# Red Hat Enterprise Performance Tuning

Kód kurzu: RH442

Od ledna 2026 je možné za původních podmínek zakoupit pouze prezenční Red Hat školení. Virtuální kurzy (VT) jsou dostupné výhradně v rámci ročního předplatného RHLS Course.Jak si naplánovat virtuální kurz v Red Hat Learning Subscription Course naleznete zde.
Performance tuning and capacity planning for Red Hat Enterprise Linux.Red Hat Performance Tuning: Linux in Physical, Virtual, and Cloud (RH422) teaches senior Linux® system administrators the methodology of performance tuning. This course 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.

## Pro koho je kurz určen

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

## Co Vás naučíme

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 Certificate of Expertise in Performance Tuning exam (EX442).

Course content summary

- Tuning for use-case scenarios (for example, HPC, large memory, database, and file server)
- Applying tuning profiles with tuned
- Tuning virtual machines (primarily guest, but host is discussed)
- Tuning memory and caches
- Tuning CPU and memory utilization using cgroups (integrated in systemd)
- Gathering performance metrics and other data for tuning purposes

## Požadované vstupní znalosti

- Red Hat Certified Engineer (RHCE®) certification or equivalent experience
- Candidates who have not earned their RHCE can confirm they have the correct skills by passing our online skills assessment

## Studijní materiály

Studijní materiál Red Hat

## Osnova kurzu

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

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- 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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