



## Oracle Service Bus 12c: Design & Integrate Services

This Oracle Service Bus 12c: Design and Integrate Services training takes a use case driven approach to explain the OSB capabilities of connecting, mediating and coordinating the interaction between different applications and services across a variety of platforms, protocols, and interface technologies. Expert Oracle University instructors discuss OSB as a common infrastructure in support of a broad scale SOA initiative.

### Learn To:

- Use Oracle Service Bus 12c to make services interact in a decouple manner.
- Implement enterprise-quality message flows with Service Bus 12c.
- Implement message validation, routing, transformation and enrichment.
- Integrate services with legacy systems.
- Enable service level abstraction.

### Benefits to You

Taking this course will teach you how to use Oracle Service Bus 12c to make services interact in a decouple manner - overcoming the challenges of location transparency, transport protocol mediation, message validation, message routing, message transformation, message enhancement and security in an integration project. Oracle Service Bus can help your enterprise integration without having to write your own integration logic for every application.

### Prerequisites

#### Required Prerequisite

- XML Fundamentals Ed 1
- Working knowledge of messaging, web service and SOA

### Audience

- Architect

- Developer
- System Integrator

## Objectives

- Implement message validation, routing, transformation and enrichment
- Integrate services with legacy systems
- Provide reliable delivery of messages between applications
- Use Oracle Service Bus and OWSM to secure services
- Test, debug, and troubleshoot Oracle Service Bus applications
- List Oracle Service Bus capabilities
- Enable service level abstraction
- Describe Oracle Service Bus architecture and functional layers
- Expose a SOAP service as a REST service

## Topics

- Introducing Oracle Service Bus
  - About Enterprise Service Bus
  - Introducing Oracle Service Bus
  - About Oracle Service Bus and Oracle SOA Suite
  - Describing Service Bus installation and configuration options
- Getting Started with Service Bus Applications
  - Explaining basics of WSDL and XSD
  - Discussing Service Bus components
  - Creating a simple Service Bus application
  - Discussing features for developers
- Basics of Message Flow
  - Discussing message flow
  - About context variables
  - About pipeline templates
  - Explaining debugging
- Validating Messages and Error Handling
  - Explaining message validation
  - Discussing fault handling
  - Discussing reporting
- Transforming Messages
  - Overview of message transformation in Service Bus
  - About XPath functions
  - Using XSLT Mapper to create XSL transformations
  - Using XQuery Mapper to create XQuery transformations
  - Transforming non-XML to XML with nXSD
- Routing Messages
  - Overview of message routing
  - About content-based routing
  - About dynamic routing
- Enriching Messages
  - Discussing message enrichment use cases
  - Explaining enrichment using Service Callout
  - Describing enrichment using Java Callout
- Processing Messages with Concurrent Calls
  - Introducing split-join
  - About split-join patterns

- About split-join constructions
- Implementing a split-join
- Adapters and Transports
  - About JCA transport and adapters
  - Discussing SOA-DIRECT transport
  - Exposing SOAP-based services as REST services using the REST binding
- Reliable Messaging
  - Discussing reliable messaging support in Service Bus
  - About quality of service
  - Discussing configurations for reliable communication
- Service Bus Security
  - About security concepts
  - Discussing Oracle WSM security
  - About access control policies
- Advanced Topics
  - Discussing principles and best practices of using Service Bus
  - About service result caching and SLA alerts
  - Integrating with MFT
  - About message re-sequencing
  - Describing continuous integration with Maven