Practical 1

(user management command)

useradd tycs1 useradd tycs2

passwd tycs1 passwd tycs2

su tycs1 su tycs2

passwd -l tycs2

su tycs2

passwd -d tycs1

passwd -u tycs2 su tycs2

exit

userdel tycs1

group management command

useradd tycs3 useradd tycs4

passwd tycs3 passwd tycs4

groupadd admin groupadd abc groupadd hr

id tycs3 id tycs4

usermod -g admin tycs3 id tycs3

usermod -G hr tycs4

id tycs4

groupdel admin

groupdel hr

chage -l tycs3

chage tycs3

(write it) 3 90 - 1 -1 -

cat /etc/shadow

Practical 2

mount /dev/sr0/mnt

cd /mnt ls

cd Packages

rpm -q dhcp

rpm -ivh dhcp*

rpm -ivh finger*

rpm -qa

rpm -q dhcp

rpm -q finger

rpm -U finger*

rpm -ql finger

mkdir /repo

cp * /repo

rpm -q createrepo

createrepo /repo

vi /etc/yum.repos.d/myrepo.repo

[myrepo] name=myrepo baseurl=file:///repo gpgcheck=0

yum repolist

yum install dhcp

yum update

yum list installed

yum history

yum check-update

yum upgrade dhcp

yum updateinfo

yum remove dhcp

yum search finger

Practical 4

ifconfig

vi /etc/sysconfig/grub

GRUB_TIMEOUT=5 GRUB_DISTRIBUTOR="$(sed 's, release .*$,,g' /etc/system-release)" GRUB_DEFAULT=saved GRUB_DISABLE_SUBMENU=true GRUB_TERMINAL_OUTPUT="console" GRUB_CMDLINE_LINUX="crashkernel=auto rhgb quiet net.ifnames=0 biosdevname=0" GRUB_DISABLE_RECOVERY="true"

grub2-mkconfig -o /boot/grub2/grub.cfg

init 6

ifconfig

(Go to VM-> Setting -> Network Adapter and Select 8Host-Only9 and make sure its connected.)

vi /etc/sysconfig/network-scripts/ifcfg-eth0

DEVICE=eth0 ONBOOT=yes BOOTPROTO=static HWADDR= IPADDR=10.0.0.100 NETMASK=255.0.0.0 GATEWAY=10.0.0.254 DNS=10.0.0.100

systemctl restart network

(check if config ip address is set or not)

client:-

same as server

Practical 5

if config (for checking ip address, note the eth0 should there)

rpm -q dhcp (check dhcp package is installed or not)

yum install dhcp (install dhcp package)

(open configuration file):-

```
cd /etc/dhcp
ls
mv dhcpd.conf dhcpd.conf.sample
vi dhcpd.conf
```

(write down the below data into the configuration file)

```
subnet 10.0.0.0    netmask 255.0.0.0{
range 10.0.0.50 10.0.0.60;
option subnet-mask 255.0.0.0;
option routers 10.0.0.254;
option domain-name-server 10.0.0.100;
}
```

(check any error in file)

```
dhcpd -t
```

```
systemctl restart dhcpd
systemctl status dhcpd
systemctl stop firewalld
```

client:-

ifconfig

(change ethernet from ens33 to eth0)

vi /etc/sysconfig/grub

(changei it)

GRUB_CMDLINE_LINUX="crashkernel=auto rhgb quiet net.iframes=0 biodevname=0

grub2-mkconfig -o /boot/grub2/grub.cfg

init 6

(Restart the machine)

ifconfig

(open network configuration file)

vi /etc/sysconfig/network-scripts/ifcfg-eth0

(write it)

DEVICE=eth0

ONBOOT=YES

BOOTPROTO=dhcp

HWADDR=00:0c:29:a1:88:0f

systemctl restart network

ifconfig

#vi /etc/sysconfig/network-scripts/ifcfg-eth0

Practical 6

ifconfig

rpm -q openssh

systemctl restart sshd systemctl status sshd systemctl stop firewalld

client:-

ifconfig

rpm -q openssh

systemctl restart sshd systemctl status sshd systemctl stop firewalld

ssh root@10.0.0.50

who

server:-

exit

ssh-keygen -t rsa

client:-

pwd

ls -a

mkdir .ssh

touch .ssh/authorized_keys

chmod 777 .ssh

chmod 666 .ssh/authorized_keys

server:-

scp /root/.ssh/id_rsa.pub root@10.0.0.50:.ssh/authorized_keys (password:redhat)

systemctl restart sshd systemctl stop firewalld

client:-

systemctl restart sshd systemctl stop firewalld

cat .ssh/authorized_keys

server:-

ssh root@10.0.0.50

(enter passphase to login:empty)

client:-

who

Practical 7

ifconfig

rpm -q vsftpd

cd /var/ftp ls

cd pub touch filee1 mkdir dirr1

cd /etc/vsftpd ls mv vsftpd.conf vsftpd.conf.sample

vi vsftpd.conf

listen=yes write_enable=yes anon_upload_enable=yes

systemctl restart vsftpd systemctl status vsftpd systemctl stop firewalld

setenforce 0 chmod 777 /var/ftp/pub

client:=

ifconfig

rpm -q ftp

mount /dev/sr0/mnt

rpm -ivh ftp*

ftp 10.0.0.100 (write: ftp) (enter password:redhat) cd /pub get file1 ls touch file2 put file2

bye (for close ftp)

go to firefox and type:- ftp://10.0.0.100/

and also this type:- ftp://10.0.0.100/pub/

server:-

cd /etc/vsftpd ls /var/ftp/pub ls -l /var/ftp/pub

Practical 8

ifconfig

rpm -q bind

vi /etc/named.conf

options { listen-on port 53 { 10.0.0.100; }; listen-on-v6 port 53 { ::1; }; directory "/var/named"; dump-file "/var/named/data/cache_dump.db"; statistics-file "/var/named/data/named_stats.txt"; memstatistics-file "/var/named/data/named_mem_stats.txt"; allow-query { any; };

zone "student.com" IN { type master; file "zone.student.com"; };

cd /var/named

vi zone.student.com

$TTL 1M @ IN SOA tycs-server.student.com. root.tycs-ser ver.student.com. (12345; 1H; 15M; 1D; 5M); @ IN NS tycs-server.student.com. tycs-server.st udent.com. IN A 10.0.0.100 ftp.student.com IN A 10.0.0.100 www.student.com IN A 10.0.0.100

systemctl restart named systemctl status named systemctl stop firewalld

client:

ifconfig

vi /etc/resolv.conf cat /etc/resolv.conf

nslookup www.student.com

dig ftp.student.com

server:- vi /etc/resolv.conf nameserver 10.0.0.100 nslookup www.student.com

dig ftp.student.com

Practical 9

ifconfig

rpm -q nfs-utils

mkdir /dato mkdir /alpho touch /dato/file1 touch /dato/file2 touch /alpho/file3 touch /apho/file4

vi /etc/exports

/dato /alpho (rw,sync)

systemctl restart rpcbind systemctl restart nfs systemctl status nfs systemctl stop firewalld

chmod 777 /alpho

client:-

ifconfig

rpm -q nfs-utils

showmount -e 10.0.0.100

mkdir localdirr1 mkdir localdirr2 mount -t nfs 10.0.0.100:/dato localdirr1 mount -t nfs 10.0.0.100:/alpho localdirr2

cd localdirr1 ls cd ~ cd localdirr2 ls

touch file5 ls

ls -l /alpho touch file6 ls

server :=

ls -l /alpho

vi /etc/exports /dato /alpho (rw,sync,no_root_squash)

systemctl restart nfs

client:-

touch file7 ls

server:= ls -l /alpho

Practical 10

(check LAB03)

(VMNET1) 10.0.0.2 255.0.0.0 10.0.0.254

10.0.0.100 2.2.2.2

(VMNET8) 10.0.0.30 255.0.0.0 10.0.0.254

10.0.0.100 2.2.2.2

(DIABLE AND ENABLE BOTH VMNET1 AND VMNET8)

server:-

ifconfig

rpm -q samba

mkdir /dept mkdir /dept/{hr,sales,admin} touch /dept/hr/{file1,file2} touch /dept/sales/{file3,file4} touch /dept/admin/file5

cd /etc/samba ls mv smb.conf smb.conf.sample

vi smb.conf

[global] netbios name = tycs-server workgroup = LAB03

[HR] path = /dept/hr writable = yes public = yes

[SALES] path = /dept/sales writable = yes public = yes

[ADMIN] path = /dept/admin writable = no public = yes

testparm

useradd a1 useradd a2

smbpasswd -a a1 smbpasswd -a a2

systemctl restart smb systemctl status smb systemctl stop firewalld

setenforce 0

chmod -R 777 /dept

client:- (go to window and click window+R and type: \\10.0.0.100) (enter username:a1 and password:redhat) (make a folder in hr) (make a folder in sales) (try to make a folder in admin)

Practical 11

ifconfig (check ip address of server machine)

rpm -q httpd (check httpd is installed or not)

cd /var/www (indexpage in this directory) ls cd html ls

vi index.html (configuration file of index.html)

<html> <head> <title> Apache webserver </title> </head> <body> this is Linux server administration practical </body> </html>

cd /etc/httpd/conf (copy directory of httpd/conf) ls cp httpd.conf httpd.conf.sample

vi httpd.conf

<VirtualHost 10.0.0.100:80> ServerAdmin root@www.student.com DocumentRoot /var/www/html ServerName www.student.com ErrorLog logs/studenr.com-error_log customLog logs/student.com-access_log common </VirtualHost>

IncludeOptional conf.d/*.conf

systemctl restart httpd systemctl status httpd systemctl stop firewalld

systemctl restart named

(open firefox and type http://www.student.com)

b)

yum install crypto-utils yum install mod_ssl

genkey --days 365 www.student.com

next 2048 no

IN MAHARASHTRA DOMBIVALI MODEL ITCS www.student.com

[root@tycs-server conf.d] # vi ssl.conf

<VirtualHost 10.0.0.100:443>

#General setup for the virtual host, inherited from global configuration DocumentRoot "/var/www/html" ServerName www.student.com:443

#Use separate log files for the SSL virtual host; note that LogLevel #is not inherited form httpd.conf. ErrorLog logs/ssl_error_log Transferlog logs/ssl_access_log LogLevel warn

#SSL Engine Switch: #Enable/Disable SSL for this virtual host. SSLEngine on

SSL Protocol support: # List the enable protocol levels with which clients will be able to # connect. Disable SSLv2 access by default: SSLProtocol all -SSLv2

SSL Cipher Suite:

#Server Certificate: #Point SSLCertificateFiel at a PEM encoded certificate. If #the certificate is encrypted, then you will be prompted for a #pass phrase. Note that a kill -HUP will prompt again . A new #certificate can be generated using the genkey(1) command. SSLCertificateFile /etc/pki/tls/certs/www.student.com.crt

#Server Private Key: #If the key is not combined with the certificate, use this #directive to point at the key file. keep in mind that if #you've both a RSA and a DSA private key you can configure #both in parallel (to also allow the use of DSA ciphers, etc.) SSLCertificateKeyFile /etc/pki/tls/private/www.student.com.key

systemctl restart httpd systemctl status httpd systemctl stop firewalld

(go to firefox and type https://www.student.com/)

(go to add exception)

(type in location : https://www.student.com/ and click get certificate)

(go to firefox and type https://www.student.com/)

cd /etc/httpd/conf ls vi httpd.conf

(write it in) AllowOverride AuthConfig

htpasswd -c /etc/httpd/.htpasswd tycs101 (new password:redhat)

htpasswd /etc/httpd/.htpasswd tycs201 (new password:redhat)

cat /etc/httpd/.htpasswd

vi var/www/html/.htaccess

AuthType Basic AuthName "Restricted content" AuthUserFile /etc/httpd/.htpasswd Require valid-user

systemctl restart httpd systemctl status httpd systemctl stop firewalld

(go to firefox and type https://www.student.com/)

(enter user name and passward)

Practical 12

rpm -q postfix

cd /etc/postfix ls cp main.cf main.cf.backup

vi main.cf

startfrom{ # Global Postfix configuration file. This file lists only a subset # of all parameters. For the syntax, and for a complete parameter # list, see the postconf(5) manual page (command: "man 5 postconf"). # # For common configuration examples, see BASIC_CONFIGURATION_README # and STANDARD_CONFIGURATION_README. To find these documents, use # the command "postconf html_directory readme_directory", or go to # http://www.postfix.org/. # # For best results, change no more than 2-3 parameters at a time, # and test if Postfix still works after every change.

SOFT BOUNCE # # The soft_bounce parameter provides a limited safety net for # testing. When soft_bounce is enabled, mail will remain queued that # would otherwise bounce. This parameter disables locally-generated # bounces, and prevents the SMTP server from rejecting mail permanently # (by changing 5xx replies into 4xx replies). However, soft_bounce # is no cure for address rewriting mistakes or mail routing mistakes. # #soft_bounce = no

LOCAL PATHNAME INFORMATION # # The queue_directory specifies the location of the Postfix queue. # This is also the root directory of Postfix daemons that run chrooted. # See the files in examples/chroot-setup for setting up Postfix chroot # environments on different UNIX systems. # queue_directory = /var/spool/postfix

The command_directory parameter specifies the location of all # postXXX commands. # command_directory = /usr/sbin

The daemon_directory parameter specifies the location of all Postfix # daemon programs (i.e. programs listed in the master.cf file). This # directory must be owned by root. # daemon_directory = /usr/libexec/postfix

The data_directory parameter specifies the location of Postfix-writable # data files (caches, random numbers). This directory must be owned # by the mail_owner account (see below). # data_directory = /var/lib/postfix

QUEUE AND PROCESS OWNERSHIP # # The mail_owner parameter specifies the owner of the Postfix queue # and of most Postfix daemon processes. Specify the name of a user # account THAT DOES NOT SHARE ITS USER OR GROUP ID WITH OTHER ACCOUNTS # AND THAT OWNS NO OTHER FILES OR PROCESSES ON THE SYSTEM. In # particular, don't specify nobody or daemon. PLEASE USE A DEDICATED # USER. # mail_owner = postfix

The default_privs parameter specifies the default rights used by # the local delivery agent for delivery to external file or command. # These rights are used

in the absence of a recipient user context. # DO NOT SPECIFY A PRIVILEGED USER OR THE POSTFIX OWNER. # #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 = mail.student.com

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

SENDING MAIL # # The myorigin parameter specifies the domain that locally-posted # mail appears to come from. The default is to append $myhostname, # which is fine for small sites. If you run a domain with multiple # machines, you should (1) change this to $mydomain and (2) set up # a domain-wide alias database that aliases each user to # user@that.users.mailhost. # # For the sake of consistency between sender and recipient addresses, # myorigin also specifies the default domain name that is appended # to recipient addresses that have no @domain part. # myorigin = $myhostname #myorigin = $mydomain

RECEIVING MAIL

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. # # Note: you need to stop/start Postfix when this parameter changes. # 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. # # You must specify your proxy/NAT addresses when your system is a # backup MX host for other domains, otherwise mail delivery loops # will happen when the primary MX host is down. # #proxy_interfaces = #proxy_interfaces = 1.2.3.4

The mydestination parameter specifies the list of domains that this # machine considers itself the final destination for. # # These domains are routed to the delivery agent specified with the # local_transport parameter setting. By default, that is the UNIX # compatible delivery agent that lookups all recipients in /etc/passwd # and /etc/aliases or their equivalent.

The default is $myhostname + localhost.$mydomain. On a mail domain # gateway, you should also include $mydomain. # # Do not specify the names of virtual domains - those domains are # specified elsewhere (see VIRTUAL_README). # # Do not specify the names of domains that this machine is backup MX # host for. Specify those names via the relay_domains settings for # the SMTP server, or use permit_mx_backup if you are lazy (see # STANDARD_CONFIGURATION_README). # # The local machine is always the final destination for mail addressed # to user@[the.net.work.address] of an interface that the mail system # receives mail on (see the inet_interfaces parameter). # # Specify a list of host or domain names, /file/name or type:table # patterns, separated by commas and/or whitespace. A /file/name # pattern is replaced by its contents; a type:table is matched when # a name matches a lookup key (the right-hand side is ignored). # Continue long lines by starting the next line with whitespace. # # See also below, section "REJECTING MAIL FOR UNKNOWN LOCAL USERS". # 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. # # To turn off local recipient checking in the SMTP server, specify # local_recipient_maps = (i.e. empty). # # The default setting assumes that you use the default Postfix local # delivery agent for local delivery. You need to update the # local_recipient_maps setting if: # # - You define $mydestination domain recipients in files other than # /etc/passwd, /etc/aliases, or the $virtual_alias_maps files. # For example, you define $mydestination domain recipients in # the $virtual_mailbox_maps files. # # - You redefine the local delivery agent in master.cf. # # - You redefine the "local_transport" setting in main.cf. # # - You use the "luser_relay", "mailbox_transport", or "fallback_transport" # feature of the Postfix local delivery agent (see local(8)). # # Details are described in the LOCAL_RECIPIENT_README file. # # Beware: if the Postfix SMTP server runs chrooted, you probably have # to access the passwd file via the proxymap service, in order to # overcome chroot restrictions. The alternative, having a copy of # the system passwd file in the chroot jail is just not practical. # # The right-hand side of the lookup tables is conveniently ignored. # In the left-hand side, specify a bare username, an @domain.tld # wild-card, or specify a user@domain.tld address. # #local_recipient_maps = unix:passwd.byname $alias_maps #local_recipient_maps = proxy:unix:passwd.byname $alias_maps #local_recipient_maps =

The unknown_local_recipient_reject_code specifies the SMTP server # response code when a recipient domain matches $mydestination or # ${proxy,inet}_interfaces, while $local_recipient_maps is non-empty # and the recipient address or address local-part is not found. # # The default setting is 550 (reject mail) but it is safer to start # with 450 (try again later) until you are certain that your # local_recipient_maps settings are OK. # unknown_local_recipient_reject_code = 550

TRUST AND RELAY CONTROL

The mynetworks parameter specifies the list of "trusted" SMTP # clients that have more privileges than "strangers". # # In particular, "trusted" SMTP clients are allowed to relay mail # through Postfix. See the smtpd_recipient_restrictions parameter # in postconf(5). # # You can specify the list of "trusted" network addresses by hand # or you can let Postfix do it for you (which is the default). # # By default (mynetworks_style = subnet), Postfix "trusts" SMTP # clients in the same IP subnetworks as the local machine. # On Linux, this does works correctly only with interfaces specified # with the "ifconfig" command. # # Specify "mynetworks_style = class" when Postfix should "trust" SMTP # clients in the same IP class A/B/C networks as the local machine. # Don't do this with a dialup site - it would cause Postfix to "trust" # your entire provider's network. Instead, specify an explicit # mynetworks list by hand, as described below. # # Specify "mynetworks_style = host" when Postfix should "trust" # only the local machine. # #mynetworks_style = class #mynetworks_style = subnet #mynetworks_style = host

Alternatively, you can specify the mynetworks list by hand, in # which case Postfix ignores the mynetworks_style setting. # # Specify an explicit list of network/netmask patterns, where the # mask specifies the number of bits in the network part of a host # address. # # You can also specify the absolute pathname of a pattern file instead # of listing the patterns here. Specify type:table for table-based lookups # (the value on the table right-hand side is not used). # mynetworks = 10.0.0.100/8, 127.0.0.0/8 #mynetworks = $config_directory/mynetworks #mynetworks = hash:/etc/postfix/network_table

The relay_domains parameter restricts what destinations this system will # relay mail to. See the smtpd_recipient_restrictions description in # postconf(5) for detailed information. # # By default, Postfix relays mail # - from "trusted" clients (IP address matches $mynetworks) to any destination, # - from "untrusted" clients to destinations that match $relay_domains or # subdomains thereof, except addresses with sender-specified routing. # The default relay_domains value is $mydestination. # # In addition to the above, the Postfix SMTP server by default accepts mail # that Postfix is final destination for: # - destinations that match $inet_interfaces or $proxy_interfaces, # - destinations that match $mydestination # - destinations that match $virtual_alias_domains, # - destinations that match $virtual_mailbox_domains. # These destinations do not need to be listed in $relay_domains. # # Specify

a list of hosts or domains, /file/name patterns or type:name # lookup tables, separated by commas and/or whitespace. Continue # long lines by starting the next line with whitespace. A file name # is replaced by its contents; a type:name table is matched when a # (parent) domain appears as lookup key. # # NOTE: Postfix will not automatically forward mail for domains that # list this system as their primary or backup MX host. See the # permit_mx_backup restriction description in postconf(5). # relay_domains = $mydestination

INTERNET OR INTRANET

The relayhost parameter specifies the default host to send mail to # when no entry is matched in the optional transport(5) table. When # no relayhost is given, mail is routed directly to the destination. # # On an intranet, specify the organizational domain name. If your # internal DNS uses no MX records, specify the name of the intranet # gateway host instead. # # In the case of SMTP, specify a domain, host, host:port, [host]:port, # [address] or [address]:port; the form [host] turns off MX lookups. # # If you're connected via UUCP, see also the default_transport parameter. # #relayhost = $mydomain #relayhost = [gateway.my.domain] #relayhost = [mailserver.isp.tld] #relayhost = uucphost relayhost = [10.0.0.100]

REJECTING UNKNOWN RELAY USERS # # The relay_recipient_maps parameter specifies optional lookup tables # with all addresses in the domains that match $relay_domains. # # If this parameter is defined, then the SMTP server will reject # mail for unknown relay users. This feature is off by default. # # The right-hand side of the lookup tables is conveniently ignored. # In the left-hand side, specify an @domain.tld wild-card, or specify # a user@domain.tld address. # #relay_recipient_maps = hash:/etc/postfix/relay_recipients

INPUT RATE CONTROL # # The in_flow_delay configuration parameter implements mail input # flow control. This feature is turned on by default, although it # still needs further development (it's disabled on SCO UNIX due # to an SCO bug). # # A Postfix process will pause for $in_flow_delay seconds before # accepting a new message, when the message arrival rate exceeds the # message delivery rate. With the default 100 SMTP server process # limit, this limits the mail inflow to 100 messages a second more # than the number of messages delivered per second. # # Specify 0 to disable the feature. Valid delays are 0..10. # #in_flow_delay = 1s

ADDRESS REWRITING # # The ADDRESS_REWRITING_README document gives information about # address masquerading or other forms of address rewriting including # username->Firstname.Lastname mapping.

ADDRESS REDIRECTION (VIRTUAL DOMAIN) # # The VIRTUAL_README document gives information about the many forms # of domain hosting that Postfix supports.

"USER HAS MOVED" BOUNCE MESSAGES # # See the discussion in the ADDRESS_REWRITING_README document.

TRANSPORT MAP # # See the discussion in the ADDRESS_REWRITING_README document.

ALIAS DATABASE # # The alias_maps parameter specifies the list of alias databases used # by the local delivery agent. The default list is system dependent. # # On systems with NIS, the default is to search the local alias # database, then the NIS alias database. See aliases(5) for syntax # details. # # If you change the alias database, run "postalias /etc/aliases" (or # wherever your system stores the mail alias file), or simply run # "newaliases" to build the necessary DBM or DB file. # # It will take a minute or so before changes become visible. Use # "postfix reload" to eliminate the delay. # #alias_maps = dbm:/etc/aliases alias_maps = hash:/etc/aliases #alias_maps = hash:/etc/aliases, nis:mail.aliases #alias_maps = netinfo:/aliases

The alias_database parameter specifies the alias database(s) that # are built with "newaliases" or "sendmail -bi". This is a separate # configuration parameter, because alias_maps (see above) may specify # tables that are not necessarily all under control by Postfix. # #alias_database = dbm:/etc/aliases #alias_database = dbm:/etc/mail/aliases alias_database = hash:/etc/aliases #alias_database = hash:/etc/aliases, hash:/opt/majordomo/aliases

ADDRESS EXTENSIONS (e.g., user+foo) # # The recipient_delimiter parameter specifies the separator between # user names and address extensions (user+foo). See canonical(5), # local(8), relocated(5) and virtual(5) for the effects this has on # aliases, canonical, virtual, relocated and .forward file lookups. # Basically, the software tries user+foo and .forward+foo before # trying user and .forward. # #recipient_delimiter = +

DELIVERY TO MAILBOX # # The home_mailbox parameter specifies the optional pathname of a # mailbox file relative to a user's home directory. The default # mailbox file is /var/spool/mail/user or /var/mail/user. Specify # "Maildir/" for qmail-style delivery (the / is required). # #home_mailbox = Mailbox home_mailbox = Maildir/

The mail_spool_directory parameter specifies the directory where # UNIX-style mailboxes are kept. The default setting depends on the # system type. # #mail_spool_directory = /var/mail #mail_spool_directory = /var/spool/mail

The mailbox_command parameter specifies the optional external # command to use instead of mailbox delivery. The command is run as # the recipient with proper HOME, SHELL and LOGNAME environment settings. # Exception: delivery for root is done as $default_user. # # Other environment variables of interest: USER (recipient username), # EXTENSION (address extension), DOMAIN (domain part of address), # and LOCAL (the address localpart). # # Unlike other Postfix configuration parameters, the mailbox_command # parameter is not subjected to $parameter substitutions. This is to # make it easier to specify shell syntax (see example below). # # Avoid shell meta characters because they will force Postfix to run # an

expensive shell process. Procmail alone is expensive enough. # # IF YOU USE THIS TO DELIVER MAIL SYSTEM-WIDE, YOU MUST SET UP AN # ALIAS THAT FORWARDS MAIL FOR ROOT TO A REAL USER. # #mailbox_command = /some/where/procmail #mailbox_command = /some/where/procmail -a "$EXTENSION"

The mailbox_transport specifies the optional transport in master.cf # to use after processing aliases and .forward files. This parameter # has precedence over the mailbox_command, fallback_transport and # luser_relay parameters. # # Specify a string of the form transport:nexthop, where transport is # the name of a mail delivery transport defined in master.cf. The # :nexthop part is optional. For more details see the sample transport # configuration file. # # NOTE: if you use this feature for accounts not in the UNIX password # file, then you must update the "local_recipient_maps" setting in # the main.cf file, otherwise the SMTP server will reject mail for # non-UNIX accounts with "User unknown in local recipient table". # # Cyrus IMAP over LMTP. Specify "lmtpunix cmd="lmtpd" # listen="/var/imap/socket/lmtp" prefork=0" in cyrus.conf. #mailbox_transport = lmtp:unix:/var/lib/imap/socket/lmtp

If using the cyrus-imapd IMAP server deliver local mail to the IMAP # server using LMTP (Local Mail Transport Protocol), this is prefered # over the older cyrus deliver program by setting the # mailbox_transport as below: # # mailbox_transport = lmtp:unix:/var/lib/imap/socket/lmtp # # The efficiency of LMTP delivery for cyrus-imapd can be enhanced via # these settings. # # local_destination_recipient_limit = 300 # local_destination_concurrency_limit = 5 # # Of course you should adjust these settings as appropriate for the # capacity of the hardware you are using. The recipient limit setting # can be used to take advantage of the single instance message store # capability of Cyrus. The concurrency limit can be used to control # how many simultaneous LMTP sessions will be permitted to the Cyrus # message store. # # Cyrus IMAP via command line. Uncomment the "cyrus...pipe" and # subsequent line in master.cf. #mailbox_transport = cyrus

The fallback_transport specifies the optional transport in master.cf # to use for recipients that are not found in the UNIX passwd database. # This parameter has precedence over the luser_relay parameter. # # Specify a string of the form transport:nexthop, where transport is # the name of a mail delivery transport defined in master.cf. The # :nexthop part is optional. For more details see the sample transport # configuration file. # # NOTE: if you use this feature for accounts not in the UNIX password # file, then you must update the "local_recipient_maps" setting in # the main.cf file, otherwise the SMTP server will reject mail for # non-UNIX accounts with "User unknown in local recipient table". # #fallback_transport = lmtp:unix:/var/lib/imap/socket/lmtp #fallback_transport =

The luser_relay parameter specifies an optional destination address # for unknown recipients. By default, mail for unknown@$mydestination, # unknown@[$inet_interfaces] or unknown@[$proxy_interfaces] is returned # as

undeliverable. # # The following expansions are done on luser_relay: $user (recipient # username), $shell (recipient shell), $home (recipient home directory), # $recipient (full recipient address), $extension (recipient address # extension), $domain (recipient domain), $local (entire recipient # localpart), $recipient_delimiter. Specify ${name?value} or # ${name:value} to expand value only when $name does (does not) exist. # # luser_relay works only for the default Postfix local delivery agent. # # NOTE: if you use this feature for accounts not in the UNIX password # file, then you must specify "local_recipient_maps =" (i.e. empty) in # the main.cf file, otherwise the SMTP server will reject mail for # non-UNIX accounts with "User unknown in local recipient table". # #luser_relay = $user@other.host #luser_relay = $local@other.host #luser_relay = admin+$local

JUNK MAIL CONTROLS # # The controls listed here are only a very small subset. The file # SMTPD_ACCESS_README provides an overview.

The header_checks parameter specifies an optional table with patterns # that each logical message header is matched against, including # headers that span multiple physical lines. # # By default, these patterns also apply to MIME headers and to the # headers of attached messages. With older Postfix versions, MIME and # attached message headers were treated as body text. # # For details, see "man header_checks". # #header_checks = regexp:/etc/postfix/header_checks

FAST ETRN SERVICE # # Postfix maintains per-destination logfiles with information about # deferred mail, so that mail can be flushed quickly with the SMTP # "ETRN domain.tld" command, or by executing "sendmail -qRdomain.tld". # See the ETRN_README document for a detailed description. # # The fast_flush_domains parameter controls what destinations are # eligible for this service. By default, they are all domains that # this server is willing to relay mail to. # #fast_flush_domains = $relay_domains

SHOW SOFTWARE VERSION OR NOT # # The smtpd_banner parameter specifies the text that follows the 220 # code in the SMTP server's greeting banner. Some people like to see # the mail version advertised. By default, Postfix shows no version. # # You MUST specify $myhostname at the start of the text. That is an # RFC requirement. Postfix itself does not care. # #smtpd_banner = $myhostname ESMTP $mail_name #smtpd_banner = $myhostname ESMTP $mail_name ($mail_version)

PARALLEL DELIVERY TO THE SAME DESTINATION # # How many parallel deliveries to the same user or domain? With local # delivery, it does not make sense to do massively parallel delivery # to the same user, because mailbox updates must happen sequentially, # and expensive pipelines in .forward files can cause disasters when # too many are run at the same time. With SMTP deliveries, 10 # simultaneous connections to the same domain could be sufficient to # raise eyebrows. # # Each message delivery transport has its XXX_destination_concurrency_limit # parameter. The default is $de-

fault_destination_concurrency_limit for # most delivery transports. For the local delivery agent the default is 2.

#local_destination_concurrency_limit = 2 #default_destination_concurrency_limit = 20

DEBUGGING CONTROL # # The debug_peer_level parameter specifies the increment in verbose # logging level when an SMTP client or server host name or address # matches a pattern in the debug_peer_list parameter. # debug_peer_level = 2

The debug_peer_list parameter specifies an optional list of domain # or network patterns, /file/name patterns or type:name tables. When # an SMTP client or server host name or address matches a pattern, # increase the verbose logging level by the amount specified in the # debug_peer_level parameter. # #debug_peer_list = 127.0.0.1 #debug_peer_list = some.domain

The debugger_command specifies the external command that is executed # when a Postfix daemon program is run with the -D option. # # Use "command .. & sleep 5" so that the debugger can attach before # the process marches on. If you use an X-based debugger, be sure to # set up your XAUTHORITY environment variable before starting Postfix. # debugger_command = PATH=/bin:/usr/bin:/usr/local/bin:/usr/X11R6/bin ddd $daemon_directory/$process_name $process_id & sleep 5

If you can't use X, use this to capture the call stack when a # daemon crashes. The result is in a file in the configuration # directory, and is named after the process name and the process ID. # # debugger_command = # PATH=/bin:/usr/bin:/usr/local/bin; export PATH; (echo cont; # echo where) | gdb $daemon_directory/$process_name $process_id 2>&1 # >$config_directory/$process_name.$process_id.log & sleep 5 # # Another possibility is to run gdb under a detached screen session. # To attach to the screen sesssion, su root and run "screen -r # <id_string>" where <id_string> uniquely matches one of the detached # sessions (from "screen -list"). # # debugger_command = # PATH=/bin:/usr/bin:/sbin:/usr/sbin; export PATH; screen # -dmS $process_name gdb $daemon_directory/$process_name # $process_id & sleep 1

INSTALL-TIME CONFIGURATION INFORMATION # # The following parameters are used when installing a new Postfix version. # # sendmail_path: The full pathname of the Postfix sendmail command. # This is the Sendmail-compatible mail posting interface. # sendmail_path = /usr/sbin/sendmail.postfix

newaliases_path: The full pathname of the Postfix newaliases command. # This is the Sendmail-compatible command to build alias databases. # newaliases_path = /usr/bin/newaliases.postfix

mailq_path: The full pathname of the Postfix mailq command. This # is the Sendmail-compatible mail queue listing command. # mailq_path =

/usr/bin/mailq.postfix

setgid_group: The group for mail submission and queue management # commands. This must be a group name with a numerical group ID that # is not shared with other accounts, not even with the Postfix account. # setgid_group = postdrop

html_directory: The location of the Postfix HTML documentation. # html_directory = no

manpage_directory: The location of the Postfix on-line manual pages. # manpage_directory = /usr/share/man

sample_directory: The location of the Postfix sample configuration files. # This parameter is obsolete as of Postfix 2.1. # sample_directory = /usr/share/doc/postfix-2.10.1/samples

readme_directory: The location of the Postfix README files. # readme_directory = /usr/share/doc/postfix-2.10.1/README_FILES

}endhere

systemctl restart postfix systemctl status postfix systemctl stop firewalld

mail -s "postfixdemo" student hi this is ayushman practical EOT

cd ~ pwd ls

cd Maildir ls cd new ls cat filename.tycs-server

Practical 13

vi /etc/default/grub

```
GRUB_TIMEOUT=30
GRUB_DISTRIBUTOR="$(sed 's, release .*$,,g' /etc/system-release)"
GRUB_DEFAULT=saved
GRUB_DISABLE_SUBMENU=true
GRUB_TERMINAL_OUTPUT="console"
GRUB_CMDLINE_LINUX="crashkernel=auto rhgb quiet net.ifnames=0 biosdevname=0"
GRUB_DISABLE_RECOVERY="true"
```

vi /boot/grub2/grub.cfg

(Write: AyushmanLinux)

grub2-mkconfig -o /boot/grub2/grub.cfg

(Restart Machine)

Practical 14

rpm -q mariadb

rpm -q mariadb-server

systemctl restart mariadb

systemctl status mariadb

mysql_secure_installation

Enter Password:redhat

y

y

y

n

y

MySQL -u root -p

create database student;

use student;

create table employee(id int(5) default null, name varchar(15) default null, day date default null, dept varchar(10) default null, status bool default null);

show columns in employee;

insert into employee(id,name,dept,day,status) values("205","xyz","itcs",now(),"1");

select * from employee;

exit

mysqldump -u root -p student > /root/studentdataback.sql

```
cat studentdataback.sql

mysqldump -u root -p --databases student test > /root/studentdata.sql

mysqldump -u root -p --all-database > /root/alldata.sql


ls
```