

# Oracle WebLogic Server 11g: Advanced Administration

**Duration:** 5 Days

#### What you will learn

Oracle WebLogic Server is a Java EE application environment that supports the deployment of mission critical applications using a robust, secure and scalable infrastructure. System administration of WebLogic Server includes a wide range of activities, from creating and configuring server domains, to deploying and securing applications, to monitoring and troubleshooting server, application and performance issues.

In this course, students expand upon their basic administrative knowledge and experience, and learn more sophisticated techniques for working with WebLogic Server and integrating it within the rest of their enterprise. Particular attention is paid to the topics of authentication, enterprise messaging, clustering and performance. This course also covers some basic techniques for monitoring server health and for troubleshooting problems. Students continue to use tools such as the WebLogic Server Administration Console and WebLogic Server Scripting Tool (WLST) for performing these administration tasks.

An appendix is included covering the differences between the 11g (10.3.3) and 12c (12.1.1) product versions with regard to Oracle WebLogic Server administration topics.

#### Learn To:

Manage domains and templates

Configure a highly available messaging infrastructure

Automate server migration and failover

Utilize LDAP for authentication

Monitor servers using WLDF or SNMP

This course is an upgrade of Oracle WebLogic Server 10g R3: Advanced System Administration.

#### **Audience**

Administrator
Security Administrators
Support Engineer
Technical Administrator
Technical Consultant
Web Administrator

## **Related Training**

#### Required Prerequisites

Experience with basic Linux administration and shell commands

### **Course Objectives**

Configure and monitor server network channels

Define a JDBC data source for load balancing and failover

Configure JMS to guarantee message delivery

Configure JMS load balancing and failover in a cluster

Configure JMS store and forward features

Create custom domain and extension templates

Bridge WebLogic JMS to an external JMS provider

Configure automatic server migration in a cluster

Replicate HTTP sessions using multiple clusters

Integrate WebLogic Server with an external LDAP server

Integrate WebLogic Server with a database security store

Tune a Java VM for performance

Tune server subsystems for performance

Define server work managers

Apply techniques to diagnose and troubleshoot server problems

Trigger SNMP notifications from WebLogic Server

**Course Topics** 

## **Installation Management**

Smart Update

Patch Management

### **Domain Templates**

**Domain Templates** 

**Extension Templates** 

Template Builder

## **Other Domain Tools**

WLST and Templates

Pack Tool

Configuration Backup

Configuration Auditing

# **Advanced Network Configuration**

**Network Channels** 

**Administration Channels** 

# Standby Mode

### **Multi Data Sources**

Data Source Failover
Data Source Load Balancing
Connection Testing
WebLogic and RAC

#### **JDBC Performance Essentials**

Connection Pooling Statement Caching Last Logging Resource

### **JMS Message Management**

Viewing Messages Exporting Messages Pausing Destinations

# **JMS Guaranteed Messaging**

Persistent Stores
Durable Subscribers

# **JMS Performance Essentials**

Quotas Thresholds Unit of Order

### JMS Store and Forward

SAF Agents SAF Contexts SAF Imported Destinations

## JMS Message Bridge

Bridge Adapters Bridge Destinations Quality of Service

## **Server Migration**

Cluster Leasing
Candidate Machines

## **JMS Clustering**

JMS Cluster Targeting Service Migration Migratable Targets Distributed Destinations JMS Load Balancing

### **Cross-Cluster Replication**

MAN Replication WAN Replication

## **Authentication Providers**

Security Realms
Security Stores
Control Flags
LDAP Authenticators
SQL Authenticator
Password Validation
Security Migration

## **Server Performance Essentials**

Load Testing JVM Tuning Heap Monitoring Work Managers

# **Monitoring and Diagnostics Essentials**

Runtime MBeans
Diagnostics Framework
Metric Collectors
Watches
Instrumentation
WebLogic and SNMP
Trap Monitors