

LINUX Admin Quick Reference

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User Management

Files

/etc/group
/etc/passwd
/etc/shadow User account information.

/etc/bashrc
/etc/profile
\$HOME/.bashrc
\$HOME/.bash_profile bash system wide and per user init files.

/etc/csh.cshrc
/etc/csh.login
\$HOME/.cshrc
\$HOME/.tcshrc
\$HOME/.login tcsh system wide and per user init files.

/etc/skel contains init files for newly created user.

/etc/default default for certain commands.

Commands

adduser script to create a new user interactively (slackware) or link to useradd (Redhat).

useradd, userdel, usermod create, delete, modify an new user or update default new user information..

newusers update and create new users (batch mode).

groupadd, groupdel, groupmod add, delete or modify group.

chage, chfn, chsh modify account policy (password length, expire data etc.) or finger information (full name, phone number etc.) change default login shell.

linux init=/bin/sh
mount -w -n -o remount / gain root access during boot prompt without password, can be used to fix some problems.

Network Configuration

Files

/etc/rc.d/rc.inet1
(Slackware)
/etc/sysconfig/network-scripts/ifcfg-eth0
(Redhat) IP address, Network mask, Default gateway are in these files. Can be edited manually to change these parameters.

/etc/HOSTNAME
(Slackware)
/etc/NETWORKING
(Slackware) hostname is set by "/bin/hostname" during boot and the name is read from these files. Can be changed manually.

/etc/sysconfig/network
(Redhat)

etc/resolv.conf specify name server, DNS domain and search order.

/etc/hosts host name to IP mapping file.

/etc/host.conf host name information look up order.

/etc/nsswitch.conf new way to specify information source.

/etc/networks
/etc/protocols
/etc/services TCP/IP services and ports mapping.

/etc/rpc RPC service name to their program numbers mapping.

/etc/sysconfig/iptables saved iptables with /sbin/iptables-save command. see http://tiger.la.asu.edu/iptables_summary.htm

Commands

netconfig menu driven Ethernet setup program.

pppsetup setup PPP connection (Slackware).
setup Ethernet during boot, for example

```
/sbin/ifconfig eth0 ${IPADDR} broadcast  
${BROADCAST} netmask ${NETMASK}
```

ifconfig /sbin/route add -net \${NETWORK} netmask
\${NETMASK} eth0

```
/sbin/route add default gw ${GATEWAY} netmask  
0.0.0.0 metric 1
```

host lookup host name or IP (similar to nslookup).

dnsdomainname show DNS domain name.

arping; arp find out Ethernet address by first arping then arp.

ipchains firewall and NAT (/etc/sysconfig/ipchains on Redhat)

NFS File Sharing

Files

/etc/fstab file systems mounted during boot.

/etc/exports NFS server export list.

/etc/auto.master auto mount master file.

Commands

mount mount a file system or all entries in fstab.

exportfs export file system listed in exports

showmount -e hostname show file systems exported

X Window

Files

/etc/X11/XF86config X window configuration file.

/etc/X11/xinit/xinitrc
\$HOME/.xinitrc clients to run after X server started

/etc/X11/xinit/xinitrc
\$HOME/.xinitrc clients to run after X server started

/etc/X11/fs/config configure X11 font path.

Commands

startx start X window system.

Xconfigurator
(Redhat)
xfree86setup
(Slackware)
xf86config setup X server and generate XF86config.

Ctrl+Alt+Del stop X server (on some system Ctrl+Alt+ESC).

Ctrl+Alt+F1
Ctrl+Alt+F7 F1 temporary switch to text mode, F7 switch back to graphic mode.

XFree86 -configure XFree86 auto configuration (Plug-n-Play).

SuperProbe detect graphic hardware.

xvidtune adjust X server origin and size.

xmodmap modifying key map and mouse button map.

xhost server access control program for X.

xsetroot root window parameter setting utility for X.

xlsfonts server font list displayer for X.

Printer Configuration

Files

/etc/printcap
/etc/printcap.local Printer capabilities data base.

/etc/lpd.conf LPRng configuration file.

/etc/lpd.perms permissions control file for the LPRng line printer spooler

/etc/hosts.lpd Access control (BSD lpd).

/etc/hosts.equiv trusted hosts.

PRINTER Environment variable of default printer.

/dev/lp0 parallel port.

Commands

lpc, lpq, lprm line printer control program, print queue maintain

Sendmail

Files

sendmail.cf
sendmail.mc sendmail.cf is the configuration file, edit sendmail.mc and then run
m4 sendmail.mc > sendmail.cf

aliases mail aliases, must run "newaliases" after change. use :include: to include external list in a file.

access mail access control, FEATURE(access_db) should be set in sendmail.mc. For example, in /etc/mail/access
cyberpromo.com REJECT
mydomain.com RELAY
spam@somewhere.com DISCARD

makemap hash /etc/mail/access < /etc/mail/access

/etc/mail/relay-domains list all host/domain accepted for relaying.

Commands

newaliases rebuild the data base for the mail aliases file.

makemap build access database, e.g.
makemap hash access.db<access

Useful Configuration Files

Files

httpd.conf Apache web server configuration file.

smb.conf Samba server (file and print for Windows).

lilo.conf LILO boot loader configuration file.

syslog.conf System log daemon (syslogd) configuration.

ssh_config
sshd_config SSH client and server configuration files.

ld.so.conf default dynamic library search path (run ldconfig).

mttools.conf mtool configuration file (access DOS file).

named.conf DNS name server (BIND).

sysctl.conf kernel parameters by sysctl (Redhat).

ntp.conf net time server.

inetd.conf Internet super server.

Xinetd.conf, Xinet.d directory Extended inetd configuration.

proftpd.conf proftpd FTP server.

amanda.conf network backup server.

/etc/pine.conf
/etc/pine.conf.fixed PINE mail client system wide settings.

Rebuild Kernel

Configure Kernel Parameters

make config
make menuconfig
make xconfig Configuring the kernel with interactive, menu or X window interface.

Compile Kernel Source

make dep
make zImage
make zdisk
make zlilo
make bzImage Building and installing a new kernel.

Compile Modules

make modules
make modules_install Building and installing modules.

Manage Modules

insmod, lsmod, modinfo, modprobe, rmmod, depmod Manage loadable modules.

Miscellaneous

Files

/etc/shells allowed login shells

/etc/ftpusers user names NOT allowed to use ftp.

/etc/host.allow
/etc/host.deny TCP wrapper host control files.

/etc/sysconfig (redhat) contains system configuration files.

/dev/fd0 floppy drive A

/etc/inittab
/etc/init.d system run level control file.

Commands

fromdos, todos (Slackware)
dos2unix, unix2dos (Redhat) convert text file from/to linux format.

pwck, grpck verify integrity of password and group files.

pwconv, pwunconv, grpconv, grpuncov convert to and from shadow passwords and groups.

shadowconfig toggle shadow passwords on and off.

quota, edquota, quotacheck, quotaon, quotaoff, repquota, Manage disk quota.

lilo -D dos set LILO default OS (default=dos in lilo.conf)

ldd find out shared library dependencies.

lsuf list opened files.

fuser filename show processes that using the file.

ifdown
ifup bring up/down a network interface (Redhat)

sysctl configure kernel parameters (Redhat).

socklist list opened socked.

shutdown [-r|h] now reboot / halt computer

nmap scan a host for opened ports.

crontab show or edit cron jobs.

sys-unconfig unconfigure system

chkconfig --list list services started at different run level.

kudzu probe for new hardware (Redhat).

rpm rpm -i INSTALL a package
rpm -e UNINSTALL a package
rpm -q QUERY a package
rpm -U UPDATE a package

man cmd | col -b >cmd.txt save a man page as a text file and remove control characters.

Useful Web Site

Useful website

<http://www.linux.org/>

<http://www.linuxdoc.org>

<http://linux.tucows.com/>

<http://www.sendmail.org>

<http://www.gnome.org>

<http://www.kde.org>

<http://www.xfree86.org/>

<http://www.samba.org>

<http://www.apache.org>

<http://www.linuxapps.com/>

<http://www.internet.com/sections/linux.html>