



SOA Focus Area Managing the SOA Initiative

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Take Credit Code: EUMAN

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Key Elements of Successful SOA Projects

- Building the right SOA team
 - A diverse group that bring different perspectives and wide-ranging support to the implementation
- Handling organizational/people issues
 - Human resistance to change more challenging than the technical issues
- Tackling the project iteratively
 - Won't have full spec as you get started
- Managing the Service lifecycle
 - Very different from the traditional software development lifecycle (SDLC)

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Building the right SOA team



- Shared Services cross organizational boundaries
- Siloed IT management styles are becoming *obsolete*
- The new role for enterprise architects

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The SOA Team

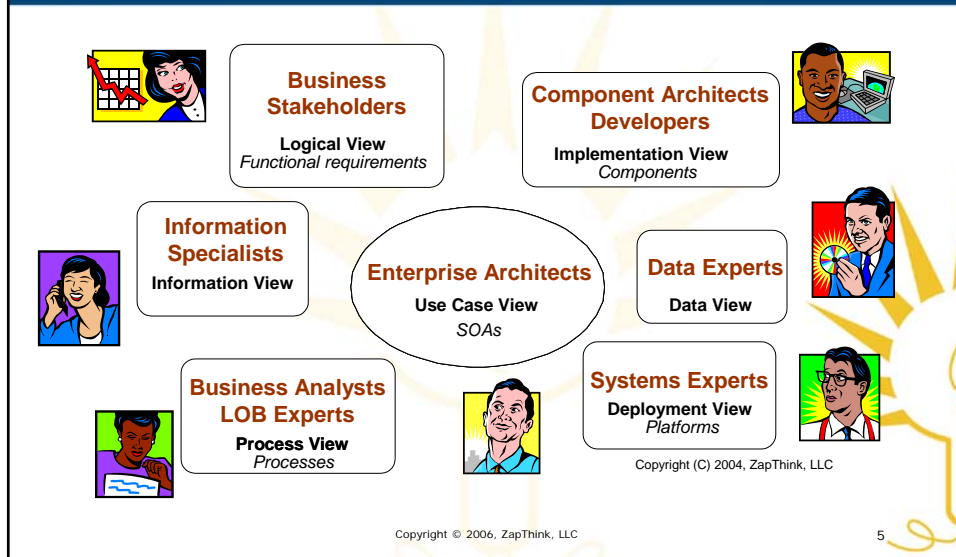
- Business analysts/business process architects
 - Define Service specs depending on business requirements
 - Decompose and recompose processes
- Enterprise/SO architects
 - Codify policy and best practices
 - Create Service model
- Technical specialists/project architects
 - Specify implementation
- Service provider/consumer developers
 - Implement requirements and policy
- Testers
 - Insure conformance, simulate Service providers & consumers
- Network, operations and security personnel
 - Contribute relevant expertise to project



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The Roles of SOA



Org/People Challenges

- People, Change & Fear
- Interactions
 - Developers & Network Ops
 - Architects & Developers
- Convincing IT specialists
- Dealing with IT middle management
- The "Ivory Tower" problem



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People, Change and Fear

- People are inherently resistant to change
- People consider job security, authority and responsibility when asked to share
- Fear is the strongest emotion of all!

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Interaction Challenges

Services blur the Application / Network Boundary!



Developer/Architect



Network Operations

- **Cultural Issues**
 - Network Ops and Developers don't talk to each other
- **Budget issues**
 - Who pays for Service Infrastructure / intermediaries?
- **Responsibility issues**
 - Who is in control of policy?

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More Interaction Challenges

Architecture is difficult to mandate



Architect



Development/Testing

- **Management issues**
 - People tend to avoid risk, stay within “comfort zone” - may appear stubborn
- **Technical issues**
 - Architecture is a difficult subject
- **Cultural issues**
 - The “Ivory Tower” problem...

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Convincing Technical Specialists

- Among the most risk-averse are *technical specialists* – mid to late-career experts in a (typically legacy) technology (e.g., “COBOL Jockeys”)
- Architectural change threatens their careers
- Solution:
 - Work with younger developers to build acceptance for SOA (eventually the TS’s will come around)
 - Take a “leave and abstract” approach over “rip and replace”

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Working with IT Middle Management

- Middle managers threatened by SOA because of the Service domain reorganization
- Solution:
 - Technical specialties still required
 - New opportunities for Service domain management

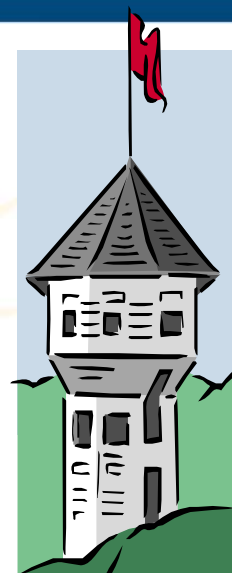
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The "Ivory Tower" Problem

- Architects create design and other artifacts, but don't have the authority or mandate to require their use
- Development team considers them optional
- Business likes idea of architecture in principle, but short-term needs trump best practices
- When architects are external consultants, the "not invented here" syndrome makes the Ivory Tower worse



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Tackling the Project Iteratively

- Implementing SOA bottom-up
- Implementing SOA top-down
- Bringing together different mindsets
- Architectural visioning session
- SOA project management

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Implementing SOA: Bottom-Up

Put Service wrappers around existing applications



- Pros:
 - Reduces cost of integration
- Cons:
 - May not be reusable
 - May be redundant
 - Management challenges

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Implementing SOA: Top-Down

Create architectural plan & detailed design

- Pros:
 - Agility, reuse, flexibility
- Cons:
 - May not be implementable
 - Difficult to budget



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SOA *Must* be Both

- Develop the vision (but not the details) ahead of time
- Decompose some processes to identify target Services
- Build modest set of Services
- Compose applications to enable flexible processes
- Refine architectural plan
- Repeat

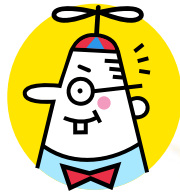
SOA should be iterative

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Bring Together Different Mindsets



- Developer Mindset: “Bottom-Up”
 - Everything is a Service or an Interface
 - Goal: connect Services
 - Method: Use objects and App Servers
 - Problem: Too many things to connect!



- Business Mindset: “Top-Down”
 - Everything is a Process
 - Goal: Run business efficiently: manage processes
 - Method: Use diagrams and flowcharts
 - Problem: How can you turn “shelf-ware” into software?

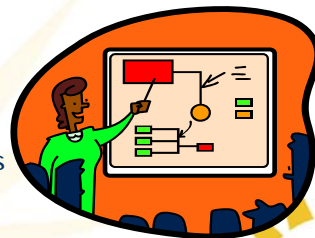
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Starting Point: Architectural Visioning Session

- Attendees: architecture team, business analysts responsible for business processes
- Provide the SOA perspective
- Processes drive the Services, Services drive the technology
- Split into two initiatives: process definition followed by Service definition
- Balance “big picture” with realistic pilot starting point



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Challenge: Service Granularity

- The trick of building composable Services is building at the right level of granularity
- Challenges:
 - Engraining business logic into code
 - Decomposing legacy services that are not fine-grained enough
- Method
 - Top-down process decomposition, vs. bottom-up Service development
 - Must be iterative

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Project Management for an SOA Project

- Pilot project much like a standard IT project, because business Services not yet in place.
- As your SOA matures, you must shift to a more agile, model-driven approach that requires more flexible project management.
- Basics of project management won't change (resource management, client management, schedule/dependency management).

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Enabling Service Domains

- A *Service Domain* is a logical grouping of shared Services with a common *business context*
- Examples: customer-facing Services, purchasing-related Services
- Manage Services by managing the Domains
- Move away from traditional IT silos for the purposes of managing Services, but retain technical teams as needed



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The Power of the SOA Center of Excellence

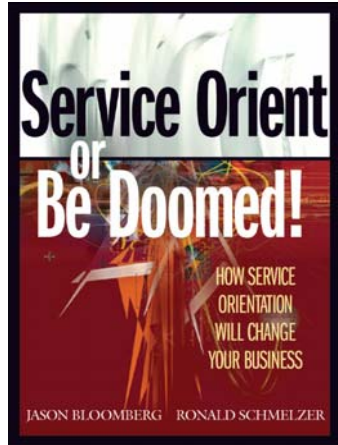
- SOA experts who maintain a knowledge base of best practices
 - General and company-specific
 - Design time and runtime
- Drives SOA policy (either explicitly or implicitly)
- Can unify approaches across a large organization

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ZapThink's New Book



- This presentation is based on our upcoming book, *Service Orient or Be Doomed! How Service Orientation will Change your Business*
- Published by Wiley, available in the spring
- Pre-order now on Amazon!

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Thank You!



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