

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

**Duration: 4 Days**

### **Course description**

#### **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.

#### **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.