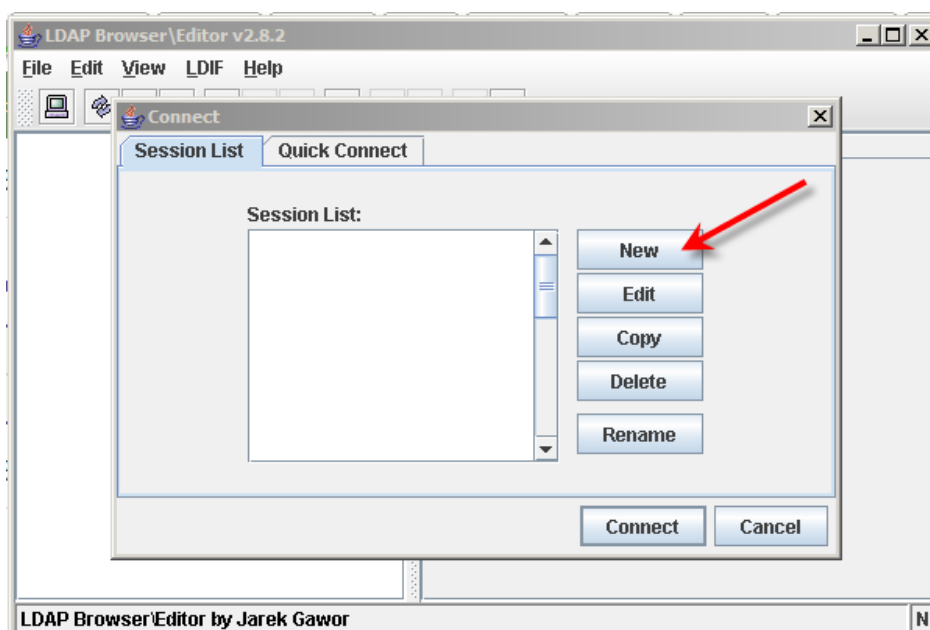
Ensure the PC has access to the appliance on port 389. You may test this access by issuing the following command from a Windows or MacOS command line:

```
telnet <IP of ESP appliance> 389
```

Once this is successful, proceed to launch the LDAP browser by double-clicking on the *lbe.bat* file (Windows) or *lbe.jar* file (Mac). You will find these files in the directory where the zip file was unzipped.

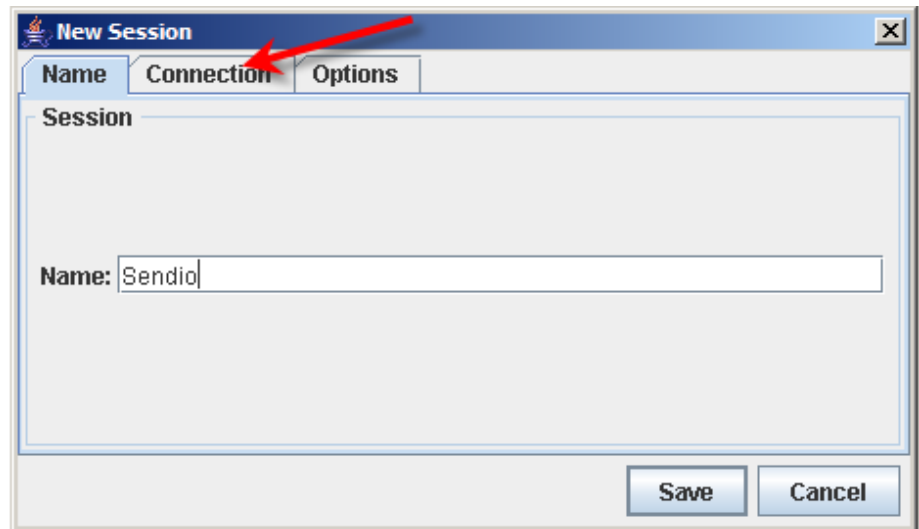
# MAKING THE CONNECTION

Once the application opens you must create a new connection as demonstrated in Figure [1].



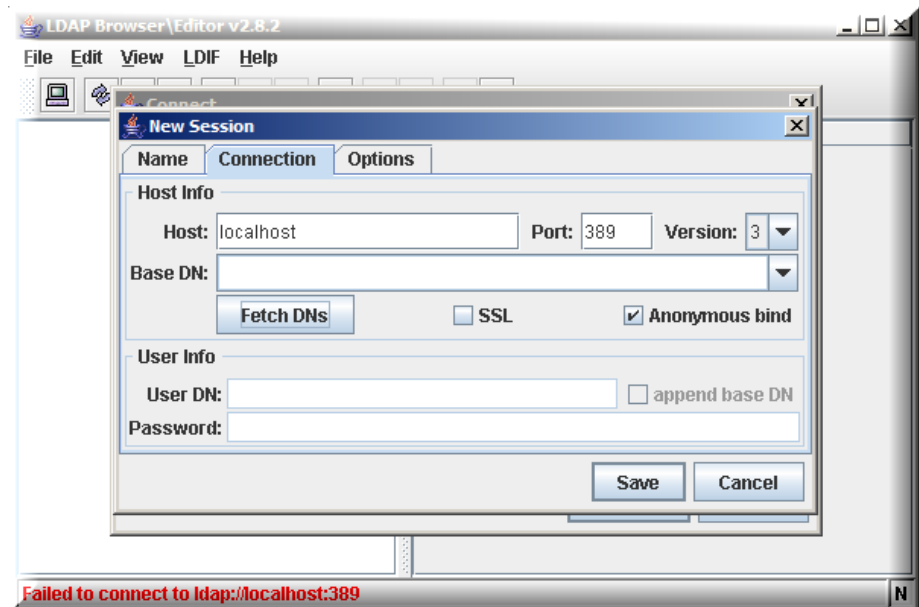
[1] New Connection

After you have entered the name of your connection, click on the **Connection** tab (Figure [2]).

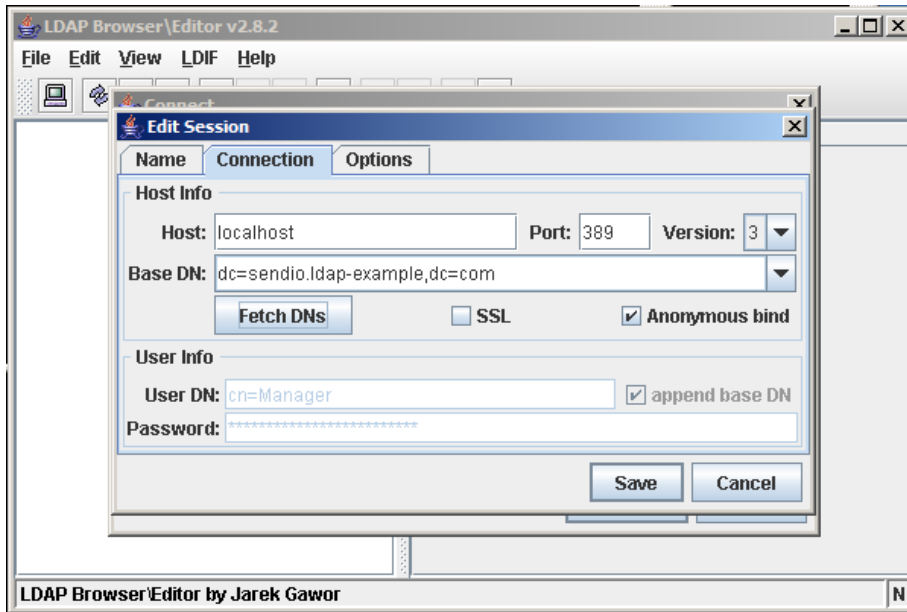


[2] Connection Tab

At the **Host** entry, enter in the IP address or internal DNS name of the ESP appliance. Check the **Anonymous bind** checkbox and click the **Fetch DNSs** button. If the browser is unable to connect with the LDAP on the appliance, there will be a red error message at the bottom of the screen as shown in the Figure [3].

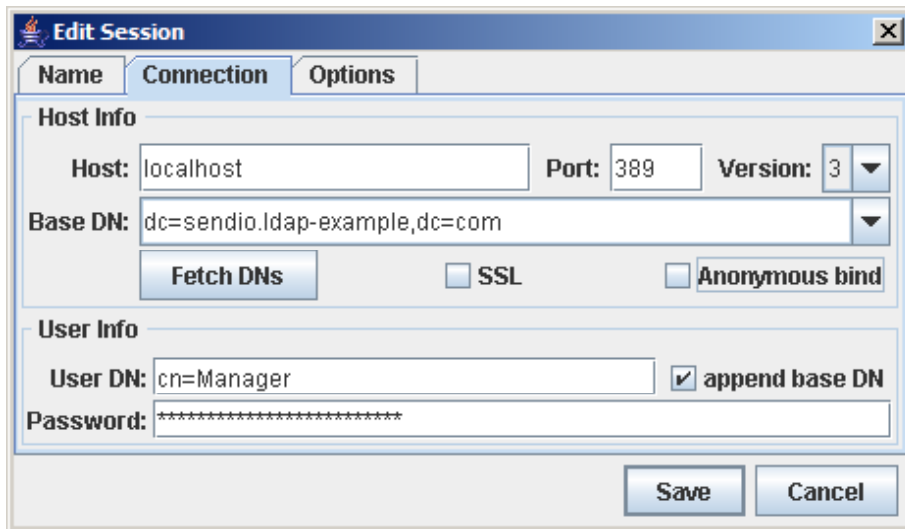


[3] Connection Failure



[4] Successful Connection

A successful connection will result in your domain to be displayed in the **Base DN:** field as shown in Figure [4].



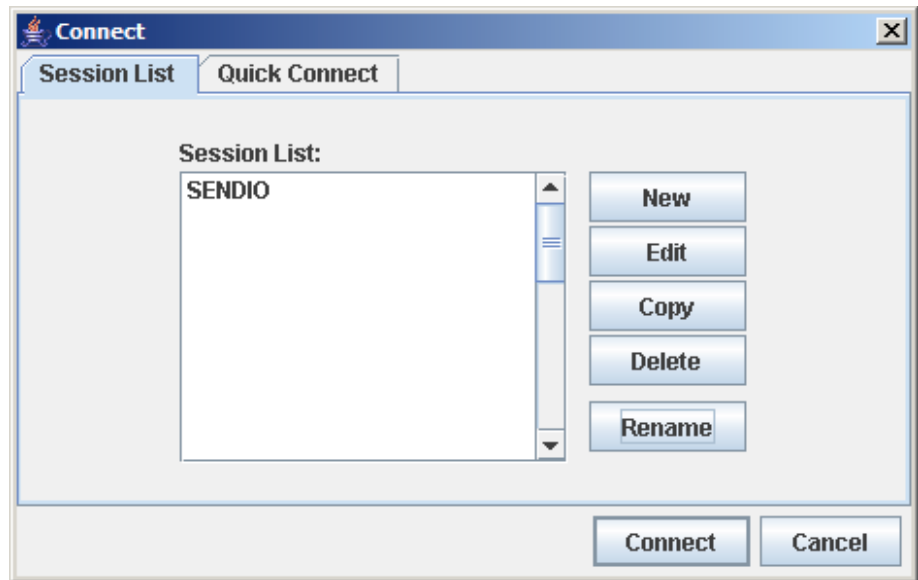
[5] Log In

Once you have successfully connected to the LDAP, you will log in to the directory to manage the Organizational Units (OUs) and users.

Follow the steps below for the log in process:

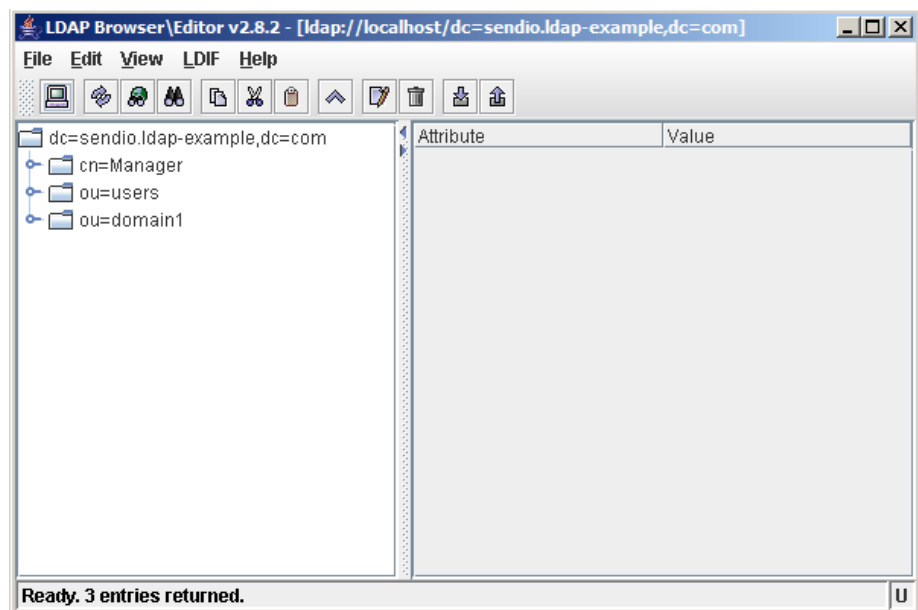
1. Uncheck the **Anonymous bind** checkbox.
2. Type in cn=Manager at the **User DN:** field.
3. Check the **append base DN** checkbox.
4. Enter the password that was previously set via the *Directory Management* section of the appliance's console interface (refer to the *Installation Guide* for more details)
5. Click the **Save** button.

Now that the session has been created, highlight the session and click on the **Connect** button at the bottom of the **Session List** window, Figure [6].



[6] Session List

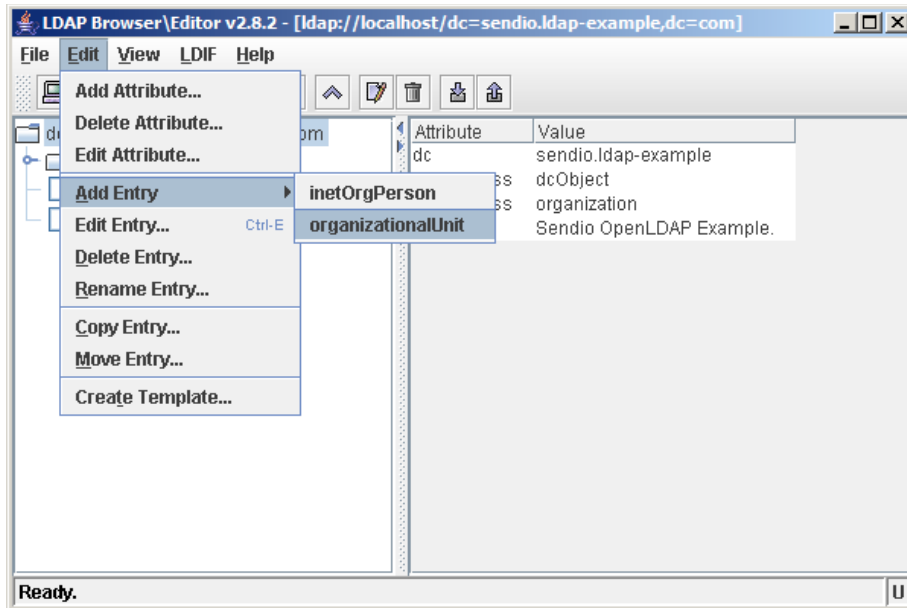
A successful login will take you to the screen pictured in Figure [7].



[7] Connected Session



# ADDING AND DELETING OBJECTS



[8] Adding an OU

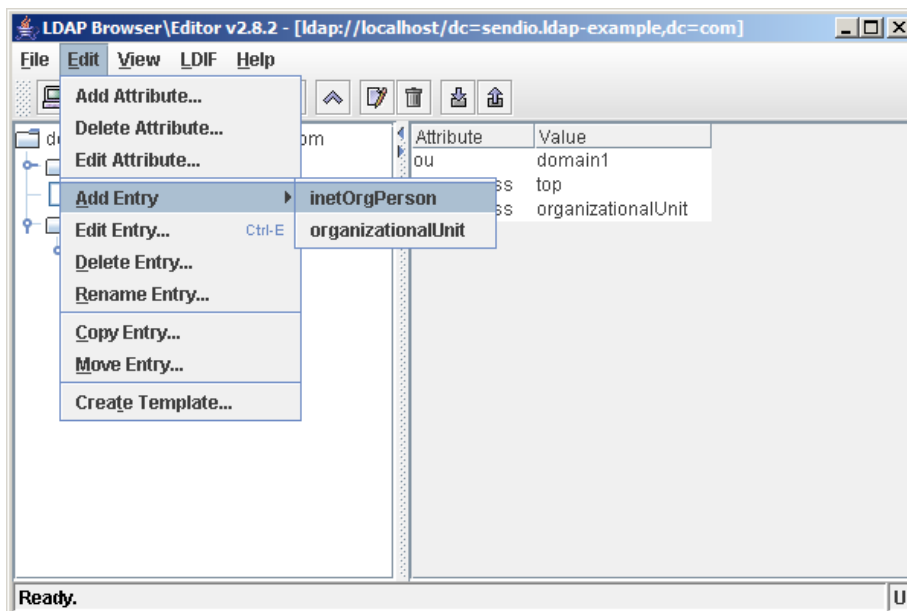
## Adding an OU

Now that you have successfully logged in to the on-board LDAP, you are now going to manage the users and OUs in much the same way as on an Active Directory and other directory servers. Each OU that is created and listed will be a container for users (e.g. you may choose to create an OU for each department in your organization)

In order to create an OU, highlight the top of the directory tree from the left tree menu and select **Edit** from the menu bar.

Scroll down to the **Add Entry** selection and highlight the **organizationalUnit** option in the pop-right menu as shown in Figure [8].

You will see a multiple line entry form that may seem quite daunting. However, the only item that you will need to modify is the OU name on the top line as illustrated in Figure [10].



[9] Adding an Individual

## Adding an Individual

In order to add an individual, you would highlight the OU on the left hand menu tree that will be the container for the individual. From the menu bar, choose **Edit > Add Entry > inetOrgPerson**, as shown in Figure [9].

Next, you would make sure that ALL of the entries look like Figure [11], keeping in mind that all of this is CASE SENSITIVE and MUST BE perfect.

**Create New 'organizationalUnit' Entry**

File Edit

**dn:** ou=Sendio, dc=sendio.ldap-example, dc=com

**objectclass:** top

**objectclass:** organizationalUnit

**businessCategory:**

**postOfficeBox:**

**streetAddress:**

**postalCode:**

**searchGuide:**

**facsimileTelephoneNumber:**

**userPassword:**  **Verify** **Set** **Save as** **Insert from**

**preferredDeliveryMethod:**

**telephoneNumber:**

**physicalDeliveryOfficeName:**

**registeredAddress:**

**destinationIndicator:**

**st:**

**x121Address:**

**l:**

**postalAddress:**

**seeAlso:**

**description:**

**telexNumber:**

**internationaliSDNNumber:**

**teletexTerminalIdentifier:**

**Apply** **Cancel**

[10] New OU

**Create New 'inetOrgPerson' Entry**

File Edit

**dn:** cn=Jane Doe, ou=domain1, dc=sendio.ldap-example, dc=com

**objectclass:** top

**objectclass:** inetOrgPerson

**mail:** jdoe@sendio.com

**displayName:** Jane

**userPassword:** changeme **Verify** **Set** **Save as** **Insert from**

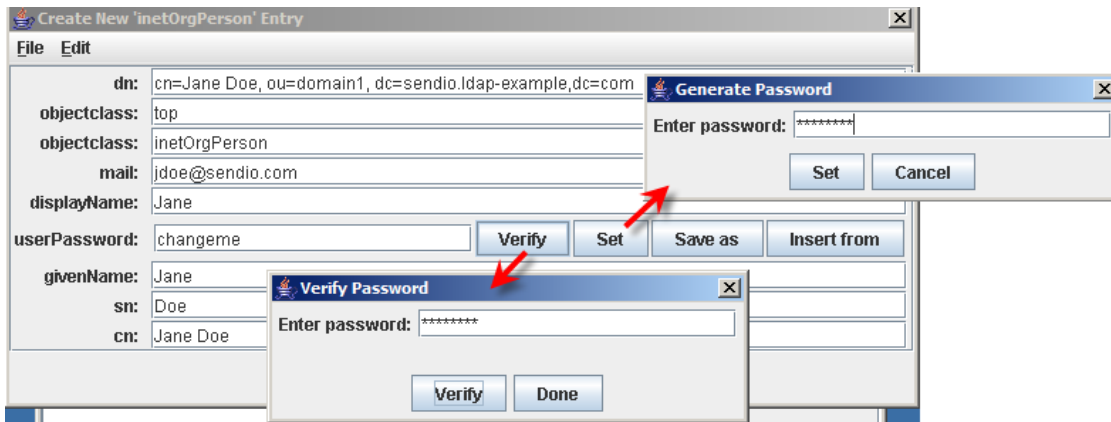
**givenName:** Jane

**sn:** Doe

**cn:** Jane Doe

**Apply** **Cancel**

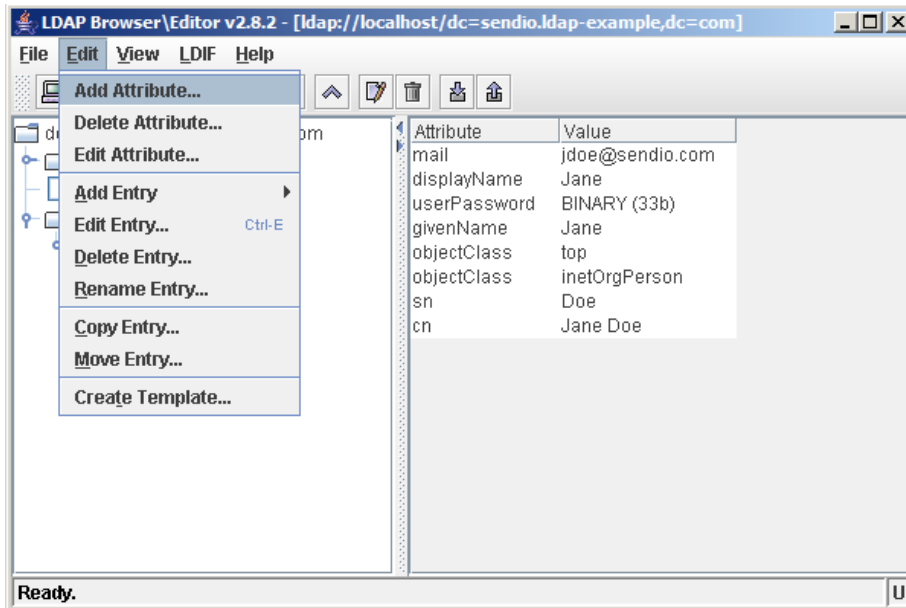
[11] New Individual



[12] Individual Password

Set and Verify the password and then click **Apply**, as shown in Figure [12].

At this point, if you go to the ESP's web interface and synchronize the directory, this user would be added to the **Account** list.



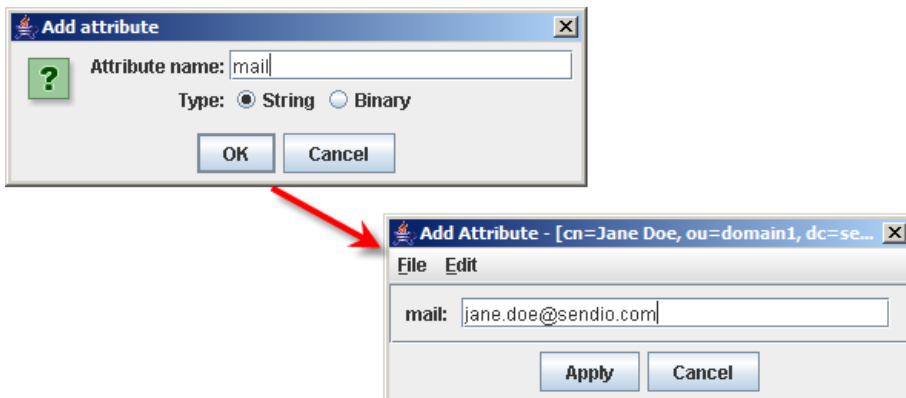
[13] Add Address

### Adding an Address

If you would like to add the address jane.doe@sendio.com to the this user, from the left tree, select the cn=Jane Doe user, then **Edit > Add Attribute** as shown in Figures [13] and [14].

Click **Apply**.

Adding addresses can be done any time.



[14] Add Address

## Deleting Users

Deleting entries follows the same process.

Select the user to be deleted from the left tree.

**Edit > Delete Entry.**

Make sure to check the box indicating “**with children**” and click **Delete**.

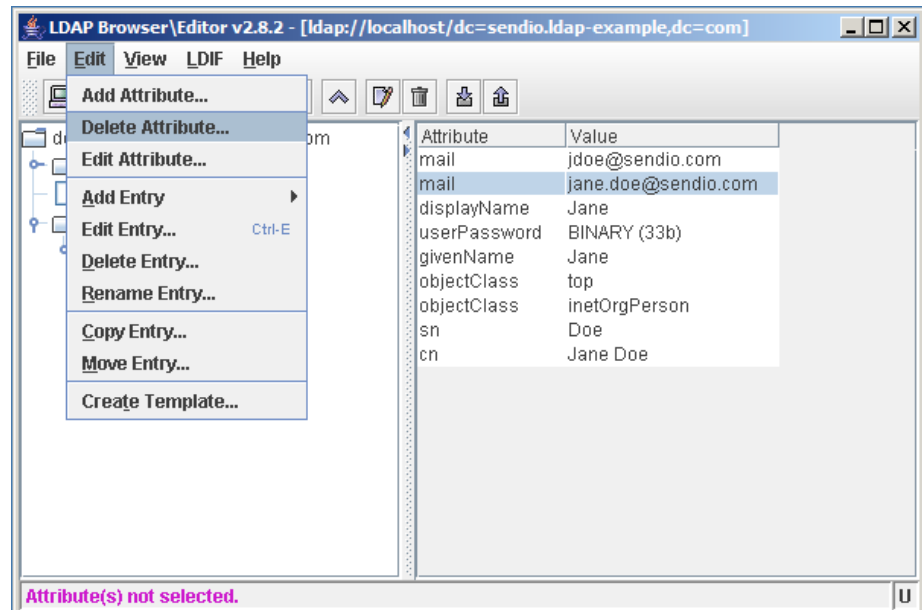
At this point, if you were to go to the ESP’s web interface and re-sync the directory, this user would be marked as “Deleted.”



[15] Delete User

## Deleting an Address

To delete just the address jane.doe@sendio.com, select the user from the left tree. Then, select the *mail* attribute that you want deleted as shown in Figure [16].

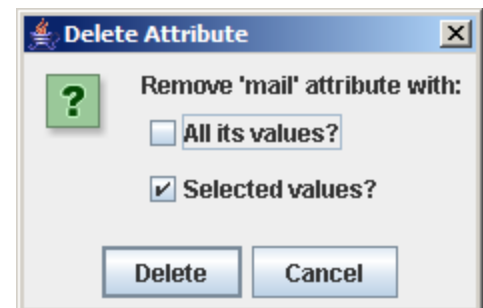


[16] Delete Address

Make sure you check “**Selected values?**” If “**All Values?**” is checked, then all of the “mail” attributes would be deleted.

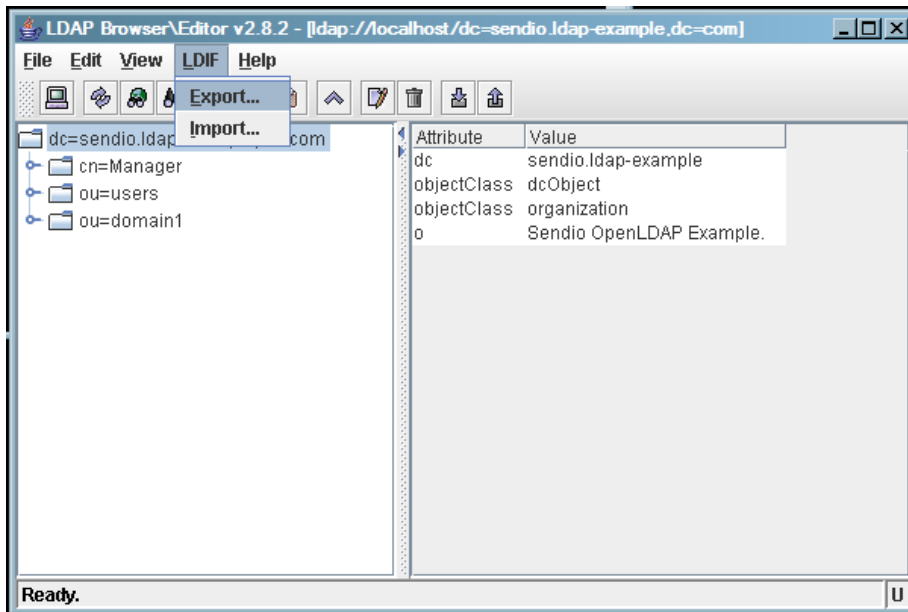
Click **Delete**.

At this point, if you were to go to the ESP’s web interface and synchronize the directory, this new user would no longer have the address jane.doe@sendio.com.



[17] Delete Attribute

# BACKING UP THE LDAP DATA



[18] Data Export

It is strongly recommended that you back up your newly created or modified directory every time you make a change to the directory.

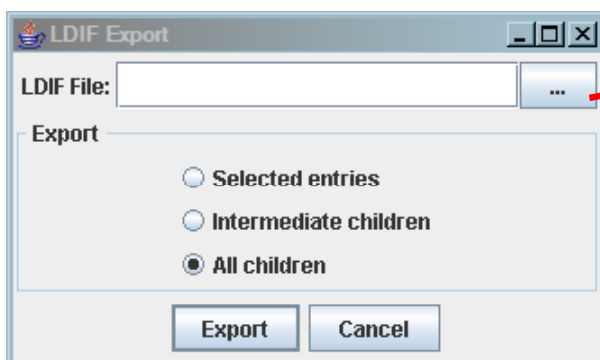
This is easily accomplished by **selecting the top of the tree** from the left hand menu, choose **LDIF** from the top menu and choosing **Export** from the menu option.

Note that you may restore by choosing the **Import** option.

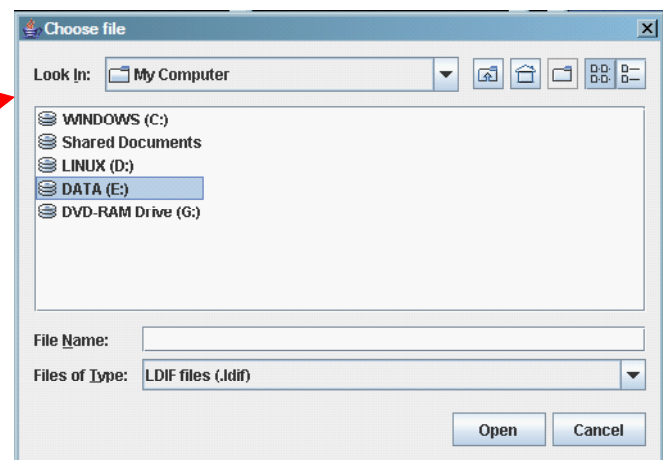
The pop-up window in Figure [19] will be displayed asking you to select a destination for your backup file. It is imperative that the radio button to the left of the **All Children** option is selected.

Clicking on the button with the ellipsis (...) will allow you to choose the destination in the file structure of the host computer as shown in the Figure [19].

This file name will have an "ldif" extension.



[19] Data Export



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# ESP APPLIANCE CONFIGURATION

As the **Administrator**, log in to the ESP's web interface and select **Admin > Directories**.  
Select the **Local Directory** for the appliance, click on the **Actions** button and select **Synchronize Selected Directories** from the drop-down menu, as shown in Figure [20].

	Refresh	New	Actions...	LDAP URL	Accts	Last Sync
1	<input type="checkbox"/>	Sendio - In	New Directory	10.intermedia.net:3268/ou=sendio-it,DC=exch010,DC=ir	32	11/5/06 9:00 PM
2	<input type="checkbox"/>	Test Account	Open Selected Directory	pership.dyndns.org:388/ou=test,dc=clippership,dc=com	1	1/30/06 2:35 PM
3	<input checked="" type="checkbox"/>	Local Directory	Synchronize Selected Directories	localhost/cn=local,dc=icebox	1	
4	<input type="checkbox"/>	Sendio	Delete Selected Directories	ldap://incoming.sendio.com/dc=sendio,dc=com	17	11/5/06 10:00 PM

[20] Directory Synchronization

A window will be displayed showing the modifications to the directory (Figure [21]). Notice that the one account – Jane Doe and her two addresses have been successfully added to the appliance. They can be seen in the accounts listing as well.

If you have added an OU to the directory and would like to add it as a separate directory entry and domain, simply click on the **New** button and enter the requested data. For the **Base DN**, ensure that you are pointing the proper node / OU in the tree. Next, go the **Admin > Domains** page and add the mail domain that is desired.

```

https://sav.test.sendio.com - Mozilla Firefox
22:50:49.641 Directory synchronization starting for directory "Local Directory".
22:50:49.643 Confirming working directory service at ldap://localhost/dc=sendio.ldap-example,dc=
22:50:49.643 Timeout set to 60 seconds.
22:50:49.645 Directory service available.
22:50:49.646 Attempting to use directory anonymously (no authentication)...
22:50:49.651 Received 1 account records from directory.
22:50:49.669 Creating ICE Box account for directory user record "Jane" (cn=jane doe,ou=domain1,dc
22:50:49.720 address jdoe@sendio.com added.
22:50:49.775 address jane.doe@sendio.com added.
22:50:49.775 Created ICE Box user account "Jane" (cn=jane doe,ou=domain1,dc=sendio.ldap-example
22:50:49.776 Disabling ICE Box user account "System Administrator" (ldap://localhost/cn=sysadmin,
22:50:49.776 WARN: Disabled ICE Box user account "System Administrator" (ldap://localhost/cn=sy
22:50:49.782 Updated ICE Box user account "System Administrator" (ldap://localhost/cn=sysadmin,
22:50:49.783 Directory synchronization completed successfully for directory "Local Directory".

Totals for directory Local Directory:
Created: 1 users, 0 groups, 2 addresses.
Updated: 1 users, 0 groups, 0 addresses.
Deleted: 0 addresses.
Unchanged: 0 users, 0 groups, 0 addresses.

1 users and 0 groups were newly disabled.
0 users and 0 groups were newly enabled.
0 addresses were converted from manual to directory control.
0 addresses were repossessed (moved to a different account).
0 addresses could not be repossessed because they were owned by a disabled account.

No conflicts detected.
Done sav.test.sendio.com

```

[21] Directory Synchronization

**SAVE  
MAIL**

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