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## Red Hat Enterprise Performance Tuning with Expertise Exam (EX442)

**Duration: 5 Days**    **Course Code: RH443**    **Delivery Method: Company Event**

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### 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. This course includes and prepares a Red Hat Certified Engineer (RHCE®) for the Red Hat Enterprise Directory Services and Authentication Expertise Exam (EX423).

### Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

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### Target Audience:

Experienced Linux system administrators responsible for maximizing resource utilization through performance tuning  
An RHCE interested in earning a Red Hat Certification of Expertise or a Red Hat Certified Architect (RHCA) credential

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### Objectives:

- Tuning for use-case scenarios (for example, HPC, large memory, database, file server, and so on)
  - Tuning for power consumption
  - Tuning virtual machines (host and guest)
  - Tuning memory and caches
  - Tuning CPU and memory utilization using cgroups
  - Gathering performance metrics and other data for tuning purposes
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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:
    - Red Hat Certified Architect — RHCA
    - Certificates of Expertise
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### Follow-on-Courses:

- RHS429, Red Hat Enterprise SELinux Policy Administration
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## 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 Head Office 01189 123456 / Northern Office 0113 242 5931

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