



Service Oriented Integration (SOI) - Concepts, Technologies, and Best Practices

2-Day Seminar

From Integration Infrastructure to Business Value

IT managers have been under increasing pressure to migrate a portfolio of independent “stovepipe” applications to an integrated set of business services. The complexity of application portfolios has to be reduced by eliminating functional redundancies. The mandate is to support new business processes faster, with reduced cost, and to improve the alignment of IT with business requirements. How to integrate applications in a predictable, consistent and repeatable fashion is a challenge that has consistently been among the top priorities of most CIOs.

This seminar starts with examples of integration projects that are typical for the problems and challenges that companies are trying to address today. For example, how to reduce the latency in a pipeline of batch processes by migrating to (near) real-time messaging, or how to integrate newly developed services and legacy systems into a Composite Application. The seminar then provides an overview of the concepts of SOA and its relationship to Event Driven Architecture (EDA). It outlines the key issues and guidelines that architects should consider when defining a Service Oriented Integration Architecture. The seminar will then provide you with an understanding of a complete integration “stack”, i.e. a set of techniques for implementing all aspects of integration. This stack is mapped to the relevant standards (including Web Services) and technologies that can support SOI architectures.

One of the highlights of the seminar is a case study that illustrates how the concepts and best practices taught in the seminar have been applied in a real project implementation. Without best practices based approach companies often end up with silos of redundant services that are too difficult to integrate and manage. The case study explains the key architectural and design decisions that have resulted in the implementation of a set of services that were reused beyond one particular project.



Benefits of Attending

- Understand how to employ a Service-Oriented Architecture to integrate your application portfolio.
- Learn how to define an Enterprise SOA for Integration and how to apply it to integrate your application portfolio
- Learn how services can be used to integrate applications within your enterprise and across a B2B value chain.
- Distinguish between hype and reality so that you can put the technology to its optimal use in your organization.

Who Should Attend

- IT Managers that need to understand what Service Oriented Integration comprises and how the SOI technologies and standards stack up.
- Architects who want to define a Service Oriented Integration architecture to facilitate successful integration projects.
- IT professionals who need to see when and how SOI can be applied to application integration.
- IT Managers and IT Strategists selecting new standards and technologies.
- Consultants who need to recommend different strategies for defining and implementing SOI solutions.

Prerequisite: This class does not require attendees to possess detailed knowledge in any specific technology; however, a good understanding of distributed application architectures and middleware technologies will be beneficial



Seminar Outline

1) Defining the Need for Integration

- a) Business velocity is increasing
- b) How can IT enable the increasing business velocity?
- c) How SOI enables key business strategies
- d) Characteristics of typical integration scenarios
 - Project oriented
 - Governance oriented
 - Performance oriented
- e) Integration use case examples
 - Accelerate business process
 - Multiple integration solutions
 - B2B integration
 - Application portfolio complexity
 - Composite Applications

2) From SOA to SOI – Defining an Integration Architecture

- a) Services defined
- b) SOA defined
 - The changing notion of applications
 - The Service Layer Model
- c) Event & Service Oriented Architecture (e-SOA)
- d) From EAI to SOA/EDA to SOI
- e) Integration with the data architecture

3) The Integration Stack

- a) The need for intermediation
- b) The integration stack
 - Service Interfaces & Message Formats
 - Web Service Definition Language (WSDL)
 - XML vs. JSON
 - Messaging
 - SOAP
 - Reliable messaging
 - Publish / subscribe (notifications)
 - Data transformation
 - Content-based routing
 - Business Process Management (BPM)
 - Automated Business Processes & Human Tasks



- Security
- Monitoring & management
 - “External” service management
 - Service instrumentation
- Integrating legacy systems using SOA
 - Custom service integration
 - Integration through COTS Adapters
- B2B integration
- Web Services Interoperability (WS-I)

4) Tools for Implementing SOI

- a) The Enterprise Service Bus
 - ESB Container Services
 - How standards could enable plug-and-play integration
 - Java Business Integration (JBI)
 - ESB architectures
 - ESB challenges
- b) Moving Beyond Integration
 - Business Activity Monitoring (BAM)
 - Complex Event Processing (CEP)
- c) Open Source Software (OSS) for SOI

5) Case Study and Conclusions

- a) Case study: Chauffeured Services Company
 - Project Overview
 - Three Dimensions of Business Partner Integration
 - Service Oriented Integration Architecture
 - Definition Of Service Layering
 - Logical architecture
 - Verifying SOA Principles
 - Designing Service Interfaces
 - Designing The Schemas
 - Interface Consolidation
 - Conclusions
 - Service Reuse
 - Project Risks
 - Benefits