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**Learning Style: Virtual Classroom**

**Technology: Red Hat**

**Difficulty: Advanced**

**Course Duration: 5 Days**

## **Red Hat Performance Tuning: Linux in Physical, Virtual, and Cloud (RH442VT)**

### **About this course:**

What is Red Hat? Red Hat, Inc. is an American multinational software company providing open-source software products to the enterprise community. Founded in 1993, Red Hat has its corporate headquarters in Raleigh, North Carolina, with satellite offices worldwide.

This course discusses system architecture with emphasis on:

- Understanding the implications on system performance
- Methods for testing the effects of performance adjustments
- Open source benchmarking utilities
- Methods for analyzing system and networking performance
- Tuning configurations for specific application loads

This course can also help you prepare for the [Red Hat Certified Specialist in Linux Performance Tuning exam \(EX442\)](#).

The average salary for red hat certified architect is **\$113,000** per year.

## Course Objective:

After completing this course, students will be able to:

- Describe how key Linux subsystems work
- Interact with applications
- Determine which tuning adjustments are relevant in different situations

## Audience:

This course is intended for:

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

## Prerequisites:

- Red Hat Certified Engineer (RHCE®) certification or equivalent experience.

## Suggested prerequisites courses:

- [Red Hat Certified Engineer RHCE Certification Lab \(RH299\)](#)
- [Red Hat System Administration I \(RH124\)](#)
- [Red Hat System Administration II \(Virtual Training\) \(RH134VT-EC\)](#)

## Course Outline:

- **Introduction to performance tuning**
  - Understand the basic principles of performance tuning and analysis.
- **Collecting, graphing, and interpreting data**
  - Gain proficiency using basic analysis tools and evaluating data.?
- **General tuning**
  - ?Learn basic tuning theory and mechanisms used to tune the system.
- **Limiting resource usage**
  - ?Allocate resources for best performance by limiting resource usage.
- **Hardware profiling**
  - ?Understand and analyze hardware.
- **Software profiling**
  - ?Analyze CPU and memory performance of applications.
- **Using SystemTap**
  - ?Use systemtap for profiling software.
- **Small file tuning**

- ?Tune a server for a workload involving frequent reads and writes of small files.
- **Large memory workload tuning**
  - Understand memory management and tuning.
- **Tuning for a CPU-intensive workload**
  - ?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.
- **Red Hat Performance Tuning Comprehensive Review**
  - ?Do a comprehensive overview of the course.?

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