

SECTION 6 Configure Mail and Web Services

In this section of the workbook, you learn how to do the following:

- “Send Mail in the Local Network” on 6-2

In this exercise, you send mail in the local network. You configure Postfix and test your configuration.

- “Use Postfix on the Internet” on 6-4

In this exercise, you configure Postfix to send email to the Internet.

- “Use Lookup Tables” on 6-6

In this exercise, you use the Postfix lookup tables.

- “Install Apache” on 6-9

In this exercise, you install the apache components on your system.

- “Test the Apache Installation” on 6-10

In this exercise, you check if the installation of apache was successful.

- “Configure a Virtual Host” on 6-11

In this exercise, you configure a virtual host for the accounting department.

Exercise 6-1 Send Mail in the Local Network

In this exercise, you edit the Postfix configuration file `/etc/postfix/main.cf`. You configure Postfix to send mails in your local network. The domain name of the sender should be masqueraded for normal users. External mails should be forwarded to `da1`. Test your configuration by sending a mail to `root`.

Do the following:

- Part I - Edit `/etc/postfix/main.cf`
- Part II - Test the Configuration

Part I - Edit `/etc/postfix/main.cf`

1. Open a terminal window and enter **su-** to get root permissions.
2. When prompted, enter the root password **novell**.
3. Stop the postfix daemon by entering
rcpostfix stop
4. Open the file `/etc/postfix/main.cf` in a text editor.
5. Scroll to the settings at the end of the file.
6. To accept mail only from the local network, edit the following options:
 - **inet_interfaces = your_IP-Address, 127.0.0.1**
 - **mynetworks_style = subnet** (should already be set)
 - **smtpd_recipient_restrictions = permit_mynetworks, reject** (on one line)
7. To rewrite the sender addresses and remove the host name, edit the following options:
 - **masquerade_exceptions = root** (should already be set)
 - **masquerade_domains = digitalairlines.com**

8. To deliver external mail to the relay host `dal`, edit the following option:
`relayhost = 10.0.0.254`
9. Save the file and close the editor.
10. Start Postfix by entering
`repostfix start`

Part II - Test the Configuration

1. To generate a test mail, do the following:
 - a. Log out as user `root` by entering **`exit`**.
 - b. Enter **`mail root@hostname.digitalairlines.com`**.
2. Enter the subject and some text and finish the mail by doing the following:
 - a. Press **`Enter`**.
 - b. Type `.` (dot).
 - c. Press **`Enter`**.
3. Enter **`su -`** to get root permissions again.
4. When prompted, enter the root password **`novell`**.
5. Enter **`mail`**.
6. Enter the number corresponding to the mail you wrote.
7. Enter **`q`** to quit.

(End of Exercise)

Exercise 6-2 Use Postfix on the Internet

In this exercise, you configure Postfix to send email to the Internet. Only email from the local network should be allowed to accepted; any email that is not addressed to one of the local domains should be rejected.

Do the following:

1. Open a terminal window and enter **su-** to get root permissions.
2. When prompted, enter the root password **novell**.
3. Stop the postfix daemon by entering
rcpostfix stop
4. Open the file `/etc/postfix/main.cf` with your favorite text editor.
5. To configure Postfix to accept email from the local network and email that is addressed to any recipient in the domain `digitalairlines.com`, edit or add the following options:
 - **myhostname = hostname.digitalairlines.com**
 - **mydomain = digitalairlines.com**
 - **mydestination = \$myhostname, localhost.\$mydomain, \$mydomain** (on one line)
 - **smtpd_recipient_restrictions = permit_mynetworks, reject_unauth_destination**

The first three lines define hostnames and domains. The last line tells Postfix to accept mail as long it is sent from a host in `mynetworks` and to reject any mail that is not addressed to one of the domains defined in `mydestination`.

6. Save the file and close the editor.
7. Start Postfix by entering **rcpostfix start**.

(To test the configuration, you would have to access Postfix from an IP address outside the local network and try to send an email to a domain other than digitalairlines.com. Postfix should not accept this mail. However, the courseroom setup does not provide such a machine.)

(End of Exercise)

Exercise 6-3 Use Lookup Tables

In this exercise, you use the Postfix lookup tables.

In part I, you create a new user `jgoldman` with password `novell`.

In part II, you modify a lookup table that the email messages of a new user `jgoldman` are sent with the sender address `webmaster@digitalairlines.com`.

You test your configuration in part III.

Do the following:

- Part I - Create a New User `jgoldman` and Write an Email to root
- Part II - Change the sender_canonical Table and Write the Email Again
- Part III - Test the Configuration

Part I - Create a New User `jgoldman` and Write an Email to root

1. Open a terminal window and enter **su -** to get root permissions.
2. When prompted, enter the root password **novell**.
3. To create a new user `jgoldman`, enter **useradd -G users -m jgoldman**
4. Set the password for `jgoldman` to “novell” by entering **passwd jgoldman**
Enter **novell** twice.
5. Log in as user `jgoldman` by entering **su - jgoldman**
6. To write an email to user root, enter **mail root@localhost**
7. Enter a subject and some text; then finish the email:
 - a. Press **Enter**.
 - b. Type **.** (dot).

- c. Press **Enter**.
8. To get root permissions, enter **exit**.
9. Enter **mail**.
10. Enter the number corresponding to the email you just wrote.
11. Record the sender's address in the space below:

12. Enter **q** to quit.

Part II - Change the sender_canonical Table and Write the Email Again

1. Enter **rpostfix stop**.
2. Open the file `/etc/postfix/sender_canonical` with your favorite text editor.
3. To change the sender address of user `jgoldman`, enter (on one line)
jgoldman@daxx.digitalairlines.com webmaster@digitalairlines.com
4. Save the file and close the editor.
5. Enter **postmap hash:/etc/postfix/sender_canonical**.
6. Start Postfix by entering
rpostfix start

Part III - Test the Configuration

1. Log in as user `jgoldman` by entering
su - jgoldman
2. To write an email to user root, enter
mail root@localhost

3. Enter a subject and some text; then finish the email:
 - a. Press **Enter**.
 - b. Type **.** (dot).
 - c. Press **Enter**.
 4. To get root permissions, enter **exit**.
 5. Enter **mail**.
 6. Enter the number corresponding to the email you just wrote.
 7. Record the sender's address in the space below:
-
8. Enter **q** to quit.

(End of Exercise)

Exercise 6-4 Install Apache

In this exercise, you install the apache components on your system.

Do the following:

1. Start YaST.
2. From the YaST Control Center, select **Software > Software Management**.
3. From the filter drop-down menu, select **Search**.
4. In the Search field, enter **apache**; then select **Search**.
5. On the right side, select the following packages.
 - **apache2**
 - **apache2-example-pages**
 - **apache2-prefork**
6. Select **Accept**.
7. (Conditional) If YaST displays package dependencies, confirm by selecting **Continue**.
8. When prompted, insert the requested SUSE Linux Enterprise Server 10 CDs in the drive.
9. When installation is complete, close the YaST Control Center and remove the CD.
10. Open a terminal window and su to **root**.
11. To start Apache at boot time, enter the following:
insserv apache2
12. To start the Apache daemon, enter the following:
rcapache2 start

(End of Exercise)

Exercise 6-5 Test the Apache Installation

In this exercise, you check if the installation of apache was successful.

Do the following:

1. Start Firefox.
2. In the address bar of the web browser, enter the following:

http://localhost

If the Apache example page appears, the web server has been installed and started correctly.

3. (Conditional) If you are having problems displaying the page, you need to rename the file `/srv/www/htdocs/index.html.en` to `/srv/www/htdocs/index.html`.

(End of Exercise)

Exercise 6-6 *Configure a Virtual Host*

In this exercise, you configure a virtual host for the accounting department.



The file **accounting.conf** you create in this exercise can be difficult to modify properly. To help you understand what needs to be changed and where parameters are placed, the file is available on your *3073 Course CD* in the directory **/exercises/section_2**.

Do the following:

1. From the terminal window (as root), create a directory for the virtual host by entering the following:
mkdir /srv/www/accounting
2. In the new directory, create a file **index.html** with the following content:

```
<html>
  <head>
    <title>Accounting Intranet Server</title>
  </head>
  <body>
    <h1>Accounting Intranet</h1>
    Under construction.
  </body>
</html>
```



This file is also available on your *3073 Course CD* in the directory **/exercises/section_2**.

3. Change to the directory **/etc/apache2/vhosts.d/** by entering the following:
cd /etc/apache2/vhosts.d/
4. Copy the virtual host template file by entering the following:
cp vhost.template accounting.conf

5. Open the file **accounting.conf** in a text editor and make the following changes:

```
<VirtualHost accounting.da.com:80>
```

```
ServerName accounting.da.com
```

```
DocumentRoot /srv/www/accounting
```

```
ErrorLog /var/log/apache2/accounting.da.com-error_log
```

```
CustomLog /var/log/apache2/accounting.da.com-access_log  
combined
```

```
UseCanonicalName On
```

```
ScriptAlias /cgi-bin/ "/srv/www/cgi-bin"
```

```
<Directory "/srv/www/cgi-bin">
```

```
AllowOverride None
```

```
Options +ExecCGI -Includes
```

```
Order allow,deny
```

```
Allow from all
```

```
</Directory>
```

```
<Directory "/srv/www/accounting/">
```

```
AllowOverride None
```

```
Options Indexes FollowSymLinks
```

```
Order allow,deny
```

```
Allow from all
```

```
</Directory>
```

6. For testing purposes, append "accounting.da.com" to the line "127.0.0.1" in the file **/etc/hosts**:

```
127.0.0.1 localhost accounting.da.com
```

7. Test the syntax of your configuration file by entering the following:

```
apache2ctl configtest
```

8. Reload Apache by entering the following:

```
rcapache2 reload
```

9. From the Konqueror browser, access the virtual host by entering the following:

http://accounting.da.com

The accounting intranet index page is displayed.

10. Close the Konqueror browser.

(End of Exercise)

