Red Hat Enterprise Performance Tuning (RH442)

Learn via: **Classroom**

Duration: **5 Day**

https://bilginc.com/en/training/red-hat-enterprise-performance-tuning-rh442-1035-training/

Overview

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.

Target Audience

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

Prerequisites

Become a Red Hat Certified Engineer (RHCE®), or demonstrate equivalent experience.

What You Will Learn

- Analyze and tune for resource-specific scenarios
- Applying tuning profiles with the tuned tool
- Tune in virtual environments (hosts and guests)
- Trace and profile system events and activities
- Tune resource limits and utilization using systemd-integrated cgroups
- Gather performance metrics and benchmarking data

As a result of attending this course, you should be able to obtain, analyze, and interpret system performance metrics, then use these metrics to help increase cost effectiveness, maximize application performance, and make better decisions about investment in hardware or cloud resources.

Impact on the organization

This course is intended to develop the skills needed to improve infrastructure performance, increase system utilization, reduce downtime, and improve responsiveness to system failures.

Outline

Introduce performance tuning
Describe performance tuning concepts and goals.

Select performance monitoring tools
Evaluate the large selection of performance monitoring tools that are included with Red Hat Enterprise Linux.

View hardware resources
View and interpret hardware resource listings.

Configure kernel tunables and tuned profiles
Configure the operating system to tune for different workload requirements.

Manage resource limits with control groups
Manage resource contention and set limits for resource use on services, applications, and users using cgroup configuration.

Analyze performance using system tracing tools

Diagnose system and application behaviors using a variety of resource-specific tracing tools.

Tune CPU utilization
Manage CPU resource sharing and scheduling to control utilization.

Tune memory utilization
Manage settings for efficient memory utilization for different types of workloads.

Tune storage device I/O
Manage settings for efficient disk utilization in various use cases.

Tune file system utilization
Manage application efficiency for file system utilization.

Tune network utilization
Manage application efficiency for network utilization.

Tune in virtualization environments
Distinguish the requirements for tuning in virtualized environments.

Perform comprehensive review
Demonstrate skills learned in this course by observing system performance using the appropriate tools, evaluating system metrics, and configuring settings to improve performance.