

SETTING UP SCOFFICE MAIL SERVER 2.0 ON SCO LINUX 4.0 AS A MICROSOFT EXCHANGE ALTERNATIVE

**The aim of this document is to help resellers and end users to quickly get
SCO Linux 4.0, SCOoffice Mail Server 2.0 and SCOoffice Mail Connector
installed and configured to provide a Microsoft Exchange alternative.**

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Setting up SCOoffice Mail Server 2.0 on SCO Linux 4.0 as a Microsoft Exchange Alternative

Executive Summary

The aim of this document is to help resellers and end users to quickly get SCO Linux 4.0, *SCOoffice* Mail Server 2.0 and *SCOoffice* Mail Connector installed and configured to provide a Microsoft Exchange alternative.

By using these three components a full Linux based collaboration server can be setup to provide Microsoft Outlook clients with features like shared calendars, global address book and Public folders.

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1 Note

First time users, please allow two hours to complete this task. This will allow you time to read through each screen and familiarize yourself with each option. Once you have completed this document a few times the setup can be reduced to around forty five minutes depending on hardware.

You will need the following before starting the installation:-

- Software – SCO Linux 4.0 powered by United Linux
- Software – SCOoffice Mail Server 2.0 (OMS)
- Software – SCOoffice Mail Connector
- An IP address to use for the OMS server
- A DNS server address (Setting up DNS on the mail server is explained in this guide)
- A domain name to use for your email e.g sco.com
- A PC running Windows with Outlook 97, 98, 2000 or XP

The guide contains the following sections :-

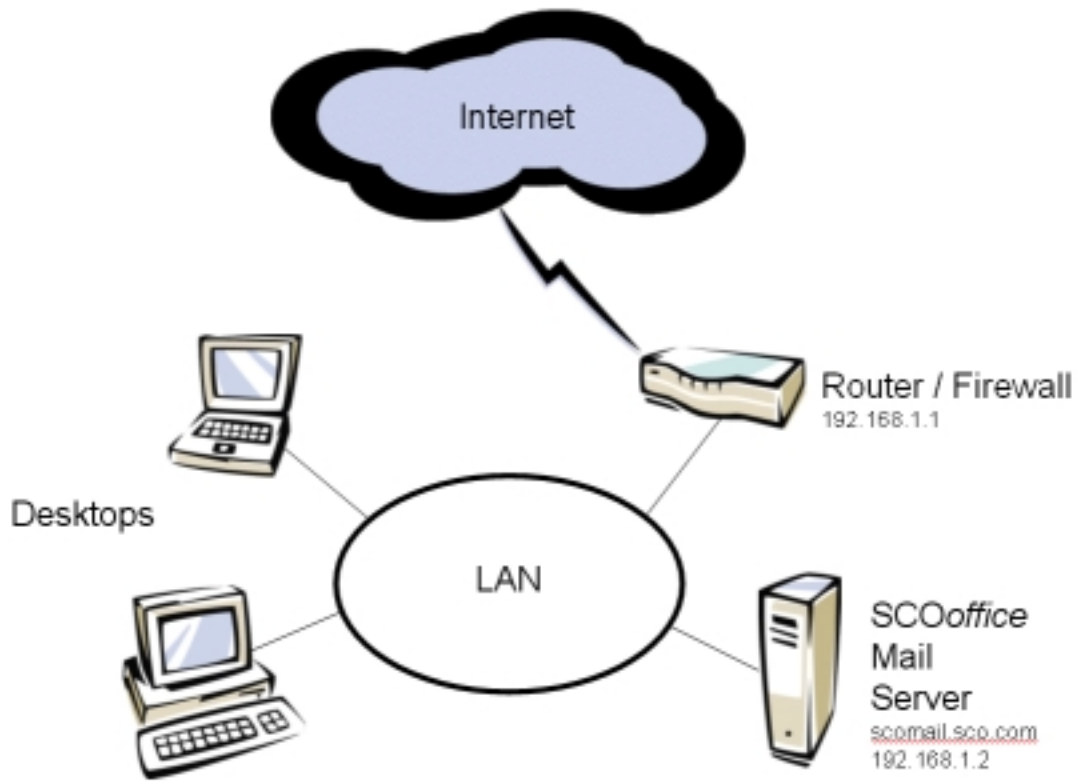
- Details and schematic of what this guide sets out to achieve
- Installing SCO Linux 4.0 powered by United Linux
- Setting up DNS on SCO Linux 4.0
- Installing SCOoffice Mail Server 2.0
- Installing SCOoffice Mail Server 2.0 mpack 2.0.1
- Creating mail users
- Installing SCOoffice Mail Connector and Address Book
- Migrating from MS Exchange to SCOoffice Mail Server
- Further information

2 Detail and schematic of what this guide sets out to achieve

This document is intended to guide you through setting up a Linux based alternative to MS Exchange using SCOoffice Mail Server.

The following assumptions have been made:-

1. Though SCO Linux comes with the Fetchmail utility to POP mail from an ISP, this guide assumes you are using the more common method of getting your ISP to forward mail onto your routers IP address on port 25 (SMTP). In saying this, if you'd like to use fetchmail there is a technical article on the SCO self help support web pages (www.sco.com/support/self_help.html), simply search for fetchmail.
2. Set your firewall to pass all traffic coming in on port 25 to the mail server. This should then create a path for mail sent from your ISP to the mail server.
3. Set the firewall to allow traffic out on port 25 (SMTP) from the mail server only.
4. In this guide I'm assuming the router to have an ipaddress of 192.168.1.1 internally, and have therefore used 192.168.1.2 for the mail server. The hostname of the mail server I've appropriately called scomail.sco.com
5. The schematic below shows a separate router and firewall, for smaller sites where the cost of the solution is important, it is of course possible to use the server for these tasks too.
6. The mail server once installed is ready to integrate with third party anti virus software on the same server providing a central location to scan mail for viruses if required. For more details see the further information section at the end of this document.



3 Installing SCO Linux 4.0

1. Boot from the SCO Linux 4 installation CD. It will be labelled “SCO Linux Server Release 4.0, Powered by UnitedLinux, Installation CD”.
2. The first screen to appear is the installation choice screen. It defaults to Installation, simply press return to continue. Depending on your hardware, you may have to choose “Installation – Safe Settings” to reduce hardware probing. Doing this shouldn’t stop you from following the same steps as the standard installation.
3. License screen – Please read the license agreement before clicking “Accept”.
4. Language screen - choose the language of your choice and click “Accept”, this guide is based on English (GB).
5. Analyzing your system – Choose “New installation” if prompted and click “OK”.
6. Installation Settings:-

Mode – New Installation

Keyboard Layout – English (UK)

Mouse – Should match your mouse, e.g PS2, USB etc...

Partitioning – The system will analyze any existing partitions and make a recommendation. If you wish to change the recommendation you can do so by clicking on the ‘Partitioning’ heading in blue.

It is advised that for a mail server you create a SWAP partition that is twice the size of the RAM installed in the machine, a separate root (/) partition of at least 2Gb and give the rest to /var where the mail will be stored. Depending on your disk setup this can be done on one single disk or spread across many, maybe using RAID. In an ideal situation you’d mirror the root partition and mirror + stripe your /var partition.

SCO Linux gives you a choice of four journaling filesystems, EXT3, Reiser, XFS and JFS. The SCO Linux default is Reiser.

Software – The default software selection is “SCO Linux” which will provide everything required to install the mail server on.

NOTE – The default software selection doesn’t install compilers. If you think you may require them, click on the ‘software’ heading in blue and then ‘detailed selection’, you’ll then be able to choose the compilers you need.

Booting – Check this is the disk you want to boot from

Time Zone – Change this from Global /Greenwich to Europe/United Kingdom

Language – English (GB)

Once complete click accept to continue

7. Green Commit Window – **This is your last chance to change any settings before they are written to disk, this includes the formatting of any existing partitions.** After double checking your setup, click on 'Yes/Install' to start the installation, enter the different CDs when prompted.
8. Finished screen – Once the base system is installed successfully, remove any media in the CDROM or floppy drive and press return.
9. System boot screen – the default is boot the system into Linux to finish the installation
10. Root password screen – Enter a password for the administrator (root).
11. User screen – You are required to add at least one user normal user.
12. Screen setup – It's advised to choose the default graphical desktop rather than text as the Mail Server installation requires it. You may also be given the chance to enable 3D should you have a 3D graphics card installed. It is always advised to click change and test the video settings work before continuing further.
13. Writing the system configuration – This can take a minute or two depending on hardware.
14. Installation Settings:-

Warning, Printer detection – If you have a printer attached to the machine click Yes, otherwise skip detection. This detection is only for local printers.

Network Interfaces – Check the network card model detected is correct. By default DHCP is setup for one interface. It is recommended that for the mail server you change this to a static IP address.

To change the NIC from DHCP to a static IP address click on 'Network Interfaces', you should then see your NIC under the 'already configured' section.

Click 'change' then 'edit' to configure it. Here you can enter a static IP address and subnet mask. For this guide, the mail server is 192.168.1.2 with a subnet mask of 255.255.255.0

You are also required to give the server a hostname and TCP domain. Click on 'hostname and nameserver'. Choose a name in lower case like scomail as an example. The TCP domain is usually the same as your email domain e.g for user1@sco.com the TCP domain would be sco.com not an NT domain name.

You also have the chance to enter any DNS nameservers you may have and a domain search list should you have multiple TCP domains within your network.

NOTE – DNS is required by the mail server to deliver internet email, it is not possible to use your ISP's DNS servers as they won't know about your mail server. If you don't have a DNS server on your network don't panic, the next section explains how to set it up on the mail server.

After clicking on 'next' you should be returned back a screen, click on 'routing' and enter your routers gateway IP address, for this guide the routers IP address is 192.168.1.1. If your mail server is going to be the router and you have two nics in the server, leave the gateway address empty but click on the box 'enable ip forwarding'. Click 'next' and 'finish' to return to the Installation settings screen.

Printers – Add any local printers you may have

Modems – Add a modem

ISDN adaptors – Add an ISDN card

15. Saving network configuration – The network settings are saved before finishing the installation.
16. Linux will now boot into the graphical KDE environment and offer a login screen to the system.
17. I advise you to do a reboot at this point before we do any configuration to test the system boots correctly. Click on Menu, shutdown, restart the computer and type the root password, then click ok. The system should reboot back to the KDE login screen.

4 Setting up DNS on SCO Linux 4.0

This step only needs to be done if you do not have a DNS server and want to use this email server on the internet.

If you currently use your ISP's DNS servers, you will have to setup DNS as below because your ISP's DNS servers will not have an entry for your mail server.

Assuming you are following through this guide, your server will be at the graphical login screen after a reboot. Login with the username root and the password you gave the root administrator during the installation of Linux. Choose the KDE desktop, not gnome.

There are many ways to setup DNS on SCO Linux 4.0. For this guide we will use the Webmin administration utility.

1. After logging into the KDE desktop, click on the Webmin icon on the left of the screen. Click continue at the server certificate authenticity screen, then click forever. You may get a cookie alert, click accept. Login as root and the root password.
2. Click on Servers on the top row, then Bind DNS Server. Towards the bottom of the screen click on the link 'create a new master zone'. In the fields provided change the following:-
 - a. Zone Type – Forward
 - b. Domain name / network – sco.com (enter your email domain name here)
 - c. Email address – root

Click on the 'create' button which will display the zone options. At the bottom of the page click on the link 'Return to zone list'.

You now need to repeat the above for the reverse zone.

Click on the link 'create a new master zone'. In the fields provided change the following:-

- d. Zone Type – Reverse
- e. Domain name / network – 192.168.1 (enter your network here)
- f. Email address – root

Click on the create button which will display the zone options. At the bottom of the page click on the link 'Return to zone list'.

3. The mail server actually only needs to know about itself and how to get to the root servers on the internet, the latter is setup by default. To add an entry for your mail server click on the icon for your domain, it should be just above the new master zone link, in this example 'sco.com'. You should be shown your domains options. Click on the Address icon. In the name field enter the hostname you gave the server without the domain name e.g scomail but not scomail.sco.com. In the address field give it the ip address for the mail server and click on create.

4. To get the server to use itself for DNS click on networking on the top row, then 'network configuration' and 'DNS client'. In the DNS servers field, enter 127.0.0.1 and click on save.

5. To start the DNS service and make sure it starts at boot time click on system on the top row, then 'bootup and shutdown'. In the second column are the actions, scroll down to 'named' and click on it. Now click on 'start now', then 'return to action'. Change 'start at boot time' to Yes and click on 'save'.

6. To test your DNS server, click on 'networking' on the top row, then 'network utilities', here you can use nslookup or dig to test your setup.

5 Installing SCOoffice Mail Server 2.0

Assuming you are following through this guide, your server will be logged into the KDE desktop with a working DNS server and logged into Webmin.

1. Place the SCOoffice Mail Server 2.0 CD in the CD drive
2. As SCO Linux doesn't auto mount the CD we'll use Webmin to mount it. Click on system on the top row, then 'disk and network filesystems'. In the first column find the line /media/cdrom, then in the fourth column on the same row click on 'no' to mount the CD. The word 'no' will change to 'yes' if the CD was mounted successfully.
3. Launch the file manager by clicking on the sixth icon at the bottom of the screen, it should look like a folder with a small house. Once its started click on the up arrow on the upper left to go up a directory. Click on the 'media' folder, then 'cdrom' folder and finally 'install.sh'. The Mail Server install should now start after a few seconds.
4. The first screen is the license agreement screen, please read it and then click on 'I accept'.
5. The license screen is next. You can either type a license in should you have one or take a 60 day evaluation by clicking continue.
6. A summary will be shown detailing what the SCOoffice Mail Server will be changing on the system. Click continue to start the file copying.
7. Once the files have finished copying, click next. You will be given a chance to view the readme file or complete the installation by clicking on finish.
8. To test the installation was successful, maximize the file manager window and where it says 'file:///media/cdrom/install.sh' replace it with 'http://localhost/msg'. You should see the SCOoffice Mail Server login page.
9. You can now unmount the CD by returning to Webmin, follow the steps in point 2 but click the word 'Yes' instead of 'no'. This should unmount the CD and allow the CD to be ejected.

6 Installing SCOoffice Mail Server 2.0 mpack 2.0.1

You will need to download the maintenance pack 2.0.1 from:-

<http://www.sco.com/support/download.html>

The following instructions are based on the fact that the file scormsg-mpack-2.0.1-5.tar has been downloaded and resides in the /tmp directory on the mail server.

1. In the file manager go to the /tmp folder by entering 'file:/tmp'
2. Right click on the file scormsg-mpack-2.0.1-5.tar and choose 'Extract here', click on 'OK' when prompted. This will extract a file scormsg-mpack-2.0.1-5.i586.rpm
3. Left click on the file scormsg-mpack-2.0.1-5.i586.rpm, click on 'Install' when prompted.
4. The maintenance pack will install.

7 Creating mail users

Assuming you are following through this guide, your server will be logged into the KDE desktop and have the SCOoffice Mail Server login screen open.

1. To login as the administrator enter Email ID 'admin' and password 'admin'. This can be changed later to something more suitable.

NOTE – For security reasons SCOoffice Mail Server runs in a sealed server environment. This means that email users don't need Linux user accounts, only Mail server accounts. It also means that nobody will be able to login in the Linux operating system with their email ID and password, making it a more secure system.

2. Once logged in, in the upper right corner you should see your email domain. The domain is taken from what you entered during the Linux install.
3. To create a new user, click on 'users' on the left menu and then 'create user'. Fill in the details for the new user.

Note – Should you require more information on configuring the Mail Server, the documentation can be found by clicking on 'help' at the top of the page. It can also be accessed through a browser when logged into the KDE desktop as user root by going to <http://localhost:8457>

8 Installing *SCOoffice* Mail Connector and Address Book

There are two parts to the *SCOoffice* Mail Connector:-

SCOoffice Mail Connector

SCOoffice Address Book

The *SCOoffice* Mail Connector is an Outlook MAPI plugin that gives Outlook the ability to offer users MS Exchange collaboration features like shared folders, server synchronisation and public folders when connecting to a *SCOoffice* Mail Server.

The *SCOoffice* Address Book is an Outlook MAPI plugin which gives Outlook the ability to access the *SCOoffice* Mail Server LDAP directory and display it in Outlook as a global Address Book.

NOTE – When purchasing these products, a *SCOoffice* Mail Connector license allows use of both the Mail Connector and the Address Book.

Full installation and configuration instructions for both components are included with the Mail Connector which can either be downloaded from www.sco.com/download or be obtained on CD media. They come in both HTML and Acrobat format.

9 Migrating from MS Exchange to SCOoffice Mail Server

There are two parts to the migration:-

Copying the user accounts across

Copying the email across

Note – Once you've tested this and are happy it works for a test user, make sure you set all new email to be sent to the SCOoffice Mail Server instead of the Exchange server, otherwise whilst you're copying email, new mail could be sent to the old server.

9.1 Copying the accounts across (Windows 2000, Exchange 2000)

1. On Windows 2000
Run start/programs/exchange/Active Directory users and computers
Expand the tree and highlight users
Click on the 'type' column heading to sort by type of user
Right click on 'users' in the tree and choose export list
Choose to save the file as Text tab delimited
Copy the file to a machine with Excel
2. Open the text file in Excel, choose delimited and tab separated
3. Delete all rows down to but not including 'users' in column B
4. Delete all rows with system users like Administrator, EUSER*, Guest, IUSR*, IWAM*, krbtgt, TsInternetUser
5. Keep columns D and E (email address and account name), delete the others
6. Swap columns round username 1st, email address 2nd
7. Remove any blank lines and admin up to the first real user account name
8. Save the file as a tab separated text file called export.txt

9. Copy the text file to the SCO Mail Server via ftp or winscp if you have it.

10. Login to the graphical desktop as the root user on the SCOoffice Mail Server, click on the ninth icon from the left at the bottom of the screen which looks like the nib of a pen. This will start the text editor which behaves very much like notepad on Windows.

11. Enter the following script into the text editor but change line 3 to your email domain and line 11 to your mail server admin password, but leave the \r in place. Save it as filename 'massuseradd' in the default directory which should be /root.

```
#!/bin/bash
file=export.txt
domain=sco.com
cat $file | while read name email
do
cat << DONE > /tmp/tmpa
set timeout -1
spawn /opt/msg/bin/msgusercreate --uid=$name --domain=$domain --mail=$email
match_max 100000
expect -exact "SCOoffice Mail Server admin password: "
send -- "replace_with_your_admin_password\r"
expect eof
DONE
expect -f /tmp/tmpa
done
rm /tmp/tmpa
```

12. Start the file manager which is the sixth icon from the left at the bottom of the screen and right click on the saved file 'massuseradd' then choose 'properties'. When the window appears, click on the 'permissions' tab and make sure in the 'exec' column that only the 'user' row has an 'x' in it.
13. Open a shell window by clicking on the third icon at the bottom of the screen, when it appears type the following and press return to run the script.

```
./massuseradd
```

The accounts will now be added, it may take some time to add hundreds or thousands of users depending on the hardware speed. When the script has finished it will return to a prompt.

14. Once finished, point a browser to http://your_machine/msg and login as admin. Under the users section click on 'view users'. Your new users should be available.
15. Now that the user accounts have been created we need to give all the users a password as they currently don't have one. The best way to do this is to use another script to simply give every user a fixed password and then ask them to change it themselves using the graphical interface through a browser.

This requires some thought, if you give everyone the same password and a user is on holiday, you then have the chance of another user reading their email. I suggest you break down the export.txt file into separate files of users that can change their password straight away and others that can not. If only one or two are on holiday you could use the admin graphical interface to change their password instead of using the script.

16. Enter the following script into the text editor and change line 12 to your mail server admin password like for the last script, but leave the \r in place again. Save it as filename 'massuserpw' in the default directory which should be /root.

```
#!/bin/bash
file=export.txt
cat $file | while read name email
do
cat << DONE > /tmp/tmpa
set timeout -1
spawn /opt/msg/bin/msguserpw $name
match_max 100000
expect -exact "SCOoffice Mail Server admin password: "
send -- "replace_with_your_admin_password\r"
expect -exact "Password: "
send -- "FixedPassWord\r"
expect eof
```

```
DONE
expect -f /tmp/tmpa
done
rm /tmp/tmpa
```

17. Start the file manager which is the sixth icon from the left at the bottom of the screen and right click on the saved file 'massuserpw' and choose 'properties'. When the window appears, click on the 'permissions' tab and make sure in the 'exec' column that only the 'user' row has an 'x' in it.
18. Open a shell window by clicking on the third icon at the bottom of the screen, when it appears type the following and press return to run the script.

```
./massuserpw
```

The accounts chosen in your text file will all be given the fixed password, it may take some time to change thousands of users depending on the hardware speed. When the script has finished it will return to a prompt.

19. Once finished, point a browser to http://your_server/msg and try one of the user accounts you have created with the fixed password.
20. To get the users to change their own password, tell them to point a browser to http://your_server/msg and login with their normal login and the fixed password. Once logged in, they will see 'change password' on the left of the screen, tell them to click this to change their password. They will also have to change their password in the Outlook 'Internet Email' account settings to match.

9.2 Copying the email across (Win2k, Exchange 2k)

The easiest way to do this is to open up Outlook and have both the Exchange pst file and the OMS pst file on view at the same time. You can then simply copy and paste folder content across as if it was two local pst files. Once the mail is in the OMS pst file it will be synchronized (copied) up to the server.

To achieve this follow these steps.

1. Assuming you already have the SCOoffice Mail Connector installed on the Windows client PC, create a new profile called OMS. For Outlook 2000 users create "Public folders", "Outlook Address Book" and an "Internet email" account.
2. Start Outlook in your Exchange profile and open the new OMS Outlook data file (pst). Now you can see both pst files, simply copy and paste content across.

NOTE – You cannot drag special folders like Inbox or Sent Items across to the new pst file, Outlook thinks you're trying to over write these folders and will create an Inbox1 or Sent Items1 folder. Instead select the special folder in the Exchange pst file and highlight all the folders content (select all). You should now be able to copy and paste the mail content. In Outlook 2002 if you're copying lots of email, it can seem as if Outlook has hung. In fact its Windows adding all the email to the clipboard first but will eventually complete the task.

3. When you have copied everything across to the new mail server, make the default profile OMS so when Outlook starts it only shows the new OMS pst file.

10 Further information

SCO Website – <http://www.sco.com>

SCO download site – <http://www.sco.com/download>

Anti virus software – The mail server supports the integration of third party anti virus software products, for the latest list of supported products see <http://www.sco.com/support/docs>

SMS integration – It is quite simple to give the mail server the ability to send SMS text messages as well as email using open source software. Once in place a user would be able to send SMS text messages just like emails in Outlook. For more details, please contact me.

Fax integration – Integrating products like VSI fax from Esker or HylaFax with the mail server, it is possible to send and receive faxes from Outlook.

Backup and restore – Most people have a preferred product when it comes to backup and restore. However, In case you haven't, on the next page is a suggested way in which you might backup and restore to a tape drive. To automate the process, create a cron job through Webmin.

The backup/restore script is designed to backup all mail server settings and all email. It can also be used to restore either a single users mailbox or all mail. The default device it uses is the first tape drive found (/dev/st0)

If this script was saved to the filename omsadmin and made executable with `chmod +x omsadmin` then the options would be:-

omsadmin -b This would backup everything and compress it
omsadmin -r This would restore all mail email
omsadmin -r user1 This would restore all mail for user1 only

```

#!/bin/bash

case "$1" in

backup|--backup|-b )

    /etc/init.d/ldap stop
    sleep 2
    /usr/sbin/slapcat >/tmp/ldap.ldif
    sleep 2
    /etc/init.d/ldap start
    tar cvzf /dev/st0 \
    /etc/postfix \
    /etc/opt/lsb-sco.com/msg \
    /var/netls \
    /tmp/ldap.ldif \
    /etc/cyrus.conf /etc/imapd.conf \
    /var/imap /var/spool/imap

;;
restore|--restore|-r )

    cd /
    /etc/init.d/cyrus stop
    /etc/init.d/ldap stop
    sleep 2
    killall -15 slapd 2>/dev/null
    sleep 2
    killall -9 slapd 2>/dev/null

SU_WARNING="su: warning: cannot change directory to /home/cyrus: No such file or directory"
CYRUS=/usr/cyrus/bin
if [ x"$2" = x"" ] ; then
    tar xvzf /dev/st0
    else
    tar xvzf /dev/st0 var/spool/imap/user/$2
fi

# The next three lines are commented out because most of the time you
# will just want to either restore a users mailbox or mail for all users.

```

```
# Uncommenting the next three lines will restore all the user accounts
# and mail server settings. This is usually only used if you have
# had to reinstall the server from scratch and need to restore every
# thing regarding the mail server.
```

```
#rm /var/lib/ldap/*
```

```
#sleep 2
```

```
#!/usr/sbin/slapadd < /tmp/ldap.ldif
```

```
sleep 2
```

```
/etc/init.d/ldap start
```

```
sleep 2
```

```
/etc/init.d/cyrus start
```

```
::
```

```
*)
```

```
echo "Usage $0 [-b|--backup] [-r|--restore]"
```

```
::
```

```
esac
```