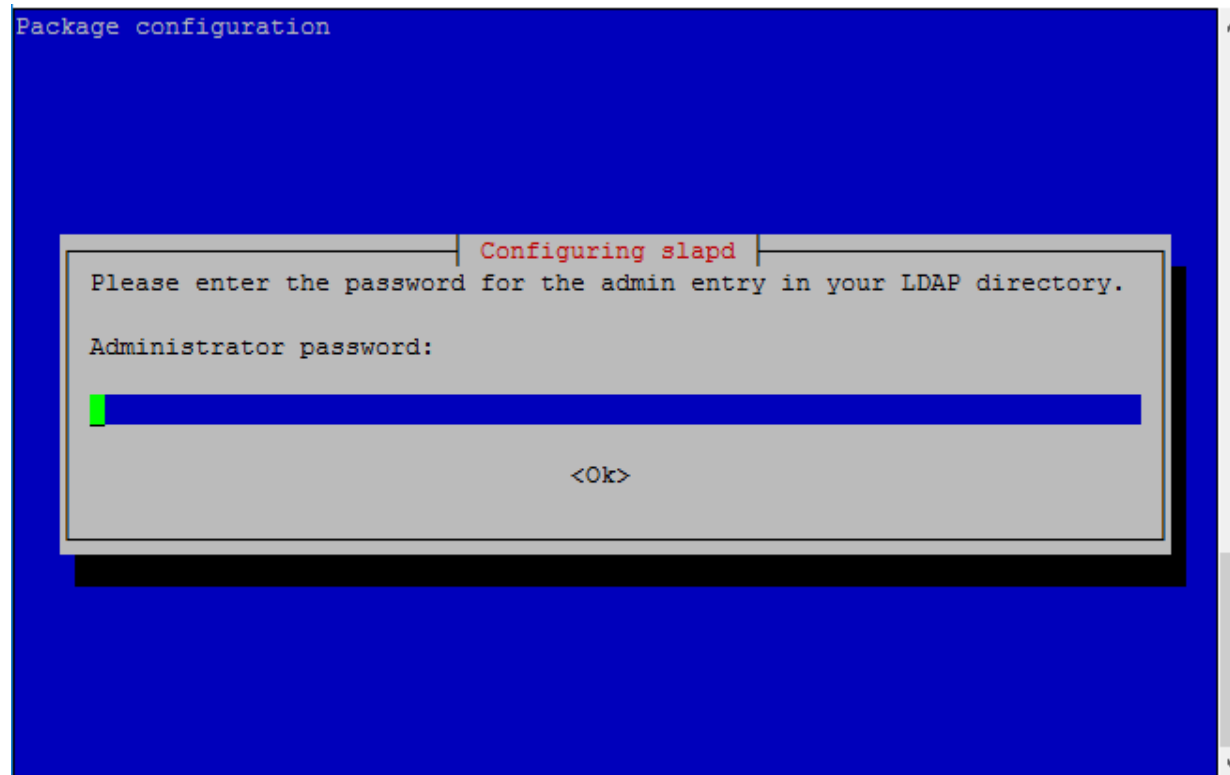


How to Install OpenLDAP

- Sudo apt-get update
- Sudo apt-get install slapd ldap-utils



Reconfiguring OpenLDAP

- Sudo dpkg-reconfigure slapd

```
Package configuration
```

Configuring slapd

If you enable this option, no initial configuration or database will be created for you.

Omit OpenLDAP server configuration?

<Yes> <No>

Reconfiguring OpenLDAP Continue

Package configuration

Configuring slapd

The DNS domain name is used to construct the base DN of the LDAP directory. For example, 'foo.example.org' will create the directory with 'dc=foo, dc=example, dc=org' as base DN.

DNS domain name:

sse.ws.afnog.org

<Ok>

Reconfiguring OpenLDAP Continue

Package configuration

Configuring slapd

Please enter the name of the organization to use in the base DN of your LDAP directory.

Organization name:

afnog

<Ok>

Reconfiguring OpenLDAP Continue

Package configuration

Configuring slapd

Please enter the password for the admin entry in your LDAP directory.

Administrator password:

<Ok>

Reconfiguring OpenLDAP Continue

Package configuration

Configuring slapd

Please enter the admin password for your LDAP directory again to verify that you have typed it correctly.

Confirm password:

<Ok>

Reconfiguring OpenLDAP Continue

Package configuration

Configuring slapd

Do you want the database to be removed when slapd is purged?

<Yes>

<No>

Reconfiguring OpenLDAP Continue

Package configuration

Configuring slapd

There are still files in /var/lib/ldap which will probably break the configuration process. If you enable this option, the maintainer scripts will move the old database files out of the way before creating a new database.

Move old database?

<Yes>

<No>

Reconfiguring OpenLDAP Continue

Package configuration

Configuring slapd

The obsolete LDAPv2 protocol is disabled by default in slapd. Programs and users should upgrade to LDAPv3. If you have old programs which can't use LDAPv3, you should select this option and 'allow bind_v2' will be added to your slapd.conf file.

Allow LDAPv2 protocol?

<Yes>

<No>

Reconfiguring OpenLDAP Continue

- Start your Openldap Database and ensure It is working with commands as below.
- `sudo systemctl start slapd`
- `sudo ps -ef | grep slapd`

```
afnog@pc29:~$ sudo ps -ef | grep slapd
openldap 21810      1  0 10:25 ?                00:00:00 /usr/sbin/slapd -h ldap:/// ldap
i:/// -g openldap -u openldap -F /etc/ldap/slapd.d
afnog      21818 21275   0 10:27 pts/1          00:00:00 grep slapd
afnog@pc29:~$
```

Creating a base Ldif file

Create a file with content below for your base directory structure.

Vi base.ldif

```
dn: ou=Groups,dc=sse,dc=ws,dc=afnog,dc=org
```

```
ou: Groups
```

```
objectClass: top
```

```
objectClass: organizationalUnit
```

```
dn: ou=Users,dc=sse,dc=ws,dc=afnog,dc=org
```

```
ou: Users
```

```
objectClass: top
```

```
objectClass: organizationalUnit
```

Upload your base LDIF file to LDAP

Run the command below to upload your base ldif file into the LDAP server

```
ldapadd -x -W -D "cn=admin,dc=sse,dc=ws,dc=afnog,dc=org" -f base.ldif
```

Supplied your LDAP password and you should see feedback as below

```
afnog@pc29:~$ ldapadd -x -W -D "cn=admin,dc=sse,dc=ws,dc=afnog,dc=org" -f base.ldif
Enter LDAP Password:
adding new entry "ou=Groups,dc=sse,dc=ws,dc=afnog,dc=org"

adding new entry "ou=Users,dc=sse,dc=ws,dc=afnog,dc=org"

afnog@pc29:~$ █
```

Creating a person Ldif file

Create a file with content below for your base directory structure.

Vi person.ldif

dn: cn=frank,ou=Groups,dc=sse,dc=ws,dc=afnog,dc=org

cn: frank

gidNumber: 5001

objectClass: posixGroup

dn: uid=frank,ou=Users,dc=sse,dc=ws,dc=afnog,dc=org

uid: frank

uidNumber: 5001

gidNumber: 5001

cn: Frank Kuse

sn: Kuse

objectClass: posixAccount

objectClass: organizationalPerson

loginShell: /bin/bash

homeDirectory: /home/frank

Upload your person LDIF file to LDAP

Run the command below to upload your base ldif file into the LDAP server

```
ldapadd -x -W -D "cn=admin,dc=sse,dc=ws,dc=afnog,dc=org" -f person.ldif
```

Supplied your LDAP password and you should see feedback as below

```
afnog@pc29:~$ ldapadd -x -W -D "cn=admin,dc=sse,dc=ws,dc=afnog,dc=org" -f person.ldif
Enter LDAP Password:
adding new entry "cn=frank,ou=Groups,dc=sse,dc=ws,dc=afnog,dc=org"

adding new entry "uid=frank,ou=Users,dc=sse,dc=ws,dc=afnog,dc=org"

afnog@pc29:~$ █
```

Setting up user credentials

Run the command below create a password for the user account created.

```
sudo ldappasswd -s afnog123 -W -D  
"cn=admin,dc=sse,dc=ws,dc=afnog,dc=org" -x  
"uid=frank,ou=Users,dc=sse,dc=ws,dc=afnog,dc=org"
```

Supplied your LDAP password and you should see feedback as below

Check your LDAP directory structure

Run the command below to check your uploaded Idif files forming your LDAP directory structure in your database.

Sudo slapcat

You should see entire OpenLdap database with example as below.

```
dn: uid=frank,ou=Users,dc=sse,dc=ws,dc=afnog,dc=org
uid: frank
uidNumber: 5001
gidNumber: 5001
cn: Frank Kuse
sn: Kuse
objectClass: posixAccount
objectClass: organizationalPerson
loginShell: /bin/bash
homeDirectory: /home/frank
structuralObjectClass: organizationalPerson
entryUUID: ld4a57aa-e240-1037-886e-b5e6fc05cf21
creatorsName: cn=admin,dc=sse,dc=ws,dc=afnog,dc=org
createTimestamp: 20180502103419Z
userPassword:: e1NTSEF9SmwldExlbzY4REZWVk3eUR0bmliT3JEd2FjbDd2Umk=
entryCSN: 20180502104517.247335Z#000000#000#000000
modifiersName: cn=admin,dc=sse,dc=ws,dc=afnog,dc=org
modifyTimestamp: 20180502104517Z
```