RED HAT ENTERPRISE SECURITY: NETWORK SERVICES

SECURITY FOR THE MOST COMMONLY DEPLOYED SERVICES

VALUE OF TRAINING

Your team is your most valuable asset. By investing in the expertise of your staff, you can ensure optimal system performance, enhance productivity, and mitigate risk. When you include hands-on training from Red Hat as part of your deployment and maintenance strategy, you can maximize the value of your Red Hat® technology investment and reach new productivity heights.

COURSE OVERVIEW

Red Hat Enterprise Security: Network Services (RHS333) is an intensive course that equips senior system administrators and security professionals with the skills and knowledge required to harden systems against both internal and external attacks. This class advances beyond the essential security coverage offered in the RHCE curriculum and delves more deeply into the security features, capabilities, and how to properly respond to sophisticated security threats aimed at enterprise systems. Students will also cover an in-depth analysis of the ever-changing threat models as they pertain to Red Hat Enterprise Linux®. At the end of the four-day course, students should be able to design and implement an adequate security profile for critical enterprise systems.

Note: A current RHCE certification is required to take the corresponding certification exam, Red Hat Enterprise Security: Network Services Expertise Exam (EX333).

AUDIENCE

- Experienced Linux system administrators responsible for the overall security of their systems and networked services
- RHCEs interested in earning Red Hat Certificates of Expertise, Red Hat Certified Security Specialist (RHCSS), or a Red Hat Certified Architect (RHCA) certification

FORMAT	LENGTH	PRICE*
Classroom with exam** RHS334	5 days	$3,500 12 training units
Classroom*** RHS333	4 days	$3,200 11 training units
Virtual*** RHS333VT	5 days	$3,200 11 training units
Exam** EX333	4 hours	$600 2 training units
Team on-sites	Contact a training specialist for a quote at 866-626-2994.	

* Price subject to change.
** You must be an RHCE to qualify for the exam.
*** Course does not include exam. Exam sold separately.

PREREQUISITE

- Attendees should already know the essential elements of how to configure the services covered, as this course will be focusing on more advanced topics
- Red Hat Certified Engineer (RHCE) certification or equivalent experience
- For candidates that have not earned their RHCE, confirmation of the correct skill set knowledge can be obtained by passing the online skills assessment at **redhat.com/training/skills_assessment/**

COURSE DETAILS

The threat model and protection methods

- Internet threat model and the attacker's plan
- System security and service availability
- An overview of protection mechanisms

Basic service security

- SELinux
- Host-based access control
- Firewalls using Netfilter and iptables
- TCP wrappers
- xinetd and service limits

Cryptography

- Overview of cryptographic techniques
- Management of SSL certificates
- Using GnuPG

Logging and NTP

- Time synchronization with NTP
- Logging: syslog and its weaknesses
- Protecting log servers

BIND and DNS security

- BIND vulnerabilities
- DNS security: attacks on DNS
- Access control lists
- Transaction signatures
- Restricting zone transfers and recursive queries
- DNS topologies
- Bogus servers and black holes
- Views
- Monitoring and logging
- Dynamic DNS security

RED HAT CERTIFICATES OF EXPERTISE™

An RHCE that passes the performance-based Red Hat Enterprise Security: Network Services Expertise Exam (EX333) will have earned a Certificate of Expertise. This Certificate of Expertise count toward earning a Red Hat Certified Security Specialist (RHCSS) and a Red Hat Certified Architect (RHCA) certification.

"Lecture and presentation materials were very well put together and the class flowed well."

- Kevin Oman
Systems Administrator
GTECH Corporation

Network authentication: RPC, NIS, and Kerberos

- Vulnerabilities
- Network-managed users and account management
- RPC and NIS security issues
- Improving NIS security
- Using Kerberos authentication
- Debugging Kerberized services
- Kerberos cross-realm trust
- Kerberos encryption

Network File System

- Overview of NFS versions 2, 3, and 4
- Security in NFS versions 2 and 3
- Improvements in security in NFS4
- Troubleshooting NFS4
- Client-side mount options

OpenSSH

- Vulnerabilities
- Server configuration and the SSH protocols
- Authentication and access control
- Client-side security
- Protecting private keys
- Port-forwarding and X11-forwarding issues

Electronic mail with Sendmail

- Vulnerabilities
- Server topologies
- Email encryption
- Access control and STARTTLS
- Anti-spam mechanisms

Postfix

- Vulnerabilities
- Security and Postfix design
- Configuring SASL/TLS

FTP

- Vulnerabilities
- The FTP protocol and FTP servers
- Logging
- Anonymous FTP
- Access control

Apache security

- Vulnerabilities
- Access control
- Authentication: files, passwords, Kerberos
- Security implications of common configuration options
- CGI security
- Server side includes
- suEXEC

Intrusion detection and recovery

- Intrusion risks
- Security policy
- Detecting possible intrusions
- Monitoring network traffic and open ports
- Detecting modified files
- Investigating and verifying detected intrusions
- Recovering from, reporting, and documenting intrusions

WAYS TO TRAIN

Whether you need to train a team of IT professionals or just yourself, Red Hat offers a variety of learning styles, delivery methods, certifications, savings programs, and customized solutions to maximize return on your Red Hat Enterprise investment.

- **Classroom training** – Red Hat offers a robust six-month schedule in more than 40 locations across North America.
- **Virtual training** – Live, instructor-led online training allows for students to maintain a partial work schedule while achieving cost savings.
- **On-site training** – Whether at your offices or hosted in a virtual environment, team training is a proven way to maximize performance and savings.

ABOUT RED HAT TRAINING

Red Hat Training delivers more than 30 Red Hat Enterprise Linux and JBoss® Enterprise Middleware courses and exams. Our award-winning courses are taught by certified instructors and include hands-on labs and performance-based testing. This means your team acquires real-world skills that IT professionals need to manage successful open source infrastructures.

Red Hat is leading the pack with its training program. For the past five years, IDC has consistently ranked Red Hat as a leader in training and certification in its competitive analysis, IDC MarketScape: Worldwide IT Education and Training Vendor Analysis. This third-party study assessed OEMs who offer training and ranked them on strategy and vision.

READY TO TRAIN?

Contact a training specialist

Red Hat training is a critical strategy that helps companies realize the full potential of their IT teams and Red Hat enterprise technology. Contact a member of our sales team or a Red Hat training specialist for assistance designing a training path that is right for your needs.

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