

Fall2019 Cent OS 7 simple email server.

The presentation installs postfix, dovecot and alpine.

Preuss
12/6/2019

Cent OS 7 Settings on both systems

20 GB disk
8 GB RAM
2 Processors
NAT Network Settings

Software Install: Server with GUI (no additional software)
Automatic partitioning
No security policy chosen

Post-Installation
Install open-vm-tools
Install updates

Resource:
<https://linuxtechlab.com/setting-mail-server-postfix-dovecot-squirrelmail/>



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[preuss@apache01 ~]$ su
Password:
[root@apache01 preuss]# yum remove sendmail
Loaded plugins: fastestmirror, langpacks
No Match for argument: sendmail
No Packages marked for removal
[root@apache01 preuss]#
```

The presentation logs into root as shown.

The presentation issues the command "yum remove sendmail" to insure sendmail is not installed.

Sendmail is not installed.


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preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# hostname
apache01.mait.minnesota.edu
[root@apache01 preuss]# hostnamectl set-hostname email01.mait.minnesota.edu
[root@apache01 preuss]# systemctl restart network
[root@apache01 preuss]# hostname
email01.mait.minnesota.edu
[root@apache01 preuss]#
```

The presentation checks the hostname with the "hostname" command.

The presentation changes the hostname with the command "hostnamectl set-hostname email01.mait.minnesota.edu".

The presentation restarts the network with the command "systemctl restart network"

The presentation checks the hostname with the "hostname" command.


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preuss@apache01:/home/preuss

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File Edit View Search Terminal Help

```
[root@apache01 preuss]# nano -c /etc/hosts
```

The presentation edits the hosts file as shown.

File Edit View Search Terminal Help

preuss@apache01 ~# ip netns exec ns1 ip a s

```
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
   inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UNKNOWN group de
fault qlen 1000
   link/ether 00:0c:29:41:03:8e brd ff:ff:ff:ff:ff:ff
   inet 192.168.117.140/24 brd 192.168.117.255 scope global noprefixroute dynamic ens33
       valid_lft 1767sec preferred_lft 1767sec
```

The CentOS logo, featuring a stylized '7' shape above the word 'CENTOS'.



Home



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preuss@apache01:/home/preuss

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File Edit View Search Terminal Help
GNU nano 2.3.1 File: /etc/hosts Modified

```
127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4
::1 localhost localhost.localdomain localhost6 localhost6.localdomain6
192.168.117.140 email01.mait.minnesota.edu
```

The presentation lists the systems IP address and name in the hosts file.

The address 192.168.117.140 will now resolve to email01.mait.minnesota.edu on this system.

[line 3/4 (75%), col 43/43 (100%), char 200/201 (99%)]

^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell

```
preuss@apache01:~$ ifconfig -a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
   inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UNKNOWN group default qlen 1000
   link/ether 00:0c:29:41:03:8e brd ff:ff:ff:ff:ff:ff
   inet 192.168.117.140/24 brd 192.168.117.255 scope global noprefixroute dynamic ens33
       valid_lft 1767sec preferred_lft 1767sec
```





Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# yum install epel-release
```

The presentation adds the epel repositories with the command "yum install epel-release"


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Home



Trash

```
preuss@apache01:/home/preuss
File Edit View Search Terminal Help
Dependencies Resolved
=====
Package Arch Version Repository Size
=====
Installing:
epel-release noarch 7-11 extras 15 k
Transaction Summary
=====
Install 1 Package

Total download size: 15 k
Installed size: 24 k
Is this ok [y/d/N]: y
Downloading packages:
epel-release-7-11.noarch.rpm | 15 kB 00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : epel-release-7-11.noarch 1/1
  Verifying : epel-release-7-11.noarch 1/1

Installed:
epel-release.noarch 0:7-11

Complete!
[root@apache01 preuss]#
```

The epel repositories are added.

| 15 kB 00:00:00

1/1

1/1

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Home



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preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# yum install postfix
```

The presentation installs postfix with the command "yum install postfix".





Home



Trash

```
preuss@apache01:/home/preuss
File Edit View Search Terminal Help
[root@apache01 preuss]# yum install postfix
Loaded plugins: fastestmirror, langpacks
Loading mirror speeds from cached hostfile
epel/x86_64/metalink | 18 kB 00:00:00
* base: mirror.datto.com
* epel: mirror.team-cymru.com
* extras: ftpmirror.your.org
* updates: mirror.wdc1.us.leaseweb.net
epel | 5.4 kB 00:00:00
(1/3): epel/x86_64/group_gz | 90 kB 00:00:00
(2/3): epel/x86_64/primary_db | 6.9 MB 00:00:00
epel/x86_64/updateinfo FAILED
http://csc.mcs.sdsmt.edu/epel/7/x86_64/repo/5cd1164-updateinfo.xml.bz2
2: [Errno 14] curl#56 - "Recv failure: Connection reset"
Trying other mirror.
(3/3): epel/x86_64/updateinfo | 1.0 MB 00:00:00
Package 2:postfix-2.10.1-7.el7.x86_64 already installed and latest version
Nothing to do
[root@apache01 preuss]#
```

Postfix is now installed.



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# cp /etc/postfix/main.cf /etc/postfix/main.cf.backup  
[root@apache01 preuss]# nano -c /etc/postfix/main.cf
```

The presentation creates a backup of the main.cf file as shown.

The presentation edits the postfix main.cf file as shown.


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Home



Trash

preuss@apache01:/home/preuss

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File Edit View Search Terminal Help

GNU nano 2.3.1

File: /etc/postfix/main.cf

Modified

```

#default_privs = nobody

# INTERNET HOST AND DOMAIN NAMES
#
# The myhostname parameter specifies the internet hostname of this
# mail system. The default is to use the fully-qualified domain name
# from gethostname(). $myhostname is used as a default value for many
# other configuration parameters.
#
#myhostname = host.domain.tld
#myhostname = virtual.domain.tld
myhostname = email01.mait.minnesota.edu
#
# The mydomain parameter specifies the local i
# The default is to use $myhostname minus the
# $mydomain is used as a default value for man
# parameters.
#
#mydomain = domain.tld

```

The presentation creates the "myhostname" line using the current hostname.

```

# SENDING MAIL
#
# The myorigin parameter specifies the domain that locally-posted
# mail appears to come from. The default is to append $myhostname,

```

[line 78/681 (11%), col 1/1 (100%), char 2951/27216 (10%)]

^G Get Help

^O WriteOut

^R Read File

^Y Prev Page

^K Cut Text

^C Cur Pos

^X Exit

^J Justify

^W Where Is

^V Next Page

^U UnCut Text

^T To Spell

CENTOS



Home



Trash

```
preuss@apache01:/home/preuss
File Edit View Search Terminal Help
GNU nano 2.3.1 File: /etc/postfix/main.cf Modified

#default_privs = nobody

# INTERNET HOST AND DOMAIN NAMES
#
# The myhostname parameter specifies the internet hostname of this
# mail system. The default is to use the fully-qualified domain name
# from gethostname(). $myhostname is used as a default value for many
# other configuration parameters.
#
#myhostname = host.domain.tld
#myhostname = virtual.domain.tld
myhostname = email01.mait.minnesota.edu

# The mydomain parameter specifies the local internet domain name.
# The default is to use $myhostname minus the first component.
# $mydomain is used as a default value for many other configuration
# parameters.
#
#mydomain = domain.tld
mydomain = mait.minnesota.edu

# SENDING MAIL
#
# The myorigin parameter specifies the domain that locally posted
[ line 85/682 (12%), col 30/30 (100%), char 3218/27246 (11%) ]
^G Get Help      ^O WriteOut     ^R Read File    ^Y Prev Page    ^K Cut Text     ^C Cur Pos
^X Exit          ^J Justify      ^W Where Is     ^V Next Page    ^U UnCut Text   ^T To Spell
```

The presentation creates the "mydomain" line using the current domain name.

preuss@apache01:/home/preuss

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File Edit View Search Terminal Help

GNU nano 2.3.1

File: /etc/postfix/main.cf

Modified

```
# The mydomain parameter specifies the local internet domain name.
# The default is to use $myhostname minus the first component.
# $mydomain is used as a default value for many other configuration
# parameters.
#
#mydomain = domain.tld
mydomain = mait.minnesota.edu
```

The presentation creates the "myorigin" line using the variable \$mydomain.

```
parameter specifies the domain that locally-posted
mail comes from. The default is to append $myhostname,
which is useful for small sites. If you run a domain with multiple
mail servers, you should (1) change this to $mydomain and (2) set up
a mail database that aliases each user to the appropriate mailhost.
```

```
myorigin parameter specifies the domain that locally-posted
mail comes from. The default is to append $myhostname,
which is useful for small sites. If you run a domain with multiple
mail servers, you should (1) change this to $mydomain and (2) set up
a mail database that aliases each user to the appropriate mailhost.
```

```
#myorigin = $myhostname
#myorigin = $mydomain
myorigin = $mydomain
```

[line 102/682 (14%), col 21/21 (100%), char 3850/27266 (14%)]

^G Get Help

^O WriteOut

^R Read File

^Y Prev Page

^K Cut Text

^C Cur Pos

^X Exit

^J Justify

^W Where Is

^V Next Page

^U UnCut Text

^T To Spell

CENTOS

preuss@apache01:/home/preuss

- □ ×

File Edit View Search Terminal Help

GNU nano 2.3.1

File: /etc/postfix/main.cf

Modified

```

# The inet_interfaces parameter specifies the network interface
# that this mail system receives mail on. By default,
# it listens on all active interfaces on the machine. The
# inet_interfaces parameter controls delivery of mail to user@[ip.address].

# The proxy_interfaces parameter, for network addresses that
# are accessed via a proxy or network address translator.

# Enable Postfix to stop/start Postfix when this parameter changes.
#
#inet_interfaces = all
inet_interfaces = all
#inet_interfaces = $myhostname
#inet_interfaces = $myhostname, localhost
inet_interfaces = localhost

# Enable IPv4, and IPv6 if supported
inet_protocols = all

```

```

# The proxy_interfaces parameter specifies the network interface
# addresses that this mail system receives mail on by way of a
# proxy or network address translation unit. This setting extends
# the address list specified with the inet_interfaces parameter.
#

```

[line 116/683 (16%), col 22/22 (100%), char 4380/27288 (16%)]

^G Get Help

^O WriteOut

^R Read File

^Y Prev Page

^K Cut Text

^C Cur Pos

^X Exit

^J Justify

^W Where Is

^V Next Page

^U UnCut Text

^T To Spell

The presentation creates the "inet_interfaces" line using the value all as shown.

Trash

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preuss@apache01:/home/preuss

File Edit View Search Terminal Help

GNU nano 2.3.1

File: /etc/postfix/main.cf

Modified

```
# The inet_interfaces parameter specifies the network interface
# addresses that this mail system receives mail on. By default,
# the software claims all active interfaces on the machine. The
# parameter also controls delivery of mail to user@[ip.address].
#
# See also the proxy_interfaces parameter, for network addresses that
# are forwarded to us via a proxy or network address translator.
```

```
top/start Postfix when this parameter changes.
```

```
l
```

```
yhostname
```

```
yhostname, localhost
```

```
alhost
```

```
# Enable IPv4, and IPv6 if supported
inet_protocols = all
```

```
# The proxy_interfaces parameter specifies the network interface
# addresses that this mail system receives mail on by way of a
# proxy or network address translation unit. This setting extends
# the address list specified with the inet_interfaces parameter.
#
```

```
[ line 122/683 (17%), col 21/21 (100%), char 4540/27288 (16%) ]
```

```
^G Get Help
```

```
^O WriteOut
```

```
^R Read File
```

```
^Y Prev Page
```

```
^K Cut Text
```

```
^C Cur Pos
```

```
^X Exit
```

```
^J Justify
```

```
^W Where Is
```

```
^V Next Page
```

```
^U UnCut Text
```

```
^T To Spell
```

The presentation checks the "inet_protocols = all" is not commented.

preuss@apache01:/home/preuss

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File Edit View Search Terminal Help

File: /etc/postfix/main.cf

Modified

The presentation comments out using #A the "mydestination" line.

The presentation creates a new "mydestination" line as shown.

```
interfaces parameter).
```

```
names, /file/name or type:table
```

```
(or whitespace. A /file/name
```

```
is; a type:table is matched when
```

```
right-hand side is ignored).
```

```
the next line with whitespace.
```

```
# See also below, section "REJECTING MAIL FOR UNKNOWN LOCAL USERS".
```

```
#
```

```
#A mydestination = $myhostname, localhost.$mydomain, localhost
```

```
mydestination = $myhostname, localhost.$mydomain, localhost, $mydomain
```

```
#mydestination = $myhostname, localhost.$mydomain, localhost, $mydomain,
```

```
# mail.$mydomain, www.$mydomain, ftp.$mydomain
```

```
# REJECTING MAIL FOR UNKNOWN LOCAL USERS
```

```
#
```

```
# The local_recipient_maps parameter specifies optional lookup tables
```

```
# with all names or addresses of users that are local with respect
```

```
# to $mydestination, $inet_interfaces or $proxy_interfaces.
```

```
#
```

```
# If this parameter is defined, then the SMTP server will reject
```

```
# mail for unknown local users. This parameter is defined by default.
```

```
#
```

```
[ line 168/683 (24%), col 71/71 (100%), char 6605/27290 (24%) ]
```

```
^G Get Help
```

```
^O WriteOut
```

```
^R Read File
```

```
^Y Prev Page
```

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^K Cut Text
```

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^C Cur Pos
```

```
^X Exit
```

```
^J Justify
```

```
^W Where Is
```

```
^V Next Page
```

```
^U UnCut Text
```

```
^T To Spell
```

CENTOS



Home

The presentation creates a "mynetworks" line including the local subnet and loopback addresses.

```
preuss@apache01:/home/preuss
File Edit View Search Terminal Help
GNU nano 2.3.1 File: /etc/postfix/main.cf Modified
#
# Specify "mynetworks_style = host" when Postfix should "trust"
# only the local machine.
#
# mynetworks list by hand, in
# mynetworks_style setting.
#
# netmask patterns, where the
# the network part of a host
#
# filename of a pattern file instead
# by type:table for table-based lookups
# (side is not used).
#
#mynetworks = 168.100.189.0/28, 127.0.0.0/8
mynetworks = 192.168.117.0/24, 127.0.0.0/8
#mynetworks = $config_directory/mynetworks
#mynetworks = hash:/etc/postfix/network_table

[ line 268/684 (39%), col 43/43 (100%), char 10739/27333 (39%) ]
^G Get Help      ^O WriteOut     ^R Read File    ^Y Prev Page    ^K Cut Text     ^C Cur Pos
^X Exit          ^J Justify      ^W Where Is    ^V Next Page    ^U UnCut Text   ^T To Spell
```



Home

The presentation creates a "home_mailbox" line as shown.

The / is the last character.

```

preuss@apache01:/home/preuss
File Edit View Search Terminal Help
GNU nano 2.3.1 File: /etc/postfix/main.cf Modified

# ADDRESS EXTENSIONS (e.g., user+foo)
#
# The recipient_delimiter parameter specifies the separator between
# user names and address extensions (user+foo). See canonical(5),
# virtual(5) and virtual_alias_domains(5) and virtual(5) for the effects this has on
# virtual, relocated and .forward file lookups.
# The recipient_delimiter parameter tries user+foo and .forward+foo before
# the recipient_delimiter parameter.
#
# The mail_spool_directory parameter specifies the optional pathname of a
# directory to use as the mail spool directory for a user's home directory. The default
# is /var/mail/user or /spool/mail/user. Specify
# the directory for UNIX-style delivery (the / is required).

#home_mailbox = Maildir/
#home_mailbox = Maildir/
home_mailbox = Maildir/

# The mail_spool_directory parameter specifies the directory where
# UNIX-style mailboxes are kept. The default setting depends on the
[ line 424/685 (61%), col 24/24 (100%), char 16723/27357 (61%) ]
^G Get Help      ^O WriteOut     ^R Read File    ^Y Prev Page    ^K Cut Text     ^C Cur Pos
^X Exit          ^J Justify      ^W Where Is     ^V Next Page    ^U UnCut Text   ^T To Spell

```




Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# systemctl restart postfix
[root@apache01 preuss]# systemctl enable postfix
[root@apache01 preuss]# systemctl status postfix
● postfix.service - Postfix Mail Transport Agent
   Loaded: loaded (/usr/lib/systemd/system/postfix.service;
   Active: active (running) since Fri 2019-12-06 15:47:37 C
 Main PID: 4176 (master)
   CGroup: /system.slice/postfix.service
           └─4176 /usr/libexec/postfix/master -w
             └─4177 pickup -l -t unix -u
               └─4178 qmgr -l -t unix -u

Dec 06 15:47:37 email01.mait.minnesota.edu systemd[1]: Stop
Dec 06 15:47:37 email01.mait.minnesota.edu systemd[1]: Start
Dec 06 15:47:37 email01.mait.minnesota.edu postfix/master[4
Dec 06 15:47:37 email01.mait.minnesota.edu systemd[1]: Start
[root@apache01 preuss]#
```

The presentation runs

```
systemctl restart postfix
systemctl enable postfix
systemctl status postfix
```



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# useradd -g users albatross01
[root@apache01 preuss]# useradd -g users albatross02
[root@apache01 preuss]# passwd albatross01
Changing password for user albatross01.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@apache01 preuss]# passwd albatross02
Changing password for user albatross02.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@apache01 preuss]#
```

The presentation creates two logins with passwords to test the email system.

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Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# yum install telnet
```

The presentation installs "telnet" with "yum install telnet".



preuss@apache01:/home/preuss

File Edit View Search Terminal Help

Dependencies Resolved

Package	Arch	Version	Repository	Size
Installing: telnet	x86_64	1:0.17-64.el7	base	64 k

Transaction Summary

Install 1 Package

Total download size: 64 k

Installed size: 113 k

Is this ok [y/d/N]: y

Downloading packages:

telnet-0.17-64.el7.x86_64.rpm

| 64 kB 00:00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : 1:telnet-0.17-64.

1/1

Verifying : 1:telnet-0.17-64.

1/1

Installed:

telnet.x86_64 1:0.17-64.el7

Complete!

[root@apache01 preuss]#

Telnet is installed.

CENTOS



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# telnet localhost smtp
```

The presentation telnets to postfix using the command "telnet localhost smtp"





Home



Trash

preuss@apache01:/home/preuss

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```
File Edit View Search Terminal Help
[root@apache01 preuss]# telnet localhost smtp
Trying ::1...
Connected to localhost.
Escape character is '^]'.
220 email01.mait.minnesota.edu ESMTP Postfix
█
```

The presentation is connected to the smtp server, postfix.





Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# telnet localhost smtp
Trying ::1...
Connected to localhost.
Escape character is '^]'.
220 email01.mait.minnesota.edu ESMTP Postfix
ehlo localhost
250-email01.mait.minnesota.edu
250-PIPELINING
250-SIZE 10240000
250-VERFY
250-ETRN
250-ENHANCEDSTATUSCODES
250-8BITMIME
250 DSN
█
```

The presentation issues the "ehlo localhost" command.


CENTOS



Home



Trash

preuss@apache01:/home/preuss

```
File Edit View Search Terminal Help
[root@apache01 preuss]# telnet localhost smtp
Trying ::1...
Connected to localhost.
Escape character is '^]'.
220 email01.mait.minnesota.edu ESMTP Postfix
ehlo localhost
250-email01.mait.minnesota.edu
250-PIPELINING
250-SIZE 10240000
250-VRFY
250-ETRN
250-ENHANCEDSTATUSCODES
250-8BITMIME
250 DSN
mail from:albatross01
250 2.1.0 Ok
rcpt to:albatross02
250 2.1.5 Ok
data
354 End data with <CR><LF>.<CR><LF>
```

The presentation enters "mail from:albatross01" and enter.
The presentation enters "rcpt to: albatross02" and enter
The presentation enters "data" and enter.


CENTOS



Home



Trash

```
preuss@apache01:/home/preuss
File Edit View Search Terminal Help
[root@apache01 preuss]# telnet localhost smtp
Trying ::1...
Connected to localhost.
Escape character is '^]'.
220 email01.mait.minnesota.edu ESMTP Postfix
ehlo localhost
250-email01.mait.minnesota.edu
250-PIPELINING
250-SIZE 10240000
250-VRFY
250-ETRN
250-ENHANCEDSTATUSCODES
250-8BITMIME
250 DSN
mail from:albatross01
250 2.1.0 Ok
rcpt to:albatross02
250 2.1.5 Ok
data
354 End data with <CR><LF>.<CR><LF>
This is a postfix test.
.
250 2.0.0 Ok: queued as 9948B218C758
█
```

The presentation enters,
"This is a postfix test."

;

then enter.

The presentation enters quit to exit the postfix session.

7
CENTOS

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# ls -l /home/albatross02/Maildir/new/
total 4
-rw-----. 1 albatross02 users 467 Dec  6 15:51 1575669070.Vfd00I30ef8aaM802350.email01.mait.minnesota.edu
[root@apache01 preuss]#
```

The presentation reviews the content of the albatross02 mail directory. The email is waiting for albatross02.



Home



Trash


CENTOS



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# ls -l /home/albatross02/Maildir/new/
```

```
total 4
```

```
-rw-----. 1 albatross02 users 467 Dec  6 15:51 1575669070.Vfd00I30ef8aaM802350.email01.mait.minnesota.edu
```

```
[root@apache01 preuss]# cat /home/albatross02/Maildir/new/1575669070.Vfd00I30ef8aaM802350.email01.mait.minnesota.edu
```

```
Return-Path: <albatross01@mait.minnesota.edu>
```

```
X-Original-To: albatross02
```

```
Delivered-To: albatross02@mait.minnesota.edu
```

```
Received: from localhost (localhost [IPv6:::1])
```

```
        by email01.mait.minnesota.edu (Postfix) with ESMTP id 9948B218C758
```

```
        for <albatross02>; Fri,  6 Dec 2019 15:50:40 -0600 (CST)
```

```
Message-Id: <20191206215050.9948B218C758@email01.mait.minnesota.edu>
```

```
Date: Fri,  6 Dec 2019 15:50:40 -0600 (CST)
```

```
From: albatross01@mait.minnesota.edu
```

```
This is a postfix test.
```

```
[root@apache01 preuss]# █
```

The presentation reads the email in the albatross02 email directory.



CENTOS



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# yum install dovecot
```

The presentation installs dovecot using the "yum install dovecot" command.


CENTOS

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

Transaction Summary

Install 1 Package (+1 Dependent package)

Total download size: 4.9 M

Installed size: 16 M

Is this ok [y/d/N]: y

Downloading packages:

(1/2): clucene-core-2.3.3.4-11.el7.x86_64.rpm

(2/2): dovecot-2.2.36-3.el7_7.1.x86_64.rpm

Total

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : clucene-core-2.3.3.4-11.el7.x86_64

Installing : 1:dovecot-2.2.36-3.el7_7.1.x86_64

Verifying : clucene-core-2.3.3.4-11.el7.x86_64

Verifying : 1:dovecot-2.2.36-3.el7_7.1.x86_64

Installed:

dovecot.x86_64 1:2.2.36-3.el7_7.1

Dependency Installed:

clucene-core.x86_64 0:2.3.3.4-11.el7

Complete!

[root@apache01 preuss]#

Dovecot is now installed.

	528 kB	00:00:00
	4.4 MB	00:00:01
-----	MB/s	4.9 MB 00:00:02

1/2
2/2
1/2
2/2



Home



Trash

preuss@apache01:/home/preuss

— □ ×

File Edit View Search Terminal Help

```
[root@apache01 preuss]# nano -c /etc/dovecot/dovecot.conf
```

The presentation edits the dovecot.conf file as shown.



preuss@apache01:/home/preuss

— □ ×

File Edit View Search Terminal Help

File: /etc/dovecot/dovecot.conf

Modified

The presentation creates the "protocols" line as shown.

The presentation saves the file and exits.

```
local 127.0.0.1 { }, remote 10.0.0.0/8 { }
```

```
own for each setting, it's not required to uncomment
ptions to this though: No sections (e.g. namespace {})
e added by default, they're listed only as examples.
xamples with the real defaults being based on configure
sted here are for configure --prefix=/usr
ocalstatedir=/var
```

```
# Protocols we want to be serving.
#protocols = imap pop3 lmtp
protocols = imap pop3 lmtp
```

```
# A comma separated list of IPs or hosts where to listen in for connections.
# "*" listens in all IPv4 interfaces, "::" listens in all IPv6 interfaces.
# If you want to specify non-default ports or anything more complex,
# edit conf.d/master.conf.
#listen = *, ::
```

```
# Base directory where to store runtime data.
#base_dir = /var/run/dovecot/
```

```
# Name of this instance. In multi-instance setup doveadm and other commands
# can use -i <instance_name> to select which instance is used (an alternative
```

```
[ line 25/104 (24%), col 27/27 (100%), char 1209/4407 (27%) ]
```

```
^G Get Help
```

```
^O WriteOut
```

```
^R Read File
```

```
^Y Prev Page
```

```
^K Cut Text
```

```
^C Cur Pos
```

```
^X Exit
```

```
^J Justify
```

```
^W Where Is
```

```
^V Next Page
```

```
^U UnCut Text
```

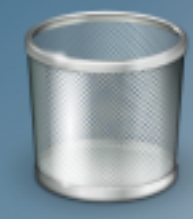
```
^T To Spell
```

Trash

CENTOS



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# nano -c /etc/dovecot/conf.d/10-mail.conf
```

The presentation edits the 10-mail.conf file as shown.



preuss@apache01:/home/preuss

File Edit View Search Terminal Help

GNU nano 2.3.1

File: /etc/dovecot/conf.d/10-mail.conf

Modified

The presentation creates a "mail_location" line as shown.

The presentation saves the file and exits.

```
ables you can use, eg.:

main, same as %u if there's no domain
omain, empty if there's no domain

for full list. Some examples:

Maildir
l:INBOX=/var/mail/%u
mail/%d/%1n/%n:INDEX=/var/indexes/%d/%1n/%n

#
#mail_location =
mail_location = maildir:~/Maildir

# If you need to set multiple mailbox locations or want to change default
# namespace settings, you can do it by defining namespace sections.
#
# You can have private, shared and public namespaces. Private namespaces
# are for user's personal mails. Shared namespaces are for accessing other
[ line 31/414 (7%), col 34/34 (100%), char 1100/17613 (6%) ]
^G Get Help      ^O WriteOut     ^R Read File    ^Y Prev Page    ^K Cut Text     ^C Cur Pos
^X Exit          ^J Justify      ^W Where Is     ^V Next Page    ^U UnCut Text   ^T To Spell
```




Home



Trash

preuss@apache01:/home/preuss



File Edit View Search Terminal Help

[root@apache01 preuss]# nano -c /etc/dovecot/conf.d/10-auth.conf █

The presentation edits the 10-auth.conf file as shown.

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

GNU nano 2.3.1 File: /etc/dovecot/conf.d/10-auth.conf Modified

```

# See also ssl=required setting.
#disable_plaintext_auth = no
disable_plaintext_auth = yes

# Authentication cache size (e.g. 10M). 0 means it's disabled. Note that
# bsdauth, PAM and vpopmail require cache_key to be set for caching to be used.
#auth_cache_size = 0
# Time to live for cached data. After TTL expires the cached record is no
# longer used, *except* if the main database lookup returns internal failure.
# We also try to handle password changes automatically: If user's previous
# authentication was successful, but this one wasn't, the cache isn't used.
# For now this works only with plaintext authentication.
#auth_cache_ttl = 1 hour
# TTL for negative hits (user not found, password mismatch).
# 0 disables caching them completely.
#auth_cache_negative_ttl = 1 hour
    
```

[line 11/130 (8%), col 29/29 (100%), char 420/5325 (7%)]

^G Get Help	^O WriteOut	^R Read File	^Y Prev Page	^K Cut Text	^C Cur Pos
^X Exit	^J Justify	^W Where Is	^V Next Page	^U UnCut Text	^T To Spell

The presentation creates the "disable_plaintext_auth" as shown.

The presentation continues to edit this file on the next slide.



preuss@apache01:/home/preuss

— □ ×

File Edit View Search Terminal Help

GNU nano 2.3.1

File: /etc/dovecot/conf.d/10-auth.conf

Modified

The presentation creates the "auth_mechanisms" line as shown.

The presentation saves the file and exits.

```

t's SSL certificate, using
which returns the subject's DN's

no

ed authentication mechanisms:
m-md5 ntlm rpa apop anonymous gssapi otp skey

# NOTE: See also disable_plaintext_auth setting.
#A auth_mechanisms = plain
auth_mechanisms = plain login

```

##

Password and user databases

##

#

```

# Password database is used to verify user's password (and nothing more).
# You can have multiple passdbs and userdbs. This is useful if you want to
# allow both system users (/etc/passwd) and virtual users to login without
# duplicating the system users into virtual database.
#
# <doc/wiki>PasswordDatabase.txt>
#

```

[line 102/131 (77%), col 30/30 (100%), char 4546/5358 (84%)]

^G Get Help

^O WriteOut

^R Read File

^Y Prev Page

^K Cut Text

^C Cur Pos

^X Exit

^J Justify

^W Where Is

^V Next Page

^U UnCut Text

^T To Spell

CENTOS



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# nano -c /etc/dovecot/conf.d/10-master.conf
```

The presentation edits the 10-master.conf file as shown.



preuss@apache01:/home/preuss

File Edit View Search Terminal Help

File: /etc/dovecot/conf.d/10-master.conf Modified

The presentation creates the
mode = 0666
user = postfix
group = postfix

lines under unix_listener auth-userdb
section.

The presentation saves the file and exits.

```

dovecot-lda, dovecadm, possibly imap process, etc. Users that have
permissions to this socket are able to get a list of all usernames and
passwords of everyone's userdb lookups.

```

```

mode 0666 mode allows anyone to connect to the socket, but the
lookups will succeed only if the userdb returns an "uid" field that
matches the caller process's UID. Also if caller's uid or gid matches the
caller's uid or gid the lookup succeeds. Anything else causes a failure.

```

```

To give caller full permissions to lookup all users, set the mode to

```

```

# something else than 0666 and Dovecot lets the kernel enforce the
# permissions (e.g. 0777 allows everyone full permissions).

```

```

unix_listener auth-userdb {
  #mode = 0666
  #user =
  #group =
  mode = 0666
  user = postfix
  group = postfix
}

```

```

# Postfix smtp-auth
#unix_listener /var/spool/postfix/private/auth {
#  mode = 0666

```

[line 95/123 (77%), col 20/20 (100%), char 2809/3438 (81%)]

^G Get Help

^O WriteOut

^R Read File

^Y Prev Page

^K Cut Text

^C Cur Pos

^X Exit

^J Justify

^W Where Is

^V Next Page

^U UnCut Text

^T To Spell

CENTOS



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# systemctl restart dovecot
[root@apache01 preuss]# systemctl enable dovecot
Created symlink from /etc/systemd/system/multi-user.target.wants/dovecot.service to /usr/lib/systemd/system/dovecot.service.
[root@apache01 preuss]# systemctl status dovecot
● dovecot.service - Dovecot IMAP/POP3 email server
   Loaded: loaded (/usr/lib/systemd/system/dovecot.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2019-12-06 16:01:46 CST; 15s ago
     Docs: man:dovecot(1)
           http://wiki2.dovecot.org/
  Main PID: 4888 (dovecot)
    CGroup: /system.slice/dovecot.service
           └─4888 /usr/sbin/dovecot
             └─4893 dovecot/anvil
               └─4894 dovecot/log
                 └─4896 dovecot/config

Dec 06 16:01:46 email01.mait.minnesota.edu systemd[1]: Starting Dovecot IMAP/POP3 email server...
Dec 06 16:01:46 email01.mait.minnesota.edu dovecot[4888]: master: Dovecot v2.2.36 (1f10bfa63) starting up for imap, pop3, ...bled)
Dec 06 16:01:46 email01.mait.minnesota.edu systemd[1]: Started Dovecot IMAP/POP3 email server.
Hint: Some lines were ellipsized, use -l to show in full.
[root@apache01 preuss]#
```

The presentation issues

```
systemctl restart dovecot
systemctl enable dovecot
systemctl status dovecot

commands.
```


CENTOS



Home



Trash

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# telnet localhost 110
```

The presentation telnets to the dovecot POP3 server.





Home



Trash

```
preuss@apache01:/home/preuss
File Edit View Search Terminal Help
[root@apache01 preuss]# telnet localhost 110
Trying ::1...
Connected to localhost.
Escape character is '^]'.
+OK Dovecot ready.
user albatross02
+OK
pass Tinkerbelle
+OK Logged in.
█
```

The presentation enters
user albatross02
pass (login password)
commands.


CENTOS

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# telnet localhost 110
Trying ::1...
Connected to localhost.
Escape character is '^]'.
+OK Dovecot ready.
user albatross02
+OK
pass Tinkerbelle
+OK Logged in.
retr 1
+OK 478 octets
Return-Path: <albatross01@mait.minnesota.edu>
X-Original-To: albatross02
Delivered-To: albatross02@mait.minnesota.edu
Received: from localhost (localhost [IPv6:::1])
        by email01.mait.minnesota.edu (Postfix) with ESMTP id 9948B218C758
        for <albatross02>; Fri, 6 Dec 2019 15:50:40 -0600 (CST)
Message-Id: <20191206215050.9948B218C758@email01.mait.minnesota.edu>
Date: Fri, 6 Dec 2019 15:50:40 -0600 (CST)
From: albatross01@mait.minnesota.edu
```

```
This is a postfix test.
```

```
.
```

The presentation issues the

retr 1

command to read email sent to albatross02.



Home



Trash


CENTOS

preuss@apache01:/home/preuss

File Edit View Search Terminal Help

```
[root@apache01 preuss]# telnet localhost 110
Trying ::1...
Connected to localhost.
Escape character is '^]'.
+OK Dovecot ready.
user albatross02
+OK
pass Tinkerbelle
+OK Logged in.
retr 1
+OK 478 octets
Return-Path: <albatross01@mait.minnesota.edu>
X-Original-To: albatross02
Delivered-To: albatross02@mait.minnesota.edu
Received: from localhost (localhost [IPv6:::1])
        by email01.mait.minnesota.edu (Postfix) with ESMTP id 9948B218C758
        for <albatross02>; Fri, 6 Dec 2019 15:50:40 -0600 (CST)
Message-Id: <20191206215050.9948B218C758@email01.mait.minnesota.edu>
Date: Fri, 6 Dec 2019 15:50:40 -0600 (CST)
From: albatross01@mait.minnesota.edu

This is a postfix test.
.
quit
+OK Logging out.
Connection closed by foreign host.
[root@apache01 preuss]#
```

The presentation issues the "quit" command to exit dovecot POP3 interface.



Home



Trash


CENTOS

preuss@apache01:/usr/share/squirrelmail/config

File Edit View Search Terminal Help

```
[root@apache01 config]# yum install alpine
```

The presentation installs alpine with "yum install alpine"

preuss@apache01:~

— □ ×

File Edit View Search Terminal Help

```
[preuss@apache01 ~]$ su albatross02
```

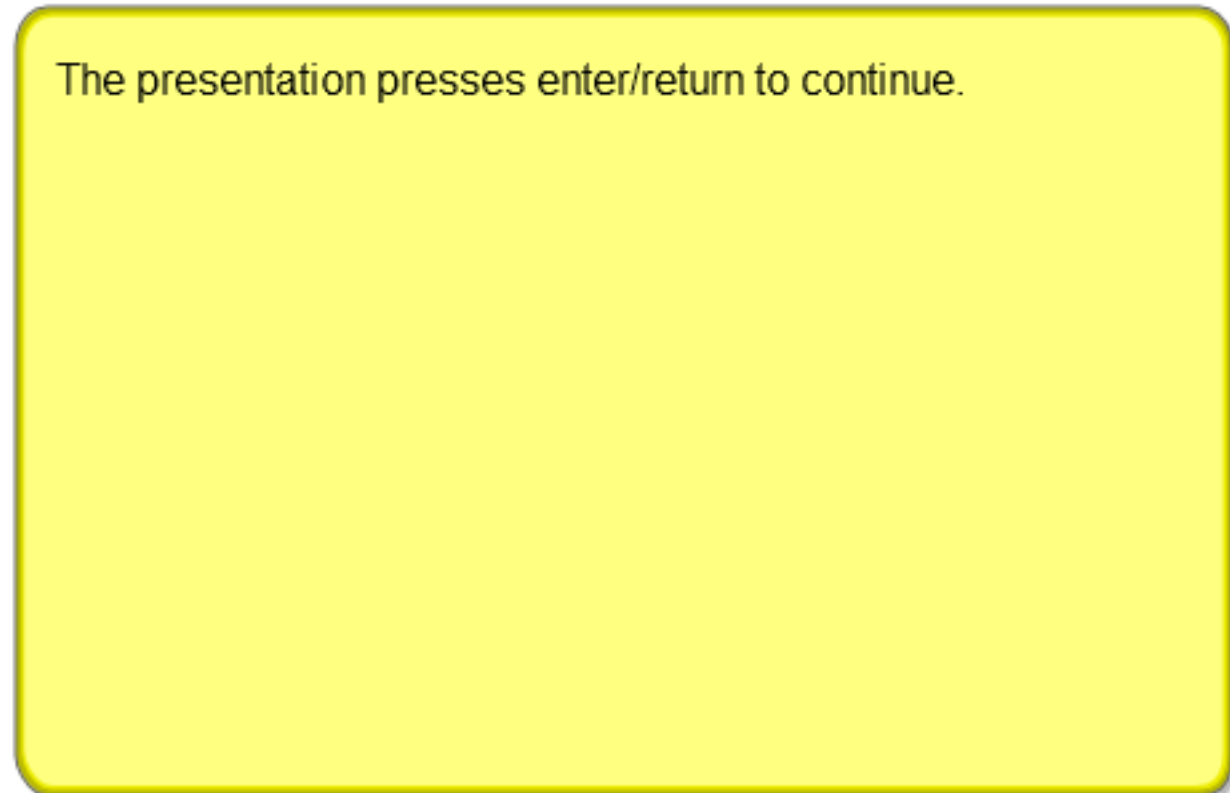
The presentation logs into the albatross02 account.

<<<This message will appear only once>>>

Welcome to Alpine ... a Program for Internet News and Email

We hope you will explore Alpine's many capabilities. From the MAIN MENU, select Setup/Config to see many of the options available to you. Also note that all screens have context-sensitive help text available.

SPECIAL REQUEST: This software was originally created and maintained as a public service by the University of Washington until 2009; updates are made available as a public service of the Alpine community. It is always helpful to have an idea of how many users are using Alpine. Are you willing to be counted as an Alpine user? Pressing **Return** will send an anonymous (meaning, your real email address will not be revealed) message to the Alpine developers for purposes of tallying.



[ALL of greeting text]

- ? Help
- 0 OTHER CMDS
- ␣ Exit this greeting
- Ret [Be Counted!]
- PrevPage
- SpC NextPage
- ␣ Print

albatross02@apache01:/home/preuss

File Edit View Search Terminal Help

ALPINE 2.21 MAIN MENU Folder: INBOX 1 Message

- ? HELP - Get help using Alpine
- C COMPOSE MESSAGE - Compose and send a message
- I MESSAGE INDEX - View messages in current folder
- L FOLDER LIST - Select a folder to view
- A ADDRESS BOOK - Update address book
- S SETUP - Configure Alpine Options
- Q QUIT - Leave the Alpine program

This is alpine main menu. The presentation select "I" to see messages for this account.

For Copyright information press "?"
 [Folder "INBOX" opened with 1 message]

? Help P PrevCmd R RelNotes
 O OTHER CMDS [ListFldrs] N NextCmd K KBlock

albatross02@apache01:/home/preuss

— □ ×

File Edit View Search Terminal Help

ALPINE 2.21 MAIN MENU Folder: INBOX 1 Message

- ? HELP - Get help using Alpine
- C COMPOSE MESSAGE - Compose and send a message
- I MESSAGE INDEX - View messages in current folder**
- L FOLDER LIST - Select a folder to view
- A ADDRESS BOOK - Update address book
- S SETUP - Configure Alpine Options
- Q QUIT - Leave the Alpine program

The presentation presses enter for the "Message Index" option.

For Copyright information press "?"

? Help
O OTHER CMDS

▾ [Index]

P PrevCmd
N NextCmd

R RelNotes
K KBlock

albatross02@apache01:/home/preuss

File Edit View Search Terminal Help

ALPINE 2.21 MESSAGE INDEX Folder: INBOX Message 1 of 1

1 15:50 albatross01@mait.minnesota.edu (478)

The presentation presses enter to read the message.

? Help < FldrList P PrevMsg - PrevPage D Delete R Reply
O OTHER CMDS v [ViewMsg] N NextMsg Spc NextPage U Undelete F Forward

albatross02@apache01:/home/preuss

File Edit View Search Terminal Help

ALPINE 2.21 MESSAGE TEXT Folder: INBOX Message 1 of 1 ALL

Date: Fri, 6 Dec 2019 15:50:40 -0600 (CST)

From: albatross01@mait.minnesota.edu

This is a postfix test.

The presentation reads the message.

Pressing the < character three times will return to the main menu.

? Help
O OTHER CMDS

< MsgIndex
> ViewAttch

P PrevMsg
N NextMsg

[ALL of message]
- PrevPage
Spc NextPage

D Delete
U Undelete

R Reply
F Forward

albatross02@apache01:/home/preuss

File Edit View Search Terminal Help

ALPINE 2.21 MAIN MENU Folder: INBOX 1 Message

- ? HELP - Get help using Alpine
- C COMPOSE MESSAGE - Compose and send a message

The presentation selects "C" to compose a new message.

For Copyright information press "?"

? Help [ListFldrs] P PrevCmd R RelNotes
 O OTHER CMDS N NextCmd K KBlock

albatross02@apache01:/home/preuss

— □ ×

File Edit View Search Terminal Help

ALPINE 2.21 COMPOSE MESSAGE Folder: INBOX 1 Message

From : albatross02@email01.mait.minnesota.edu
To : albatross01@email01.mait.minnesota.edu
Cc :
Attchmnt:
Subject : Yet another test
----- Message Text -----

Welcome to the world of testing.

As albatross02, the presentation creates an email message for albatross01.

^G Get Help ^X Send ^R Read File ^Y Prev Pg ^K Cut Text ^O Postpone
^C Cancel ^J Justify ^W Where is ^V Next Pg ^U UnCut Text ^T To Spell

preuss@apache01:~

File Edit View Search Terminal Help

```
[preuss@apache01 ~]$ su albatross02
Password:
[albatross02@email01 preuss]$ alpine
Creating subdirectory "/home/albatross02/mail" where Alpine will
store its mail folders.
Alpine finished -- Closed folder "INBOX". Kept single message.
[albatross02@email01 preuss]$ exit
exit
[preuss@apache01 ~]$
```

At the main menu, the presentation selects "Q" to exit alpine.