

---

## Red Hat Security: Linux in Physical, Virtual, and Cloud

**Duration: 4 Days**    **Course Code: RH415**    **Delivery Method: Company Event**

---

### Overview:

Manage security of Red Hat Enterprise Linux systems deployed in bare-metal, virtual, and cloud environments

Red Hat Security: Linux in Physical, Virtual, and Cloud (RH415) is designed for security administrators and system administrators who need to manage the secure operation of servers running Red Hat® Enterprise Linux®, whether deployed on physical hardware, as virtual machines, or as cloud instances.

This course is based on Red Hat Enterprise Linux 7.5, Red Hat Satellite 6.3, Red Hat Ansible® Engine 2.5, Red Hat Ansible Tower 3.2, and Red Hat Insights.

Maintaining security of computing systems is a process of managing risk through the implementation of processes and standards backed by technologies and tools. In this course, you will learn about resources that can be used to help you implement and comply with your security requirements.

---

### Target Audience:

System administrators, IT security administrators, IT security engineers, and other professionals responsible for designing, implementing, maintaining, and managing the security of Red Hat Enterprise Linux systems and ensuring their compliance with the organization's security policies.

---

### Objectives:

- This course is intended to develop the skills needed to reduce security risk and to implement, manage, and remediate compliance and security issues in an efficient way. The tools and techniques can be used to ensure that systems are configured and deployed in a way that meets security and compliance needs, that they continue to meet those requirements, and that all existing systems can be audited and remediations and changes consistently applied as those requirements are revised. This flexibility may help the business to efficiently reduce risk of security breaches, which have a high cost in business disruption, brand erosion, loss of customer and shareholder trust, and financial costs for post-incident remediation. In addition, the organization may be able to use the tools in this course to help demonstrate that compliance requirements set by customers, auditors, or other stakeholders have been met.
  - As a result of attending this course, you should be able to use security technologies included in Red Hat Enterprise Linux to manage security risk and help meet compliance requirements.
  - After completing this course you should be able to demonstrate these skills:
    - Analyze and remediate system compliance using OpenSCAP and SCAP Workbench, employing and customizing baseline policy content provided with Red Hat Enterprise Linux.
    - Monitor security-relevant activity on your systems with the kernel's audit infrastructure.
    - Explain and implement advanced SELinux techniques to restrict access by users, processes, and virtual machines.
  - Confirm the integrity of files and their permissions with AIDE.
  - Prevent unauthorized USB devices from being used with USBGuard.
  - Protect data at rest but provide secure automatic decryption at boot using NBDE.
  - Proactively identify risks and misconfigurations of systems and remediate them with Red Hat Insights.
  - Analyze and remediate compliance at scale with OpenSCAP, Red Hat Insights, Red Hat Satellite, and Red Hat Ansible Tower.
-

## Prerequisites:

### Attendees should meet the following prerequisites:

- Be a Red Hat Certified Engineer RHCE® or demonstrate equivalent Red Hat Enterprise Linux knowledge and experience

## Testing and Certification

This course will help you prepare for the Red Hat Certified Specialist in Security: Linux exam (EX415). Alternately you could attend the RH416 that also includes the EX415 exam.

## Follow-on-Courses:

This course is recommended for those interested in learning more about Red Hat Satellite or for those who want to use DevOps practices to ensure security.

- DO407 - Cloud Automation with Ansible
- DO409 - Automation with Ansible II: Ansible Tower
- RH403 - System Management with Red Hat Satellite 6

## Content:

### Manage security and risk

- Define strategies to manage security on Red Hat Enterprise Linux servers.

### Automate configuration and remediation with Ansible

- Remediate configuration and security issues with Ansible Playbooks.

### Protect data with LUKS and NBDE

- Encrypt data on storage devices with LUKS and use NBDE to manage automatic decryption when servers are booted.

### Restrict USB device access

- Protect system from rogue USB device access with USBGuard.

### Control authentication with PAM

- Manage authentication, authorization, session settings, and password controls by configuring pluggable authentication modules (PAMs).

### Record system events with audit

- Record and inspect system events relevant to security, using the Linux kernel's audit subsystem and supporting tools.

### Monitor file system changes

- Detect and analyze changes to a server's file systems and their contents using AIDE.

### Mitigate risk with SELinux

- Improve security and confinement between processes by using SELinux and advanced SELinux techniques and analyses.

### Manage compliance with OpenSCAP

- Evaluate and remediate a server's compliance with security policies by using OpenSCAP.

### Automate compliance with Red Hat Satellite

- Automate and scale your ability to perform OpenSCAP checks and remediate compliance issues using Red Hat Satellite.

### Analyze and remediate issues with Red Hat Insights

- Identify, detect, and correct common issues and security vulnerabilities with Red Hat Enterprise Linux systems by using Red Hat Insights.

### Perform a comprehensive review

- Review the content covered in this course by completing hands-on review exercises.

## Additional Information:

### Red Hat Learning Subscriptions:

The Red Hat Learning Subscription is an exclusive program that provides users with 12-months access to all Red Hat Online Learning and video classroom courses. All subscribers will receive unlimited access to online learning content, up to 400 hours of hands-on lab time and more than 300 recorded instructor videos.

There are two versions available: Basic and Standard. These are also available in an Enterprise variant for large companies. The Standard is the most extensive subscription and offers access to Red Hat exams as an extra.

For more information please see LS120 and LS220 below

[https://www.globalknowledge.com/en-GB/Products/Red\\_Hat/LS120](https://www.globalknowledge.com/en-GB/Products/Red_Hat/LS120)

[https://www.globalknowledge.com/en-GB/Courses/Red\\_Hat/Operating\\_Systems/LS220](https://www.globalknowledge.com/en-GB/Courses/Red_Hat/Operating_Systems/LS220)

## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

[info@globalknowledge.co.uk](mailto:info@globalknowledge.co.uk)

[www.globalknowledge.com/en-gb/](http://www.globalknowledge.com/en-gb/)

Global Knowledge, Mulberry Business Park, Fishponds Road, Wokingham Berkshire RG41 2GY UK