

**Course Description:** Red Hat Linux Networking and Security Administration (RH253) arms students with in-depth knowledge needed for the most essential Red Hat Enterprise Linux network services and access control mechanisms. This course covers core system administration and knowledge to use Linux as part of more complex services infrastructure. At the end of the course, participants will be able to set up a Red Hat Enterprise Linux server and configure its network services and security. Through the lectures and hands-on labs, this course exposes students to the competencies tested by the Red Hat Certified Engineer (RHCE) exam, which is given on the last day.

**Who Should Attend:** This course is for Linux system administrators who install, configure, and/or maintain networked services such as DNS, DHCP, NFS, and Apache. It is also for Linux system administrators who want to harden the security of their machines or networked services as well as handle additional security issues.

**Prerequisites:** Students should have taken Red Hat Enterprise Linux System Administration (RH133), be a Red Hat Certified Technician (RHCT) certification holder, or have equivalent experience. Students should also have experience with LAN/WAN fundamentals, and Internetworking with TCP/IP.

**Benefits of Attendance:** Upon completion of this course, students will be able to:

- Setup a Red Hat Enterprise Linux server.
- Configure common network services and security at a basic level.

### Course Outline:

#### Unit 1: System Performance and Security

Identify how concepts and well formed policy map to configuration and accountability in networking and security administration.

#### Unit 2: System Service Access Controls

Implement secure access to system and network services using host-based access, SELinux, and system services management.

#### Unit 3: Securing Data

Secure data using fundamental encryption protocols, Public Key Infrastructure, and Digital Certificates.

Configure and utilize encrypted remote system administration tools.

#### Unit 4: Network Resource Access Controls

Secure access to systems and services using the NetFilter kernel-level firewall.

#### Unit 5: Organizing Networked Systems

Understand and implement organized networked systems using the DNS and DHCP services.

#### Unit 6: Network File Sharing Services

Configure, control and secure access to FTP, NFS, and SMB/CIFS (Samba).

#### Unit 7: Web Services

Configure, implement and secure access to the Apache Web Server and Squid Proxy Cache.

#### Unit 8: Electronic Mail Services

Configure, implement and secure access to the Sendmail and Postfix SMTP servers.

#### Unit 9: Account Management

Understand account management using Name Switch Service and Pluggable Authentication Modules.