

# RED HAT ENTERPRISE LINUX 5, 6, AND 7

## Common administrative commands

	TASK	RHEL5	RHEL6	RHEL7
SYSTEM BASICS	View subscription information	/etc/sysconfig/rhn/systemid	/etc/sysconfig/rhn/systemid subscription-manager identity	subscription-manager identity
	Configure subscription	rhn_register	rhn_register rhnreg_ks subscription-manager	subscription-manager <sup>1</sup> rhn_register <sup>2</sup>
	View system profile	sosreport dmidecode hwbrowser	sosreport dmidecode lshw	
	View RHEL version information	/etc/redhat-release		
	<sup>1</sup> subscription-manager is used for Satellite 6, Satellite 5.6 with SAM and newer, and Red Hat's CDN. <sup>2</sup> 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: <a href="#">Satellite 5.6 unable to register RHEL 7 client system due to rhn-setup package not included in Minimal Installation</a>			

	TASK	RHEL5	RHEL6	RHEL7
BASIC CONFIGURATION	Graphical configuration tools	system-config-*		gnome-control-center
	Configure network	system-config-network		nmcli nmtool nm-connection-editor
	Configure system language	system-config-language		localectl
	Configure time and date	system-config-date		timedatectl date
	Synchronize time and date	ntpd /etc/ntp.conf		timedatectl /etc/chrony.conf
	Configure keyboard	system-config-keyboard		localectl
	Text-based configuration tools	system-config-* -tui		
	Configure printer	system-config-printer		
	Configure samba	smbclient /etc/samba/smb.conf smbpasswd		
	Configure SSH	/etc/ssh/ssh_config /etc/ssh/sshd_config ~/.ssh/config ssh-keygen		

	TASK	RHEL5	RHEL6	RHEL7
JOBS AND SERVICES	Configure logging	/etc/syslog.conf	/etc/rsyslog.conf	/etc/rsyslog.conf /etc/rsyslog.d/*.conf /var/log/journal systemd-journald.service
	List all services	chkconfig --list ls /etc/init.d/		systemctl -at service ls /etc/systemd/system/*.service ls /usr/lib/systemd/system/*.service
	List running services	service --status-all		systemctl -t service --state=active
	Start/stop service	service <i>name</i> start service <i>name</i> stop		systemctl start <i>name.service</i> systemctl stop <i>name.service</i>
	Enable/disable service	chkconfig <i>name</i> on chkconfig <i>name</i> off		systemctl enable <i>name.service</i> systemctl disable <i>name.service</i>
	View service status	service <i>name</i> status		systemctl status <i>name.service</i>
	Check if service is enabled	chkconfig <i>name</i>		systemctl is-enabled <i>name</i>
	Create new service file or modify configuration	chkconfig --add		systemctl daemon-reload
	View run level/target	runlevel who -r		systemctl get-default who -r
	Change run level/target	/etc/inittab init run_level		systemctl isolate <i>name.target</i> systemctl set-default
	View logs	/var/log		/var/log journalctl
	Configure system audit	add <b>audit=1</b> to kernel cmdline auditctl /etc/audit/auditd.conf /etc/audit/audit.rules authconfig /etc/pam.d/system-auth pam_tty_audit kernel module		
	View audit output	aureport /var/log/faillog		
	Schedule tasks	cron at		
	Configure batch tasks	batch		
	Find file by name	locate		
	Find file by characteristic	find		
Create archive	tar cpio zip gzip bzip2			

	TASK	RHEL5	RHEL6	RHEL7
KERNEL, BOOT, AND HARDWARE	Single user/rescue mode	append 1 or s or init=/bin/bash to kernel cmdline		append rd.break or init=/bin/bash to kernel cmdline
	Shut down system	shutdown		systemctl shutdown
	Power off system	poweroff		systemctl poweroff
	Halt system	halt		systemctl halt
	Reboot system	reboot		systemctl reboot
	Configure default run level/target	/etc/inittab		systemctl set-default
	Configure GRUB bootloader	/boot/grub/grub.conf		/etc/default/grub grub2-mkconfig grub-set-default
	View hardware configured	hwbrowser	lshw	
	Configure kernel module	modprobe		
	Configure hardware device	udev		
	View kernel parameters	sysctl -a cat /proc/cmdline		
	Load kernel module	modprobe		
	Remove kernel module	modprobe -r		
	View kernel version	rpm -q kernel uname -r		

	TASK	RHEL5	RHEL6	RHEL7
SOFTWARE MANAGEMENT	Install software	yum install yum groupinstall	yum install yum group install	
	View software info	yum info yum groupinfo	yum info yum group info	
	Update software	yum update		
	Upgrade software	yum upgrade		
	Configure software repository	/etc/yum.repos.d/*.repo		
	Find file in package	rpm -qf filename		
	View software version	rpm -q packagename		
	View installed software	rpm -qa		

	TASK	RHEL5	RHEL6	RHEL7
SECURITY AND IDENTITY	Configure system security	/etc/selinux/config chcon restorecon semanage setsebool system-config-selinux		
	Report on system security	sealert		
	LDAP, SSSD, Kerberos	authconfig authconfig-tui authconfig-gtk		
	Network users	getent		

	TASK	RHEL5	RHEL6	RHEL7
FILE SYSTEMS, VOLUMES, AND DISKS	Default file system	ext3	ext4	xfs
	Defragment disk space	copy data to new file system fsck (look for 'non-contiguous inodes')	copy data to new file system fsck (look for 'non-contiguous inodes') xfs_fsr	
	Create/modify disk partitions	fdisk parted		fdisk gdisk parted ssm create
	Format disk partition	mkfs.filesystem_type (ext4, xfs) mkswap		mkfs.filesystem_type (ext4, xfs) mkswap ssm create
	Mount storage	mount /etc/fstab		mount /etc/fstab ssm mount
	Create physical volume	pvcreate		pvcreate ssm create (if backend is lvm)
	Create volume group	vgcreate		vgcreate ssm create (if backend is lvm)
	Create logical volume	lvcreate		lvcreate ssm create (if backend is lvm)
	Enlarge volumes formatted with default file system	vgextend lvextend resize2fs		vgextend lvextend xfs_growfs ssm resize
	Shrink volumes formatted with default file system	resize2fs lvreduce vgreduce		XFS cannot currently be shrunk; copy desired data to a smaller file system.
	Check/repair file system	fsck		fsck ssm check
	Configure NFS share	/etc/exports service nfs reload		/etc/exports systemctl reload nfs.service
	Mount and activate swap	/etc/fstab swapon -a		
	Automatically mount at boot	/etc/fstab		
	View free disk space	df		
	View logical volume info	lvs vgdisplay vgs pvdisplay pvs		
	View NFS share	showmount -e mount		
	Automatically mount after boot	/etc/auto.master.d/*.autofs /etc/auto.*		
	Change file permissions	chmod chown chgrp umask		
	Change access control list	setfacl		

	TASK	RHEL5	RHEL6	RHEL7
NETWORKING	Configure firewall	iptables and ip6tables /etc/sysconfig/ip*tables	iptables and ip6tables /etc/sysconfig/ip*tables system-config-firewall	firewall-cmd firewall-config
	Configure DHCP client	/etc/dhcpd.conf /etc/dhcp6c.conf	dhcpd /etc/dhcp/dhcpd.conf /etc/sysconfig/dhcpd	
	Configure name resolution	/etc/hosts /etc/resolv.conf		/etc/hosts /etc/resolv.conf nmcli con mod
	Configure hostname	/etc/sysconfig/network		hostnamectl /etc/hostname nmtui
	View network interface info	ip addr ifconfig brctl		ip addr nmcli dev show teamdctl brctl bridge
	Configure network interface	/etc/sysconfig/network-scripts/ifcfg-*		/etc/sysconfig/network-scripts/ifcfg- nmcli con [add mod edit] nmtui nm-connection-editor
	View ports/sockets	ss lsof netstat		ss lsof
	View routes	ip route		
	Configure routes	/etc/sysconfig/network system-config-network		

	TASK	RHEL5	RHEL6	RHEL7
RESOURCE MANAGEMENT	View system usage	top ps sar iostat netstat ss vmstat mpstat numastat	top ps sar iostat netstat ss vmstat mpstat numastat tuna	top ps sar iostat ss vmstat mpstat numastat tuna
	View disk usage	df	df iostat	
	Trace system calls	strace		
	Trace library calls	ltrace		
	Change process priority	nice renice		
	Change process run location	taskset		
	Kill a process	kill pkill killall		

