RED HAT ENTERPRISE SELINUX POLICY ADMINISTRATION

SKILLS REQUIRED FOR SELINUX POLICY WRITING

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

Security-enhanced Linux (SELinux) is a powerful, kernel-level security layer that provides fine-grained control over which users and processes may access what resources and execute which programs on a system. Red Hat Enterprise SELinux Policy Administration (RHS429) introduces senior system administrators, security administrators, and application programmers to SELinux policy writing. Students will learn how SELinux works and how to manage, write, compile, and debug a SELinux policy. This class culminates in a major project to analyze, determine the security needs of design, and implement a set of net new policies for a service previously unprotected by SELinux.

Note: A current RHCE certification is required to take the corresponding certification exam, Red Hat Enterprise SELinux Policy Administration Expertise Exam (EX429).

AUDIENCE

Experienced Linux system administrators responsible for mandatory access control-based (MAC) security, or who want to harden their existing Linux system or networked services security an RHCEs interested in earning a Red Hat Certificate of Expertise or a Red Hat Certified Security Specialist (RHCSS) certification

PREREQUISITE

- Red Hat Certified Engineer (RHCE) certification or equivalent experience
- For candidates that have not earned their RHCE, confirm-ation of the correct skill set knowledge can be obtained by passing the online skills assessment at **redhat.com/training/skills_assessment/**

FORMAT	LENGTH	PRICE*
Classroom with exam** RHS430	5 days	$3,500 12 training units
Classroom*** RHS429	4 days	$3,200 11 training units
Exam** EX429	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.

COURSE DETAILS

INTRODUCTION TO SELINUX

Discretionary access control versus mandatory access control

- SELinux history and architecture overview
- Elements of the SELinux security model: user identity and role; domain and type; sensitivity and categories; security context
- SELinux policy and Red Hat targeted policy
- Configuring policy with booleans
- Archiving
- Setting and displaying extended attributes

Using SELinux

- Controlling SELinux
- File contexts
- Relabeling files and file systems
- Mount options

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The Red Hat targeted policy

- Identifying and toggling protected services
- Apache security contexts and configuration booleans
- Name service contexts and configuration booleans
- NIS client contexts
- Other services
- File context for special directory trees
- Troubleshooting and avc denial messages
- SE troubleshooting and logging

Introduction to policies

- Policy overview and organization
- Compiling and loading the monolithic policy and policy modules
- Policy type enforcement module syntax
- Object classes
- Domain transition

Policy utilities

- Tools available for manipulating and analyzing policies: apol, seaudit and seaudit_report, checkpolicy, sepcut, sesearch, sestatus, audit2allow and audit2why, sealert, avcstat, seinfo, semanage and semodule, man pages

User and role security

- Role-based access control
- Multi-category security
- Defining a security administrator
- Multi-level security
- The strict policy
- User identification and declaration
- Role identification and declaration
- Roles in use in transitions
- Role dominance

Anatomy of a policy

- Policy macros
- Type attributes and aliases
- Type transitions
- When and how do files get labeled
- restorecond
- Customizable types

Manipulating policies

- Installing and compiling policies
- The policy language
- Access vector
- SELinux logs
- Security identifiers - SIDs
- File system labeling behavior
- Context on network objects
- Creating and using new booleans
- Manipulating policy by example
- Macros
- Enableaudit

Project

- Best practices
- Create file contexts, types and type aliases
- Edit and create network contexts
- Edit and create domains

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.

- **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 it's 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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