INS Assignment 2

(eMail Server/Name Server 2/DHCP Server/SSH Server/FTP Server)

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Contents

Assignment Requirements

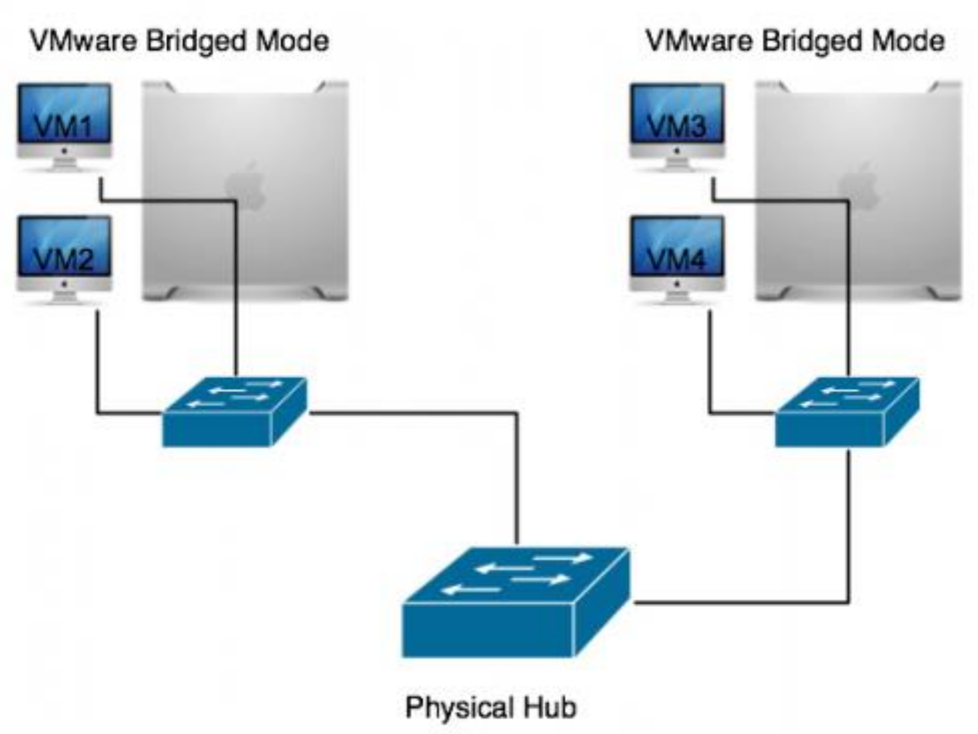
As a systems administrator you have been asked to implement the following Internet & Network services using Ubuntu for a company called KhufuNet.

1. Web Server (Apache) with Virtual Hosting two sites.
2. DNS Server (BIND), Primary & Secondary
3. DHCP Server for Ubuntu clients
4. eMail Server (Postfix) & POP/IMAP Server (Dovecot)
5. FTP Server
6. SSH Server
7. File Server (Samba)
8. Network Printing (CUPS)

The domain name KhufuNet.com has already been registered. Apache will host www.KhufuNet.com and a WordPress instance; blog.KhufuNet.com

Lab Topology
The lab topology is made up of two PCs running VMware in “Bridged Mode” and connected via a hub. The virtual machines are specified as follows:

- VM1 – Ubuntu desktop (DHCP client)
- VM2 – Apache Server/Name Server 1/Print Server/Samba Server
- VM3 – eMail Server/Name Server 2/DHCP Server/SSH Server/FTP Server
- VM4 – Ubuntu desktop (DHCP client)



This document covers the description for vm3 server and vm4 client.

VM3: eMail Server/Name Server 2/DHCP Server/SSH Server/FTP Server

VM4: Ubuntu desktop (DHCP client)

IP Addressing table:

Network 192.168.1.0 /24 (255.255.255.0)

VM3 - 192.168.1.3

VM4 - 192.168.1.11 (DHCP client)

DHCP Server Installation and Configuration

DHCP stands for Dynamic Host Control Protocol and with this protocol a new host on the network can issue a request for IP information. The DHCP server will then provide the host with all of the necessary information it needs to communicate on the network, such as its IP address and netmask and the gateway and DNS servers to use.

To install the DHCP server use the following command:

```
# apt-get install dhcp3-server


# cp /etc/dhcp3/dhcpd.conf  dhcpd.backup


# nano /etc/dhcp3/dhcpd.conf
```

```
# option definitions common to all supported networks...
option domain-name "KhufuNet.com";
option domain-name-servers vm2.KhufuNet.com, vm3.KhufuNet.com;
default-lease-time 6000;
max-lease-time 72000;

subnet 192.168.1.0 netmask 255.255.255.0 {
range 192.168.1.10 192.168.1.100;
option domain-name-servers 192.168.1.2, 192.168.1.3;
option domain-name "KhufuNet.com";
option domain-name-servers vm2.KhufuNet.com, vm3.KhufuNet.com;
option routers 192.168.1.1;
option broadcast-address 192.168.1.255;
default-lease-time 6000;
max-lease-time 7200;
}
```

```
# nano /etc/default/dhcp3-server
```

```
# On what interfaces should the DHCP server (dhcpd) serve DHCP requests?
#       Separate multiple interfaces with spaces, e.g. "eth0 eth1".
INTERFACES="eth0"
```

```
# service bind9 restart
```

Testing DHCP Server

From vm4 Client give the command dhclient eth0 to get an IP address for the client machine

```
root@vm4_client:/home/macran# dhclient eth0
Internet Systems Consortium DHCP Client V3.1.3
Copyright 2004-2009 Internet Systems Consortium.
All rights reserved.
For info, please visit https://www.isc.org/software/dhcp/

Listening on LPF/eth0/00:0c:29:da:18:86
Sending on   LPF/eth0/00:0c:29:da:18:86
Sending on   Socket/fallback
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 3
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 3
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 5
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 10
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 10
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 13

DHCPOFFER of 192.168.1.11 from 192.168.1.3

DHCPREQUEST of 192.168.1.11 on eth0 to 255.255.255.255 port 67

DHCPACK of 192.168.1.11 from 192.168.1.3

bound to 192.168.1.11 -- renewal in 2812 seconds.

root@vm4_client:/home/macran#
```

```
};
```

DNS Server Installation and Configuration

Domain Name Service (DNS) is an Internet service that maps IP addresses and fully qualified domain names (FQDN) to one another.

At a terminal prompt, enter the following command to install dns:

```
# apt-get install bind9
```

A very useful package for testing and troubleshooting DNS issues is the dnsutils package. To install dnsutils enter the following:

```
# apt-get install dnsutils
```

The default configuration is setup to act as a caching server. All that is required is simply adding the IP Addresses of your ISP's DNS servers. Simply uncomment and edit the following in /etc/bind/named.conf.options:

```
# nano /etc/bind/named.conf.options
```

```
 forwarders {
                192.168.1.2;    // primary DNS
                192.168.1.3;    // secondary DNS
        };

        auth-nxdomain no;    # conform to RFC1035
        listen-on-v6 { any; };
};
```

```
/etc/init.d/bind9 restart
```

In this section BIND9 will be configured as the secondary DNS for the domain KhufuNet.com.

To add a DNS zone to BIND9 the first step is to edit

```
# nano /etc/bind/named.conf.local
```

```
zone "KhufuNet.com" {
type slave;
file "/etc/bind/zones/db.KhufuNet.com.";
masters { 192.168.1.2; };
};

zone "1.168.192.in-addr.arpa" {
type slave;
file "/etc/bind/zones/reverse.1.168.192.in-addr.arpa";
masters { 192.168.1.2; };
};
```

```
mkdir /etc/bind/zones
```

Now use an existing zone file as a template to create the /etc/bind/zones/db.example.com file:

```
# cp /etc/bind/db.local  /etc/bind/zones/db.KhufuNet.com
```

```
# nano /etc/bind/zones/db.KhufuNet.com
;
```

```
; BIND data file for local loopback interface
;
$TTL    604800
@       IN      SOA     vm3.KhufuNet.com. root.KhufuNet.com. (
                              3         ; Serial
                         604800         ; Refresh
                          86400         ; Retry
                        2419200         ; Expire
                         604800 )       ; Negative Cache TTL
;
@       IN      NS      vm3.KhufuNet.com.
@       IN      A       127.0.0.1
@       IN      AAAA    ::1
vm3     IN      A       192.168.1.3
vm2     IN      A       192.168.1.2
IN      MX      10      mail.KhufuNet.com.
mail    IN      A       192.168.1.3
www     IN      A       192.168.1.2
```

```
# cp /etc/bind/db.127 /etc/bind/zones/reverse.1.168.192.in-addr.arpa
```

```
;
; BIND reverse data file for local loopback interface
;
$TTL    604800
@       IN      SOA     vm3.KhufuNet.com. root.KhufuNet.com. (
                              3         ; Serial
                         604800         ; Refresh
```

```
                    86400       ; Retry
                  2419200       ; Expire
                   604800 )     ; Negative Cache TTL
;
@       IN      NS      vm3.KhufuNet.com.
3       IN      PTR     vm3.KhufuNet.com.
```

```
# /etc/init.d/bind9 restart
```

```
# cat /var/log/syslog |grep KhufuNet.com
```

```
# nano /etc/resolv.conf
```

```
nameserver 192.168.1.2
nameserver 192.168.1.3
domain KhufuNet.com
search KhufuNet.com
```

```
nameserver 192.168.43.2
domain localdomain
search localdomain
```

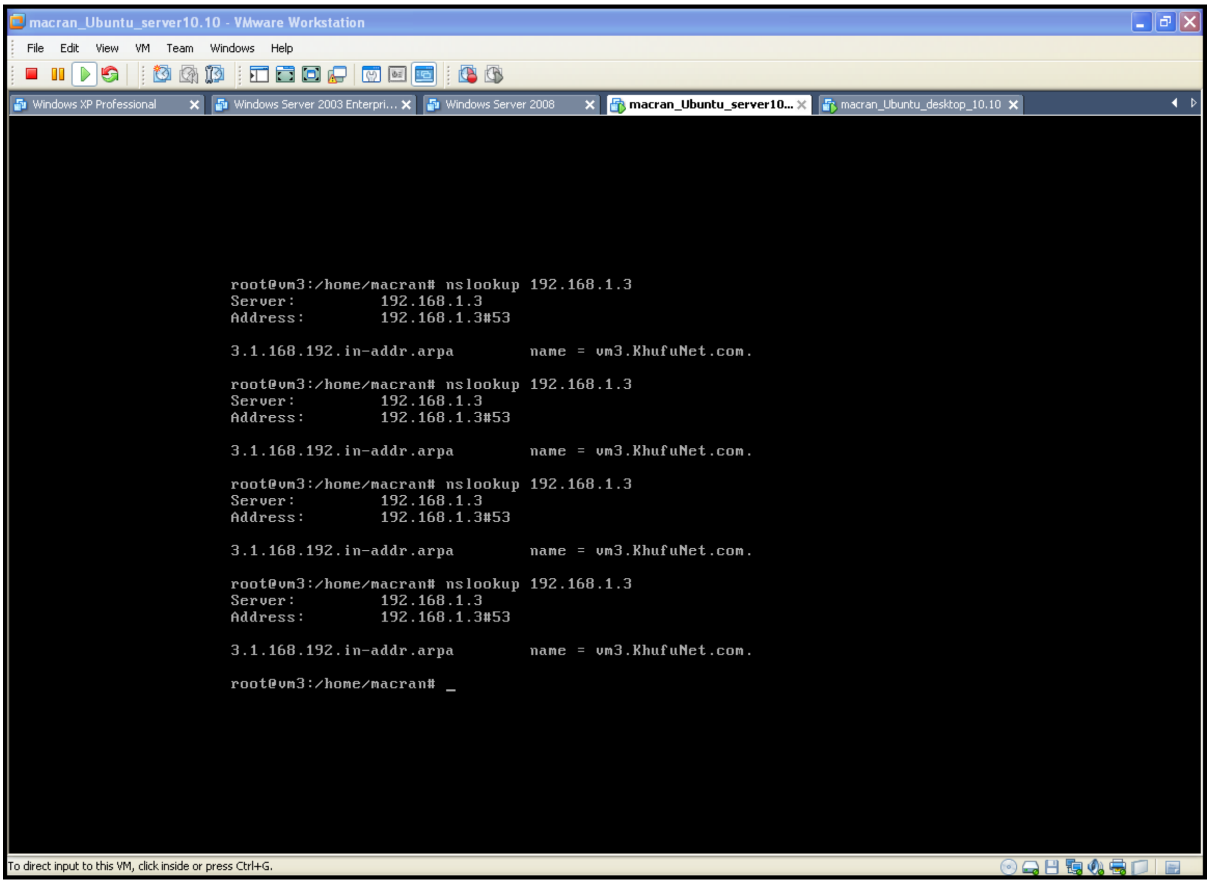
```
named-checkzone KhufuNet.com /etc/bind/zones/db.KhufuNet.com
```

```
root@vm3:/home/macran#zone KhufuNet.com/IN: loaded serial 2! OK
```

```
named-checkzone KhufuNet.com /etc/bind/zones/reverse.1.168.192.in-addr.arpa
```

ping -c 4 KhufuNet.com

nsloopup 192.168.1.3



macran_Ubuntu_server10.10 - VMware Workstation
File Edit View VM Team Windows Help
Windows XP Professional
Windows Server 2003 Enterpri...
Windows Server 2008
macran_Ubuntu_server10...
macran_Ubuntu_desktop_10.10

```
root@vm3:/home/macran# nslookup 192.168.1.3
Server:         192.168.1.3
Address:        192.168.1.3#53

3.1.168.192.in-addr.arpa        name = vm3.KhufuNet.com.

root@vm3:/home/macran# nslookup 192.168.1.3
Server:         192.168.1.3
Address:        192.168.1.3#53

3.1.168.192.in-addr.arpa        name = vm3.KhufuNet.com.

root@vm3:/home/macran# nslookup 192.168.1.3
Server:         192.168.1.3
Address:        192.168.1.3#53

3.1.168.192.in-addr.arpa        name = vm3.KhufuNet.com.

root@vm3:/home/macran# nslookup 192.168.1.3
Server:         192.168.1.3
Address:        192.168.1.3#53

3.1.168.192.in-addr.arpa        name = vm3.KhufuNet.com.

root@vm3:/home/macran# _
```

To direct input to this VM, click inside or press Ctrl+G.

Email Server Installation and Configuration

Postfix is the default Mail Transfer Agent (MTA) in Ubuntu. It attempts to be fast and easy to administer and secure. It is compatible with the MTA sendmail.

To install postfix give the following command.

```
# apt-get install postfix
```

Simply press return when the installation process asks questions, the configuration will be done in greater detail in the next stage.

To configure postfix, run the following command:

```
# dpkg-reconfigure postfix
```

The user interface will be displayed. On each screen, select the following values:

General type of configuration?   <-- Internet Site

System Mail name? <-- vm3.khufunet.com

Where should mail for root go <-- root

Other destinations to accept mail for <-- :

vm3.khufunet.com, khufunet.com, localhost.khufunet.com,

localhost

Force synchronous updates on mail queue? <-- No

Local networks? <-- leave default and add 192.168.1.0/24

Use procmail for local delivery? <-- Yes

Mailbox size limit <-- 0

Local address extension character? <-- +

Internet protocols to use? <-- all

To configure the mailbox format for Maildir:

```
# postconf -e 'home_mailbox = Maildir/'
```

This will place new mail in /home/username/Maildir so you will need to configure your Mail Delivery Agent (MDA) to use the same path.

SMTP Authentication

SMTP-AUTH allows a client to identify itself through an authentication mechanism (SASL). Transport Layer Security (TLS) should be used to encrypt the authentication process. Once authenticated the SMTP server will allow the client to relay mail.

To configure Postfix for SMTP-AUTH using SASL (Dovecot SASL):

```
postconf -e 'smtpd_sasl_type = dovecot'

postconf -e 'smtpd_sasl_path = private/auth-client'

postconf -e 'smtpd_sasl_local_domain ='
postconf -e 'smtpd_sasl_security_options = noanonymous'

postconf -e 'broken_sasl_auth_clients = yes'

postconf -e 'smtpd_sasl_auth_enable = yes'

postconf -e 'smtpd_recipient_restrictions =
permit_sasl_authenticated,permit_mynetworks,reject_unauth_destination'

postconf -e 'inet_interfaces = all'
```

Use nano to edit the file /etc/postfix/sasl/smtpd.conf as follows:

```
# nano /etc/postfix/sasl/smtpd.conf
```

and add the following two lines to the file: (already set like this by default)

```
pwcheck_method: saslauthd

mech_list: plain login
```

TLS

The security layer of the TLS transport (or SSL) provides authentication based on certificates and session encryption. An encrypted session protects the information transmitted by the SMTP message or by the SASL authentication.

We have to generate certificates for Postfix :

```
mkdir /etc/postfix/ssl

cd /etc/postfix/ssl

openssl genrsa -des3 -rand /etc/hosts -out smtpd.key 1024
```

```
root@server1:/etc/postfix/ssl# openssl genrsa -des3 -rand /etc/hosts -out smtpd.key 1024
```

```
280 semi-random bytes loaded

Generating RSA private key, 1024 bit long modulus

..........++++++

.....++++++

e is 65537 (0x10001)

Enter pass phrase for smtpd.key:

Verifying - Enter pass phrase for smtpd.key:

root@server1:/etc/postfix/ssl#
```

```
chmod 600 smtpd.key

openssl req -new -key smtpd.key -out smtpd.csr
```

Answer the questions as seen below:

```
root@server1:/etc/postfix/ssl# openssl req -new -key smtpd.key -out smtpd.csr

Enter pass phrase for smtpd.key:

You are about to be asked to enter information that will be incorporated

into your certificate request.

What you are about to enter is what is called a Distinguished Name or a DN.

There are quite a few fields but you can leave some blank

For some fields there will be a default value,

If you enter '.', the field will be left blank.

-----

Country Name (2 letter code) [AU]:IR

State or Province Name (full name) [Some-State]:Cork

Locality Name (eg, city) []:Cork

Organization Name (eg, company) [Internet Widgits Pty Ltd]:KhufuNet
```

```
Organizational Unit Name (eg, section) []: IT
Common Name (eg, YOUR name) []:KhufuNet
Email Address []:macran@KhufuNet.com

Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:pass
An optional company name []:
root@server1:/etc/postfix/ssl#
```

```
openssl x509 -req -days 3650 -in smtpd.csr -signkey smtpd.key -out smtpd.crt
```

```
openssl rsa -in smtpd.key -out smtpd.key.unencrypted
```

```
mv -f smtpd.key.unencrypted smtpd.key
```

```
openssl req -new -x509 -extensions v3_ca -keyout cakey.pem -out cacert.pem -days 3650
```

```
root@server1:/etc/postfix/ssl# openssl rsa -in smtpd.key -out smtpd.key.unencrypted
Enter pass phrase for smtpd.key:
writing RSA key
root@server1:/etc/postfix/ssl# mv -f smtpd.key.unencrypted smtpd.key
root@server1:/etc/postfix/ssl# openssl req -new -x509 -extensions v3_ca -keyout cakey.pem -out cacert.pem -days 3650
Generating a 1024 bit RSA private key
.........++++++
......................................................++++++
writing new private key to 'cakey.pem'
Enter PEM pass phrase:
Verifying - Enter PEM pass phrase:
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:IR
State or Province Name (full name) [Some-State]:Cork
Locality Name (eg, city) []:Cork
Organization Name (eg, company) [Internet Widgits Pty Ltd]:KhufuNet
Organizational Unit Name (eg, section) []:IT
Common Name (eg, YOUR name) []:KhufuNet
Email Address []:macran@KhufuNet.com
root@server1:/etc/postfix/ssl#
```

```
nano /etc/postfix/main.cf
```

```
smtp_use_tls = yes
smtp_tls_note_starttls_offer = yes
smtpd_tls_auth_only = no
smtpd_use_tls = yes
smtpd_tls_key_file = /etc/postfix/ssl/smtpd.key
```

```
smtpd_tls_cert_file = /etc/postfix/ssl/smtpd.crt
smtpd_tls_CAfile = /etc/postfix/ssl/cacert.pem
smtpd_tls_loglevel = 1
smtpd_tls_received_header = yes
smtpd_tls_session_cache_timeout = 3600s
tls_random_source = dev:/dev/urandom
smtpd_recipient_limit = 100
smtpd_helo_restrictions = reject_invalid_hostname
smtpd_sender_restrictions = reject_unknown_address
smtpd_recipient_restrictions = permit_sasl_authenticated,
permit_mynetworks,
reject_unauth_destination,
reject_unknown_sender_domain,
reject_unknown_client,
reject_rbl_client zen.spamhaus.org,
reject_rbl_client bl.spamcop.net,
reject_rbl_client cbl.abuseat.org,
```

Now we can set up the saslauthd authentication deamon.

Edit the config file /etc/default/saslauthd :

```
nano /etc/default/saslauthd
```

```
START=yes
MECHANISMS="pam"
PARAMS="-r"
OPTIONS="-c -m /var/spool/postfix/var/run/saslauthd -r"
```

Edit /etc/postfix/sasl/smtpd.conf:

```
# nano /etc/postfix/sasl/smtpd.conf
```

```
pwcheck_method: saslauthd
mech_list: login plain
```

Now we will create the chroot directory, add the postfix user to the sasl group, and then starting saslauthd:

```
mkdir -p /var/spool/postfix/var/run/saslauthd

dpkg-statoverride --add root sasl 710 /var/spool/postfix/var/run/saslauthd74

adduser postfix sasl

# /etc/init.d/postfix restart

/etc/init.d/saslauthd start

postconf -e 'smtpd_sasl_type = dovecot'
postconf -e 'smtpd_sasl_path = private/auth-client'
postconf -e 'smtpd_sasl_local_domain ='
postconf -e 'smtpd_sasl_security_options = noanonymous'
postconf -e 'broken_sasl_auth_clients = yes'
postconf -e 'smtpd_sasl_auth_enable = yes'
postconf -e 'smtpd_recipient_restrictions =
permit_sasl_authenticated,permit_mynetworks,reject_unauth_destination'

postconf -e 'inet_interfaces = all'
```

```
nano /etc/postfix/master.cf
```

Installation of Dovecot

```
/etc/init.d/saslauthd start
```

```
telnet localhost 25

Trying ::1...

Trying 127.0.0.1...

Connected to localhost.

Escape character is '^]'.

220 vm3.KhufuNet.com ESMTP Postfix (Ubuntu)

ehlo localhost

250-server1.example.com

250-PIPELINING

250-SIZE 10240000

250-VRFY

250-ETRN

250-STARTTLS

250-AUTH LOGIN PLAIN

250-AUTH=LOGIN PLAIN

250-ENHANCEDSTATUSCODES

250-8BITMIME

250 DSN
```

```
quit
221 2.0.0 Bye
Connection closed by foreign host.
```

```
apt-get install dovecot-imapd dovecot-pop3d
```

```
perl -pi -e 's/#mail_location =/mail_location = maildir:\/home\/\%u\/Maildir/' /etc/dovecot/dovecot.conf
```

```
/etc/init.d/dovecot restart
service dovecot restart
```

The mail server should now be working. Each user has their own email account, stored in /home/username/Maildir/ directory. We can configure the adduser command to create a Maildir directory in their home directory.

```
cd /etc/skel
maildirmake.dovecot Maildir
```

Testing the email Server

From the server, send an email to user macran.

```
echo "Yo Mucker" | mail -s Hello macran@KhufuNet.com
```

```
root@vm3:/home/macran# echo "Yo Mucker" |mail -s Hello  macran@KhufuNet.com
root@vm3:/home/macran# tail /var/log/mail.log
May 13 11:01:24 vm3 postfix/qmgr[1630]: 25878C1E0A: from=<>, size=2105, nrcpt=1 (queue active)
May 13 11:01:24 vm3 postfix/bounce[4110]: C2E2FC1E07: sender non-delivery notification: 25878C1E0A

May 13 11:01:24 vm3 postfix/qmgr[1630]: C2E2FC1E07: removed

May 13 11:01:24 vm3 postfix/local[4109]: 25878C1E0A: to=<root@vm3.KhufuNet.com>, relay=local, delay=0.09, delays=0.03/0.03/0/0.03, dsn=2.0.0, status=sent (delivered to maildir)

May 13 11:01:24 vm3 postfix/qmgr[1630]: 25878C1E0A: removed

May 13 11:06:11 vm3 postfix/pickup[4052]: AA7ABC1E07: uid=0 from=<root>

May 13 11:06:11 vm3 postfix/cleanup[4226]: AA7ABC1E07: message-id=<20110513180611.AA7ABC1E07@vm3.KhufuNet.com>

May 13 11:06:11 vm3 postfix/qmgr[1630]: AA7ABC1E07: from=<root@vm3.KhufuNet.com>, size=343, nrcpt=1 (queue active)

May 13 11:06:11 vm3 postfix/local[4229]: AA7ABC1E07: to=<macran@KhufuNet.com>, relay=local, delay=0.61, delays=0.51/0.05/0/0.05, dsn=2.0.0, status=sent (delivered to maildir)

May 13 11:06:11 vm3 postfix/qmgr[1630]: AA7ABC1E07: removed

root@vm3:/home/macran#
```

SSH Server Installation and Configuration

OpenSSH is a freely available version of the Secure Shell (SSH) protocol family of tools for remotely controlling a computer or transferring files between computers. Traditional tools used to accomplish these functions, such as telnet or rcp, are insecure and transmit the user's password in cleartext when used. OpenSSH provides a server daemon and client tools to facilitate secure, encrypted remote control and file transfer operations, effectively replacing the legacy tools.

Installation of the OpenSSH client and server applications is simple. To install the OpenSSH client applications on your Ubuntu system, use this command at a terminal prompt:

```
# apt-get install openssh-server
```

```
# apt-get install openssh-client
```

```
cp /etc/ssh/sshd_config /etc/ssh/sshd_config.original
```

```
nano /etc/ssh/sshd_config
```

Once you’re editing the file, you’ll want to change the following directive as follows:

```
PermitRootLogin no
```

This will keep anyone from attempting to log into your server via SSH as root.

It is possible to allow certain users with the following setting:

```
AllowUsers USERNAME
```

AllowUsers adds an additional layer of protection by only allowing specific users to connect via SSH.

For instance, if you wanted only users test1 and test2 to have SSH access, you would set AllowUsers as

AllowUsers test1 test2.

```
/etc/init.d/ssh restart
```

```
/etc/init.d/ssh status
```

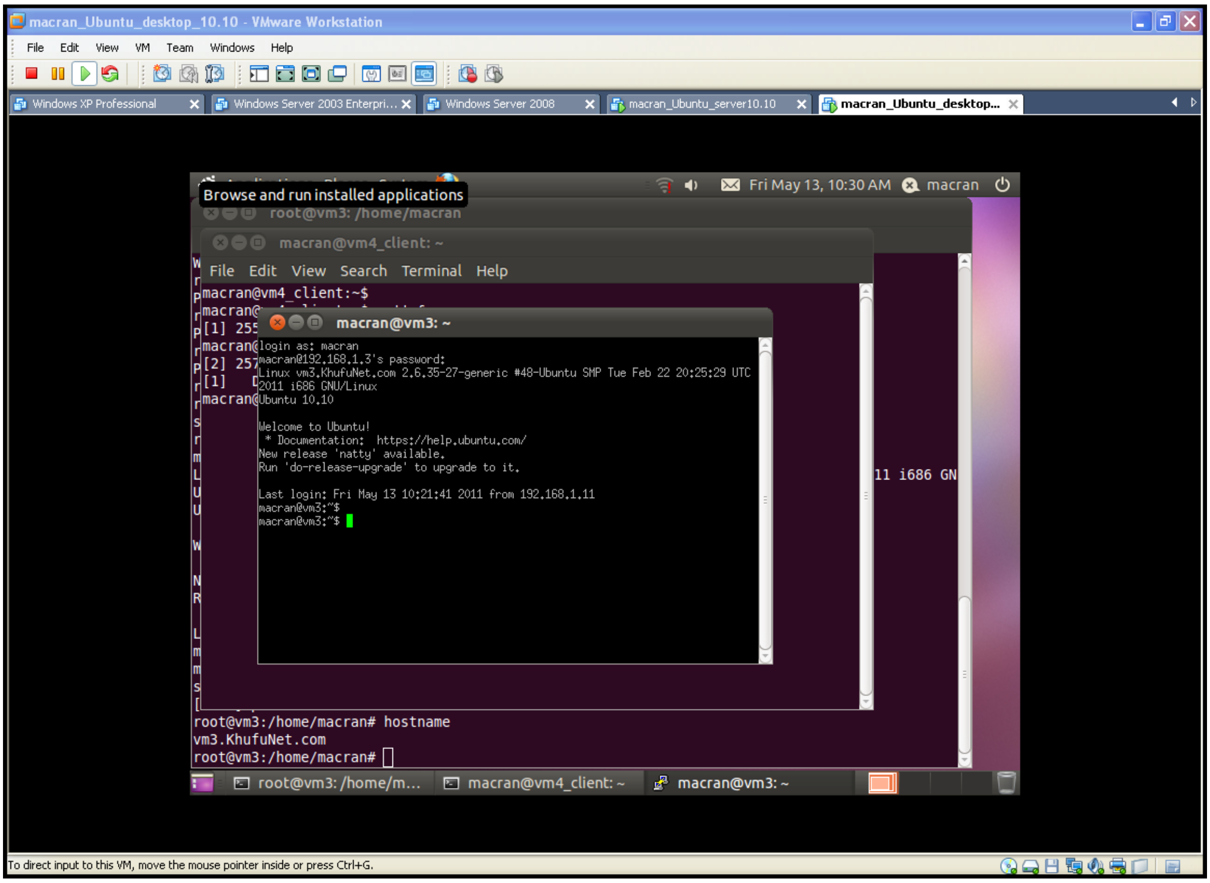
Testing SSH

From the vm4_client machine ssh to the vm3 server as follows:

```
root@vm4_client:/home/macran# ssh macran@192.168.1.3
macran@192.168.1.3's password:
Linux vm3.KhufuNet.com 2.6.35-27-generic #48-Ubuntu SMP Tue Feb 22 20:25:29 UTC 2011 i686 GNU/Linux
Ubuntu 10.10

Welcome to Ubuntu!
 * Documentation:  https://help.ubuntu.com/
New release 'natty' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Fri May 13 09:52:32 2011
macran@vm3:~$
macran@vm3:~$ sudo su
```

```
sudo: unable to resolve host vm3.KhufuNet.com

[sudo] password for macran:

root@vm3:/home/macran# hostname

vm3.KhufuNet.com

root@vm3:/home/macran#
```

Or login using putty from the vm4_client machine.


macran_Ubuntu_desktop_10.10 - VMware Workstation
File Edit View VM Team Windows Help
Windows XP Professional
Windows Server 2003 Enterpri...
Windows Server 2008
macran_Ubuntu_server10.10
macran_Ubuntu_desktop...
Browse and run installed applications
Fri May 13, 10:30 AM
macran
root@vm3: /home/macran
macran@vm4_client: ~
File Edit View Search Terminal Help
macran@vm3: ~
root@vm3: /home/m...
macran@vm4_client: ~
macran@vm3: ~
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

```
macran@vm4_client:~$
```

```
login as: macran
macran@192.168.1.3's password:
Linux vm3.KhufuNet.com 2.6.35-27-generic #48-Ubuntu SMP Tue Feb 22 20:25:29 UTC
2011 i686 GNU/Linux
Ubuntu 10.10

Welcome to Ubuntu!
 * Documentation:  https://help.ubuntu.com/
New release 'natty' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Fri May 13 10:21:41 2011 from 192.168.1.11
macran@vm3:~$
macran@vm3:~$
```

```
root@vm3:/home/macran# hostname
vm3.KhufuNet.com
root@vm3:/home/macran#
```

FTP Server Installation and Configuration

File Transfer Protocol (FTP) is a TCP protocol for uploading and downloading files between computers. FTP works on a client/server model. The server component is called an FTP daemon. It continuously listens for FTP requests from remote clients. When a request is received, it manages the login and sets up the connection. For the duration of the session it executes any of commands sent by the FTP client.

vsftpd is an FTP daemon available in Ubuntu. It is easy to install, set up, and maintain. To install vsftpd you can run the following command:

```
# apt-get install vsftpd
```

To configure vsftpd to authenticate system users and allow them to upload files edit the file below.

```
# nano /etc/vsftpd.conf
```

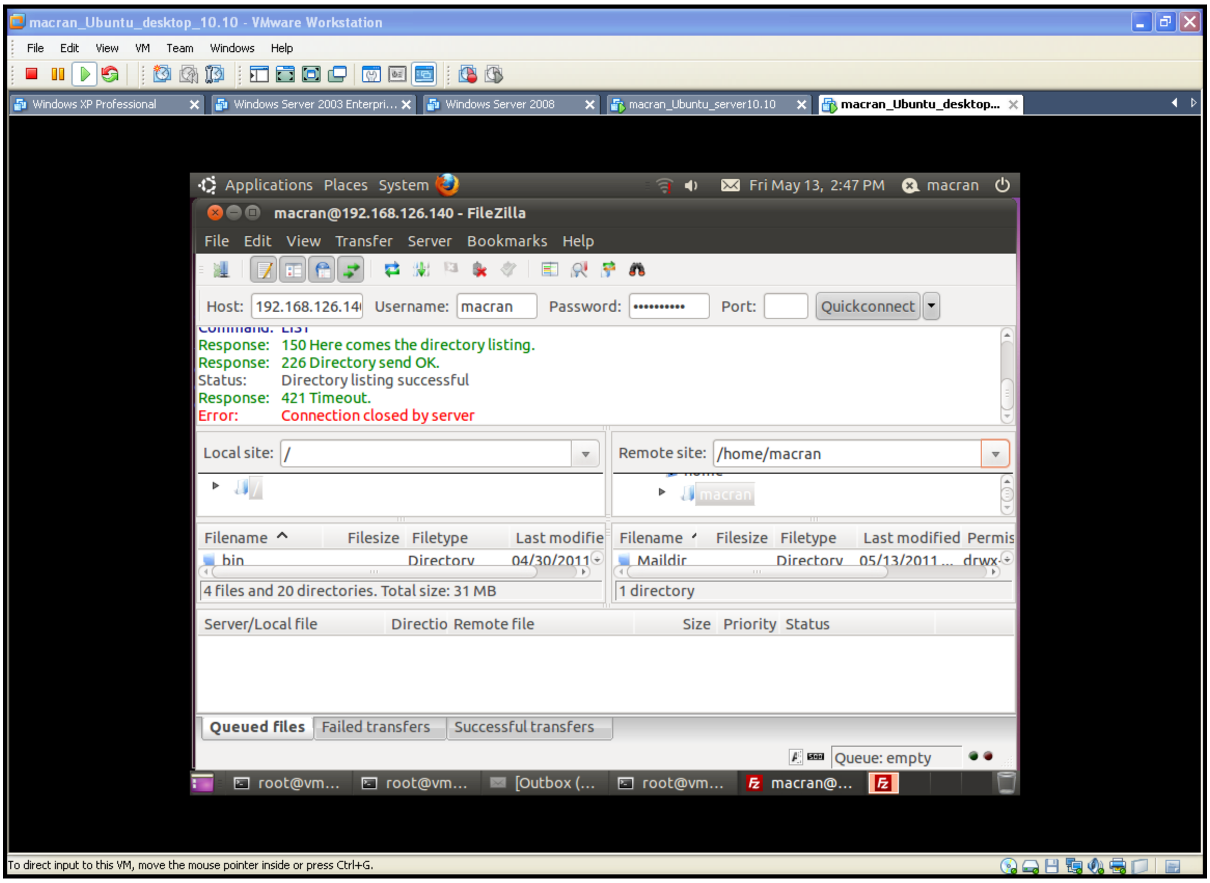
```
local_enable=YES

write_enable=YES
```

Now restart vsftpd:

```
# /etc/init.d/vsftpd restart
```

Testing VSFTP

The vsftp can be tested using filezilla as seen below.


macran_Ubuntu_desktop_10.10 - VMware Workstation
File Edit View VM Team Windows Help
Windows XP Professional
Windows Server 2003 Enterpri...
Windows Server 2008
macran_Ubuntu_server10.10
macran_Ubuntu_desktop...
Applications Places System
Fri May 13, 2:47 PM
macran
macran@192.168.126.140 - FileZilla
File Edit View Transfer Server Bookmarks Help
Quickconnect
Filename Filesize Filetype Last modifie
Filename Filesize Filetype Last modified Permis
Server/Local file Directio Remote file Size Priority Status
Queued files Failed transfers Successful transfers
root@vm...
root@vm...
[Outbox (...
root@vm...
macran@...
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

Host: 192.168.126.14 Username: macran Password: •••••••••• Port:

```
Command:   LIST
Response:  150 Here comes the directory listing.
Response:  226 Directory send OK.
Status:    Directory listing successful
Response:  421 Timeout.
Error:     Connection closed by server
```

Local site: /

Remote site: /home/macran

```
home
  macran
```

```
bin          Directory   04/30/2011
```

```
Maildir      Directory   05/13/2011 ...  drwx
```

4 files and 20 directories. Total size: 31 MB

1 directory

Queue: empty