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

[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)

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

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	

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
	shutdown systemctl shutdown	7
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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