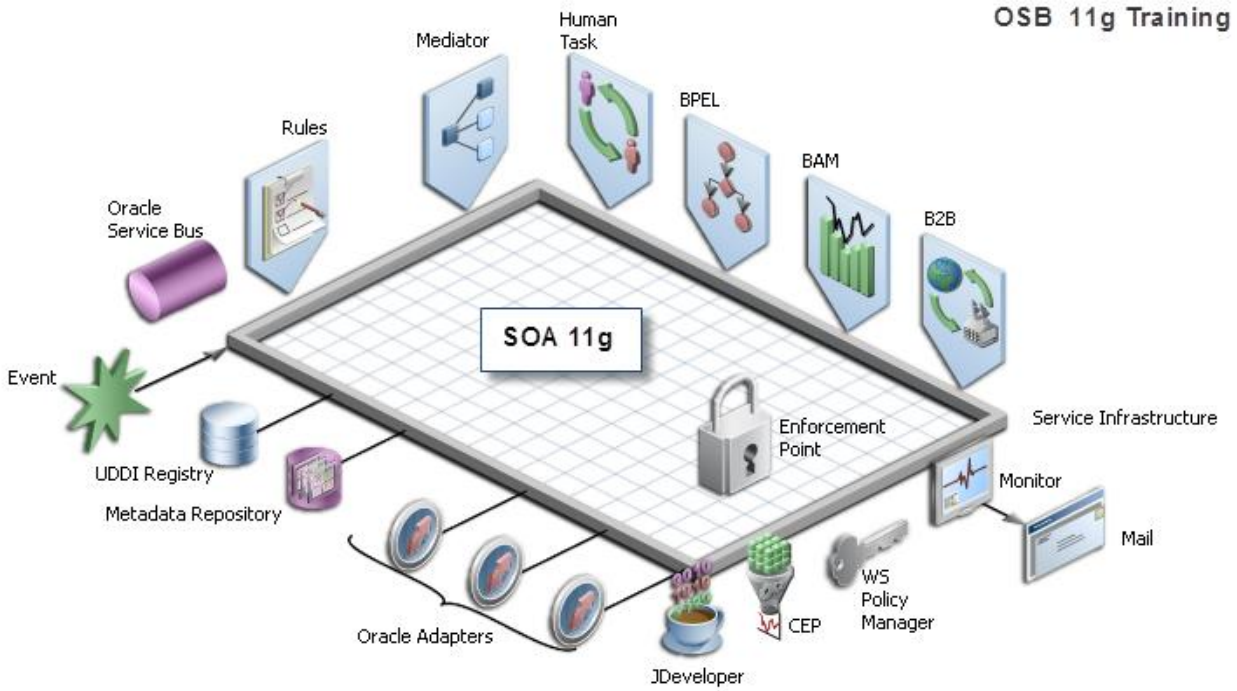


Oracle Service Bus 11g: System Administration, Design & Integrate Services



Duration: One month

What you will learn

This course comprised of Oracle Service Bus 11g: System Administration and Oracle Service Bus 11g: Design and Integrate Services.

Oracle Service Bus enables the integration of services that support a variety of different protocols, security policies, and service level agreements.

In the System Administration course, you learn how to install and configure OSB 11g, and also gain hands-on experience in administrating its different components by using the Service Bus Console, WebLogic Scripting Tool (WLST), and WebLogic Server Administration console. It also covers the management, monitoring, securing, and high availability of services hosted through Oracle Service Bus 11g.

In the Design & Integrate Services course, you learn how to create Oracle Service Bus resources. You also learn how to route messages and use message flow best practices. You are introduced to Oracle Service Bus Security and how to debug with Oracle Service Bus.

Learn To:

- ✚ Manage and monitor OSB
- ✚ Implement Oracle Web Services Manager security in securing OSB services
- ✚ Enrich, route and validate messages within the Service Bus
- ✚ Understand Message Level Security and securing Oracle Service Bus
- ✚ Use some of the basic transports in Oracle Service Bus
- ✚ Install and configure Oracle Service Bus 11g

Audience

- Application Developers
- Architect
- Functional Implementer
- SOA Architect
- Security Administrators
- System Administrator
- Technical Administrator

Prerequisites

Required Prerequisites (**one session to go over these topics**)

Basic knowledge of Web Services

Knowledge of XQuery and XPath

Understanding of Oracle WebLogic Server 11g Administration

XML programming experience

Course Objectives

Automate OSB tasks using WLST scripts

Monitor service bus health and SLAs

Install OSB 11g and initialize a domain and database support

Define service level agreements that trigger alerts

Configure transport and message-based security policies

Create OSB resources

Route messages in different ways

Migrate an OSB configuration from staging to production environments

Secure OSB with OWSM

Course Topics

1. Getting Started with OSB

Oracle Service Bus and SOA

OSB 11g Product Architecture

Describing the Functional Layers of Oracle Service Bus

OSB and Oracle Fusion Middleware 11g

2. Installing Oracle Service Bus 11g

Installing the Product

Incorporating Different OSB Domain Topology

Configuring an OSB Domain

3. Service Bus Administration Tools

Working with the OSB Administration Console

Accessing the OSB Test Console

4. Service Bus Management

Working with OSB Session

Propagating a Service Bus Configuration

Customizing a Service Bus Configuration

Managing OSB Using WLST

5. Reporting and Monitoring

Service Bus Monitoring

Service Bus Operational Settings

Working with SLA Alerts

OSB Reporting Architecture

6. Service Bus Security

OSB and Oracle Web Services Manager Security

Configuring the OSB Security Environment

Securing a Proxy Service by Using OWSM policies

- Propagating Identity from OSB to Secured Web Service
- 7. Service Bus High Availability**
 - OSB High Availability Architecture
 - Creating an OSB Cluster
 - Service Endpoint Scalability
 - Load Balancing Services Endpoint
- 8. Service Bus Performance Tuning**
 - Factors Affecting OSB Performance
 - Partitioning OSB Deployments into Multiple OSB Domains
 - Tuning an OSB Instance
 - Service Result Caching with Coherence
 - Throttling and Service Pooling
- 9. Configuring Enterprise Repository and Service Registry**
 - Service Lifecycle Implementation by Using OER-OSR
 - Ways to Populate OER from OSB
 - Service Registry Integration Scenarios
 - Import Business Services
- 10. Message Flow**
 - Introducing the Oracle Service Bus Resources
 - Explaining the Message Context Model and the Message Context Variables
 - Understanding the Message Flow and the Nodes/Elements of a Message Flow
- 11. Message Flow Actions**
 - Describing the Communication Actions You Can Add to a Route or a Stage in a Message Flow
 - Describing the Flow Control Action You Can Add to a Route or a Stage in a Message Flow
 - Describing the Message Processing Actions You Can Add to a Stage in a Message Flow
 - Describing the Reporting Actions You Can Add to a Stage in a Message Flow
 - Using XQuery Mapping and Transformations
- 12. Message Flow Best Practices**
 - Introducing Split-Joins
 - Describing the Concept of Dynamic Routing
- 13. Transports in Oracle Service Bus**
 - Describing Oracle SOA Suite Transport (SOA-DIRECT)
 - Describing JCA Transport
 - Describing Representational State Transfer (REST)
- 14. Debugging with Oracle Service Bus**
 - Describing and Configuring Error Handling in Oracle Service Bus
 - Configuring Validation in Oracle Service Bus
 - Explaining the Usage of the Reporting Action
- 15. Introduction to Oracle Service Bus Security**
 - Introducing Oracle Service Bus Security
 - Securing OSB with OWSM
 - Introducing Message Level Security