POSTFIX HOW-TO

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I – Introduction

Hi, Welcome to the very first readable postfix Howto. The project started when I decided to do something about what I didn't know enough of. I'm in charge of postfix mailers, and When I started, what I knew of postfix was "It's probably the best I've seen… Use it !"… So I did use it…

The introduction of the magical postfix world was done when my old sendmail decided to rest in peace. We had minutes, or maybe hours to set up a complete dns/mail from scratch, with no computer allocated… That was fun…

Now, days have passed, and I needed to know more… I started writing something that was looking like a how-to… People seemed interested in the project, and now, we are 8 to deal with the How-to… So let me introduce the team :

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The postfix How-to is now available at the adress below :

http://stephane.parenton.free.fr

Feel free to write and give us feed back about this How-to.

I hope you'll find this document as easy and helpfull as it was intended to be. Of course, nothing can be as simple as "simply press the button and everything will run as you want", but we'll try to make you feel what postfix is, what it can provide, how powerful it can be.

II – What do you need ?

II-1 - The equipment

First of all, you'll need the following :
- One computer (in order)
- One screen (that displays what the computer says)
- One clock that works (so you can go to bed before it's time to go to work the morning after)
- 3 bottles of regular Coca-Cola (because I don't drink coffee, and I need you to be awake)
- One girl(boy)friend (to cool you down at the most exciting point, when nothing works)
- One cold shower (if your girl(boy) doesn't cool you down enough)
- One bottle of champagne (just in case…)
- One linux distrib that includes a recent postfix.
- Ten fingers (more or less…)
- One brain
- The DNS howto….

II-2 – Getting started

What you need is a little bit of time, and a whole bunch of patience. Everything should be ok, but, as linux can have many faces, configurations can be different from one system to another… I'm using the SuSE distribution (the 6.4 at the moment, though the 7.0 is shipping for 2 months now). Everyone might have preferences for one distrib or another… I guess the RedHat and the SuSE are quite close, so when I say « Linux », it means « RedHat or SuSE Linux »

I Suppose that your system is OK, that it's correctly installed and that the network is configured correctly. If not, then you'd better report to the appropriate HOW-TO… Now that your network is ok, I also suppose that you have already setup a DNS, and that your DNS is ok… If it's not, then let's have a look at the tips below…. They should be enough to let you have a « quick and dirty but working » DNS, and thus making groundings for postfix to run correctly.

II-2-1 – A quick and dirty DNS

All right, let's have a look at what we need…. The first file needed is **named.conf**. It should be located in /etc, and so it should edited with **vi /etc/named.conf**

To be short, use the key « i » to insert text into vi, use « esc » to exit from the insert mode, and type « :q » when not in insert mode to exit without saving and « :x » to save and exit.

I won't talk about the logging, we don't need to know that things are working nicely or not…. The DNS HOW-TO should do the trick. What is important is the zones… you have to declare zones, so the name server can find himself, by name or by IP, and clients can find what they look for.

A IP adress should look this way (note the letters and the way they're ordered) : XXX.YYY.ZZZ.TTT where XXX, YYY, ZZZ and TTT are numbers between 0 and 255.

The first zone to write is the following :

zone "0.0.127.in-addr.arpa" IN {
  type master;
  file "127.0.0.zone";
};

now your computer knows who he is ☺

the next zone concerns your IP adress… so remember the number sequence !

zone "ZZZ.YYY.XXX.in-addr.arpa" IN {
   type master;
   file "XXX.YYY.ZZZ.rev";
   notify yes;
};

and finally a zone concerning your domain :

zone "mydomain.com" IN {
   type master;
   file "mydomain.com"
   notify yes;
};

and here we go…. Of course, you won't have the outside name servers, but this is explained in the DNS HOW-TO…

When speaking of file "…" the files must be in /var/named/ …. we're going to create them… so

cd /var/named

now we are at the right location, and here we go….

vi 127.0.0.zone

it should look this way :

```
@       IN SOA          mymachine.mydomain.com.         root.mydomain.com. (
        2000110801      ;it's a serial number so use the date plus 2 digits for version at EACH change)
        8H
        2H
        1W
        1D)
        IN NS   mymachine.mydomain.com
1       IN PTR  localhost.
```

that's all…. actually, this file should be the least modified because your system should write it right at install time….

the second file is ZZZ.YYY.XXX.rev (XXX, YYY, ZZZ, TTT should be numbers between 0 and 255 right ?)

vi ZZZ.YYY.XXX.rev

```
@       IN SOA          mymachine.mydomain.com.        root.mydomain.com. (
        2000110801      (the same use of serial as above)
        8H
        2H
        1W
        1D)
        IN NS   mymachine.mydomain.com
TTT     IN PTR  mymachine.mydomain.com.
TTT     IN PTR  mail.mydomain.com
```

And finally, the really important file, its "mydomain.com"

vi mydomain.com

```
mydomain.com.                   IN SOA  mymachine.mydomain.com.        root.mydomain.com. (
                                200110801       ; (remember the serial ?....)
                                8H
                                2H
                                1W
                                1D)
                                NS      mymachine.mydomain.com
                                MX      10      mail
localhost                       IN A    127.0.0.1
mymachine.mydomain.com.         IN A    XXX.YYY.ZZZ.TTT
mail.mydomain.com.              IN A    XXX.YYY.ZZZ.TTT
pop.mydomain.com.               IN A    XXX.YYY.ZZZ.TTT
ns1                             IN CNAME        mymachine
```

and there we go, the DNS should be written, but maybe not running….

/etc/rc.d/named restart

The restart will work, even if the name server is not already started…. I let you discover the use of nslookup, and things to check your name server. Briefly, if you type :

nslookup

You should see :

Default server: mymachine.mydomain.com
Adress: XXX.YYY.ZZZ.TTT

>

so enter

mail.mydomain.com

you should see :

Default server: mymachine.mydomain.com
Adress: XXX.YYY.ZZZ.TTT

Name : mail.mydomain.com
Adress : XXX.YYY.ZZZ.TTT

If you happen to see this, then it's quite ok, and we can go on… if not, check the DNS HOW-TO, or flame me because my examples were not completely accurate !

II-2-1 – Installing postfix

Well ehm… say….. I don't know how to install postfix… I just used the RPM, so I'll add infos in this section as soon as I know how to do the complete Install (that should be documented on the www.postfix.org)…

III – Now What ?… Configuration !

III-1 – What's the main.cf – Common options explained

III-1-1 - Local Pathname Information

 # 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.
 # The contributed source code from http://www.postfix.org/ has examples
 # for setting up Postfix chroot environments on different UNIX systems.
#
#queue_directory = /var/spool/postfix

 # The program_directory parameter specifies the default location of
 # Postfix support programs and daemons. This setting can be overruled
 # with the command_directory and daemon_directory parameters.
#
program_directory = /usr/lib/postfix

 # The command_directory parameter specifies the location of all
 # postXXX commands. The default value is $program_directory.
#
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). The
 # default value is $program_directory. This directory must be owned
 # by root.
#
daemon_directory = /usr/lib/postfix

III-1-2 - Queue and Process Ownership

 # 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 A GROUP 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

III-1-3 - Internet Host and Domain Names

 # 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 = myserver.mydomain.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.name

mydomain = mydomain.com

III-1-4 – Sending Mail

 # 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.
#

myorigin = mydomain.com

III-1-5 – Receiving Mail

 # 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].
#
#inet_interfaces = all
#inet_interfaces = $myhostname
#inet_interfaces = $myhostname, localhost

 # The mydestination parameter specifies the list of domains that this
 # machine considers itself the final destination for.
#
 # The default is $myhostname + localhost.$mydomain. On a mail domain
 # gateway, you should also include $mydomain. Do not specify the
 # names of domains that this machine is backup MX host for. Specify
 # those names via the relay_domains or permit_mx_backup settings for
 # the SMTP server (see sample-smtpd.cf.
#
 # 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. Continue long lines by starting the
 # next line with whitespace.
#
 # DO NOT LIST VIRTUAL DOMAINS HERE. LIST THEM IN THE VIRTUAL FILE
 # INSTEAD. BE SURE TO READ THE ENTIRE VIRTUAL MANUAL PAGE.
#
#mydestination = $myhostname, localhost.$mydomain
#mydestination = $myhostname, localhost.$mydomain $mydomain
#mydestination = $myhostname, localhost.$mydomain, $mydomain,
 #   mail.$mydomain, www.$mydomain, ftp.$mydomain
mydestination = $myhostname, localhost.$mydomain, $mydomain

III-1-6 – Rejecting Unknown Local Users

```
# REJECTING UNKNOWN LOCAL USERS
#
# The local_recipient_maps parameter specifies optional lookup tables
# with all users that are local with respect to $mydestination and
# $inet_interfaces.  If this parameter is defined, then the SMTP server
# will reject mail for unknown local users.
#
# The local_recipient_maps parameter accepts tables with bare usernames
# such as unix:passwd.byname and alias maps.
#
# Beware: if the Postfix SMTP server runs chrooted, you may have to
# copy the passwd database into the jail. This is system dependent.
#
# FOR THIS TO WORK, DO NOT SPECIFY VIRTUAL DOMAINS IN MYDESTINATION.
# MYDESTINATION MUST LIST NON-VIRTUAL DOMAINS ONLY.
#
#local_recipient_maps = $relocated_maps $alias_maps unix:passwd.byname
```

III-1-7 – Internet Versus Intranet

 # INTERNET VERSUS 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.
#
 # Specify a domain, host, host:port, [address] or [address:port].
 # Use the form [destination] to turn off MX lookups. See also the
 # default_transport parameter if you're connected via UUCP.
#

III-1-8 – Default Transport

 # DEFAULT TRANSPORT
#
 # The default_transport parameter specifies the default message
 # delivery transport to use when no transport is explicitly given in
 # the optional transport(5) table.
#
#default_transport = smtp
#default_transport = uucp

III-1-9 – Address Rewriting

 # ADDRESS REWRITING
#
 # Insert text from sample-rewrite.cf if you need to do address
 # masquerading.
#
 # Insert text from sample-canonical.cf if you need to do address
 # rewriting, or if you need username->Firstname.Lastname mapping.

canonical_maps = hash:/etc/postfix/canonical

III-1-10 – Adress Redirection

 # ADDRESS REDIRECTION (VIRTUAL DOMAIN)
#
 # Insert text from sample-virtual.cf if you need virtual domain support.

virtual_maps = hash:/etc/postfix/virtual

III-1-11 – "User Has Moved" Bounce Messages

 # "USER HAS MOVED" BOUNCE MESSAGES
#
 # Insert text from sample-relocated.cf if you need "user has moved"
 # style bounce messages. Alternatively, you can bounce recipients
 # with an SMTP server access table. See sample-smtpd.cf.

relocated_maps = hash:/etc/postfix/relocated
smtpd_sender_restrictions = hash:/etc/postfix/access

III-1-12 – Transport Map

 # TRANSPORT MAP
#
 # Insert text from sample-transport.cf if you need explicit routing.

transport_maps = hash:/etc/postfix/transport

III-1-13 – Alias Database

```
# 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 = hash:/etc/postfix/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 = hash:/etc/postfix/aliases

# And now the LDAP-Stuff:
# needs openldap to be installed
# Take a look at /usr/doc/packages/postfix/LDAP_README

#ldapaliases_server_host = localhost
#ldapaliases_server_port = 389
#ldapaliases_bind_dn = dc=suse,dc=de
#ldapaliases_bind = no
#ldapaliases_timeout = 5
#ldapaliases_search_base = dc=suse,dc=de
#ldapaliases_query_filter = (aliases=%s)
#ldapaliases_result_attribute = mailbox
#ldapaliases_lookup_wildcards = no
```

III-1-14 – Adress Extensions

 # 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 = +

III-1-15 – Delivery To Mailbox

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

# The mailbox_command specifies the optional external command to use
# instead of mailbox delivery. The command is run with proper HOME,
# SHELL and LOGNAME settings.
#
# Avoid shell meta characters because they will force Postfix to run
# an expensive shell process. Procmail alone is expensive enough.
#
# mailbox_command = /usr/bin/procmail
```

III-1-16 – Junk Mail Controls

 # JUNK MAIL CONTROLS
#
 # The controls listed here are only a very small subset. See the file
 # sample-smtpd.cf for an elaborate list of anti-UCE controls.

 # The relay_domains parameter restricts what domains (and subdomains
 # thereof) this mail system will relay mail from or to. See the
 # smtpd_recipient_restrictions restriction in the file sample-smtpd.cf.
#
 # By default, Postfix relays mail only from or to sites in or below
 # $mydestination, or in the optional virtual domain list.
#
 # 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 in the file sample-smtpd.cf.
#
#relay_domains = $mydestination, $virtual_domains

 # The mynetworks parameter specifies the list of networks that are
 # local to this machine. The list is used by the anti-UCE software
 # to distinguish local clients from strangers. See permit_mynetworks
 # and smtpd_recipient_restrictions in the file sample-smtpd.cf file.
#
 # The default is all networks attached to the machine: a complete
 # class A network, a complete class B network, and so on. If you want
 # stricter control, specify a list of network/mask 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.
#
#mynetworks = 168.100.189.0/28, 127.0.0.0/8
#mynetworks = $config_directory/mynetworks

mynetworks = 192.168.100.0/24, 127.0.0.0/8

III-1-17 – Show Software Version Or Not

 # SHOW SOFTWARE VERSION OR NOT
#
 # The smtpd_banner parameter specifies the text that follows the 220
 # status code in the SMTP greeting banner. Some people like to see
 # the mail version advertised. By default, Postfix shows no version.
#
 # You MUST specify the $myhostname at the start of the text. When
 # the SMTP client sees its own hostname at the start of an SMTP
 # greeting banner it will report a mailer loop. That's better than
 # having a machine meltdown.
#
#smtpd_banner = $myhostname ESMTP $mail_name
#smtpd_banner = $myhostname ESMTP $mail_name ($mail_version)
smtpd_banner = whatever1 ESMTP $mail_name ($mail_version)
mail_name = whatever2
mail_version = whatever3

III-1-18 – Parallel Delivery To The Same Destination

 # 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 $default_destination_concurrency_limit.

local_destination_concurrency_limit = 2
default_destination_concurrency_limit = 10

III-1-19 – Debugging Control

 # 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=/usr/bin:/usr/X11R6/bin*
*   xxgdb $daemon_directory/$process_name $process_id & sleep 5*

III-1-20 – Other Parameters

 # Other configurable parameters.
always_bcc = mailaccount@myserver.mydomain.com
message_size_limit = 3072000
queue_directory = /var/spool/postfix
body_checks = regexp:/etc/postfix/body_checks
header_checks = regexp:/etc/postfix/header_checks

III-2 – The main configuration file

Ha ha ! this is so easy…. everything should be running fine now, and I'm about to leave you alone… nooooo ! just kiddin…. the fun is just starting…. The main file to edit is the main.cf. This file should be located in the /etc/postfix/ directory if the installation was done the way it should be.

vi /etc/postfix/main.cf

as the file is quite huge, I won't write it down here…. we will be looking for entries now and then…. one of the way to look for something in vi is to use the search…. first be sure you're not in edit mode, so press "esc", and then press "/the_expression_I_look_for". after pressing enter, you should find the right word or expression.

program_directory = /usr/lib/postfix
this is the postfix program location… it shouldn't be elsewhere, but if it is, then change this line….
command_directory = /usr/sbin
daemon_directory = /usr/lib/postfix
Again a location…. This is the daemon location….
myhostname = Mycomputer.mydomain.com
mydomain = mydomain.com
myorigin = mydomain.com
mydestination = $myhostname, localhost.$mydomain, $mydomain
This part is about receiving mail… accepting mail only for mail that are adressed to blahblah@mycomputer.mydomain.com, or blahblah@mydomain.com…
canonical_maps = hash:/etc/postfix/canonical
virtual_maps = hash:/etc/postfix/virtual
This is the location of the list of the virtual users that are created. This is a text file that will be turned into a db
relocated_maps = hash:/etc/postfix/relocated
smtpd_sender_restrictions = hash:/etc/postfix/access
transport_maps = hash:/etc/postfix/transport
alias_maps = hash:/etc/postfix/aliases
This is the location of the text file used to define aliases (other names)
alias_database = hash:/etc/postfix/aliases
And there goes the location of the database created from the aliases text file
mynetworks = 192.168.100.0/24, 127.0.0.0/8
Here you can say which networks or subnetworks are authorized or not….
smtpd_banner = capjuby ESMTP $mail_name ($mail_version)
mail_name = mermoz
mail_version = aeropostale
local_destination_concurrency_limit = 2
default_destination_concurrency_limit = 10
debug_peer_level = 2
debugger_command =
     PATH=/usr/bin:/usr/X11R6/bin
     xxgdb $daemon_directory/$process_name $process_id & sleep 5
message_size_limit = 3072000
This is the Hard limit to mails…. You don't have to let users have tooooo much freedom…. Your network will suffer….

When everything is set, we reload postfix so it can get its new configuration….

/etc/postfix reload

III-3 – The aliases configuration

Now, the main.cf is created, we go to the aliases file…. The purpose of this file is : I have a user on my linux box. his account is JML58. I don't want his mail to be JML58@mydomain.com, so I will say that JML58 is known as John.mclane@mydomain.com, I can say, that the account of GB1and3 is known as Hans.gruber@mydomain.com and Simon.gruber@mydomain.com… So everything that concerns the Gruber Brothers goes to the same mail account…. That's nice !!!! Now let's se how it's written :

############## My Aliases Table ####################
firstname.lastname: mailusername
mailusername: mailusername
john.maclane: jmc58
jmc58:   jmc58
…

If I want jmc58 to be also a valid mail adress, then I keep it in the aliases list. Else, I just keep the public mail adress… As public mail adress, I'm using firstname.lastname, but anything can fit…. That's your own choice… if you want firstname's-firstletter.lastname, it's ok…. I don't care, Nor does postfix…. ;-)
once this is done, you just make it good regarding postfix criteria, typing :

newaliases

III-4 – The virtual Configuration

Right…. Now, the postfix should be running ok…. What we'll be looking at now is a part of my configuration. We have one mail server that relays mail to 2 other servers. These servers must know who is where and where to send to whom (Am I clear ?)… Let state that Server A only relays to Server B and C…. B and C have their own users…. So when A receives a mail, it must transmit it to the right server…. We have a list that says This one is here and this one is there…. That's the virtual user list. I guess A doesn't have to have the users but it should be confirmed by the Gurus ;-)

```
############# My virtual Table    #########################
mailuser1@mydomain.com                    mailuser1@serverB.mydomain.com
Mailuser2@mydomain.com                    mailuser2@serverB.mydomain.com
Mailuser3@mydomain.com                    mailuser3@serverA.mydomain.com
…
```

If you're ok with this, you can run the mapper that will make postfix know where to find who….

postmap /etc/postfix/virtual

IV – Creating users and mail accounts

IV-1 – Creating users

Ok, now everything should be ok…. We can start to have fun…. The first thing to do is to create the users…. To do so, we'll type the following :

useradd myuser

then let give the user a password :

passwd myuser
then enter twice the passwd you want him to have

Allright…. the user is ok….

IV-2 – Creating mail Accounts

Well…. to be precise, the account is virtually existent… so we just have to make it "real"…

cd /var/spool/mail
there we go to the right place…

touch myuser
chown myuser.users myuser
chmod 600 myuser
Right ?… with these lines, we create a file that will receive the mails, we say that this file belongs to myuser, of the "users" group, and then we say that only myuser can use this file.

Well…. We should have done the thing….

V – It is Done !

Right, At this point, you should have a dns/postfix configuration that runs…. at least, I hope so…. If not, please let me know. Let me know also if something is wrong or not clear…. But how to know wether it runs or not ?….

V-1 – The great Expectation !

How to know ?…. Well testing is the solution…. The first thing we'll do is to send a mail to ourself, to root. We just want to know if root receives mail : so we'll type :

echo test | mail –v root@mydomain.com

If root got the mail, then everything starts ok….

Now, we'll test the user connection… Send a mail to one of your user, prefer one who has a running configuration (DNS set : the IP set at the beginning of this How to, mail server in and out set to the same IP…).

echo testuser | mail –v user1@mydoamin.com

I guess you know how to create a account on your mail-client… So I guess the client tries the connection. If the client (netscape or outlook or anything that gets mail better than those 2…) doesn't get the test-mail, then look at the following :

- Is the client correctly setup ?
- Is there a pop3 daemon running (it should be, but if not, make it run… it lets you get your mail from the outside)
- is the account created the right way ?….

VI – Errors and resolutions

VI – Error messages

VII – Advanced Postfix Configuration : Squirrelmail

VII–1 - Requirements

If you need a good webmail client beside your choice of MTA (postfix :-))
you could use Squirrelmail. You can download it from
http://www.squirrelmail.org . There's lots of plugins also.
Let's see the requirements:
-PHP4
-IMAP-server (eg. Cyrus)
-Webserver (eg. Apache)

VII-2 - Squirrelmail Requirements : PHP4

You can download it from http://www.php.com. The latest release is
PHP4.04pl1. You can use it as a DSO under Apache. I recommend this
opposed to CGI version. Some of the features only available as
a modul and security experts (not like me) say that is much more
easier to defend it against attacks.
What you need to compile into the modul are written down in the
INSTALL file under the source code directory. I assume that you
will use PHP for other tasks too therefore I recommend the following
settings (only if you compile from source) :
- change to the root directory of the php source
- then issue the command:

        configure --with-mysql=/where/the/dev/files/are/located \
                --with-apxs \
                --enable-track-vars \
                --enable-force-cgi-redirect \
                --with-gettext \
                --enable-versioning \
                --enable-trans-id \
                --enable-sockets \
                --with-pgsql=/where/the/dev/files/are/located

- make
- make install (as root)
- then copy php.ini-dist into /usr/local/lib

VII-3 - Squirrelmail Requirements : IMAP Server:

Depends on your choice. I recommend Cyrus or Courier.
Both rejects the use of standard mbox format which
is proved to be inefficient and not reliable. The
Cyrus-IMAP server has its own indexing and storage format
while Courier uses the Maildir/ format, introduced by Dan Bernstein
(author of qmail MTA). But you can use the standard UW-IMAP too.
All of these are properly handled by squirrelmail.
If you use UW-IMAP : you have nothing to do (the price is that this is the
least efficient mode)
If you use Cyrus : add the following lines into /etc/postfix/main.cf:
mailbox_transport = cyrus

If you use Courier-IMAP :
- edit the /etc/courier-imap.config :
  ADDRESS=127.0.0.1
  PORT=143
  MAXPERIP=4
  IMAPDSTART=YES (without this imap service refuses to run, that's the default
                  after install)

- edit the /etc/postfix/main.cf
        home_mailbox = Maildir/

If your user gets email postfix will automagically create the Maildir/
under the home directory of the user.

VII-4 - Squirrelmail Requirements : Apache :

- add the following line to httpd.conf if you have a
 standalone apache config (or srm.conf if you use different
 config files, like me or other Debian users) :
 AddType application/x-httpd-php .phtml .php3 .php4 .php

- add the following line into the httpd.conf file:
 LoadModule php4_module   /usr/lib/apache/1.3/libphp4.so

 or where the other DSOs are.

- reload the Apache config file:
$ apachectl graceful (if you use Debian)
$ /etc/rc.d/init.d/httpd reload (if you use RedHat)

If you want to provide SSL-only webmail system (means you have
very strong hardware or cryptocard) you can use <Location> directive
and mod_rewrite but that's another topic and more advanced. Be cautious !
SSL/TLS only support IP-based virtual hosting.

Only one thing left to do, setting up the directories and access control
rights to Squirrelmail directories. Let's say you use Debian. Then
your DocumentRoot is /var/www . So, untar the whole package to
there then rename it to mail. Change directory to mail/ and
change the user and grup id of the data directory to your webserver ids:
$ chown -R www-data.www-data data

After this create a directory where squirrelmail will temporary store
the attachments which the users will send. If you have a separate
and big enough /tmp directory just use this. But if you want to use
a seperate directory create one like this:
$ mkdir /var/tmp/attachs
$ chgrp -R www-data /var/tmp/attachs
$ chmod 730 /var/tmp/attachs

Then go to /var/www/config and run conf.pl (perl conf.pl).
Set up the server as you need. Just use the directories and
software names you use and set up. The whole administration
straightforward.

VII-5 - Squirrelmail : Using plugins:

There's lots of useful plugins. If you want to use them just
untar them under /var/www/mail/plugins/ and run conf.pl again.
The 8th section gives you the option to use new plugins. As more
and more webbrowsers try to remember usernames and passwords -
which is very bad if your users use the webmail in cybercafes -
I recommend to install Taylor Atkins Forget_password plugin.
Others give you the opportunity to forward messages, filter them
and so on.