

Organizational Adoption of SOA Best Practices

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The Problems of IT *are* The Problems of Business



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The Business Inflexibility Trap



- *Inflexibility* is the Mother of All Business Problems
 - If you're flexible enough, you can solve all the other problems
- Information Technology (IT) is an impediment to business change
 - It wasn't supposed to be that way!

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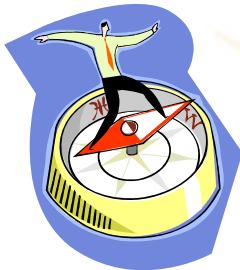
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Business Agility

- Companies require *Business Agility*...



- » Responding quickly to change,
and
- » Leveraging change for competitive advantage

Agility is the key to innovation

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Challenge: SOA is Architecture

- Remember...SOA is architecture – in particular, *Enterprise Architecture*, including:
 - An aggregated architecture of all the individual IT systems within an organization
 - The human element within the enterprise
 - Systems, people, and organizational constructs at other companies that have relationships with the enterprise
 - Individual consumers who are that enterprise's customers
 - Corporate governance



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Architecture is not About the Technology

Just as a building architect is more concerned with the space, not the walls, the IT architect is concerned with how people use the technology, not the technology itself



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Is there an Architect in the House?

- The new discipline of architecture
 - A formal approach to organizing IT resources is still a relatively new practice
- Just how big is the big picture?
 - Architects must have an *enterprisewide* view
- Where are the architects?
 - It's hard to learn architecture at college – most learn on the job



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Building the right SOA team



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

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Building Support for SOA

- Find your champion
 - May be LOB manager, CIO, management-level architect, or other architect
- Build the business case
 - Solve business problems while transitioning to new architecture
- Tackle project iteratively within context of overall plan



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Challenge: Inertia in the Organization



- Architecture doesn't have features and business executives pay for features!
- Moving to SOA means breaking down silos and sharing resources
- The technology change is easy – it's the human change that's the hard part!

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Shared Services Challenge: Reuse = Sharing



*We all learned to share in kindergarten...
But by the time we get to the working world, we
forget how!*

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Code Reuse vs. Service Reuse

- Reuse the old way: code reuse
 - Reusable code libraries and subroutines – the “Holy Grail” of programming
 - Branching code base reduces reusability
 - Hard to write reusable code, as requirements are never clear
- Reuse the new way: Service reuse
 - Reuse at runtime based upon contracted functionality
 - Loose coupling leads to flexible reuse
 - Appropriate governance and flexible metadata essential!



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Benefit: Increasing Efficiency Thru Service Reuse

New Composite Apps or Service-Enabled Existing Apps

1 2 3 6 7 9

2 5 7

3 4 5 9

1 3 8

1 5 8

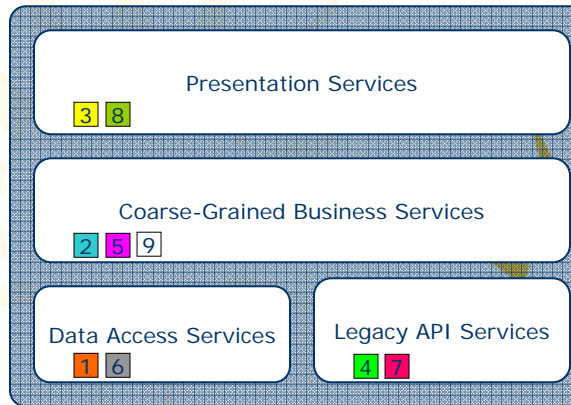
4 6

1 2 6 7 8 9

Service Catalog

1 2 3 4 5 6 7 8 9

Service Model



Source: BEA Systems

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Enabling Service Domains

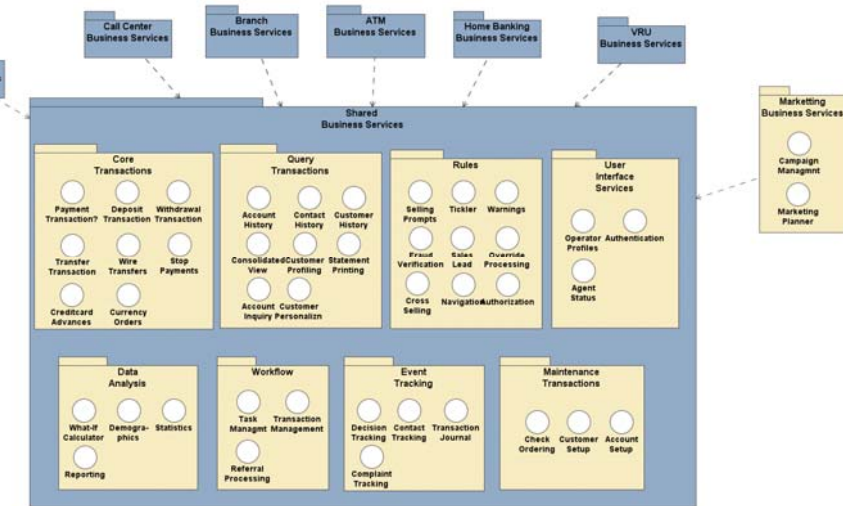
- A *Service Domain* is a logical grouping of shared Services with a common *business context*
- Examples: customer-facing Services, purchasing-related Services
- Manage Services by managing the Domains
- Move away from traditional IT silos for the purposes of managing Services, but retain technical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



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Service Domains Example



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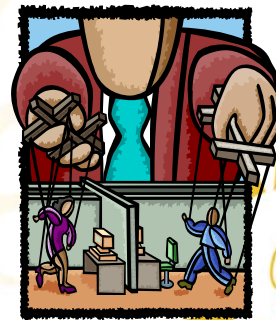
Source: CTGroup

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Challenge: Governance

- Establishing, communicating, and enforcing policies, providing visibility into the levels of compliance, and dealing with issues
- Not just governance of SOA...governance *with* SOA
- Essential to tackle early in SOA project
- But...avoid "big brother" effect



Who likes to be governed?

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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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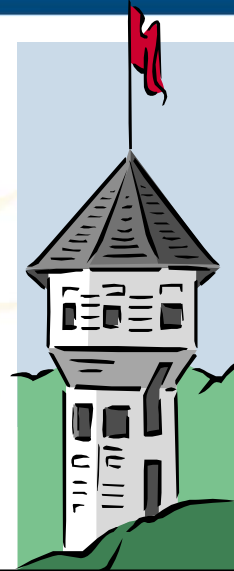
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The “Ivory Tower” Problem

- 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 – or sometimes the opposite!



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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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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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Flexibility, Empowerment & Control

- The old way: IT management maintains control, doles out limited capabilities to users
- The Service-Oriented way: IT empowers a wide range of business users to build and manage SOBAs
- Risk: business users will really muck things up!
- Solution: SOA governance – business user empowerment in the context of policy-based control



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Challenge: 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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ZapThink is an industry advisory & analysis firm focused exclusively on Service-Oriented Architecture and Enterprise Web 2.0.

Thank You!



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