

SOA Adoption and Architecture Fundamentals

Duration: 3 Days

What you will learn

This course takes the student far beyond the limited view of SOA as simply a collection of web services. Students learn how to assess an organization's SOA capabilities in eight separate business and technical domains, and how to analyze the gap between those capabilities and their SOA vision. From that maturity assessment, they learn steps to develop a multi-year SOA road map for an organization and a framework for SOA project selection. A deep-dive exploration of SOA Reference Architecture from the conceptual, logical, product mapping, and physical perspectives is presented before the course transitions its focus to the service engineering life cycle.

As the course introduces the service engineering life cycle, it stresses the importance of analysis, architecture, delivery and management. Lessons present criteria and techniques for service identification and discovery, and guidelines for consistent access to enterprise information. Requirements management is discussed, and the decomposition of functional requirements, business processes, applications and data requirements is presented. The identification, discovery, justification and validation of services is covered, and is followed by an exploration of service delivery. Additional course topics include a discussion of the principles of service-oriented integration, and the reasons and guidelines for establishing a SOA governance framework.

Learn to:

- Assess an organization's SOA maturity
- Identify and prioritize service candidates
- Define a high level conceptual and logical architecture
- Create an SOA road map for an organization

Audience

Implementation Consultant
SOA Architect

Related Training

Required Prerequisites

- An understanding of web service technologies, including SOAP and WSDL
- Experience with both the business and IT elements of enterprise and technical software architecture

Course Objectives

- Explain IT Strategies from Oracle (ITSO) and Oracle Reference Architecture (ORA)
- Perform a SOA maturity assessment

Apply appropriate criteria to service and project selection

Contribute to development of a SOA road map

Explain Oracle's definition of a service, and the inter-relationship of the facets of a service

Understand the importance, components and various views of a SOA reference architecture

Perform functional requirements decomposition and use the results of that decomposition to expand a business function model

Identify and justify a service

Create and evaluate a service contract

Map SOA governance to the ITSO Unified Governance reference model

Recommend incremental steps in the development of a SOA Governance road map

Identify important integration and service architectural principles and explain how they apply to service-oriented integration

Course Topics

IT Strategies from Oracle (ITSO) and Oracle Reference Architecture (ORA) Overview

Introducing ITSO and ORA

Describing Oracle Reference Architecture

Describing Enterprise Technology Strategies

Describing Enterprise Solution Designs

Oracle's Approach to Service-Oriented Architecture (SOA)

Defining Service-Oriented Architecture

Discussing Fundamentals of SOA Adoption

Introducing SOA Methodology Approach: Road Map Creation

Introducing SOA Methodology Approach: Strategy and Planning

Introducing SOA Execution

Creating an SOA Road Map

Introducing SOA Road Map Creation

Exploring the SOA Maturity Model

Describing the SOA Road Map Creation Process

Service Terms and Concepts

Defining a Service

Exploring a Service Model

Explaining the Importance of Service Versioning

SOA Reference Architecture

Explaining the Importance of a Reference Architecture

Describing the Conceptual View

Describing the Logical View
Describing the Product Mapping View
Describing the Deployment View
Describing Web Service Security

Software Engineering in a SOA Environment - Requirements Management

Introducing Oracle Service Engineering Framework
Explaining the Business Function Model, its Benefits and Construction
Explaining Functional Requirements Decomposition
Explaining Business Process Decomposition
Explaining Application Decomposition
Using Results of Decompositions to Expand a Business Function Model
Explaining Data Requirements Decomposition
Describing What Kinds of SOA Assets are Derived from these Activities

Service Identification and Discovery

Naming the 4 Actions Related to Service Identification
Performing Functional Activity Analysis to Update a Business Function Model
Describing the Characteristics of Shared Project, and Partially Shared Requirements
Performing Business Entity Analysis
Explaining How a Service Candidate is Justified
Explaining How a Prescription for Reuse is Validated

Service Delivery

Explaining and Performing Boundary Analysis of a Service by Scope
Explaining and Performing Boundary Analysis of a Service by Architectural Classification
Describing a Service Contract by Characteristic and by Content
Explaining the Importance of Service Interface Design
Describing the SOA Assets Generated as a Result of these Activities

Service-Oriented Integration

Explaining How Service-Oriented Integration Differs from Traditional Integration Approaches
Describing Principles that Should be Met by Any Architecture that Supports a Service-Oriented Approach to Integration
Describing the Development, Process, and Deployment Views of Service-Oriented Integration
Using Service-Oriented Integration Patterns and Message Exchange Patterns to Identify Best Approaches for Integration

SOA Governance

Naming the Governance Disciplines and Describing Their Relationships
Naming and Describing the Constituent Parts of the ITSO Unified Governance Reference Model
Explaining the Reasons for, and Benefits of, SOA Governance
Mapping SOA Governance to the ITSO Unified Governance Reference Model
Applying SOA to the ITSO Unified Governance Continuous Improvement Loop
Describing the Challenges of, SOA Organization Governance and the Importance of People to Addressing those Challenges