



IBM SOA PoT

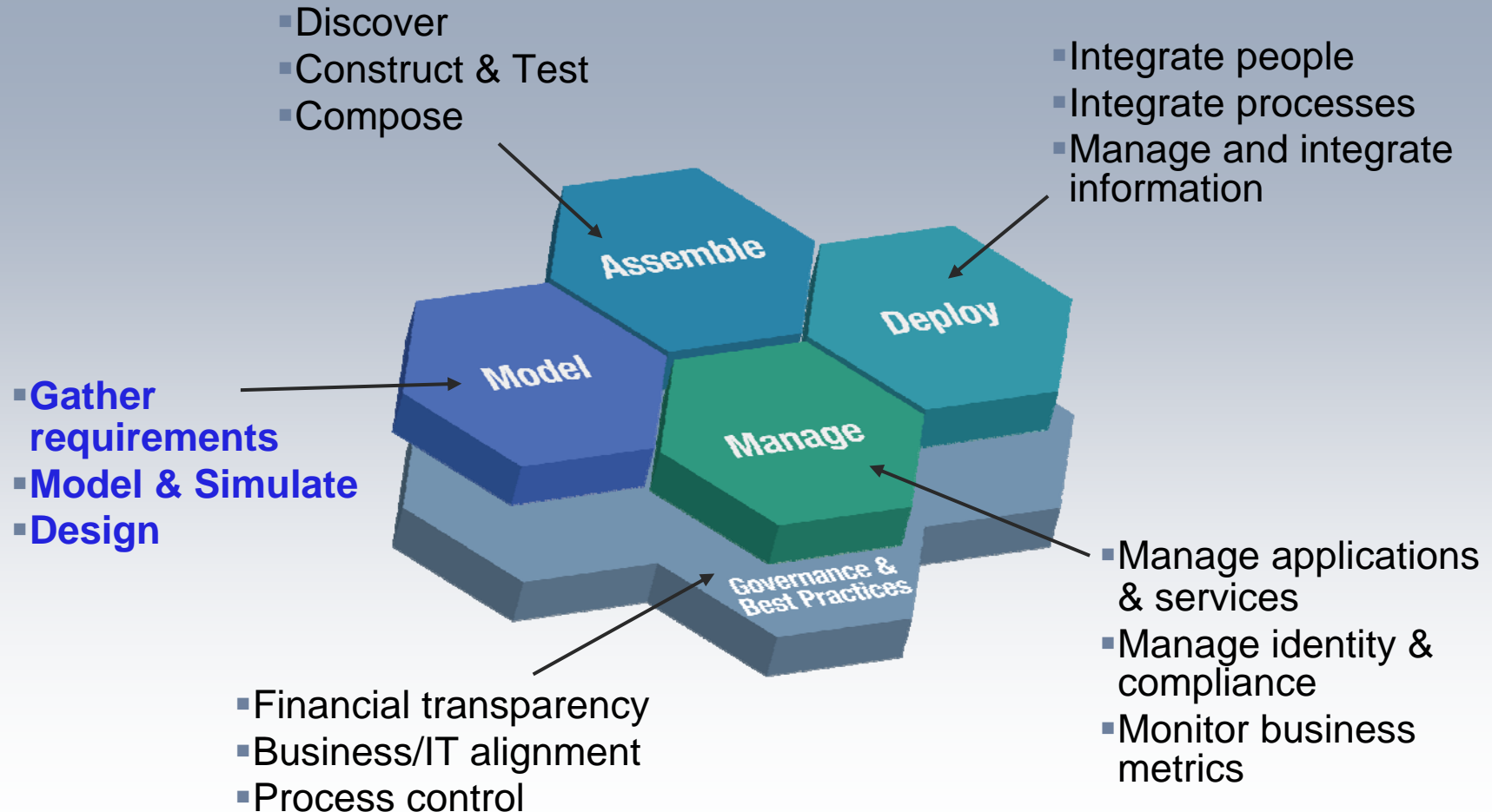
C1050 - Getting Started



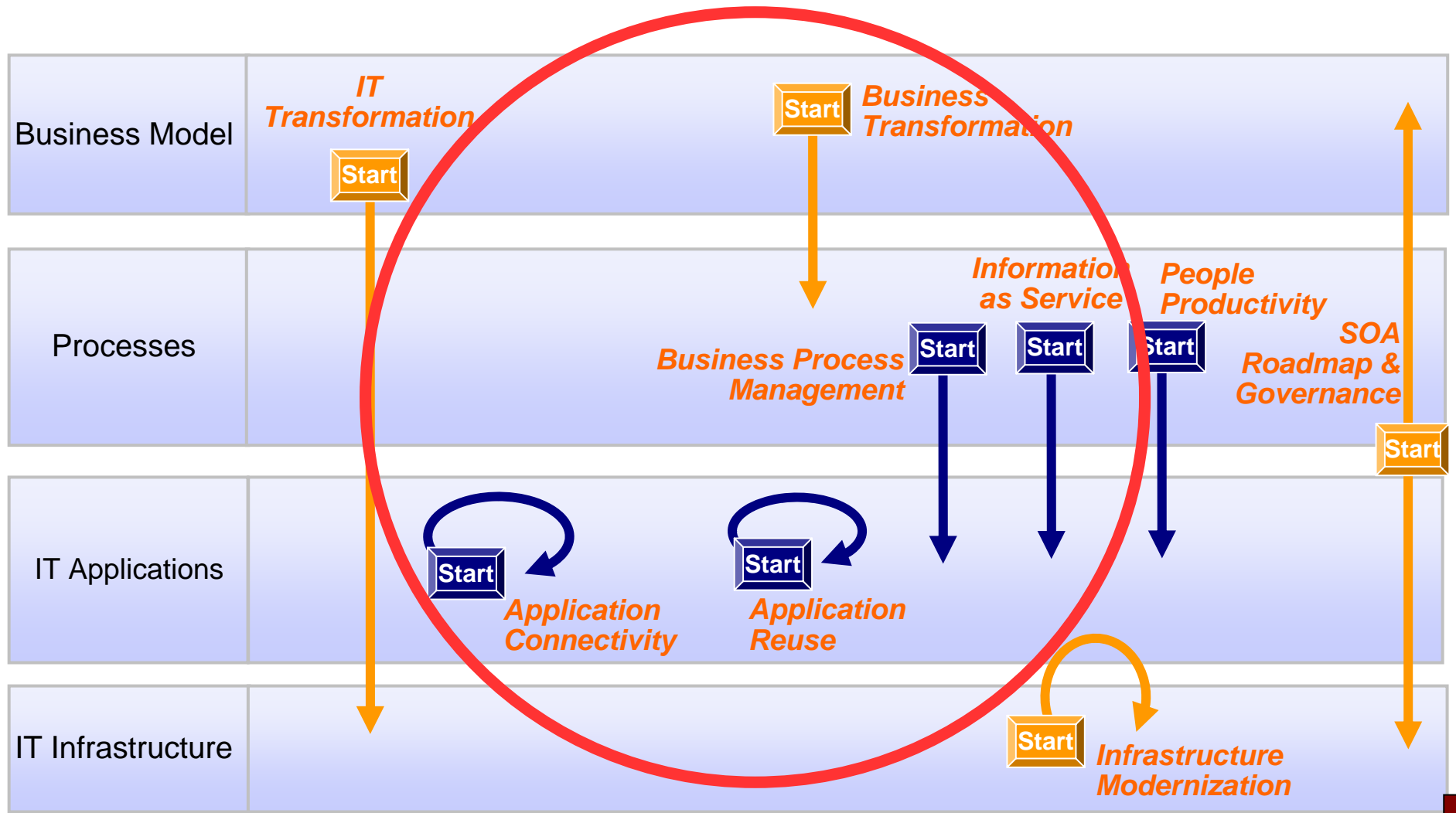
10 July, 2008

SOA Proof of Technology

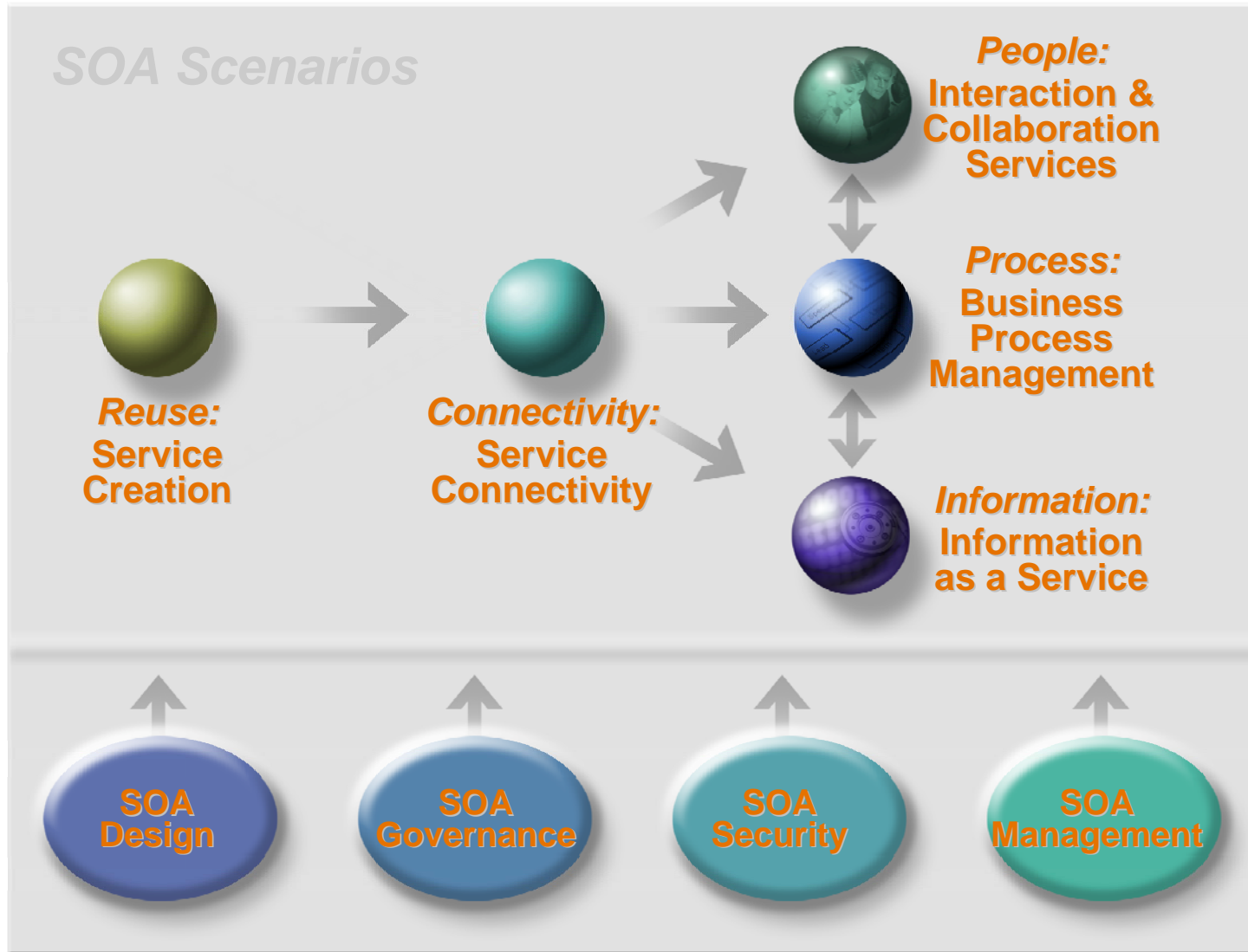
The SOA Lifecycle



Entry Points for SOA Transformation



SOA scenarios answer 'how to get started' with the SOA entry points



IBM has techniques to help accelerate business innovation

Business priority	IBM technique	Outcome
<p>Drive growth and achieve differentiation by leveraging core competencies</p>	<p>Component Business Modeling ServicesSM</p> <div data-bbox="891 635 1370 726" style="border: 1px solid black; border-radius: 10px; background-color: #008080; color: white; text-align: center; padding: 5px; margin: 10px auto; width: 80%;">CBM</div>	<p>Developing the business case for transformation by creating a logical representation of a business, making it easier to analyze business process performance and define differentiating components</p>
<p>Assess current SOA adoption maturity level of the organization to make it run as an integrated and seamless part of the business</p>	<p>SIMM- Service Integration Maturity Model</p> <div data-bbox="891 933 1370 1013" style="border: 1px solid black; border-radius: 10px; background-color: #8B4513; color: white; text-align: center; padding: 5px; margin: 10px auto; width: 80%;">SIMM</div>	<p>Identify the pain points for the scoped projects Identify the Gaps and build the SOA Roadmap</p>
<p>Develop a flexible set of business-aligned IT services that collectively fulfill an organization's business processes and goals while leveraging existing IT assets</p>	<p>Service-Oriented Modeling and Architecture</p> <div data-bbox="891 1181 1370 1268" style="border: 1px solid black; border-radius: 10px; background-color: #FFA500; color: white; text-align: center; padding: 5px; margin: 10px auto; width: 80%;">SOMA</div>	<p>An SOA design recommendation that includes a detailed description of the SOA service model and solution architecture</p>

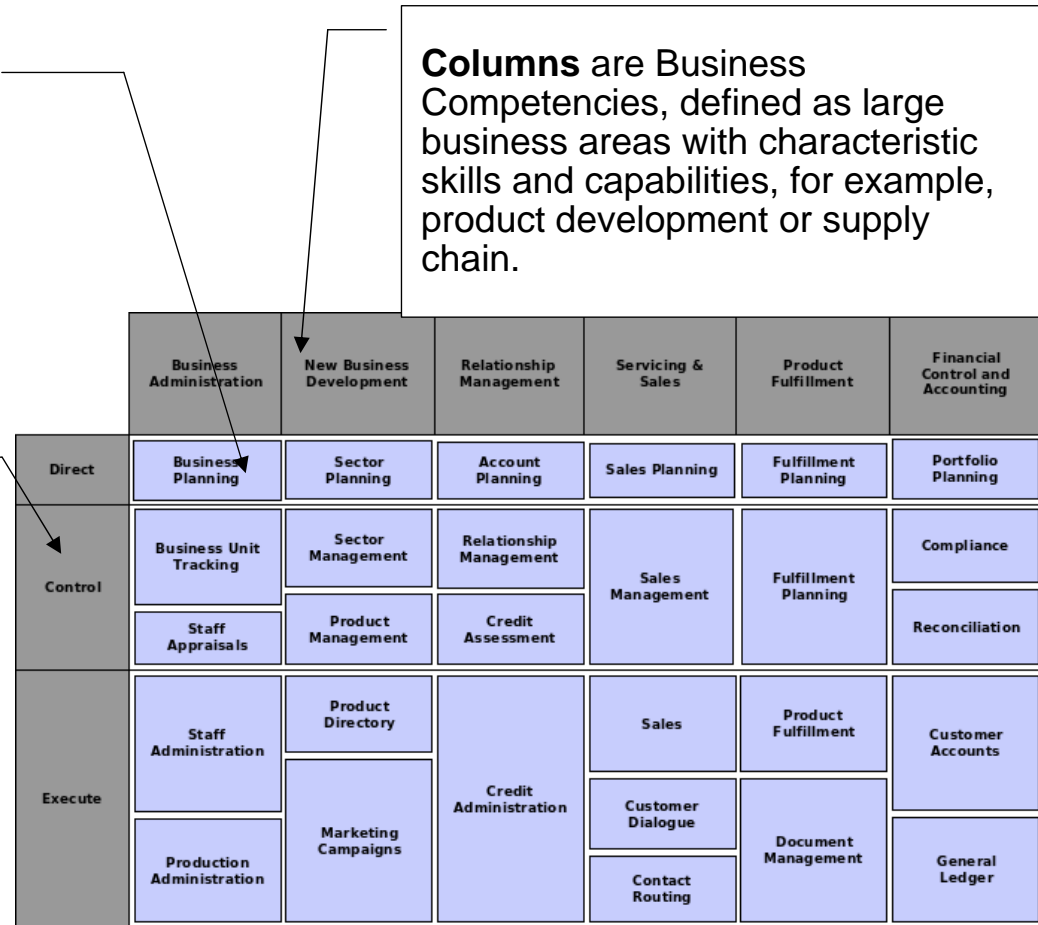
Service Oriented Enterprise - Business View

A **Business Component** is a part of an enterprise that has the potential to operate autonomously, for example, as a separate company, or as part of another company.

Columns are Business Competencies, defined as large business areas with characteristic skills and capabilities, for example, product development or supply chain.

An **Operational Level** characterises the scope of decision making. The three levels used in CBM are direct, control and execute.

- Direct is about strategy, overall direction and policy.
- Control is about monitoring, managing exceptions and tactical decision making
- Execute is about doing the work



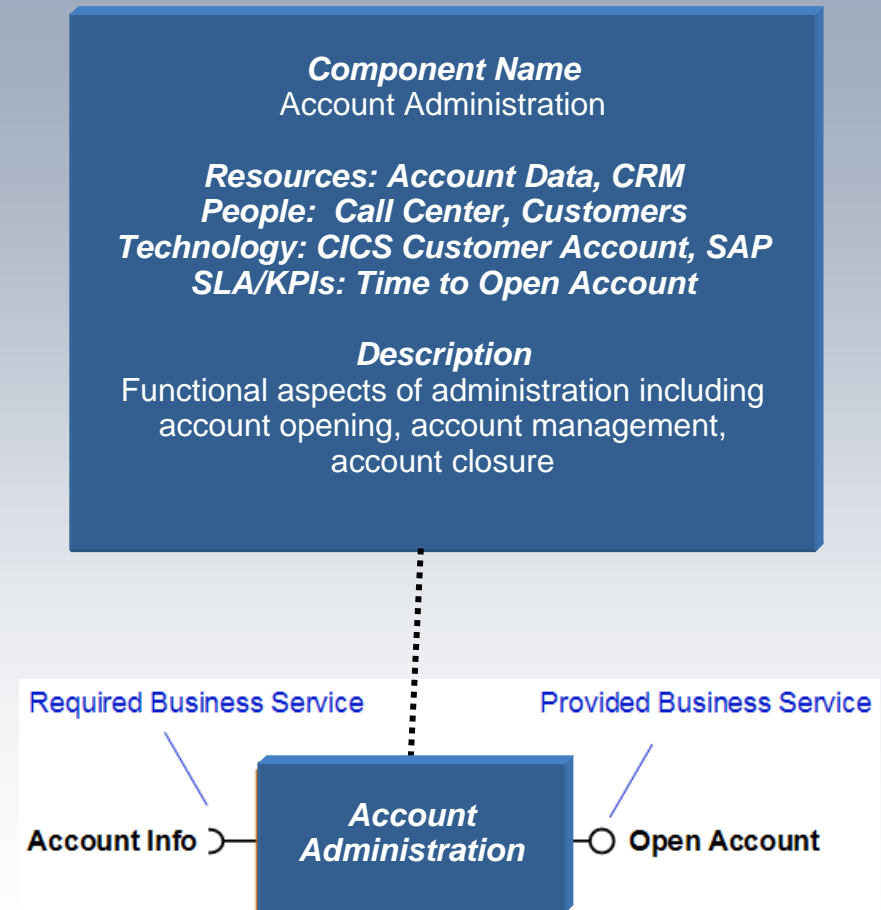
Business View : Component Business Model

- The enterprise is mapped out as a set of categorized business components
- Heat map highlights components for analysis based on criteria such as gaps and efficiency
- Enables approaches to understanding how the business can be improved

	Business Administration	New Business Development	Relationship Management	Servicing & Sales	Product Fulfillment	Financial Control and Accounting
Directing	Business Planning	Sector Planning	Account Planning	Sales Planning	Fulfillment Planning	Portfolio Planning
Controlling	Business Unit Tracking	Sector Management	Relationship Management	Sales Management	Fulfillment Monitoring	Compliance
	Staff Appraisals	Product Management	Credit Assessment			Reconciliation
Executing	Account Administration	Product Directory	Credit Administration	Sales	Product Fulfillment	Customer Accounts
	Product Administration			Customer Service		
	Purchasing	Marketing Campaigns		Collections	General Ledger	
	Branch/Store Operations					

Business Components Provide The Operation Model

- A business component is “a grouping of the people, technology, and resources delivering specific business value”
- Components have well-defined interfaces, allowing them to interact smoothly with each other and to be 'snapped' in and out at will, like building blocks”
- The Interfaces of the Business Components Enable Identification of Candidate Business Services



IBM has techniques to help accelerate business innovation

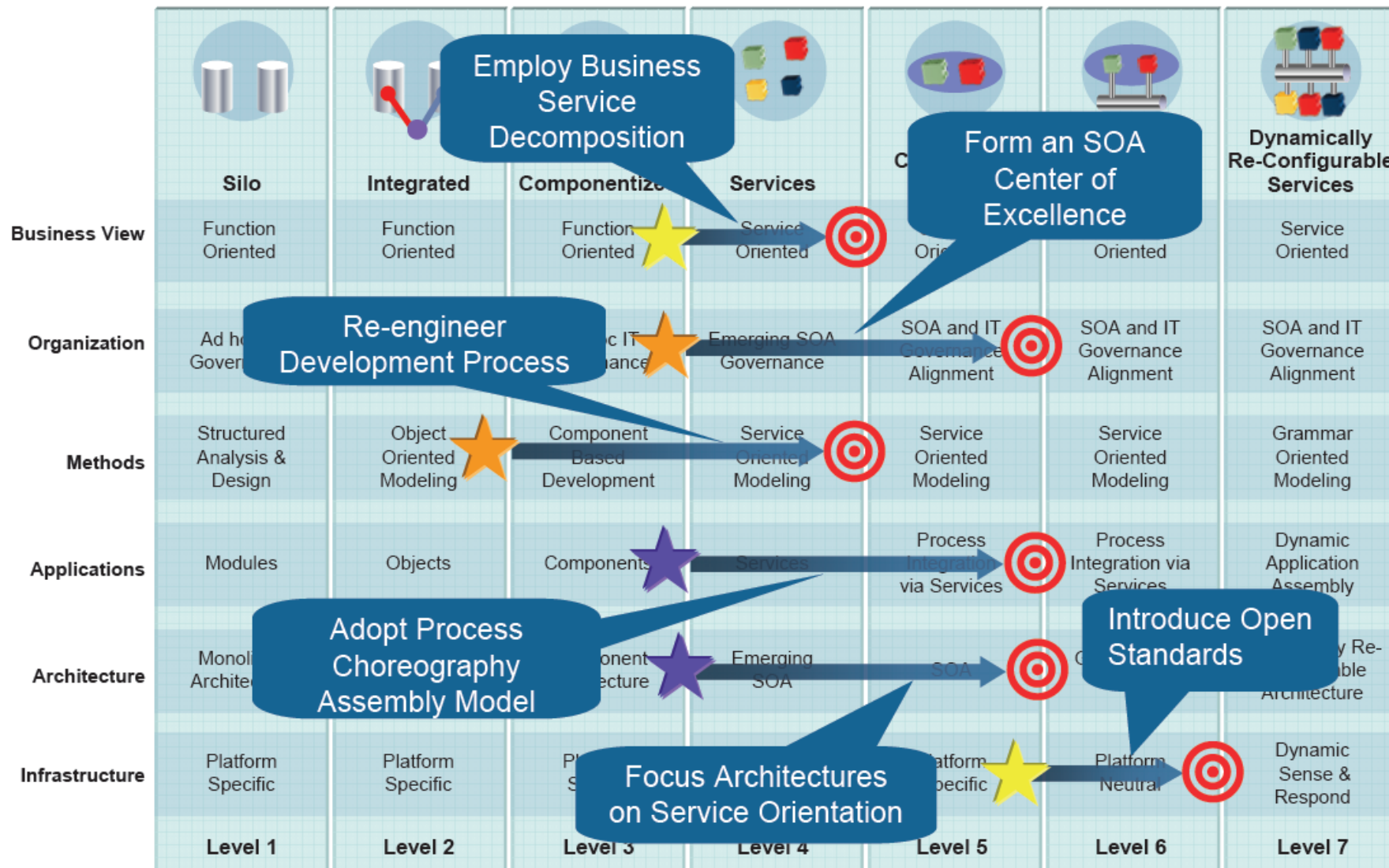
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The Service Integration Maturity Model (SIMM) helps define a roadmap for incremental IT and business transformation.

	 Silo	 Integrated	 Componentized	 Services	 Composite Services	 Virtualized Services	 Dynamically Re-Configurable Services
Business View	Function Oriented	Function Oriented	Function Oriented	Service Oriented	Service Oriented	Service Oriented	Service Oriented
Organization	Ad hoc IT Governance	Ad hoc IT Governance	Ad hoc IT Governance	Emerging SOA Governance	SOA and IT Governance Alignment	SOA and IT Governance Alignment	SOA and IT Governance Alignment
Methods	Structured Analysis & Design	Object Oriented Modeling	Component Based Development	Service Oriented Modeling	Service Oriented Modeling	Service Oriented Modeling	Grammar Oriented Modeling
Applications	Modules	Objects	Components	Services	Process Integration via Services	Process Integration via Services	Dynamic Application Assembly
Architecture	Monolithic Architecture	Layered Architecture	Component Architecture	Emerging SOA	SOA	Grid Enabled SOA	Dynamically Re-Configurable Architecture
Infrastructure	Platform Specific	Platform Specific	Platform Specific	Platform Specific	Platform Specific	Platform Neutral	Dynamic Sense & Respond
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7

Service Integration Maturity Model (SIMM)

★ = current level
 🎯 = target level



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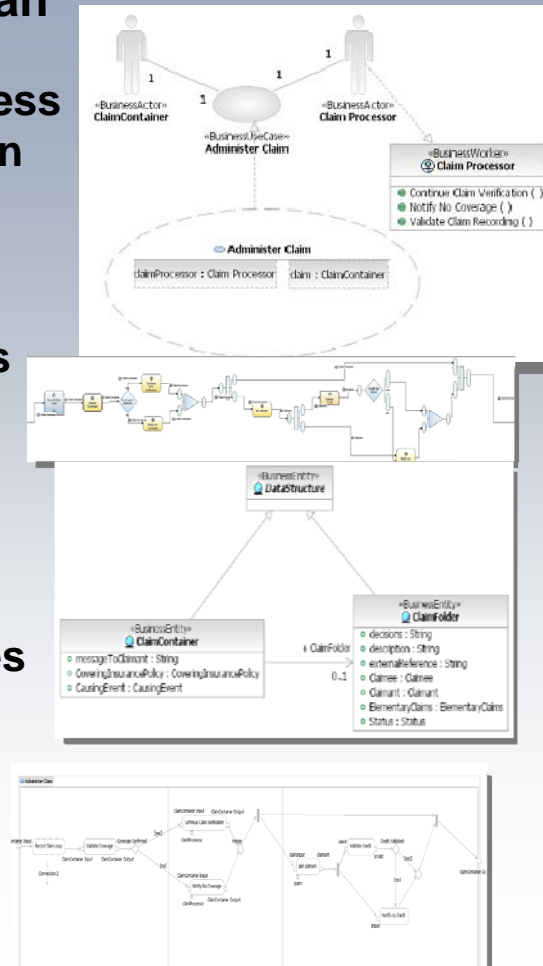
Service Oriented Analysis, Modeling, and Design

- **Top Down Approach – Business Requirements can be rendered as a Business Process Model**
 - Articulate and model the business intent as a process
 - Process model becomes an input for service design

- **Bottom Up Approach – Existing IT assets are discovered and evaluated as possible services**
 - Identify existing components as candidate services
 - Assets can be transformed into service interfaces and implementations

- **Meet-In-The-Middle Approach – Identification of business goals and sub-goals**
 - Goals and sub-goals correlate to candidate services

- **UML Profile for Software Services and RUP SOMA enforces discipline in designing software services**



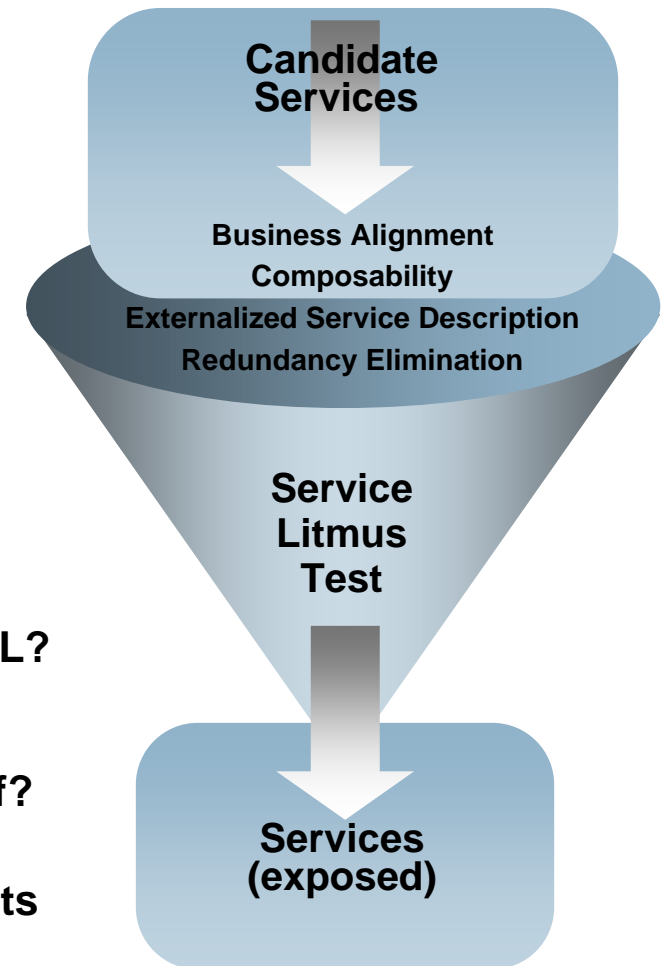
SOMA (Service Oriented Modeling and Architecture) *Identification, Specification, Realization and Implementation of Services, Components, Flows*

Identification, Specification, Realisation
& Implementation

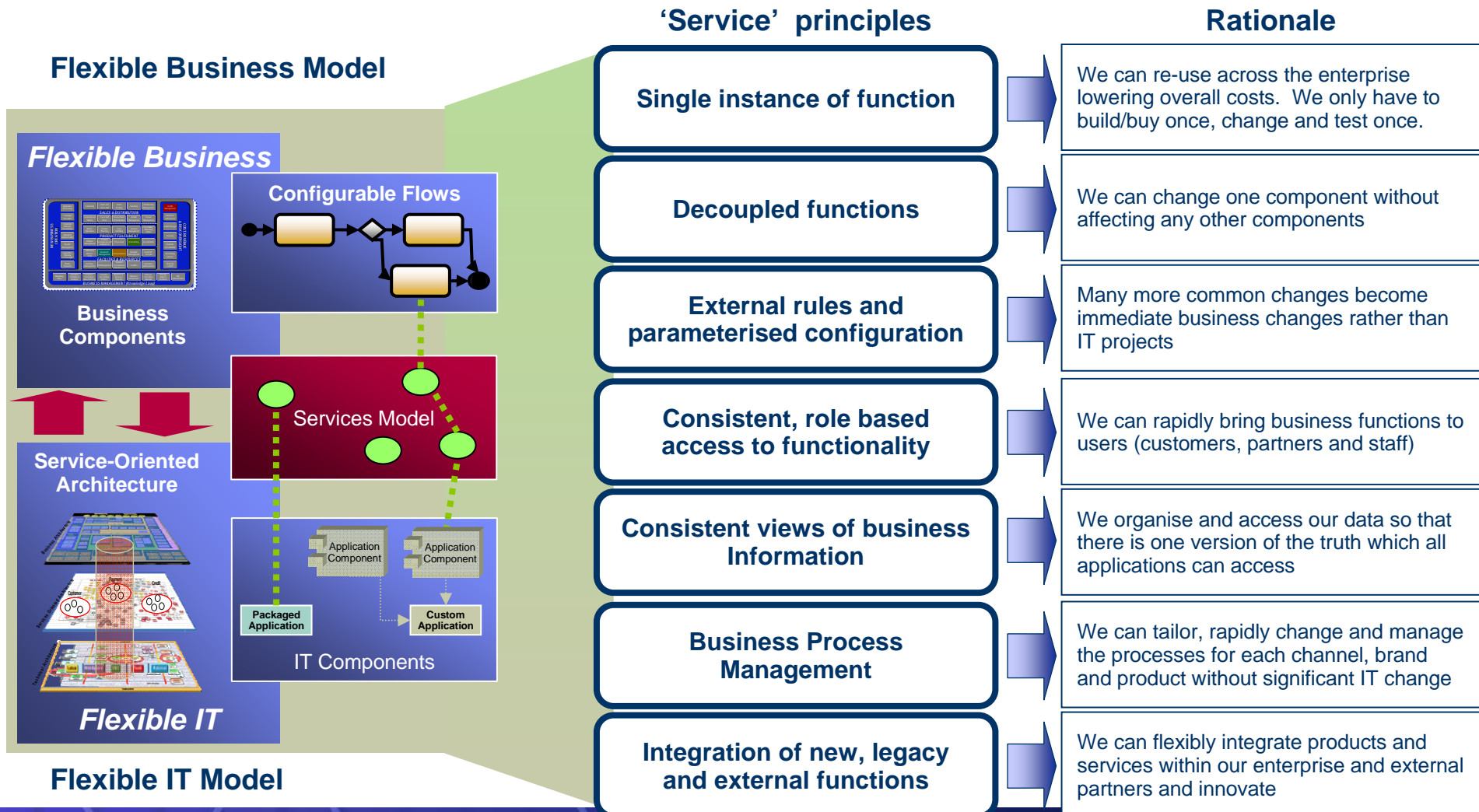
- **SOMA is IBM's end to end SOA Solution development method**
- **SOMA is an integral part of the Rational Unified Process**
- **SOMA has the following phases:**
 - **Service Identification**
 - **Service Specification**
 - **Service Realization**
 - **Service Implementation**

Service Exposure Decisions Within Service Identification

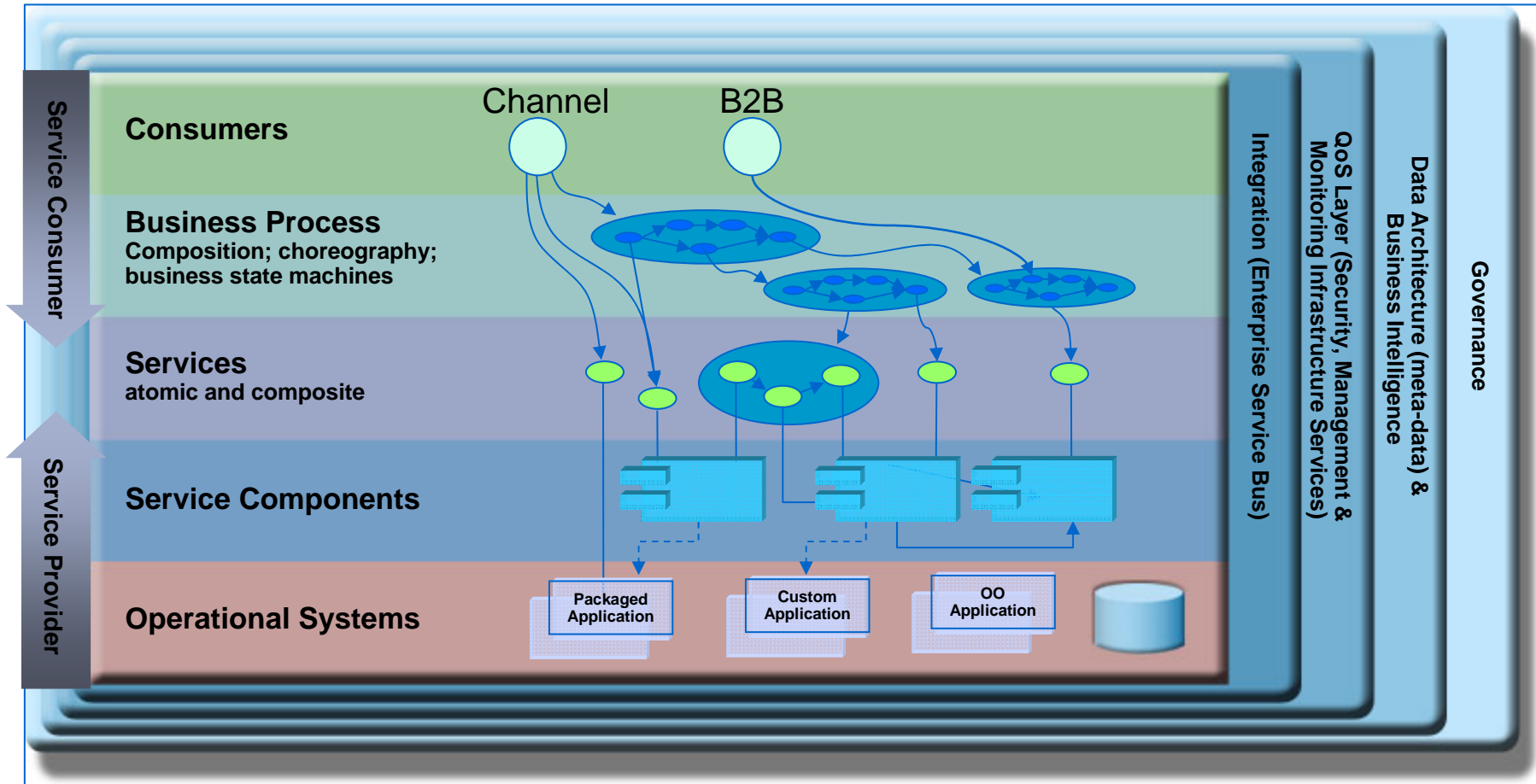
- **Business Alignment:**
 - Is the service business relevant?
 - Is funding available for service development and management?
 - Is the service sharable?
- **Composability**
 - Is the service consistent with NFRs at the composite level?
 - Is service stateless?
 - Is the service self-contained? (Are there dependencies?)
 - Is the service technology neutral?
- **Externalized Service Description**
 - Is the an externalized service description e.g. WSDL?
 - Can the service be discovered and bound via the service description?
 - Does the description contain meta-data about itself?
- **Redundancy Elimination**
 - Can the service be applied to all processes where its function is required?



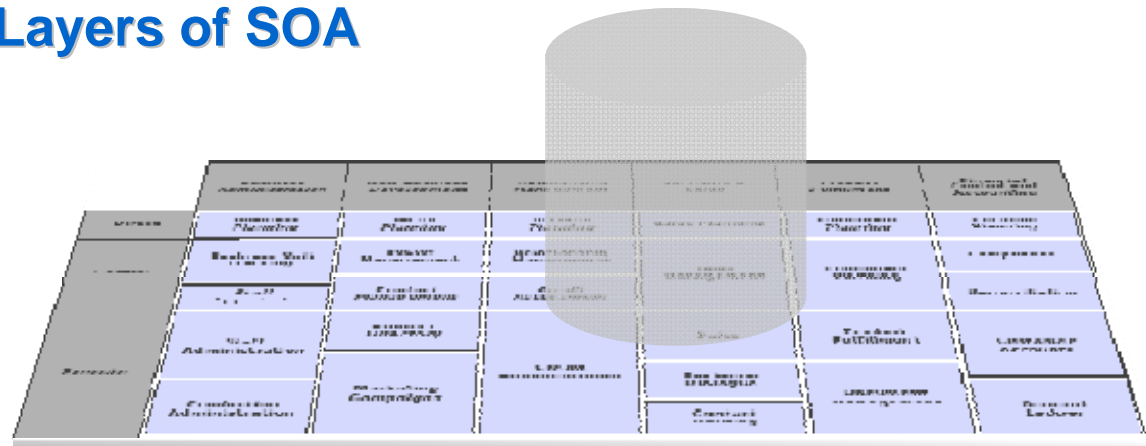
A flexible business model requires an enabling vision defined around a set of “service” principles



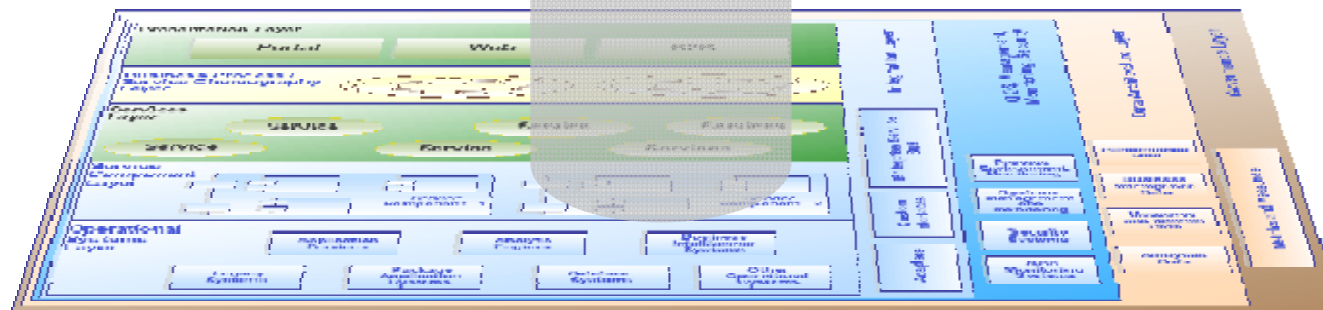
IBM's SOA Conceptual Layers



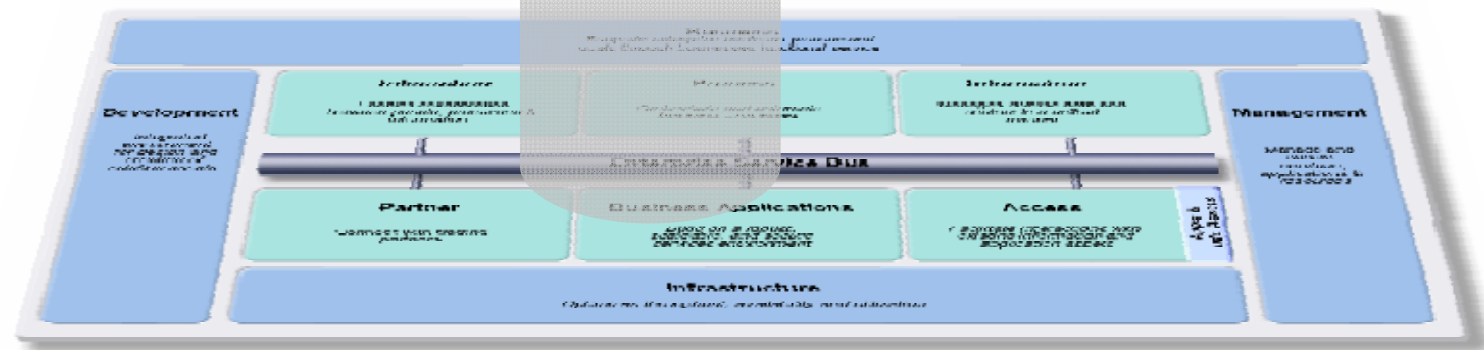
Layers of SOA



Business View

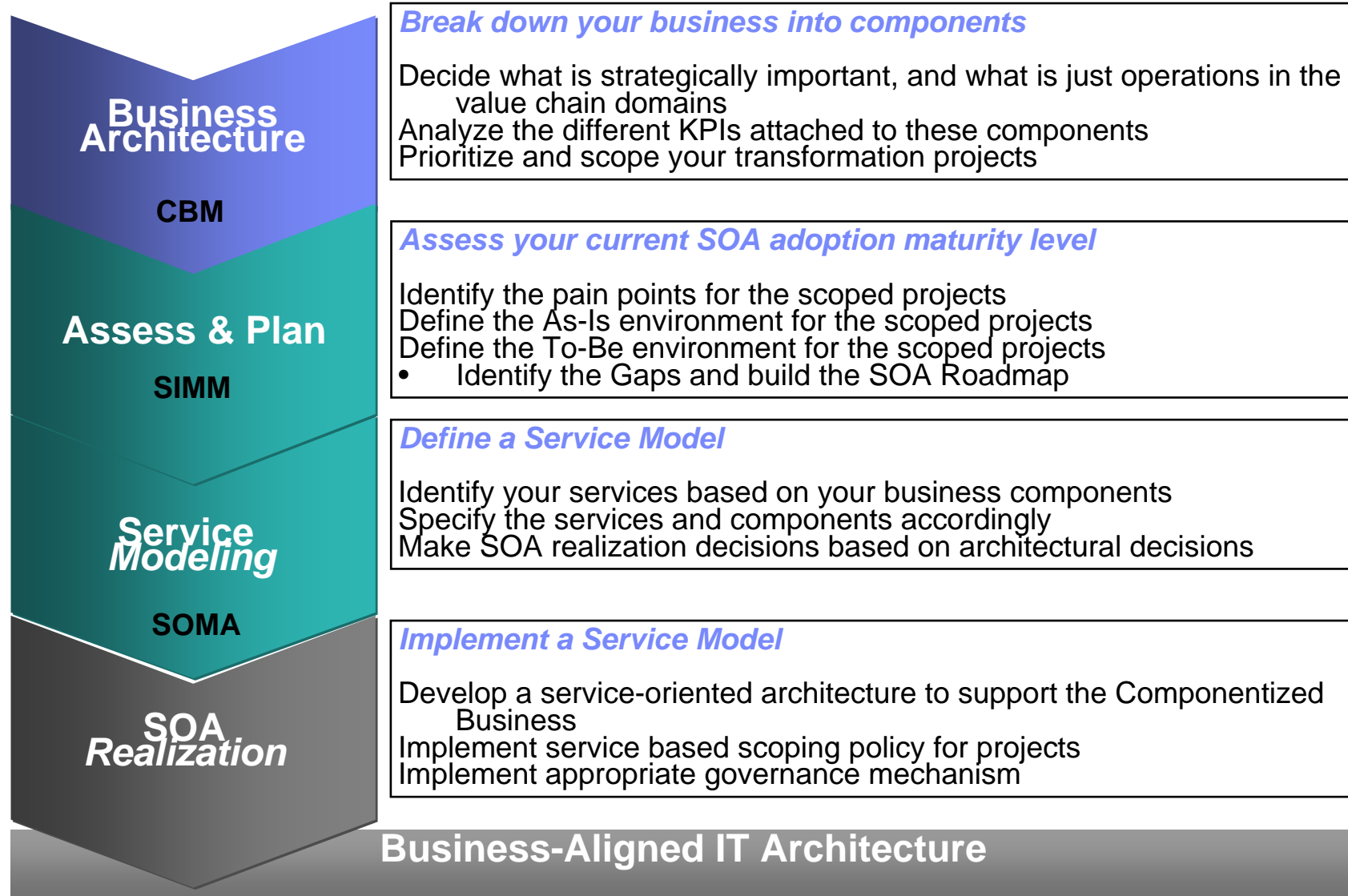


Architecture View



IT View

Align business architecture and IT architecture



Questions

