RED HAT ENTERPRISE LINUX 5, 6, AND 7
Common administrative commands

SYSTEM BASICS

TASK		RHEL
View subscription information	/etc/sysconfig/rhn/systemid	5
	/etc/sysconfig/rhn/systemid subscription-manager identity	6
	subscription-manager identity	7
Configure subscription	rhn_register subscription-manager [1]	5
	rhn_register rhnreg_ks subscription-manager	6
	subscription-manager [2] rhn_register [3]	7
View system profile	sosreport dmidecode hwbrowser	5
	sosreport dmidecode lstopo lscpu	6 7
View RHEL version information	/etc/redhat-release	5 6 7

BASIC CONFIGURATION

TASK		RHEL
Graphical configuration tools	system-config-*	5 6
	gnome-control-center	7
Configure network	system-config-network	5 6
	nmcli nmtui nm-connection-editor	7
Configure system language	system-config-language	5 6
	localectl	7
Configure time and date	system-config-date date	5 6
	timedatectl date	7
Synchronize time and date	ntpdate /etc/ntp.conf	5 6
	timedatectl /etc/chrony.conf ntpdate	7
Configure keyboard	system-config-keyboard	5 6
	localectl	7
Text-based configuration tools	system-config-*-tui	5 6 7
Configure printer	system-config-printer	5 6 7
Configure SSH	/etc/ssh/ssh_config /etc/ssh/sshd_config ~/.ssh/config ssh-keygen	5 6 7

1 Be aware of potential issues when using subscription-manager on Red Hat Enterprise Linux 5: https://access.redhat.com/solutions/129003.

2 Subscription-manager is used for Satellite 6, Satellite 5.6 with SAM and newer, and Red Hat's CDN.

3 RHN tools are deprecated on Red Hat Enterprise Linux 7. rhn_register should be used for Satellite server 5.6 and newer only. For details, see: Satellite 5.6 unable to register RHEL 7 client system due to rhn-setup package not included in Minimal installation (https://access.redhat.com/solutions/737373)

RESOURCE MANAGEMENT

TASK		RHEL
View system usage	top ps sar iostat netstat vmstat mpstat numastat	5
	top ps sar iostat netstat ss vmstat mpstat numastat tuna	6
	top ps sar iostat ss vmstat mpstat numastat tuna	7
View disk usage	df	5
	df iostat	6 7
Trace system calls	strace	5 6 7
Trace library calls	ltrace	5 6 7
Change process priority	nice renice	5 6 7
Change process run location	taskset	5 6 7
Kill a process	kill pkill killall	5 6 7

SOFTWARE MANAGEMENT

TASK		RHEL
Install software	yum install yum groupinstall	5 6
	yum install yum group install	7
View software info	yum info yum groupinfo	5 6
	yum info yum group info	7
Update software	yum update	5 6 7
Upgrade software	yum upgrade	5 6 7
Configure software repository	subscription-manager repos /etc/yum.repos.d/*.repo	5 6 7
Find file in package	rpm -qf filename yum provides filename-glob	5 6 7
View software version	rpm -q packagename	5 6 7
View installed software	rpm -qa yum list installed	5 6 7

USER MANAGEMENT

TASK		RHEL
Graphical user management	system-config-users	5 6 7
Create user account	useradd	5 6 7
Delete user account	userdel	5 6 7
View/change user account details	usermod /etc/passwd vipw id	5 6 7
Create user group	groupadd	5 6 7
Delete user group	groupdel	5 6 7
Change group details	groupmod /etc/group	5 6 7
Change user password	passwd	5 6 7
Change user permissions	usermod visudo	5 6 7
Change group permissions	groupmod visudo	5 6 7
Change password policy	chage	5 6 7
View user sessions	w	5 6 7

NETWORKING

TASK		RHEL
Configure firewall	iptables and ip6tables /etc/sysconfig/ip*tables	5
	iptables and ip6tables /etc/sysconfig/ip*tables system-config-firewall	6
	firewall-cmd firewall-config	7
Configure name resolution	/etc/hosts /etc/resolv.conf	5 6
	/etc/hosts /etc/resolv.conf nmcli con mod	7
Configure hostname	/etc/sysconfig/network	5 6
	hostnamectl /etc/hostname nmtui	7
View network interface info	ip addr ifconfig brctl	5 6
	ip addr nmcli dev show teamdctl brctl bridge	7
Configure network interface	/etc/sysconfig/network-scripts/ifcfg-*	5 6
	/etc/sysconfig/network-scripts/ifcfg-* nmcli con [add|mod|edit] nmtui nm-connection-editor	7
View ports/sockets	ss lsof netstat	5 6
	ss lsof	7
Configure routes	ip route add system-config-network /etc/sysconfig/route-iface	5 6
	ip route add nmcli nmtui nm-connection-editor /etc/sysconfig/route-iface	7
View routes	ip route	5 6 7

SECURITY AND IDENTITY

TASK		RHEL
Configure system security	/etc/selinux/config chcon restorecon semanage setsebool system-config-selinux	5 6 7
Report on system security	sealert	5 6 7
LDAP, SSSD, Kerberos	authconfig authconfig-tui authconfig-gtk	5 6 7
Network users	getent	5 6 7

JOBS AND SERVICES

TASK		RHEL
Configure logging	`/etc/syslog.conf`	5
	`/etc/rsyslog.conf`	6

	`/etc/rsyslog.conf`
	`/etc/rsyslog.d/*.conf`
	`/var/log/journal`
	`systemd-journald.service`
		7

List all services	`chkconfig --list` `ls /etc/init.d/`	5 6

	`systemctl -at service`
	`ls /etc/systemd/system/*.service`
	`ls /usr/lib/systemd/system/*.service`
		7

List running services	`service --status-all`	5 6
	`systemctl -t service --state=active`	7
Start/stop service	`service name start` `service name stop`	5 6
	`systemctl start name.service` `systemctl stop name.service`	7
Enable/disable service	`chkconfig name on` `chkconfig name off`	5 6
	`systemctl enable name.service` `systemctl disable name.service`	7
View service status	`service name status`	5 6
	`systemctl status name.service`	7
Check if service is enabled	`chkconfig name --list`	5 6
	`systemctl is-enabled name`	7
Create new service file or modify configuration	`chkconfig --add`	5 6
	`systemctl daemon-reload` `/etc/systemd/system/*.service`	7
View run level/target	`runlevel` `who -r`	5 6
	`systemctl get-default` `who -r`	7
Change run level/target	`/etc/inittab` `init run_level`	5 6
	`systemctl isolate name.target` `systemctl set-default`	7
View logs	`/var/log`	5 6
	`/var/log` `journalctl`	7

Configure system audit	add audit=1 to kernel cmdline
	`auditctl`
	`/etc/audit/auditd.conf`
	`/etc/audit/audit.rules`
	`authconfig`
	`/etc/pam.d/system-auth`
	`pam_tty_audit` kernel module
		5 6 7

View audit output	`aureport /var/log/faillog`	5 6 7

Schedule/batch tasks	`cron`
	`at`
	`batch`
		5 6 7

Find file by name	`locate`	5 6 7
Find file by characteristic	`find`	5 6 7

Create archive	`tar`
	`cpio`
	`zip`
		5 6 7

FILE SYSTEMS, VOLUMES, AND DISKS

TASK		RHEL
Default file system	`ext3`	5
	`ext4`	6
	`xfs`	7
Defragment disk space	copy data to new file system fsck (look for 'non-contiguous inodes')	5
	copy data to new file system fsck (look for 'non-contiguous inodes') `xfs_fsr`	6 7
Create/modify disk partitions	`fdisk` `parted`	5 6

	`fdisk`
	`gdisk`
	`parted`
	`ssm create`
		7

Format disk partition	`mkfs.filesystem_type (ext4, xfs)` `mkswap`	5 6

	`mkfs.filesystem_type (ext4, xfs)`
	`mkswap`
	`ssm create`
		7

Mount storage	`mount` `/etc/fstab`	5 6

	`mount`
	`/etc/fstab`
	`ssm mount`
		7

Create physical volume	`pvcreate`	5 6
	`pvcreate` `ssm create (if backend is lvm)`	7
Create volume group	`vgcreate`	5 6
	`vgcreate` `ssm create (if backend is lvm)`	7
Create logical volume	`lvcreate`	5 6
	`lvcreate` `ssm create (if backend is lvm)`	7

Enlarge volumes formatted with default file system	`vgextend`
	`lvextend`
	`resize2fs`
		5 6

	`vgextend`
	`lvextend`
	`xfs_growfs`
	`ssm resize`
		7

Shrink volumes formatted with default file system	`resize2fs`
	`lvreduce`
	`vgreduce`
		5 6

	XFS cannot currently be shrunk; copy desired data to a smaller file system.	7
Check/repair file system	`fsck`	5 6
	`fsck` `ssm check`	7
Configure NFS share	`/etc/exports` `service nfs reload`	5 6
	`/etc/exports` `systemctl reload nfs.service`	7
Mount and activate swap	`/etc/fstab` `swapon -a`	5 6 7
Configure static mounts	`/etc/fstab`	5 6 7
View free disk space	`df`	5 6 7
View NFS share	`showmount -e` `mount`	5 6 7

FILE SYSTEMS, VOLUMES, AND DISKS (CONT.)

TASK		RHEL

View logical volume info	`lvdisplay`
	`lvs`
	`vgdisplay`
	`vgs`
	`pvdisplay`
	`pvs`
		5 6 7

Configure on-demand auto-mounts	`/etc/auto.master.d/*.autofs` `/etc/auto.*`	5 6 7

Change file permissions	`chmod`
	`chown`
	`chgrp`
	`umask (future file creation)`
		5 6 7

Change file attributes	`chattr`	5 6 7
Change access control list	`setfacl`	5 6 7

KERNEL, BOOT, AND HARDWARE

TASK		RHEL
Single user/rescue mode	append **1** or s or **init=/bin/bash** to kernel cmdline	5 6
	append **rd.break** or **init=/bin/bash** to kernel cmdline	7
Shut down system	`shutdown`	5 6
Power off system	`poweroff`	5 6
	`poweroff` `systemctl poweroff`	7
Halt system	`halt`	5 6
	`halt` `systemctl halt`	7
Reboot system	`reboot`	5 6
	`reboot` `systemctl reboot`	7
Configure default run level/target	`/etc/inittab`	5 6
	`systemctl set-default`	7
Configure GRUB bootloader	`/boot/grub/grub.conf`	5 6

	`/etc/default/grub`
	`grub2-mkconfig`
	`grub-set-default`
		7

View hardware configured	`hwbrowser`	5
	`lshw (in EPEL)`	6 7
Configure kernel module	`modprobe`	5 6 7
Configure hardware device	`udev`	5 6 7
View kernel parameters	`sysctl -a` `cat /proc/cmdline`	5 6 7
Load kernel module	`modprobe`	5 6 7
Remove kernel module	`modprobe -r`	5 6 7
View kernel version	`rpm -q kernel` `uname -r`	5 6 7

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