



## **Guiding SOA Evolution through Governance – From SOA 101 to Virtualization to Cloud Computing**

### *3-day seminar*

The evolution of how companies employ SOA can be broken down into three phases: the initial phase focuses on migrating from previous approaches like component based applications to services and the best practices around building services.

Once a company has completed initial SOA projects, the number of deployed services increases such that the key question no longer is how to build services, but rather how to efficiently govern the development and operation of services on an enterprise scale. The focus of a second phase SOA shifts to reusability, securing how a growing number of clients access the services, assuring that Service Level Agreements (SLAs) are met, etc. Service virtualization plays a key role in this phase, which provides a decoupling of clients and services and replaces non-business logic in services with configuration in middleware that acts as intermediaries, like Enterprise Service Buses and SOA Appliances.

While enterprise architects focus on SOA, the data center and operations managers have server virtualization on their agenda as a top priority to increase efficiency and reduce cost. These two efforts have not been treated synergistically by most companies, but they should. The provisioning of virtual servers should be done using a SOA based service infrastructure paradigm and the business services should automatically be mapped onto infrastructure resources in order to implement on-demand resource provisioning to better meet SLAs.

This approach to the second phase in the SOA evolution positions a company for a natural progression into phase three, where services move into the cloud. Regardless whether we move to an enterprise cloud or one that is hosted by an external provider, everything we have learned and implemented in the first two phases of SOA applies – even more so, since issues like security and integration become more complex in the cloud and SOA Governance plays an even bigger role.

This seminar walks you through the three phases of evolving SOA and how to use a maturity model to build your SOA Roadmap. It then discusses how SOA Governance relates to business, IT, and Enterprise Architecture (EA) governance; it details what comprises SOA Governance, provides insights into current standards, vendor approaches and technologies, and closes with a case study that illustrates some of the governance principles and how to measure success.

### **Benefits of Attending**

- Learn about the three phases of SOA evolution.
- See how SOA relates to server virtualization and cloud computing.
- See how the different SOA projects in your organization fit into the big picture of a SOA Maturity Model and how to develop your SOA Roadmap.
- Distinguish between Business, IT, EA and SOA governance.
- Understand how to govern the complete services lifecycle – from design time to run-time.
- Be able to define practical guidelines and policies to assure that project teams follow a consistent approach to service design and implementation.



### Who Should Attend

- Architects who want to define a roadmap for the evolution of SOA throughout the enterprise.
- IT professionals who need to see how SOA can efficiently be applied on large scale projects.
- IT Managers and IT Strategists who need to define policies for service development and service operations.
- Architects and developers who want to understand the impact of SOA governance on their projects.
- Consultants who need to recommend and use governance strategies and technologies for SOA.

**Prerequisite:** This class requires attendees to have a conceptual understanding of application development and service oriented architecture.



## Seminar Outline

### **1. SOA Phase 1: SOA 101**

- SOA defined
- The Changing Notion Of “Applications”
- Client/Server SOA vs. Event-Driven SOA (a.k.a. EDA)
- SOA vs. RESTful architectures
- Key SOA Design Guidelines
  - The Service Layer Model
- SOA Challenges

### **2. SOA Phase 2: Service Virtualization & Server Virtualization**

- From mediation to service virtualization
- Implementation choices for intermediaries
- Server virtualization - overview
- Mapping SOA to server virtualization
- Virtualization & automated workload management

### **3. SOA Phase 3: Moving into the Cloud**

- From dedicated to virtual to cloud infrastructure
- Chose your cloud flavor: IaaS, DaaS, SaaS, or PaaS?
- Cloud characteristics
  - Private vs. public, multi-tenancy
- Benefits and challenges
- Applying SOA to the cloud

### **4. Planning the SOA Evolution: SOA Maturity Model and SOA Roadmap**

- Defining the goals – SOA maturity models
  - The Open Group Service Integration Maturity Model (OSIMM)
    - Overview
    - Maturity levels
    - Maturity dimensions
    - How to assess your SOA maturity
  - Other SOA maturity models
- How do we get there – developing a SOA Roadmap



## **5. Managing the SOA Evolution: Business Governance, IT & EA Governance, SOA Governance**

- Governance overview
  - Business governance
  - IT governance
  - Enterprise Architecture (EA) governance
  - Why do we need governance specific to SOA?
  - Migration from previous architectures
- SOA Center Of Excellence (COE)

## **6. A Detailed Look at SOA Governance**

- Governing the service lifecycle
  - Service oriented development methodology
  - Design time governance
  - Run time governance
- Key elements of SOA governance
  - Policies
  - Contracts
  - Metadata
- The lifecycle of SOA governance
  - Planning for governance
  - Designing the governance model
  - Model deployment
  - Monitoring the effectiveness of the governance

## **7. SOA Governance Frameworks**

- Open Group standards
  - SOA Governance Reference Model (SGRM)
  - SOA Governance Vitality Method (SGVM)
- IBM SOA Governance and Management Method (SGMM)

## **8. SOA Governance Technologies**

Overview

Repositories & registries

Repository functionality

Registry functionality

Policy management

Runtime governance technology

Policy enforcement

Service management

Security

An integrated governance solution

Applicable standards

UDDI

Governance Interoperability Framework (GIF)

WS-Policy



## ***9. ROI Example and Conclusions***

- Return on Investment (ROI) defined
- Client example
  - ROI through service reuse
  - ROI Model for software reuse
  - Keeping track of reuse
- ROI For Center of Excellence (COE)
- Conclusions