RH442 – Red Hat Enterprise Linux Performance Tuning

Red Hat

- **Nível:**
- **Duração:** 30h

Sobre o curso

Performance tuning and capacity planning for Red Hat Enterprise Linux

Red Hat Enterprise Linux Performance Tuning(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.

System and application performance remains a primary goal in enterprise and cloud computing. Each new Red Hat Enterprise Linux release brings higher performance, improved toolsets, and advanced tuning and analysis techniques. Performance engineers must constantly meet functional and business requirements in IT systems: to increase workload volume, reduce system bottlenecks and failures, with a final goal of increased business revenue and customer satisfaction. This course provides the skills needed to customize a solution for performance efficiency issues and allow for future scalability.

Objetivos

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

Destinatários

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

Pré-requisitos

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

Programa

- Introduce performance tuning
- Select performance monitoring tools
- View hardware resources
- Configure kernel tunables and tuned profiles
- Manage resource limits with control groups
- Analyze performance using system tracing tools
- Tune CPU utilization
- Tune memory utilization
- Tune storage device I/O
- Tune file system utilization
- Tune network utilization
- Tune in virtualization environments
- Perform comprehensive review

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.