**Oracle SOA Suite Training:**

**Goal:**

Introduce participants to the Oracle SOA suite of products including Oracle Service Bus(OSB) and Oracle SOA. This course will also feature several hands on sessions that will enable participants to better understand application integration and service messaging using these products.

**Audience and Pre-Requisites:**

This course is targeted at

1. Enterprise Architects and

2. Application Integration Developers.

All participants must have some prior knowledge on XML and XML relevant technology like XSD, XPATH. Theoretical knowledge of SOA and web services will enable better understanding of topics at hand.

**Course Outline:**

**Oracle Service Bus**

1. Introduction to the Oracle Service Bus
   1. Challenges in modern day enterprise application integration
   2. ESB and benefits of using an ESB
   3. Oracle Service Bus architecture and components
   4. Oracle Service Bus Installation – HANDS ON
2. Jump Start - Your First OSB application
   1. Brief review of web services and WSDL / XSD
   2. Create a sample web service using JDEVELOPER
   3. Create Business Service in OSB using the web service
   4. Create Pipeline Pair and Proxy in OSB
3. Message Flow in OSB
   1. Message Exchange patterns
   2. Message Process flows
   3. Message processing actions
   4. Flow control
   5. Reporting
   6. HANDS ON with message flow in OSB
4. Message Transformation in OSB
   1. Using XSLT mappers in transformation
   2. Using XQuery mappers in transformation
   3. Using nXSD for non XML data
   4. HANDS ON with message transformation in OSB
5. Message Routing in OSB
   1. Types of message routing in OSB
   2. Conditional routing in OSB
   3. Dynamic routing – brief introduction
   4. HANDS ON with conditional routing in OSB
6. Message Enrichment in OSB
   1. JAVA call out
   2. Web service call out
   3. HANDS on with message enrichment in OSB
7. Message validation and error handling in OSB
   1. Schema validation
   2. Fault handling and propagation in OSB
   3. HANDS on with error handling in OSB

**Oracle SOA**

1. Introduction to Oracle SOA Suite 12c
   1. Understanding SCA – service component architecture
   2. Understanding components of Oracle SOA Suite
   3. Mediators
   4. BPEL Process
   5. Human Tasks
   6. Business Rules
   7. SOA Infrastructure
   8. Installation – HANDS ON
2. Jump Start – Creating SOA Composite Applications
   1. Use mediator component in composite
   2. Use file adapter in composite
   3. HANDS On – creating a SOA composite using mediator and file component
   4. Managing and testing the application
3. Data transformation in SOA
   1. Work with XSLT transformations in the mediator
   2. Use file adapters to create a file using nXSD translation
   3. HANDS on – exercise using nXSD to create flat file.
4. JDBC/JMS adapters:
   1. Adapters in SOA
   2. Configure and use the JMS adapter
   3. Configure and use the JDBC adapter
   4. Configuration of runtime connections for adapters
   5. HANDS on.
5. BPEL in SOA Suite
   1. Introduction to business process and BPEL
   2. BPEL partner links
   3. Create a business process in BPEL module
   4. Use some activities to manipulate data in BPEL process
   5. BPEL editor in Oracle SOA
6. Human Tasks in SOA Suite
   1. Introduction to human tasks in business process
   2. Invoke human task from BPEL
   3. Introduction to work list application
7. REST Adapter
   1. REST – Introduction
   2. Using REST adapters in SOA application
   3. HANDS on
8. Business Rules
   1. Business Rules Introduction
   2. Rules engine
   3. Check rules in Oracle SOA composer applications
   4. HANDS on