

WL1913 – WebLogic 10 Advanced Server System Administration

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| Course Synopsis | Duration: | Five (5) days. |
| | Prerequisites: | This course is intended for existing WebLogic administrators who need to administer a WebLogic Server platform. Java programming is necessary to build custom management classes. |
| | Delivery Method: | Instructor led, Hands-on workshops |

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| Brief Description | Students enter this class with a basic knowledge of creating and administering domains. Through this class they will take advantage of some of the more specialized features that WebLogic provides. We will emulate load on a server and tune the server to enhance the performance. This is a hands-on learning experience, with each student having their own WebLogic Server to learn with. |
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| Course Objectives What You'll Learn | <p>Upon successful completion of this course, the student will be able to:</p> <p>Configure WebLogic advanced features</p> <ul style="list-style-type: none"> • Setup custom JMX Applications • Create custom JMX Applications • Explore WLDF • Create WLST scripts • Tune WebLogic JDBC applications • Implement SSL for web applications • Configure custom WebLogic Security components • Build JMS Store and Forward applications |
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| Topics Covered | <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>I. Course Introduction</p> <ul style="list-style-type: none"> • Course Objectives • Course Overview • Using the Workbook • Suggested References <p>II. WebLogic Management Services</p> <ul style="list-style-type: none"> • WebLogic Console Management • Management Tools • JMX • WLST • SNMP • WebLogic Diagnostics Framework • WebLogic 10 Self Tuning Kernel • Extending the Administration Console </div> <div style="width: 48%;"> <p>III. WebLogic JMX</p> <ul style="list-style-type: none"> • JMX • MBeans • Hands-On Cont. • WebLogic Server MBean Data Model • MBean Lifecycle • MBean Servers • Walk-Through Cont. • Walk-Through Cont. • Using Local MBean Servers • Using Remote MBean Servers • Exploring MBeans • MBean Methods/Properties • Hands On • Custom JMX Utilities </div> </div> |
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WL1913 – WebLogic 10 Advanced Server System Administration**IV. WebLogic Scripting Tool**

- Introduction
- Using WLST
- Jython Syntax
- Jython Conditionals
- Jython Loops
- Sample WLST
- Recording User Interactions in WLST
- WebLogic Management Objects
- Monitoring the invocations of a JSP
- Deploying in WLST
- Undeploying in WLST
- Server Monitoring in WLST
- JVM Monitoring in WLST

V. WebLogic Work Managers

- Work Manager Overview
- Using WebLogic 8.1 Thread Pools
- Using Work Managers
- Work Manager Components
- Request Classes
- Fair share request class
- Response-time goal request class
- Context-based request class
- Work Manager Constraints
- Stuck Thread Work Manager
- Using Work Managers
- Work Manager Scope
- Monitoring Work Managers

VI. WebLogic Diagnostics Framework

- What is WLDF?
- Diagnostics framework Components
- Configuring WLDF
- WLDF types of monitoring
- Collecting Data
- Gathering Data
- Data accessor
- Configuring Image Capture and Archive
- Diagnostic System Modules
- Diagnostic Modules Hands-On
- Configuring the Harvester
- Harvester Walk Through
- Configuring Watches and Notifications

VII. WebLogic Performance Tuning

- Introduction
- Performance Objectives
- Benchmarking
- Emulating Load on WebLogic
- JMeter HANDS-ON Load Emulating WebLogic
- Bottleneck Location
- Java Stack Traces
- CPU Utilization
- Memory Utilization
- Monitoring the JVM
- Sun JVM Performance Tools
- Starting JConsole
- Tuning Sun JVM
- Tuning Sun JVM Cont.
- Switching the JVM
- JRockit JVM Performance Tools
- JRockit Console
- JRockit Runtime Analyzer (JRA)
- JRockit Notifier
- JRockit Method Profiler
- JRockit Memory Leak Detector
- Using Verbose GC
- Database bottlenecks
- Tuning JDBC Applications
- Tuning JDBC Applications Cont.
- Tuning EJB Applications
- Tuning Session Beans
- Network bottleneck
- WebLogic Monitoring Tools
- Performance Tuning Summary

VIII. WebLogic SNMP

- What is SNMP?
- Agent-Manager Model
- MIB for WebLogic Server J
- MX vs SNMP
- OID Numbers
- SNMP Utilities
- SNMP Communities
- SNMP Events
- SNMP Traps Hands-On Cont.
- Automatic WebLogic SNMP Traps
- Log Message Traps

WL1913 – WebLogic 10 Advanced Server System Administration**Topics
Covered Continued****IX. Configuring WebLogic Security Providers**

- WebLogic SSL
- Security Architecture
- Security Realms
- Default LDAP Server
- Exporting/Importing/Backing up LDAP
- WebLogic Resources
- HANDS ON (Embedded LDAP)
- HANDS ON Cont. (Embedded LDAP)
- LDAP log Files
- Security Debugging in WebLogic 10
- Default Security Configuration
- Creating new Realms
- Configuring RDBMS Authentication Providers

X. WebLogic SSL

- SSL in Brief
- One-Way and Two-Way SSL
- Host Name Verification
- Keystores
- Generating Keys
- Storing Keys and Certificates
- Keys and Certificates
- SSL Debugging
- SSL Hands On Walk-Through
- Https Session Behavior

XI. Advanced WebLogic JMS

- Overview
- JMS for Administrators
- JMS Hands-On Cont.
- Building WebLogic JMS Components
- Managing JMS destinations
- Message Looping
- JMS Logging
- JMS Messaging Bridge
- JMS Messaging Bridge Building

XII. WebLogic JMS Store and Forward

- Overview
- SAF Resources In a JMS Module
- JMS Quality of Service
- WebLogic persistent store
- SAF Service Agents
- When to Use the SAF Service
- Configuring a Basic SAF Service Walk-Through