

RED HAT ENTERPRISE LINUX 5, 6, AND 7

Common administrative commands

SYSTEM BASICS

Task	RHEL5	RHEL6	RHEL7
View subscription information	/etc/sysconfig/rhn/systemid	/etc/sysconfig/rhn/systemid subscription-manager identity	subscription-manager identity
Configure subscription	rhn_register	rhn_register rhreg_ks subscription-manager	subscription-manager ¹ rhn_register ²
View system profile	sosreport dmesg hwbrowser	sosreport dmicodecode lshw	
View RHEL version information		/etc/redhat-release	

¹ subscription-manager is used for Satellite 6, Satellite 5.6 with SAM and newer, and Red Hat's CDN.

² 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 rhnsetup package not included in Minimal installation](#)

BASIC CONFIGURATION

Task	RHEL5	RHEL6	RHEL7
Graphical configuration tools	system-config-*	gnome-control-center	
Configure network	system-config-network	nmcli nmui nm-connection-editor	
Configure system language	system-config-language	localectl	
Configure time and date	system-config-date	timedatectl date	
Synchronize time and date	ntpdate /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/sshd_config /etc/ssh/sshd_config ~/.ssh/config ssh-keygen		

JOBs AND SERVICES

Task	RHEL5	RHEL6	RHEL7
Configure logging	/etc/syslog.conf	/etc/rsyslog.conf /etc/rsyslog.d/*.conf /etc/rsyslog.d/10-local systemd-journald.service	/etc/rsyslog.conf /etc/rsyslog.d/*.conf /etc/rsyslog.d/10-local 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 name start service name stop	systemctl start name.service systemctl stop name.service	
Enable/disable service	chkconfig name on chkconfig name off	systemctl enable name.service systemctl disable name.service	
View service status	service name status	systemctl status name.service	
Check if service is enabled	chkconfig name	systemctl is-enabled name	
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 name.target systemctl set-default	
View logs	/var/log	/var/log journalctl	
	add audit=1 to kernel cmdline /etc/audit/auditd.conf /etc/audit/audit.rules autconfig /etc/pam.d/system-auth pam_tty_audit kernel module		
Configure system audit			
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		

KERNEL, BOOT, AND HARDWARE

Task	RHEL5	RHEL6	RHEL7
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	
Shutdown 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		

SOFTWARE MANAGEMENT

Task	RHEL5	RHEL6	RHEL7
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 package name		
View installed software	rpm -qa		

Task	RHEL5	RHEL6	RHEL7
Graphical user management		system-config-users	
Create user account		useradd	
Delete user account		userdel	
Change user account details		usermod	
View user account details		usermod /etc/passwd	
Create user group		groupadd	
Delete user group		groupdel	
Change group details		groupmod	
Change user password		passwd username	
Change user permissions		usermod /etc/sudoers	
Change group permissions		groupmod /etc/sudoers	
Change password policy		chage	
Encrypted password location		/etc/shadow	
View/end user sessions			

Task	RHEL5	RHEL6	RHEL7
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	fdisk gdisk parted ssm create
Create/modify disk partitions		fdisk parted	
Format disk partition		mkfs. mkfs.xfs mkswap	mkfs. mkfs.xfs mkswap
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 resize2fs
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 nefs reload	/etc/exports systemctl reload nfs.service
Mount and activate swap		/etc/fstab swapon -a	/etc/fstab
Automatically mount at boot			
View free disk space		df	
View logical volume info		lvdisplay lvs vgdisplay vgs	lvdisplay lvs vgdisplay vgs
View NFS share			showmount -e mount
Automatically mount after boot		/etc/auto.master.d/*.auto /etc/auto.*	
Change file permissions		chmod chown chgrp unskip	
Change access control list		setfacl	

Task	RHEL5	RHEL6	RHEL7
Configure firewall	iptables and ip6tables /etc/sysconfig/iptables	iptables and ip6tables /etc/sysconfig/iptables system-config-firewall	firewall-cmd firewall-config
Configure DHCP client	/etc/dhcpd.conf /etc/dhcp6c.conf		dhclient
Configure name resolution		/etc/hosts /etc/resolv.conf	/etc/hosts /etc/resolv.conf dnsmasq mod
Configure hostname		/etc/sysconfig/network	hostnamectl /etc/hostname ctrl
View network interface info		ip addr ifconfig brctl	ip addr ifconfig brctl bridge
Configure network interface		/etc/sysconfig/network-scripts/ifcfg-*	/etc/sysconfig/network-scripts/ifcfg-* mac1 com [add mod edit] mtu nmui 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
View system usage	top ps sar iostat netstat vmstat mpstat numastat	top ps sar iostat netstat vmstat mpstat numastat	top ps sar iostat ss vmstat mpstat numastat
View disk usage	df		df iostat
Trace system calls			strace
Trace library calls			
Change process priority		nice renice	
Change process run location			taskset
Kill a process		kill pkkill killall	