



Applications (sudo, gdm, ssh, getty, su)

PAM (Pluggable Authentication Modules)

User Details /etc/passwd, /etc/shadow, Idap



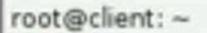




```
root@client: ~
                           root@client:~# apt-get install libpam-ldap
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
 auth-client-config ldap-auth-client
  ldap-auth-config libnss-ldap
Suggested packages:
  libpam-cracklib
Recommended packages:
 nscd
The following NEW packages will be installed:
 auth-client-config ldap-auth-client
  ldap-auth-config libnss-ldap libpam-ldap
 upgraded, 5 newly installed, 0 to remove and 0 not up
graded.
Need to get 144kB of archives.
After this operation, 774kB of additional disk space wi
ll be used.
```









Package configuration

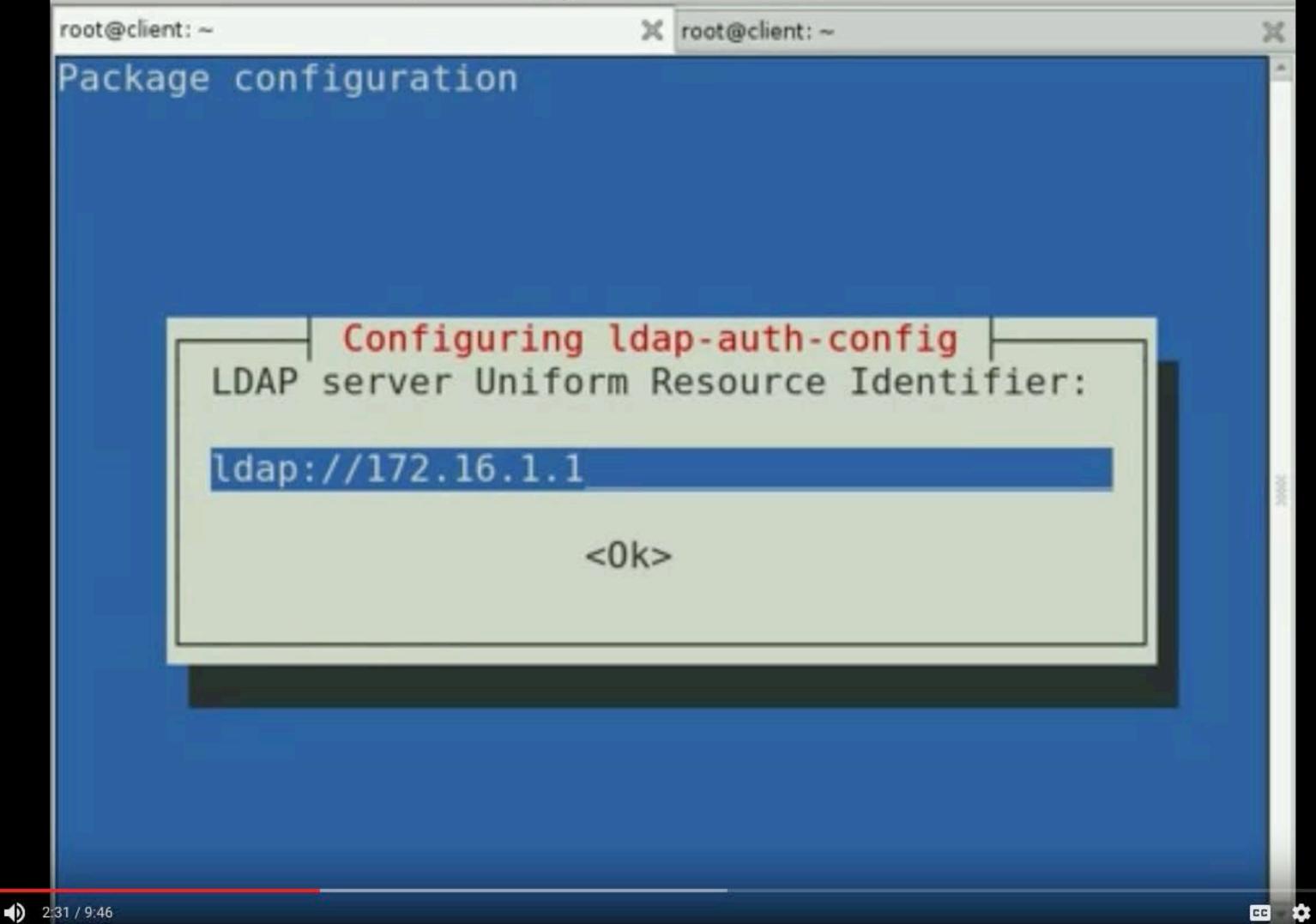
Configuring ldap-auth-config

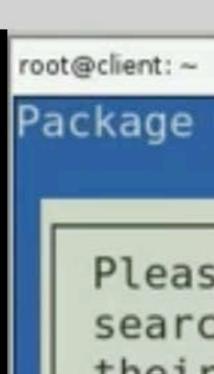
Please enter the URI of the LDAP server to use. This is a string in the form of ldap://<hostname or IP>:<port>/. ldaps:// or ldapi:// can also be used. The port number is optional.

Note: It is usually a good idea to use an IP address because it reduces risks of failure in the event name service problems.









Package configuration

Configuring ldap-auth-config

Please enter the distinguished name of the LDAP search base. Many sites use the components of their domain names for this purpose. For example, the domain "example.net" would use "dc=example,dc=net" as the distinguished name of the search base.

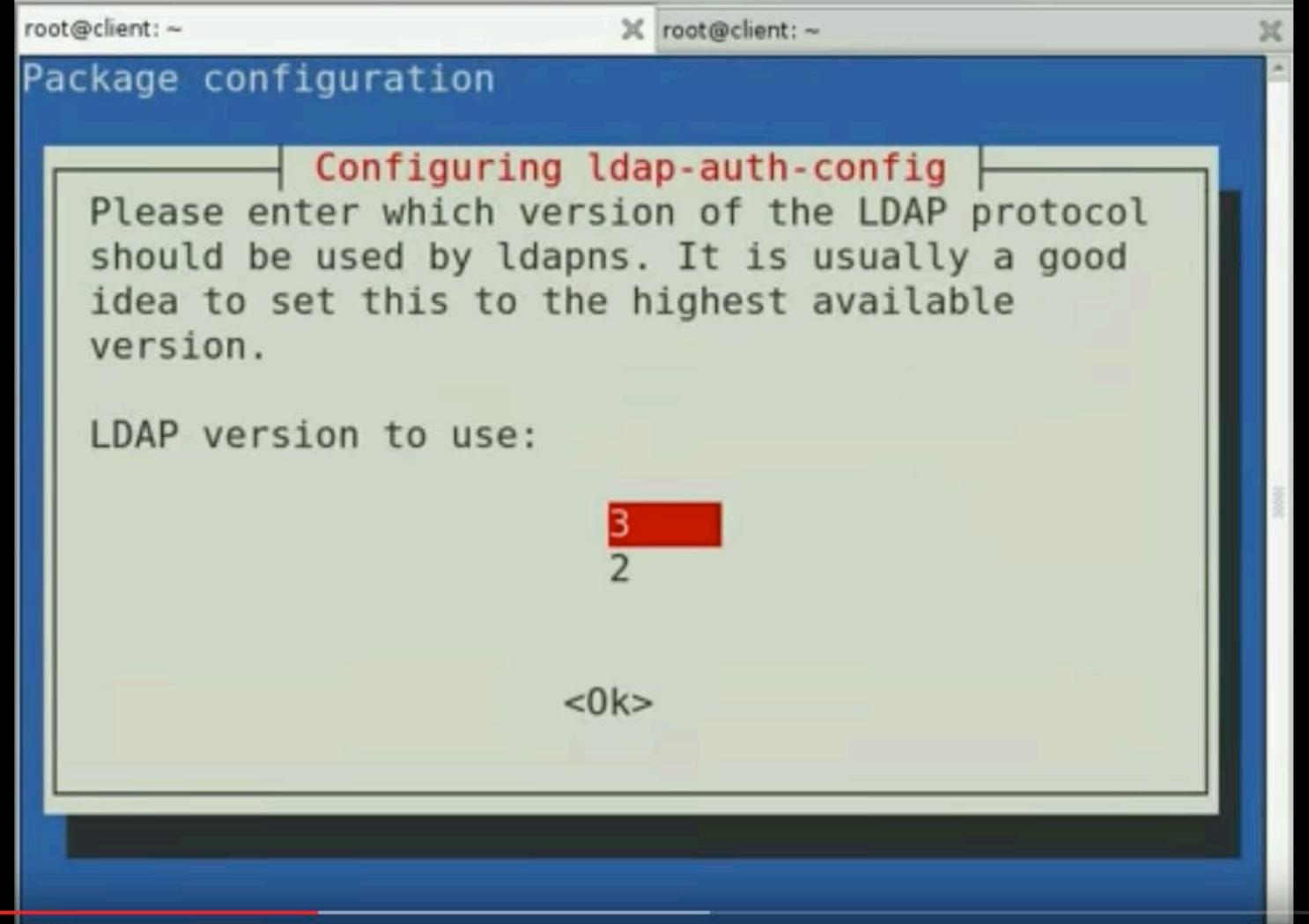
Distinguished name of the search base:

dc=test,dc=net



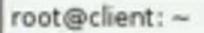














Package configuration

Configuring ldap-auth-config

This option will allow you to make password utilities that use pam to behave like you would be changing local passwords.

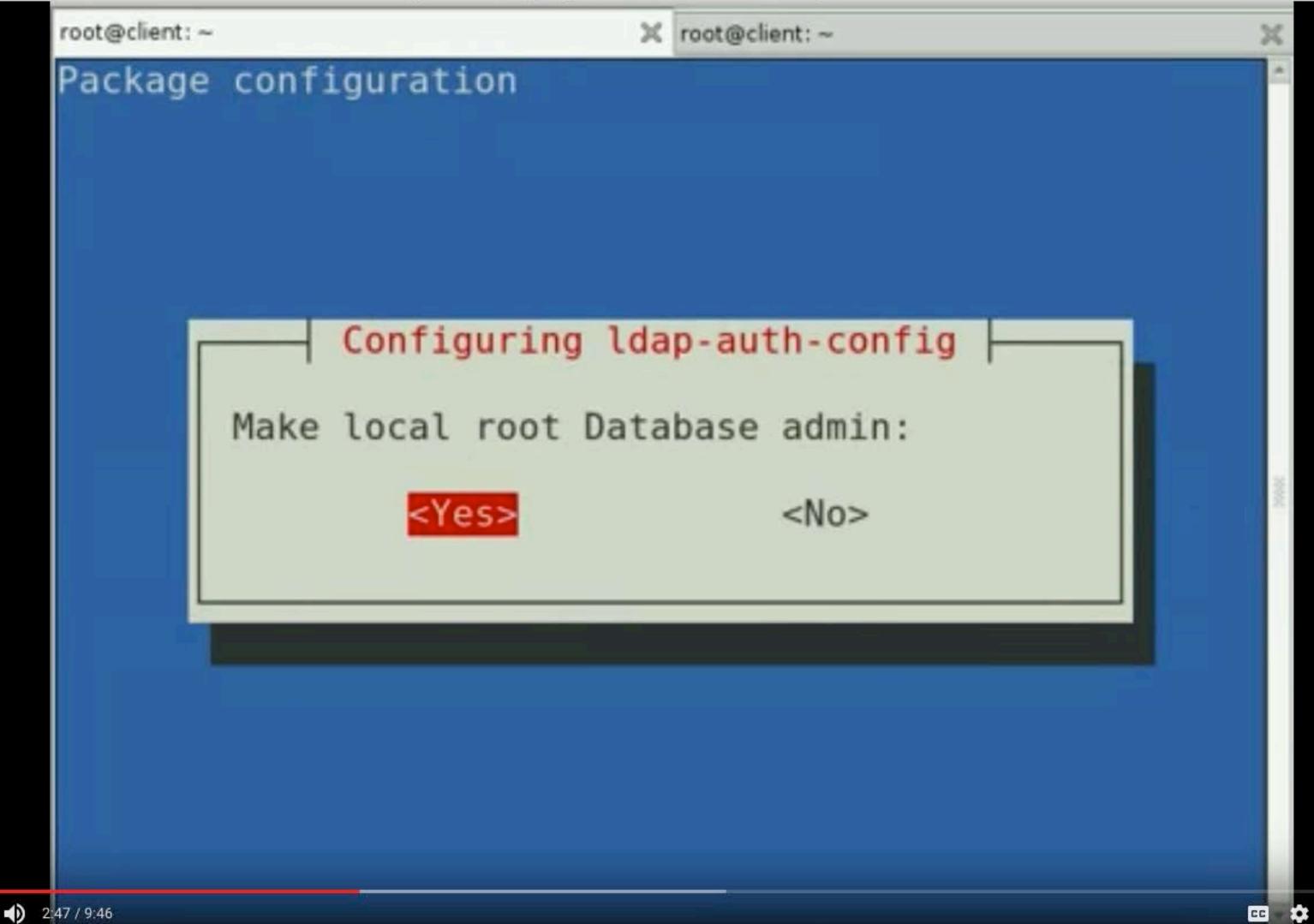
The password will be stored in a separate file which will be made readable to root only.

If you are using NFS mounted /etc or any other custom setup, you should disable this.

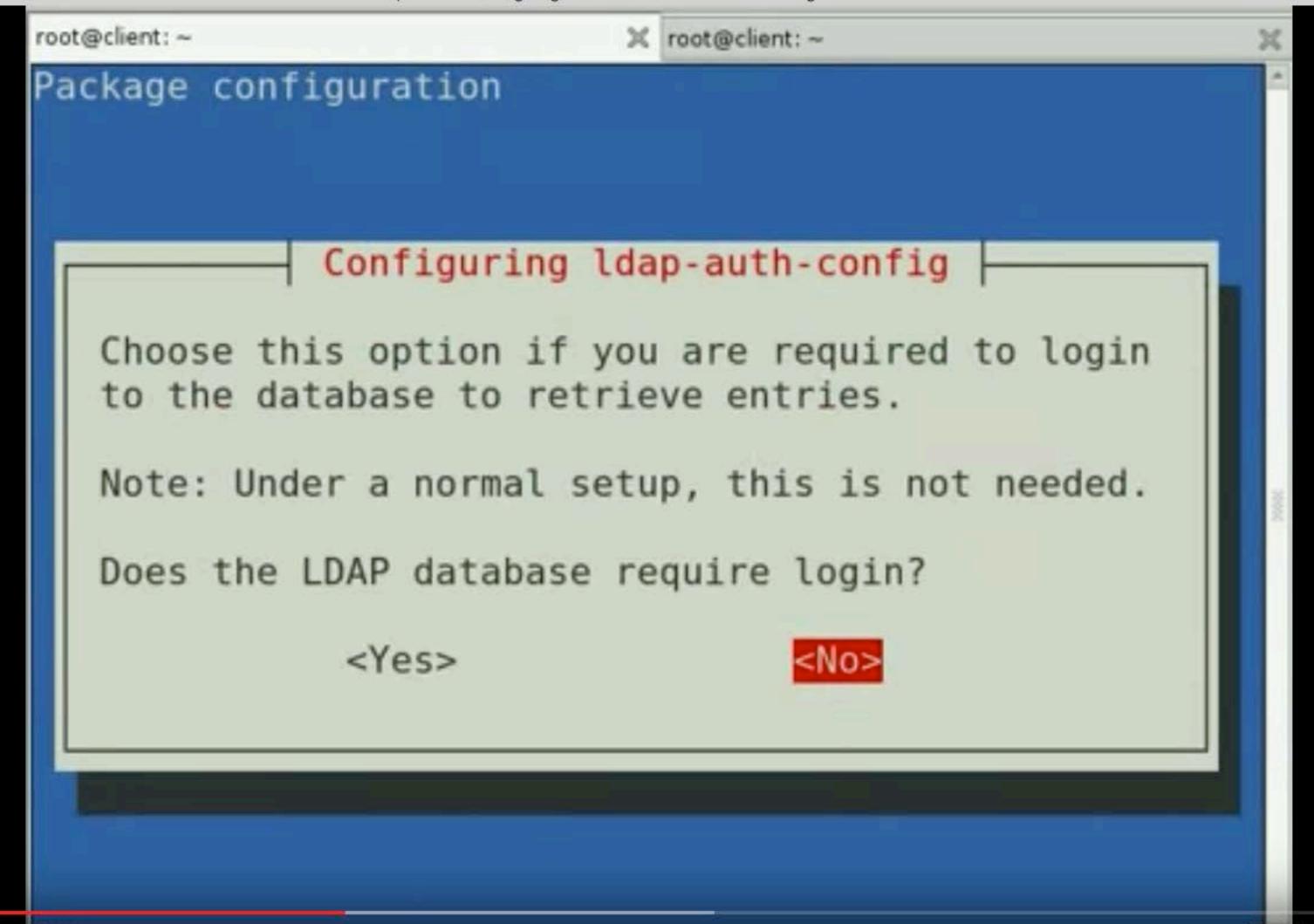




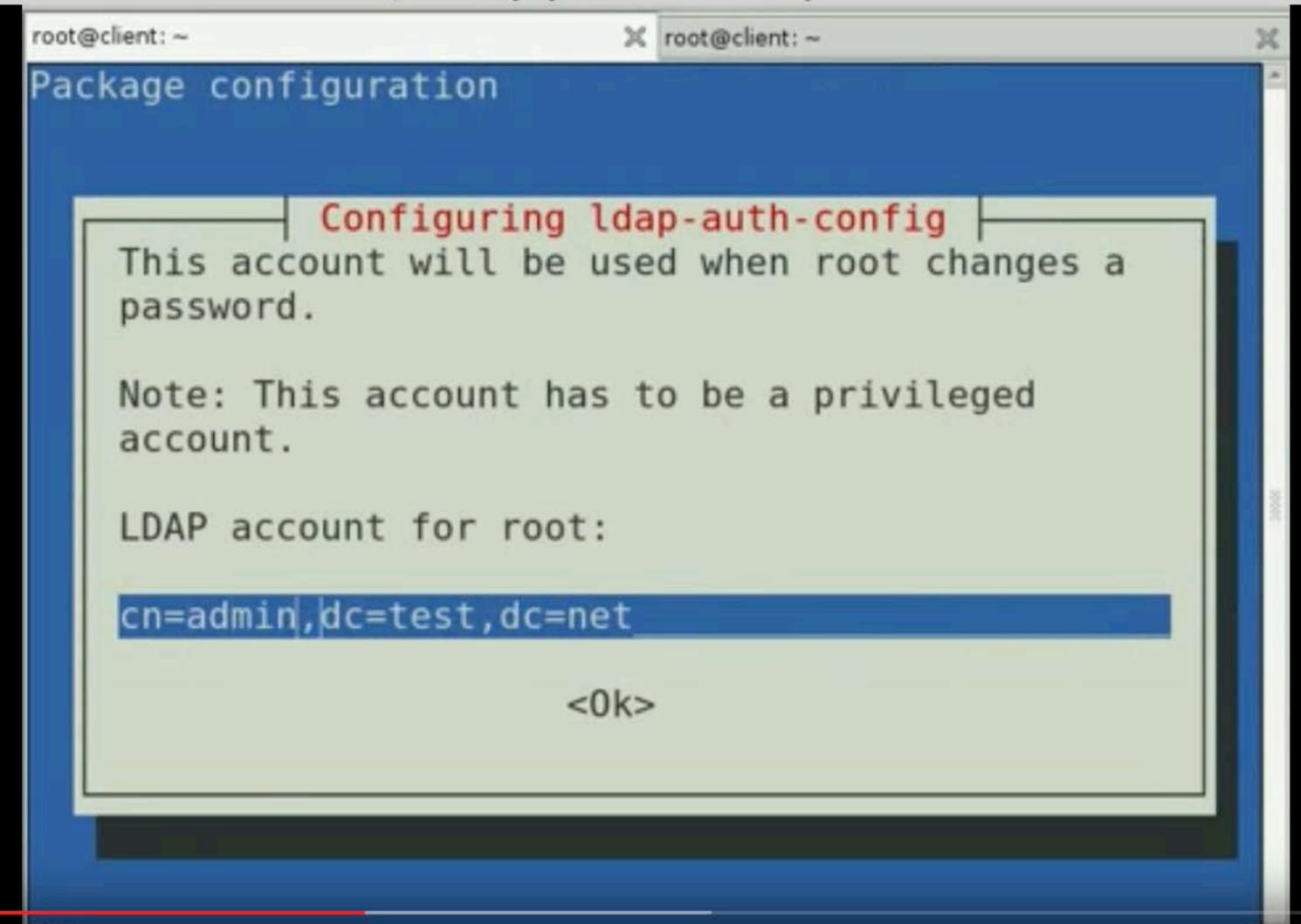






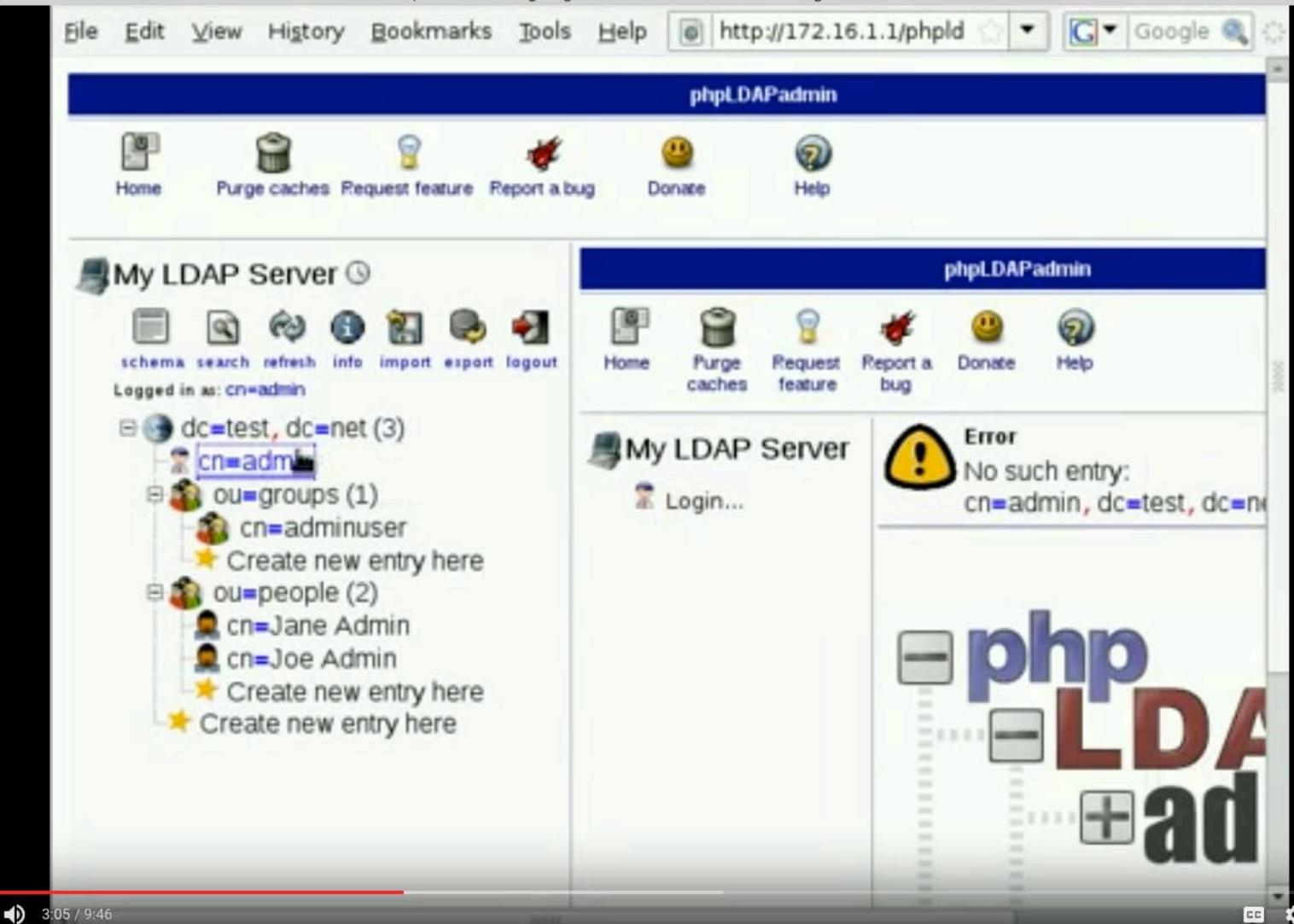




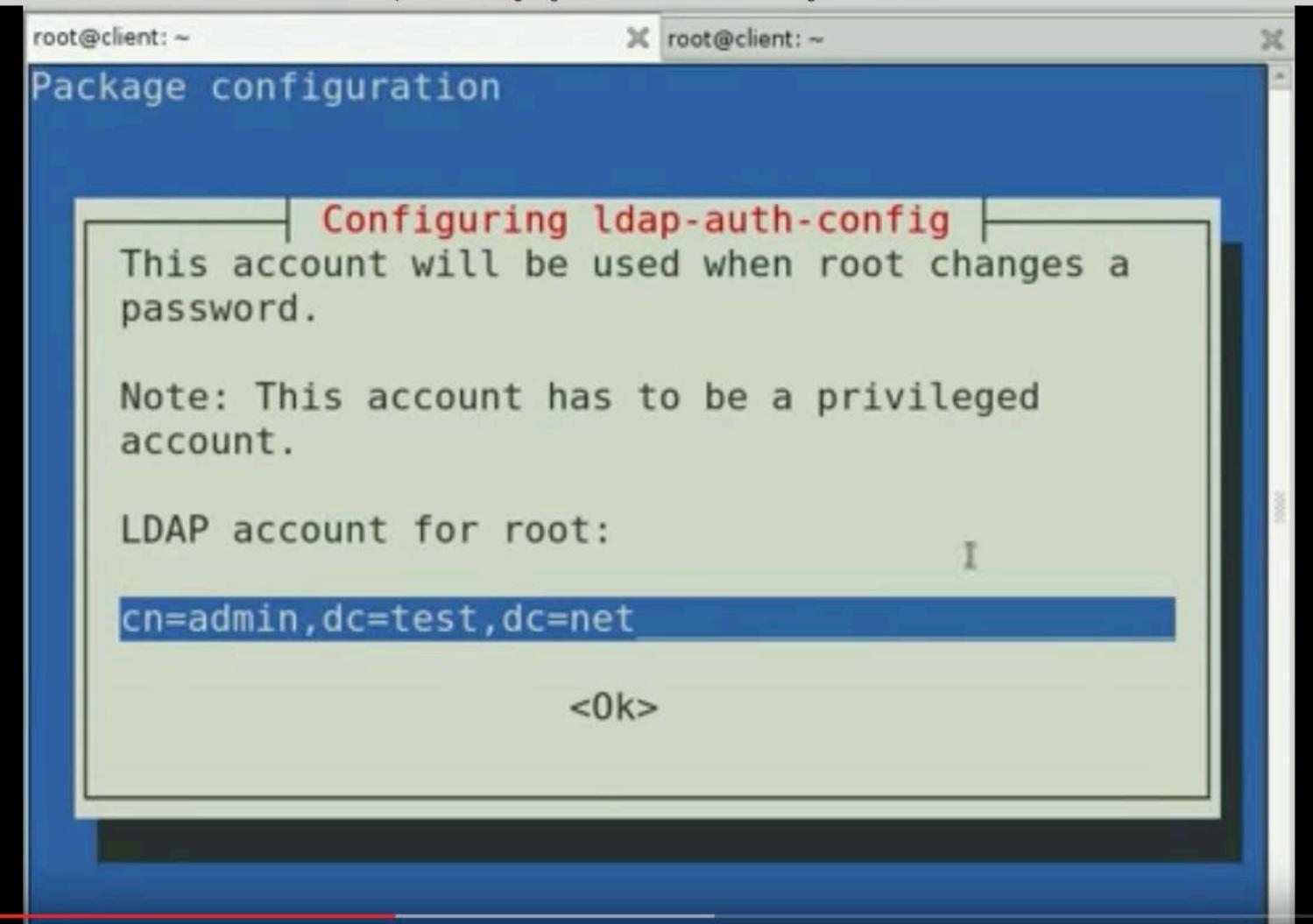






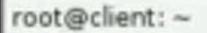


.











Package configuration

Configuring ldap-auth-config

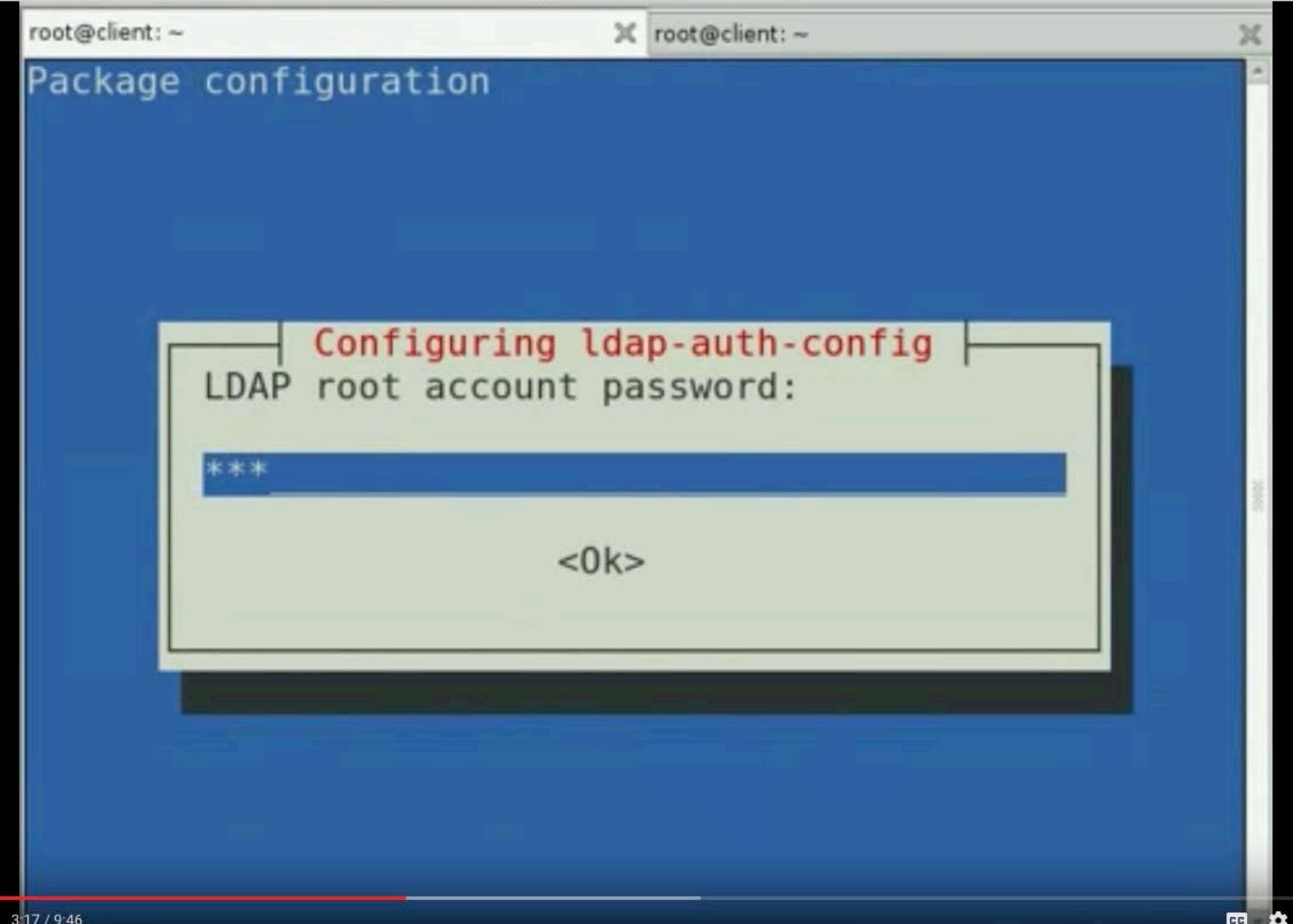
Please enter the password to use when ldap-auth-config tries to login to the LDAP directory using the LDAP account for root.

The password will be stored in a separate file /etc/ldap.secret which will be made readable to root only.

Entering an empty password will re-use the old password.







```
root@client: ~
                           Unpacking libpam-ldap (from .../libpam-ldap 184-2ubuntu
2 i386.deb) ...
Selecting previously deselected package ldap-auth-clien
Unpacking ldap-auth-client (from .../ldap-auth-client 0
.5 all.deb) ...
Setting up auth-client-config (0.6.1) ...
Selecting previously deselected package ldap-auth-confi
(Reading database ... 22705 files and directories curre
ntly installed.)
Unpacking ldap-auth-config (from .../ldap-auth-config 0
.5 all.deb) ...
Setting up libpam-ldap (184-2ubuntu2) ...
Setting up ldap-auth-client (0.5) ...
Setting up ldap-auth-config (0.5) ...
Setting up libnss-ldap (258-lubuntu3) ...
```

```
root@client: ~
                            Selecting previously deselected package ldap-auth-clien
 Unpacking ldap-auth-client (from .../ldap-auth-client 0
 .5 all.deb) ...
 Setting up auth-client-config (0.6.1) ...
 Selecting previously deselected package ldap-auth-confi
 g.
 (Reading database ... 22705 files and directories curre
 ntly installed.)
 Unpacking ldap-auth-config (from .../ldap-auth-config 0
 .5 all.deb) ...
 Setting up libpam-ldap (184-2ubuntu2) ...
 Setting up ldap-auth-client (0.5) ...
 Setting up ldap-auth-config (0.5) ...
 Setting up libnss-ldap (258-lubuntu3) ...
 root@client:~# apt-get install nscd
 Reading package lists... Done
334/9:46 Ldind dependency tree... 0%
```

```
root@client: ~
                           Reading state information... Done
The following NEW packages will be installed:
 nscd
 upgraded, 1 newly installed, 0 to remove and 0 not up
graded.
Need to get 176kB of archives.
After this operation, 360kB of additional disk space wi
ll be used.
Get:1 http://172.16.1.200 hardy-updates/universe nscd 2
.7-10ubuntu4 [176kB]
Fetched 176kB in 0s (5755kB/s)
Selecting previously deselected package nscd.
(Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
```

```
root@client: ~
File Edit Options Buffers Tools Help
passwd:
                 compat
                 compat
group:
shadow:
                 compat
                 files dns
hosts:
networks:
                 files
protocols:
                db files
-uu-:---F1
            nsswitch.conf
                                         (Conf[Colon])
                             Top L9
```



```
root@client: ~
                           File Edit Options Buffers Tools Help
passwd:
                ldap compat
                ldap compat
group:
shadow:
                ldap compat
hosts:
                files dns
networks:
                files
protocols:
                db files
            nsswitch.conf
                                         (Conf[Colon])
                             Top L9
```

```
root@client: /etc/pam.d
                           nscd
 upgraded, 1 newly installed, 0 to remove and 0 not up
graded.
Need to get 176kB of archives.
After this operation, 360kB of additional disk space wi
ll be used.
Get:1 http://172.16.1.200 hardy-updates/universe nscd 2
.7-10ubuntu4 [176kB]
Fetched 176kB in 0s (5755kB/s)
Selecting previously deselected package nscd.
(Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
```

```
root@client: /etc/pam.d
                          After this operation, 360kB of additional disk space wi
ll be used.
Get:1 http://172.16.1.200 hardy-updates/universe nscd 2
.7-10ubuntu4 [176kB]
Fetched 176kB in 0s (5755kB/s)
Selecting previously deselected package nscd.
(Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
root@client:/etc/pam.d# ls
     common-account common-session
                                       other
                                               sshd
atd
chfn common-auth cron
                                       passwd
                                               su
chsh common-password login
                                               sudo
                                       ppp
```

419/9:40 t@client:/etc/pam.d# emacs



```
root@client: /etc/pam.d
                          After this operation, 360kB of additional disk space wi
ll be used.
Get:1 http://172.16.1.200 hardy-updates/universe nscd 2
.7-10ubuntu4 [176kB]
Fetched 176kB in 0s (5755kB/s)
Selecting previously deselected package nscd.
(Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
root@client:/etc/pam.d# ls
     common-account common-session
                                       other
                                               sshd
atd
chfn common-auth cron
                                       passwd
                                               su
chsh common-password login
                                               sudo
                                       ppp
```

```
root@client: /etc/pam.d
                            File Edit Options Buffers Tools Help
        requisite
auth
                         pam unix.so nullok secure
        optional
                         pam smbpass.so migrate missing\
auth
ok
                                         (Conf[Space])
                            Bot L11
            common-auth
```

5:04 / 9:46

```
root@client: /etc/pam.d
                            File Edit Options Buffers Tools Help
        sufficient
                         pam unix.so nullok secure
auth
auth
        required
                         pam_ldap.so use_first_pass
                         pam permit.so
        required
auth
                            Bot L10
                                         (Conf[Space])
            common-auth
```





```
root@client: /etc/pam.d
                           ll be used.
Get:1 http://172.16.1.200 hardy-updates/universe nscd 2
.7-10ubuntu4 [176kB]
Fetched 176kB in 0s (5755kB/s)
Selecting previously deselected package nscd.
(Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
root@client:/etc/pam.d# ls
    common-account common-session other
atd
                                                sshd
chfn common-auth
                                       passwd
                       cron
                                                su
chsh common-password login
                                                sudo
                                       ppp
root@client:/etc/pam.d# emacs common-auth
```

OpenLDAP - Configuring a server to authenticate users using LDAP - YouTube root@client: /etc/pam.d File Edit Options Buffers Tools Help pam unix.so account required account

-uu-:**-F1 (Conf[Space]) common-account





```
root@client: /etc/pam.d
                            File Edit Options Buffers Tools Help
account sufficient
                         pam unix.so
                         pam ldap.so
account required
                                          (Conf[Space])
            common-account
```

```
root@client:/etc/pam.d
                          .7-10ubuntu4 [176kB]
Fetched 176kB in 0s (5755kB/s)
Selecting previously deselected package nscd.
(Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
root@client:/etc/pam.d# ls
atd common-account common-session other
                                               sshd
chfn common-auth cron
                                       passwd
                                               su
                                               sudo
chsh common-password login
                                       ppp
root@client:/etc/pam.d# emacs common-auth
root@client:/etc/pam.d# emacs common-account
root@client:/etc/pam.d# emacs common-session
```



root@client: /etc/pam.d File Edit Options Buffers Tools Help session required pam_unix.so -uu-:**-F1 (Conf[Space]) common-session





```
root@client: /etc/pam.d
                              X root@client: ~
File Edit Options Buffers Tools Help
session required
                           pam unix.so
                           pam mkhomedir.so skel=/etc/ske\
session required
l/ umask=0022
              common-session
                                              (Conf[Space])
```







```
root@client:/etc/pam.d
                          Fetched 176kB in 0s (5755kB/s)
Selecting previously deselected package nscd.
(Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
root@client:/etc/pam.d# ls
atd common-account common-session other
                                              sshd
chfn common-auth cron
                                      passwd
                                               su
chsh common-password login
                                               sudo
                                      ppp
root@client:/etc/pam.d# emacs common-auth
root@client:/etc/pam.d# emacs common-account
root@client:/etc/pam.d# emacs common-session
root@client:/etc/pam.d# emacs common-password
```



```
root@client: /etc/pam.d
                            File Edit Options Buffers Tools Help
           requisite
                        pam_unix.so nullok obscure md5
password
pas
-uu-:**-F1
                                            (Conf[Space]) -
                                40% L25
            common-password
```



```
root@client: /etc/pam.d
File Edit Options Buffers Tools Help
           sufficient
                         pam unix.so nullok obscure md5
password
                        pam ldap.so
           required
password
                                           (Conf[Space])
                               39% L24
            common-password
```

```
root@client:/etc/pam.d
                          Fetched 176kB in 0s (5755kB/s)
Selecting previously deselected package nscd.
(Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
root@client:/etc/pam.d# ls
atd common-account common-session other
                                               sshd
chfn common-auth cron
                                       passwd
                                               su
chsh common-password login
                                               sudo
                                       ppp
root@client:/etc/pam.d# emacs common-auth
root@client:/etc/pam.d# emacs common-account
root@client:/etc/pam.d# emacs common-session
root@client:/etc/pam.d# emacs common-password
```





```
root@client:/etc/pam.d
                          (Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
root@client:/etc/pam.d# ls
atd common-account common-session other
                                               sshd
chfn common-auth
                                       passwd
                                               su
                      cron
                                               sudo
chsh common-password login
root@client:/etc/pam.d# emacs common-auth
root@client:/etc/pam.d# emacs common-account
root@client:/etc/pam.d# emacs common-session
root@client:/etc/pam.d# emacs common-password
root@client:/etc/pam.d# /etc/init.d/nscd restart
  Restarting Name Service Cache Daemon nscd
```

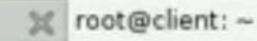


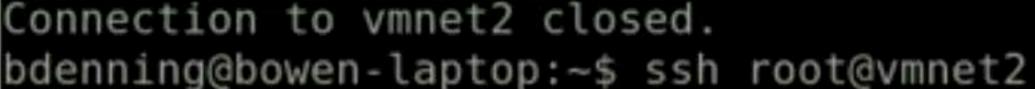






```
root@client: /etc/pam.d
```





root@vmnet2's password:

Last login: Wed Apr 8 18:15:39 2009 from 172.16.1.200 Linux client 2.6.24-23-server #1 SMP Mon Jan 26 00:55:2 1 UTC 2009 1686

The programs included with the Ubuntu system are free s oftware;

the exact distribution terms for each program are descr ibed in the

individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

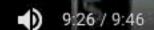
To access official Ubuntu documentation, please visit: http://help.ubuntu.com/





```
root@client: /etc/pam.d
                          (Reading database ... 22711 files and directories curre
ntly installed.)
Unpacking nscd (from .../nscd 2.7-10ubuntu4 i386.deb)
Setting up nscd (2.7-10ubuntu4) ...
  Starting Name Service Cache Daemon nscd
root@client:~# emacs /etc/nsswitch.conf
root@client:~# cd /etc/pam.d/
root@client:/etc/pam.d# ls
    common-account common-session other
atd
                                              sshd
chfn common-auth
                                      passwd
                                              su
                      cron
                                              sudo
chsh common-password login
root@client:/etc/pam.d# emacs common-auth
root@client:/etc/pam.d# emacs common-account
root@client:/etc/pam.d# emacs common-session
root@client:/etc/pam.d# emacs common-password
root@client:/etc/pam.d# /etc/init.d/nscd restart
  Restarting Name Service Cache Daemon nscd
```

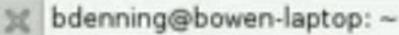
```
root@client: /etc/pam.d
                            bdenning@bowen-laptop: ~
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by
applicable law.
To access official Ubuntu documentation, please visit:
http://help.ubuntu.com/
Last login: Mon Apr 6 07:01:27 2009
$ passwd
Enter login(LDAP) password:
LDAP Password incorrect: try again
Enter login(LDAP) password:
New password:
Password too short
New password:
Re-enter new password:
LDAP password information changed for joe
passwd: password updated successfully
```







root@client: /etc/pam.d





```
$ Connection to vmnet2 closed.
bdenning@bowen-laptop:~$ ssh jane@vmnet2
jane@vmnet2's password:
```

Creating directory '/home/users/jane'.

Linux client 2.6.24-23-server #1 SMP Mon Jan 26 00:55:2 1 UTC 2009 1686

The programs included with the Ubuntu system are free s oftware;

the exact distribution terms for each program are descr ibed in the

individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

To access official Ubuntu documentation, please visit: http://help.ubuntu.com/









