

Defining a Business Service

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Take Credit Code: DEFBIZ

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What are Services? (High level)

- Broad meaning: something providing a capability to another as needed
 - IT Services, like print services or email services
 - Business Services, like accounting or human resource management
 - Software-as-a-Service
- Narrower meaning: an abstraction of IT functionality or data
 - Web Services are *one* example
 - SOA starts with this kind of Service



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2



What are Services? (Technical definition)

- Contracted interfaces to software functionality and data that communicate via messages
- Technically, a *Service interface*



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3



Service Interfaces Aren't Good Enough!



- Service Interfaces provide a *technical* context
 - Standard interfaces like Web Services help, but don't provide all the benefits of SOA
- Business Services provide the *business* context
 - The business doesn't care *how* it works, as long as it does!

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4



The Difference is the Abstraction

- Mature technology is complex on the inside yet simple on the outside



- The secret is the *abstraction layer*

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5



The Fundamental Technical Challenge of SOA

Creating & Maintaining the Service Abstraction

- Location-independent, loosely coupled *business Services* that:
 - Provide business agility
 - Support flexible business processes
 - Empower users
- At a higher level of abstraction than a Service interface



Sounds good, but how does it work?

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Key Service Abstraction Enabler: Coarse Granularity

- Business-oriented requests and responses
- Blocks of information exchanged
- Driven by the business/data context of the Service



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7



Granularity Example

• Fine-grained interaction:



- » I'd like to order a shirt.
 - » What size would you like?
- » Size XL.
 - » What style?
- » The one on page 30 of your catalog.
 - » Which catalog is that?
- » ...



• Coarse-grained interaction:



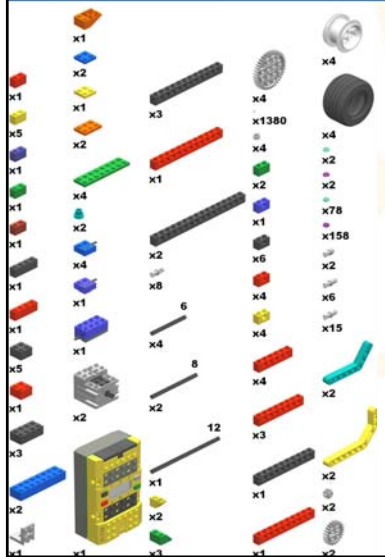
- » Fill in the order form online with all required information
- » Click submit
 - » Receive "Thank you, your order is complete" page
- » ...

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8



Achieving Proper Granularity



- Too small?
 - Difficult to build anything
- Too big?
 - Too inflexible, not reusable
- Just right?
 - Depends on the project at hand
 - Most situations require a mix of sizes

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9



How Do You Eat an Elephant?

- *One bite at a time!*
- Take a step-by-step approach, but...
 - Top-down only: have the plan, may not be able to execute
 - Bottom-up only: build Services, may not be reusable
- SOA planning *must* be both
 - Develop the vision (but not the details) ahead of time
 - Service development should be iterative
- Show business value at each step



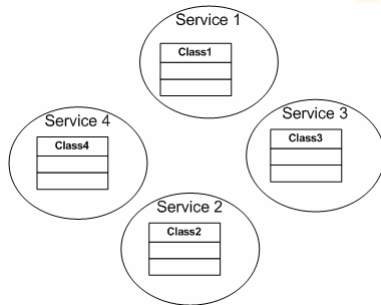
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10

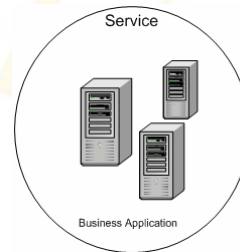


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Example: Too Fine Grained vs. Too Coarse Grained



Each object exposed as a Service



Entire application exposed as a Service

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Source: Wipro

11



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Levels of Service Abstraction



- Service Implementation
 - Working software that implements the Service



- Service Interface
 - Contracted interface to underlying functionality (includes Web Services)



- Business Service
 - Abstraction of underlying functionality and data with a clear business context

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Multiple Interfaces per Implementation

One Service implementation that supports multiple consumers



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Multiple Implementations per Interface

Supports load balancing/failover or different service level agreements



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Multiple Interfaces per Business Service

Provides the business abstraction



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15



ZapThink is an advisory, analysis, & influence firm focused exclusively on Service-Oriented Architecture and Enterprise Web 2.0.

Thank You!



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zapthink 16