Red Hat Performance Tuning: Linux in Physical, Virtual, and Cloud with Exam (EX442) (RH443)

ID RH443   **Price** 4,057.— € (excl. tax)   **Duration** 4 days

Course Overview

Red Hat Performance Tuning: Linux in Physical, Virtual, and Cloud with exam (RH443) teaches and validates skills related to the methodology of performance tuning for senior Linux® system administrators. This offering discusses system architecture with an emphasis on understanding its implications on system performance, performance adjustments, open source benchmarking utilities, networking performance, and tuning configurations for specific server use cases and workloads.

This course is based on Red Hat® Enterprise Linux 8.

Note on the exam:

The subscription duration of 365 days starts upon order submission. Cancelation of individual exam sessions is not allowed Exam session fees are nonrefundable. Non-Cancelable components: No part of any Bundles that includes both non-cancelable and cancelable components may be canceled.

Who should attend

Senior Linux system administrators responsible for maximizing resource utilization through performance tuning

Prerequisites

Become a Red Hat Certified Engineer (RHCE®), or demonstrate equivalent experience

Course Objectives

Impact on the organization

This course is intended to develop the skills needed to improve infrastructure performance, increase system utilization, reduce downtime, and improve responsiveness to system failures.

Red Hat has created this course in a way intended to benefit our customers, but each company and infrastructure is unique, and actual results or benefits may vary.

Impact on the individual

As a result of attending this course, you should be able to obtain, analyze, and interpret system performance metrics, then use these metrics to help increase cost effectiveness, maximize application performance, and make better decisions about investment in hardware or cloud resources.

Course Content

- Analyze and tune for resource-specific scenarios
- Applying tuning profiles with the tuned tool
- Tune in virtual environments (hosts and guests)
- Trace and profile system events and activities
- Tune resource limits and utilization using systemd-integrated cgroups
- Gather performance metrics and benchmarking data

Detailed Course Outline

Introduce performance tuning

Describe performance tuning concepts and goals.

Select performance monitoring tools

Evaluate the large selection of performance monitoring tools that are included with Red Hat Enterprise Linux.

View hardware resources

View and interpret hardware resource listings.

Configure kernel tunables and tuned profiles

Configure the operating system to tune for different workload requirements.

Manage resource limits with control groups

Manage resource contention and set limits for resource use on services, applications, and users using cgroup configuration.

Analyze performance using system tracing tools

Diagnose system and application behaviors using a variety of resource-specific tracing tools.

Tune CPU utilization

Manage CPU resource sharing and scheduling to control utilization.

Tune memory utilization

Manage settings for efficient memory utilization for different types of workloads.

Tune storage device I/O

Manage settings for efficient disk utilization in various use cases.

Tune file system utilization

Manage application efficiency for file system utilization.

Tune network utilization

Manage application efficiency for network utilization.

Tune in virtualization environments

Distinguish the requirements for tuning in virtualized environments.

Perform comprehensive review

Demonstrate skills learned in this course by observing system performance using the appropriate tools, evaluating system metrics, and configuring settings to improve performance.

About Fast Lane

Fast Lane is a global, award-winning specialist in technology and business training as well as consulting services for digital transformation. As the only global partner of the three cloud hyperscalers- Microsoft, AWS and Google- and partner of 30 other leading IT vendors, Fast Lane offers qualification solutions and professional services that can be scaled as needed. More than 4,000 experienced Fast Lane professionals train and advise customers in organizations of all sizes in 90 countries worldwide in the areas of cloud, artificial intelligence, cyber security, software development, wireless and mobility, modern workplace, as well as management and leadership skills, IT and project management.

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