

The SOA Killer App

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SOA: New Approach to Architecture Requires New Tools

- SOA abstracts existing capabilities
 - *Breaks down existing application silos*
- SOA puts greater power into the hands of business users
 - *Requires tooling business users are comfortable with*
- SOA empowers IT governance
 - *Creating, communicating, and managing policies more important than ever*



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The Services Tipping Point



- **Up till now, focus on *building* Services**
 - SOA infrastructure
 - Legacy enablement
 - Identifying reusable Services
 - Building loosely coupled Services
- **Now, focus moving to *consuming* Services**
 - Finding the right Service for the task at hand
 - Composing Services into Service-Oriented Business Applications (SOBAs)
 - Supporting rich user interfaces for Services and SOBAs

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Empower Business Users?



- The *mashup*: leveraging the Web to compose Services into *ad hoc* apps
- Without management and governance, will never be appropriate in an enterprise environment
- How to empower users in the spirit of the mashup, but maintain necessary control?

The Rise of the "Enterprise Mashup"

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The SOA Killer App

- Part *modeling tool*
 - Coordinate representations of Services, processes, policies, and implementation on an ongoing basis
- Part *composition tool*
 - Provide all the visual metaphors business analysts require
- Part *governance tool*
 - Manage policies and the policy lifecycle
- Part *management dashboard*
 - Gives the business all the visibility it requires
- Part *consumption tool*
 - Brings together various user interfaces as needed

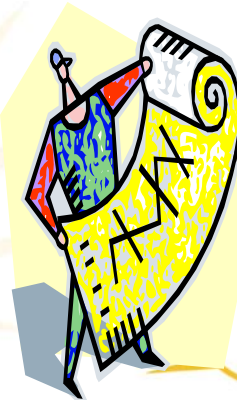


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Starting Point: Modeling

- Service-Oriented Architects must architect for *change*
- SOA is Enterprise Architecture—best practices for how the business leverages IT to meet diverse business needs
- SOA models represent both current state and future state of architecture
- *Architecture is no longer a design-time only activity*



Need for a full lifecycle SOA modeling environment

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A Closer Look at Service Composition

- Line-of-business users (analysts, process architects) can *find, identify, understand, and assemble* available Services
- They need a flexible tool that provides a visual metaphor appropriate to the task at hand
 - Process flowcharting tool?
 - Mind mapping tool?
 - Rules engine?
 - Spreadsheet?
 - *Any/all of the above*



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Business Logic Moves from Code to Composition

- Fundamental shift from code-centric business logic to metadata-centric
- It's not the Service that makes the application, but the composition and the policies
- Goal: users build applications out of Services



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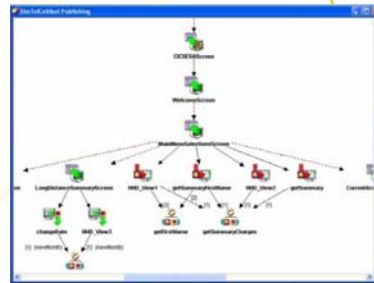
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The Secret Sauce: Metadata

- Service contracts enable Services abstraction
- *Business* logic in composite applications represented in metadata
- Composite applications built *declaratively* (through configuration), not programmatically (with code)
- Puts business logic in the hands of business users!



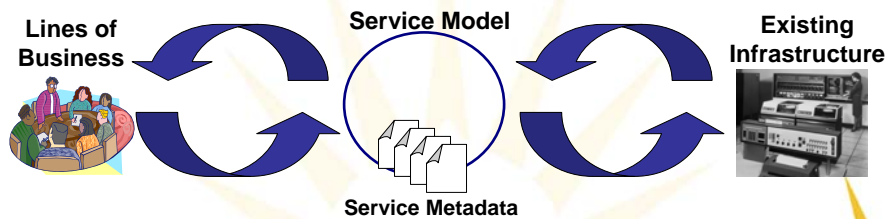
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Metadata & The Service Lifecycle



- Lines of business should work with metadata — no IT involvement
- Services go thru individual lifecycles – development, test, production, revision
- Service development driven by Service contracts
- Service metadata represented in the Service Model

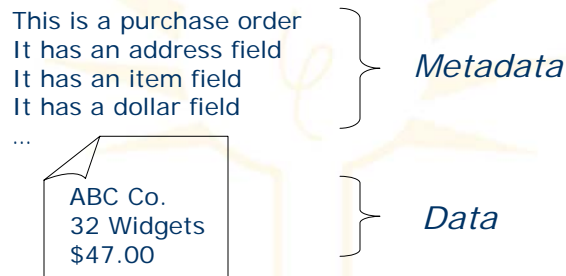
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What are Metadata?

- Literally, *data about data*
- More broadly, *data about the workings of a system*, as opposed to the data the system works with



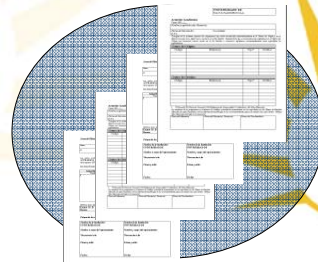
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Metadata for SOA

- Contract metadata
 - What a Service should do (functional)
 - How a Service should behave (non-functional)
- Process metadata
 - How processes are configured
 - How processes are composed
- Policy metadata
 - What rules apply in various situations
- Schemas
- ...



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Managing Metadata

- Design time storage and discovery of all kinds of metadata
- Service versioning/lifecycle management
- Runtime Service discovery
- Governance
- Composite application/business process management

***SOA is not about the code...
it's about the metadata***

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The Business Benefits

- ***Facilitate Reuse***
 - The more you know, the more you can reuse
 - Reduces redundancy
 - Enables discovery
- ***Increase Agility***
 - Runtime usage of registries and repositories enables dynamic change
 - Metadata controls it all
 - Contract negotiation?
- ***Provide Governance***
 - Single point of control
 - Enable distributed development, but centralized management
 - Simplify policy design and management

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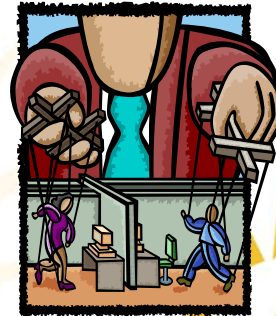
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Policy: The Key to Governance

- Establishing and communicating the policies that employees must follow
- Giving employees the tools they need to be compliant with those policies
- Providing visibility into the levels of compliance in the organization
- Mitigating any deviations from established policy



Challenge: Business Policy vs. Executable Rules?

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SOA Governance: Applying SOA to Governance

- Policy management
 - SOA configured & controlled via metadata, including policy
- Visibility
 - Services abstract heterogeneous data sources, providing necessary business intelligence
- Flexibility
 - Ability to build Services that address compliance issues and adjust them as regulations or business needs change

**Not just governance of SOA...
governance in the context of SOA**

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SOA Provides Visibility

- Visibility into data
- Visibility into business processes
- Visibility into levels of compliance



Next-Generation Composite Business Dashboard

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The Challenge of Visibility

- For the IT worker:
 - What applications, databases, and other information services exist & how they relate
 - How to reuse existing applications
 - How to combine and expose existing application functionality
- For the business user:
 - What business Services are available to automate processes
 - Which Services can people reuse
 - The impact changes in requirements make on existing processes



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Visibility, Governance & Control

- Effective managers must delegate responsibility, yet maintain control
- A governance infrastructure actualizes corporate policy
- SOA → greater visibility → greater *control*



The SOA Killer App Balances Needs of Management with Business User Empowerment

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Thank You!



ZapThink is an advisory, analysis, & influence firm focused exclusively on Service-Oriented Architecture, Web Services, & XML.

Read our new book, *Service Orient or Be Doomed! How Service Orientation Will Change Your Business.*



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