

Module Title : EX200 - Red Hat Certified System Administrator (RHCSA) Exam
Duration : 2.5 hours

Objective

In preparation

Study points for the exam

Red Hat reserves the right to add, modify, and remove objectives. Such changes will be made public in advance through revisions to this document.

RHCSA exam candidates should be able to accomplish the tasks below without assistance. These have been grouped into several categories.

Understand and use essential tools

- Access a shell prompt and issue commands with correct syntax
- Use input-output redirection (>, >>, |, 2>, etc.)
- Use grep and regular expressions to analyze text
- Access remote systems using ssh
- Log in and switch users in multiuser targets
- Archive, compress, unpack, and uncompress files using tar, star, gzip, and bzip2
- Create and edit text files
- Create, delete, copy, and move files and directories
- Create hard and soft links
- List, set, and change standard ugo/rwx permissions
- Locate, read, and use system documentation including man, info, and files in /usr/share/doc

Note: Red Hat may use applications during the exam that are not included in Red Hat Enterprise Linux for the purpose of evaluating candidate's abilities to meet this objective.

Operate running systems

- Boot, reboot, and shut down a system normally
- Boot systems into different targets manually
- Interrupt the boot process in order to gain access to a system
- Identify CPU/memory intensive processes, adjust process priority with renice, and kill processes
- Locate and interpret system log files and journals
- Access a virtual machine's console
- Start and stop virtual machines
- Start, stop, and check the status of network services
- Securely transfer files between systems

Configure local storage

- List, create, delete partitions on MBR and GPT disks
- Create and remove physical volumes, assign physical volumes to volume groups, and create and delete logical volumes
- Configure systems to mount file systems at boot by Universally Unique ID (UUID) or label
- Add new partitions and logical volumes, and swap to a system non-destructively

Create and configure file systems

- Create, mount, unmount, and use vfat, ext4, and xfs file systems
- Mount and unmount CIFS and NFS network file systems
- Extend existing logical volumes
- Create and configure set-GID directories for collaboration
- Create and manage Access Control Lists (ACLs)
- Diagnose and correct file permission problems

Deploy, configure, and maintain systems

- Configure networking and hostname resolution statically or dynamically
- Schedule tasks using at and cron
- Start and stop services and configure services to start automatically at boot
- Configure systems to boot into a specific target automatically
- Install Red Hat Enterprise Linux automatically using Kickstart
- Configure a physical machine to host virtual guests
- Install Red Hat Enterprise Linux systems as virtual guests
- Configure systems to launch virtual machines at boot
- Configure network services to start automatically at boot
- Configure a system to use time services
- Install and update software packages from Red Hat Network, a remote repository, or from the local file system
- Update the kernel package appropriately to ensure a bootable system
- Modify the system bootloader

Manage users and groups

- Create, delete, and modify local user accounts
- Change passwords and adjust password aging for local user accounts
- Create, delete, and modify local groups and group memberships
- Configure a system to use an existing authentication service for user and group information

Manage security

- Configure firewall settings using `firewall-config`, `firewall-cmd`, or `iptables`
- Configure key-based authentication for SSH
- Set enforcing and permissive modes for SELinux
- List and identify SELinux file and process context
- Restore default file contexts
- Use boolean settings to modify system SELinux settings
- Diagnose and address routine SELinux policy violations

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What you need to know

Red Hat encourages all candidates for RHCSA to consider taking one or more of its official training courses to help prepare. Attendance in these classes is not required, and one can choose to take just an exam. Many successful candidates who have come to class already possessing substantial skills and knowledge report that the class made a positive difference for them.

To help you determine the best courses to take, Red Hat provides an [online skills assessment](#).

While attending Red Hat's classes can be an important part of one's preparation, attending class does not guarantee success on the exam. Previous experience, practice, and native aptitude are also important determinants of success. Many books and other resources on system administration for Red Hat's products are available. Red Hat does not endorse any as preparation guides for any exams. Nevertheless, candidates may find additional reading deepens understanding and can prove helpful.

Exam format

The RHCSA exam is a performance-based evaluation of Red Hat Enterprise Linux system administration skills and knowledge. Candidates perform a number of routine system administration tasks and are evaluated on whether they have met specific objective criteria. Performance-based testing means that candidates must perform tasks similar to what they must perform on the job.

The RHCSA exam is a hands-on, practical exam that lasts 2.5 hours. Internet access is not provided during the exam. Outside materials are not permitted. Documentation that ships with Red Hat Enterprise Linux is available during the exam. Red Hat reserves the right to make changes to format, including timing and the policies above. Such changes will be made public in advance through revisions to this document.

Scores and reporting

Official scores for exams come exclusively from Red Hat Certification Central. Red Hat does not authorize examiners or training partners to report results to candidates directly. Scores on the exam are usually reported within 3 U.S. business days.

Exam results are reported as section scores. Red Hat does not report performance on individual items, nor will it provide additional information upon request.

Audience

- Experienced Red Hat Enterprise Linux system administrators seeking validation of their skills
- Students who have attended Red Hat System Administration I and II and are on the path to earn RHCSA certification
- Experienced Linux system administrators who require a certification either by their organization or based on a mandate (DOD 8570 directive)
- IT professionals who are on the path to earn RHCE certification
- An RHCE who is noncurrent or who is about to become noncurrent and wants to recertify as an RHCE

Prerequisites

Candidates for this exam should:

- Have either taken the Red Hat System Administration I (RH124) and II (RH134) courses or else the RHCSA Rapid Track Course (RH199) or have comparable work experience as a system administrator on Red Hat Enterprise Linux
- Review the Red Hat Certified System Administrator exam (EX200) objectives

Recommended Training:

In preparation to earn an RHCSA, Red Hat recommends:

Audiences	Recommended Action
Windows system administrators	Red Hat System Administration I (RH124)
	Red Hat System Administration II with RHCSA Exam (RH135)
Linux system administrators (1-3 yrs of experience) Unix system administrators	RHCSA Rapid Track Course with Exam (RH200)