

# Oracle Linux System Administration III

The Oracle Linux System Administration III course covers implementation of advanced Linux file systems, configuring virtualization services and resource management controls, use of Docker containers and Kubernetes container orchestration services, advanced security services, and advanced diagnostics services.

## Learn To

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The Oracle Linux System Administration III course covers implementation of advanced Linux file systems, configuring virtualization services and resource management controls, use of Docker containers and Kubernetes container orchestration services, advanced security services, and advanced diagnostics services. The course also provides an extensive hands-on experience for advanced system administration tasks.

### Learn to:

- Address today's large storage requirements including the Oracle Cluster File System, iSCSI and multipathing, and use of the Gluster File System.
- Manage resources to deliver consistent response times and performance.
- Allocate system resources to specific Linux processes.
- Use DTrace, which provides a comprehensive look into the software stack and enables you to identify performance bottlenecks.
- Use container technologies, including Oracle Container Runtime for Docker and Oracle Linux Container Services for use with Kubernetes.
- Use the Linux Auditing System and OpenSCAP to enhance system security.

### Benefits To You:

After taking this course, you will be equipped to use the advanced features of Oracle Linux to get the most out of your systems and applications. You'll learn how to use Control Groups, Docker Containers, and KVM to increase your resource utilization by creating secure, isolated environments on a single host. Manage a cluster of containers across a cluster of systems by using the Kubernetes container orchestrator.

### Gain Hands-On Experience:

Extensive hands-on practices will guide you through each concept. You will install different types of file systems, including OCFS2 and Gluster. You will also experience how to share storage devices across multiple systems, allocate system resources such as CPU, memory, network and I/O bandwidth to critical processes. You will also learn container technology by installing and configuring Oracle Container Runtime for Docker and Oracle Linux Container Services for use with Kubernetes.

## Prerequisites

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Oracle Linux System Administration II

## Audience

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- System Administrator

- Support Engineer
- Technical Consultant
- Database Administrator
- Linux Administrator
- Cloud Administrator
- System Integrator
- Data Center Manager
- Technical Consultant
- System Architect
- Application Developer
- Support Engineer
- System Analyst
- Developer
- Technical Administrator
- Web Administrator

## Course Objectives

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- Configure Oracle Cluster File System version 2 (OCFS2)
- Configure iSCSI targets and initiators
- Configure control groups (Cgroups)
- Configure Kernel-based Virtual Machine (KVM)
- Work with Docker containers and perform container orchestration by using Kubernetes
- Secure your system by using SELinux, OpenSCAP, OpenSSL, and Linux Auditing
- Install and view Linux kernel source code and describe other Linux internal topics
- Enable core dump and perform core dump analysis
- Configure dynamic tracing (DTrace)
- Configure the Gluster File System

## Course Topics

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- OCFS2 and Oracle Clusterware
- iSCSI and Multipathing
- Managing Resources with Control Groups (cgroups)
- Virtualization with Linux
- Oracle Container Runtime for Docker
- Oracle Linux Container Services for Use with Kubernetes
- Security Enhanced Linux (SELinux)
- OpenSCAP
- OpenSSL
- Introduction to Linux Internals
- Linux Auditing System
- Core Dump Analysis
- Dynamic Tracking with DTrace
- Using Gluster Storage