

RHCE Linux - CramNotes

INSTALLATION

Use the right boot disk for the installation:

- boot.img - Standard installation
- bootnet.img - Network installation
- pcmcia.img - PCMCIA required installation

Install LILO in an appropriate location:

- MBR - If LILO will be the default bootloader
- First partition of boot sector - If you're using another OS bootloader

LINUX FILESYSTEM

The root filesystem is made up of 12 directories by default:

/bin	/home	/proc
/dev	/opt	/usr
/etc	/lost+found	/var
/sbin	/mnt	/usr/local

KERNEL COMPILING

Three options are available for configuring a kernel:

- make config
- make menuconfig
- make xconfig

There are two types of kernel images:

- zlmage (small kernel images)
- bzlmage (compressed kernel images)

The seven steps for compiling a kernel are:

- make configuration (makeconfig, make menuconfig, or make xconfig)
- make dep
- make clean
- make bzlmage (or zlmage)
- make modules
- make modules_install
- configure LILO and reboot

Three shorter steps for compiling a kernel are:

- make configuration (make config, make menuconfig, or make xconfig)
- make dep clean bzimage modules modules_install
- configure LILO and reboot

X WINDOW SYSTEM

Three X configuration tools are:

- Xconfigurator
- XF86Setup
- xf86config

APACHE

The main configuration directory is `/etc/httpd/conf/`.

The main Apache configuration file is `httpd.conf`, used for `httpd` server configuration.

To configure a virtual host, follow these steps:

- Set `NameVirtualHost` (`NameVirtualHost 192.168.0.1`).
- Set `VirtualHost` (`<VirtualHost 192.168.0.1>`).
- Set `DocumentRoot`.
- Set `ServerName`.
- Set `ErrorLog`.
- Set `TransferLog`.
- Close `VirtualHost` (`</VirtualHost>`).
- Restart `httpd` (`/etc/rc.d/init.d/httpd restart`).

EMAIL

There are three components of email:

- MTA - Mail transfer agent (`sendmail`)
- MDA - Mail delivery agent (`procmail`)
- MUA - Mail user agent (`Pine`, `Elm`, `Mutt`, `Netscape`)

DNS/BIND

To configure a domain, follow these steps:

- Set up a zone in `/etc/named.conf`.
- Set up a forward zone file (`db.example.com`).
- Set up a reverse zone file (`0.168.192.in-addr.arpa`).
- Restart DNS (`/etc/rc.d/init.d/named restart`).

FTP

To configure FTP, you need these files:

- `/etc / ftpaccess` - For ftpd configuration
- `/etc / ftpusers` - For user access control
- `/etc / ftpghost` - For host access control

SAMBA

Files used with SMB are:

- `/etc / smb.com` - Main configuration file
- `/etc / smbpasswd` - Password configuration file

To set up an SMB share, follow these steps:

- Add share to `/etc/smb.conf`.
- Use `testparm` to test `/etc/smb.conf` syntax.
- Restart SMB (`/etc/rc.d/init.d/smb restart`).
- Access SMB share (`smbclient`).

DHCP

To configure a DHCP server, follow these steps:

- Check for MULTICAST (`ifconfig`).
- Add route `255.255.255.255` (`route`).
- Start DHCP (`/etc/rc.d/init.d/dhcpd start`).
- Verify DHCP service (`/usr/sbin/dhcpd -d -f`).
- Configure `/etc/dhcpd.conf`.

INETD

To enable or disable network services controlled by `inetd`, you edit the `/etc/inetd.conf` file.

TCP_WRAPPERS

Controls access to only those services managed by `inetd`.

To specify access rules, edit:

- `/etc/hosts.allow`
- `/etc/hosts.deny`

ROUTING

To set up network and routing services, use these tools:

- Use `route` to display the IP routing table.
- Use `netstat` to display network connections, routing tables and interface information.
- Use `netcfg` to configure network information, routing, host information, default servers, and interface connections.
- Use `ifconfig` to configure a network interface.

IPCHAINS

The default chains are:

- `input` - Controls incoming connections
- `output` - Controls outgoing connections
- `forward` - Forwards connections

DEBUGGING

To debug your machine, follow these steps:

- Boot your machine. Decide whether you can fix the machine as is, whether you need to boot the system into single-user mode, or whether you need to use system rescue disks.
- Obtain a set of boot disks.
- Boot the machine with a floppy disk (or boot into single-user (linux single) mode as determined by step a).
- Check your filesystem. (`fsck`)
- Mount your filesystems. (`mount`)
- First mount your root partition. Then mount any other filesystems under your root (`/`) partition. (`mount /dev/hda5/ /mnt/harddrive`)
- Fix the problem.
- Check to see if you need to restart LILO. (`lilo`, or `lilo -r`)
- Sync any changes to the disk. (`sync`)
- Unmount any manually mounted filesystems. (`umount`)
- Remove any floppies, CDs, and so on, and reboot (`Ctrl+Alt+Del`).

This CramNotes is provided by Coriolis. To read further details on this subject we suggest you to consider purchasing the book below.



[RHCE Linux Exam Cram, 2e](#) by Kara J. Pritchard (Paperback)

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