

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

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<b>Code:</b>	RH442
<b>Length:</b>	4 days
<b>URL:</b>	<a href="#">View Online</a>

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Red Hat Enterprise Performance Tuning (RH442) 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 bench-marking utilities, methods for analyzing system and networking performance, and tuning configurations for specific application loads.

## Skills Gained

- Tuning for use-case scenarios (e.g., HPC, large memory, database, fileserver, etc.)
- 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 purpose

## Who Can Benefit

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

## Prerequisites

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

## Course Details

## Course Introduction

## **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**

- Understanding and analyzing 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**

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

## **Power usage tuning**

- Tuning systems with power consumption in mind

## **Virtualization Tuning**

- Tuning 'host' and 'guest' for efficient virtualization