

## Red Hat Performance Tuning: Linux in Physical, Virtual, and Cloud

**Duration: 4 Days**    **Course Code: RH442**

### Overview:

Red Hat® Enterprise Performance Tuning is designed to teach senior Linux® system administrators the methodology of performance tuning for Red Hat Enterprise Linux. This course discusses system architecture with an emphasis on understanding the implications of system architecture on system performance, methods for testing the effects of performance adjustments, open source benchmarking utilities, methods for analyzing system and networking performance, and tuning configurations for specific application loads. A Red Hat Certified Engineer (RHCE®) who successfully completes this course is prepared to take the Red Hat Enterprise Performance Tuning Expertise Exam (EX442).

### Target Audience:

Experienced Linux system administrators responsible for maximizing resource utilization through performance tuning and an RHCE interested in earning a Red Hat Certification of Expertise, or a Red Hat Certified Datacenter Specialist (RHCDS) or Red Hat Certified Architect (RHCA) credential.

### Objectives:

- Tuning for use-case scenarios (for example, HPC, large memory, database, and file server)
- Tuning memory and caches
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- Tuning CPU and memory utilization using cgroups
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- Tuning for power consumption
- Gathering performance metrics and other data for tuning purposes
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- Tuning virtual machines (host and guest)
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### Prerequisites:

- RHCE certification or equivalent experience

### Testing and Certification

- Red Hat Enterprise System Monitoring and Performance Tuning Expertise Exam (EX442) Hands-on, performance-based, 4-hour exam.
- This course prepares you for these credentials:
- Certificates of Expertise
- Red Hat Certified Architect — RHCA

### Follow-on-Courses:

- RHS429, Red Hat Enterprise SELinux Policy Administration

## Content:

### Introduction to performance tuning

- Understand the basic principles of performance tuning and analysis.

### Collecting, graphing, and interpreting data

- Gain proficiency in using basic analysis tools and in evaluating data.

### General tuning

- Learn basic tuning theory and mechanisms used to tune the system.

### Hardware profiling

- Understand and analyze hardware.

### Software profiling

- Analyze CPU and memory performance of applications.

### Mail server tuning

- Learn about basic storage tuning using an email server as an example.

### Large memory workload tuning

- Understand memory management and tuning.

### HPC workload tuning

- Understand tuning for CPU-bound applications.

### File server tuning

- Understand storage and network tuning in the context of a file server application.

### Database server tuning

- Tune memory and network performance using a database application as an example.

### Power usage tuning

- Tune systems with power consumption in mind.

### Virtualization tuning

- Tune 'host' and 'guest' for efficient virtualization.

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## Further Information:

For More information, or to book your course, please call us on 00 971 4 446 4987

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