

# SOA - Service Oriented Architecture for Managers and Architects

## *Introduction to SOA*

- Traditional EAI Approach
- Problems With Traditional EAI Approach
- Enter Service Oriented Architecture (SOA)
- Build the Services
- We Can Easily Change the Process
- Change Flow Using Legacy Approach
- Replacing an Application
- Other Advantages
- Business Advantages
- Adoption Stages

## *A Service Oriented Methodology*

- The SOA adoption roadmap
- Service lifecycle
- Three analysis approaches
- Service oriented analysis
- Service oriented design
- Introduction to service oriented patterns

## *SOA Past and Present*

- From XML to Web Service to SOA
- How SOA was done before
- Emerging standards for SOA
- Compare SOA with other architectures

## *What is service oriented architecture?*

- Creating a common understanding of SOA
- The evolution of SOA
- Introduce the concepts of services and SOA
- Design principles of SOA
- The relationship between SOA and web services
- The advantages and risks of SOA

## *Interpreting Analysis artifacts*

- Why use models with SOA.
- Difference between model and methodology.
- Why use the Unified Modeling Language?
- Introducing UML, the notation.
- Identifying business processes.
- Notation, Patterns and Methodology.
- Which Methodology to choose?

## *Service Classification*

- Service Types
- Enterprise level services
- Basic Services
- Data-centric services.
- Logic-centric services
- Intermediary services
- Process-centric services

## *Introduction to Business Process*

- How a collection of services perform a task.
- Simple request response interaction
- Complex interaction involving many services.
- Need for a coordinator service emerges.
- Birth of orchestration or business process.
- Composing processes using processes.
- Business Process Execution Language (BPEL)
- Example business processes

## *Service Enablement*

- Basic web services elements
- Core web services standards stack
- The Importance of WSDL
- The design of SOAP
- The use of registries via UDDI
- The basic concepts of service orientation

## *Distributing Services Across a Network*

- Aligning functional and nonfunctional requirements
- The role of Intermediaries In Service Networks
- Introductions to WS-\* Extensions
- The three expansion stages of SOA

## *The SOA building blocks*

- Application frontends
- Using an Enterprise Service Bus
- The benefits of a Rules engine
- Why use a service repository
- Detailed service contracts

## *Enterprise Service Bus (ESB)*

- Objectives
- Service Invocation
- Legacy System Integration
- Web Services to the Rescue
- The role of ESB in SOA
- Security and ESB

## *Motivation and Benefits*

- The enterprise perspective
- The personal perspective
- Cost savings
- Streamlining the business
- Reuse and resulting benefits

## *Organizational Roadmap*

- Stakeholders and potential conflicts
- Four Pillars of success
- An ideal world
- Recommendations for the SOA Protagonist
- Enforcing substantial change
- Encouraging business involvement

## *SOA Governance*

- The SOA Board
- Managing the service repository
- Documenting contracts
- SOA from the CEO/CIO's point of view.
- Imposing a SOA methodology
- Avoiding mutual dependencies.
- Why not everything should be re-usable
- SOA Strategies
- Project test and rollout planning
- Vertical versus Horizontal slicing

## *Conclusions*

- The benefits of employing SOA
- Review of common business goals
- The risks associated with the SOA approach
- Evaluating tradeoff strategies