CBDI *Independent Insight for Service Oriented Practice*

An SOA Roadmap

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Agenda

- *SOA Vision and Opportunity*
- *SOA Roadmap Concepts and Maturity Levels*
- *Roadmap Planning*
- *Summary*

SOA Vision and Opportunities

Vision

Business Transformation – introducing greater flexibility into the way the business is organized as well as the capability to utilize that flexibility for rapid response to continuous change

Supporting Opportunities

Joined-up Delivery – orchestrating complex services across multiple organizations

Process Improvement – enabling a fundamental upgrade in process design

Service-Based Procurement – outsourcing appropriate operations in an efficient and flexible way to a healthy ecosystem of competing service providers.

Shared Services – removing duplication and inconsistency within and between business "silos" – delivering both cost reduction and process improvement
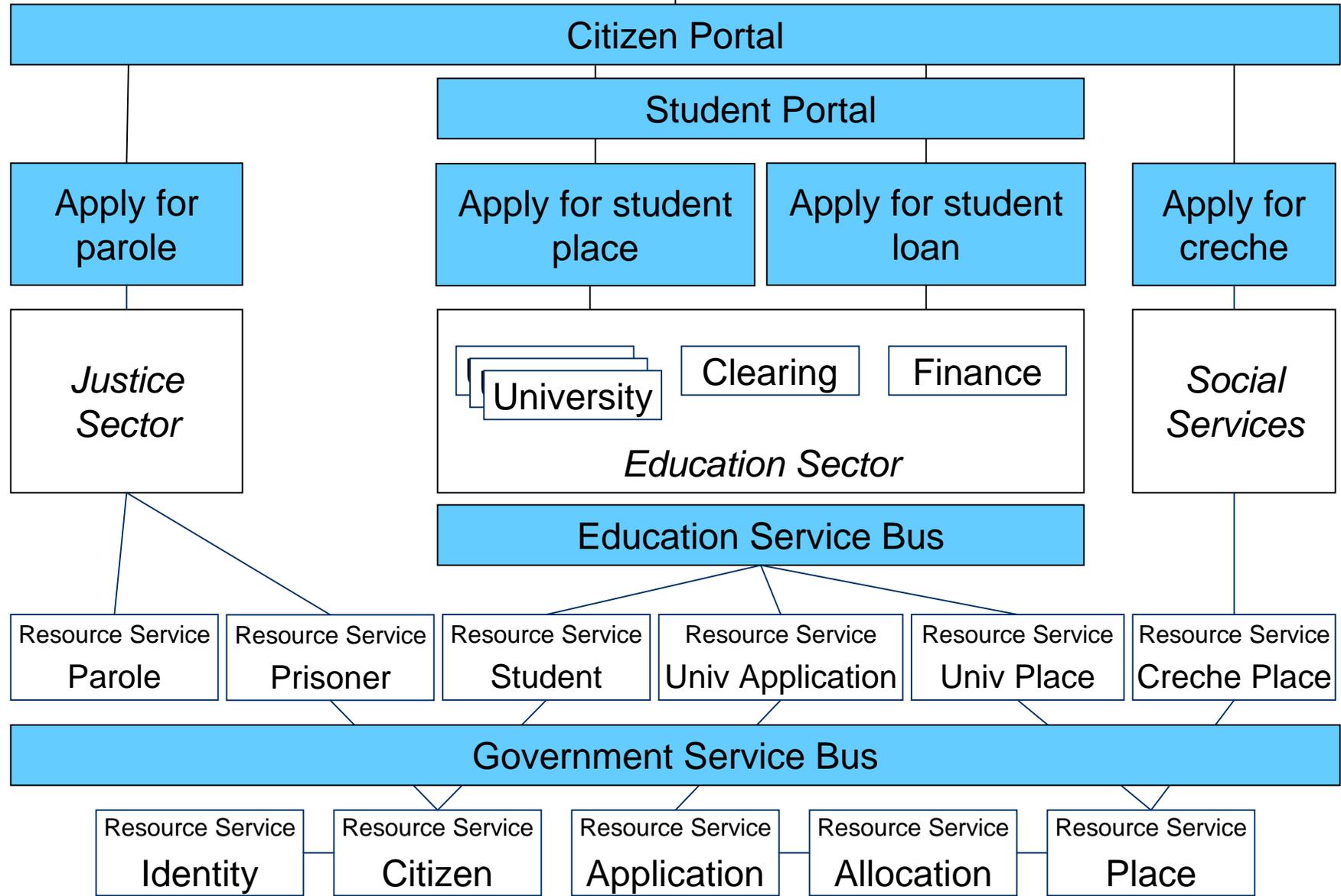
Standardization – facilitating standardization of many aspects of business including security, semantics, utility services and business process components such as case handling

Shared Services

Citizen Portal

Student Portal

Apply for parole	Apply for student place	Apply for student loan	Apply for creche

Justice Sector

University | Clearing | Finance

Education Sector

Social Services

Education Service Bus

Resource Service Parole	Resource Service Prisoner	Resource Service Student	Resource Service Univ Application	Resource Service Univ Place	Resource Service Creche Place

Government Service Bus

Resource Service Identity	Resource Service Citizen	Resource Service Application	Resource Service Allocation	Resource Service Place

Maturity Models and Common SOA Roadmap Mistakes

Source: AmberPoint,
BearingPoint
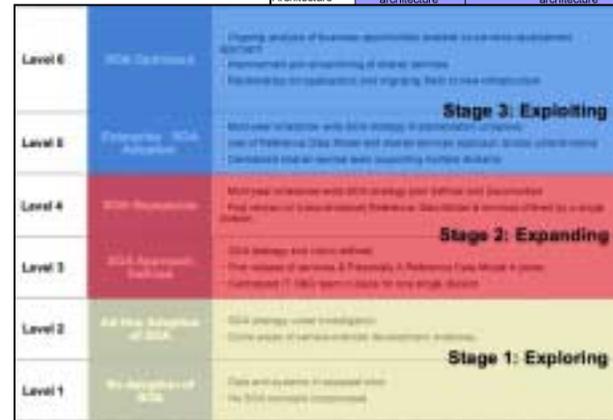Sonic Software
Systinet
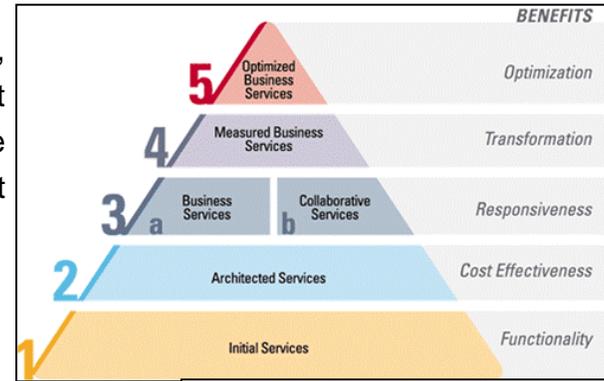
Source: IBM

- Tactical, LOB based

- Technology driven

- Focus on types of services
  (initial, architected, collaborative, measured . . .)

- Architecture left until Level 5

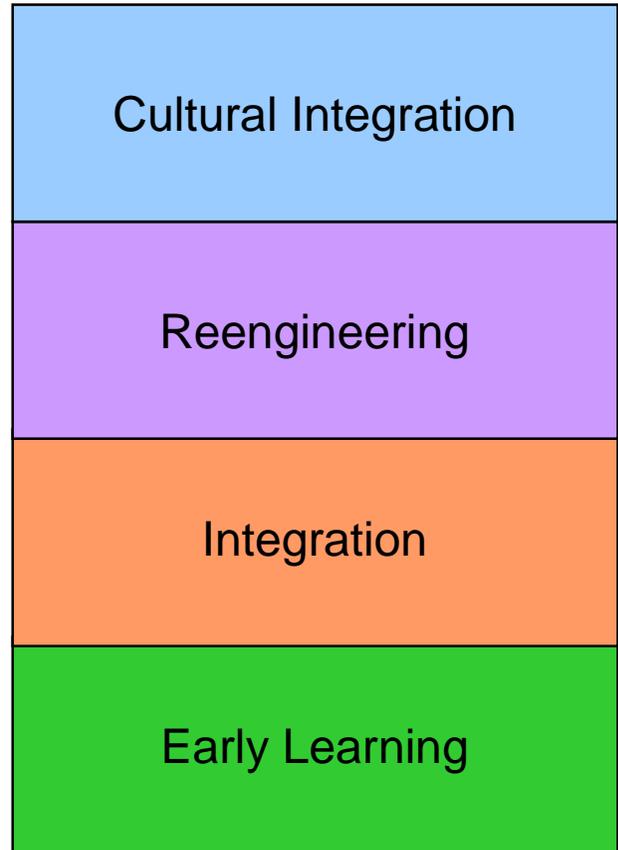- Project ROI driven
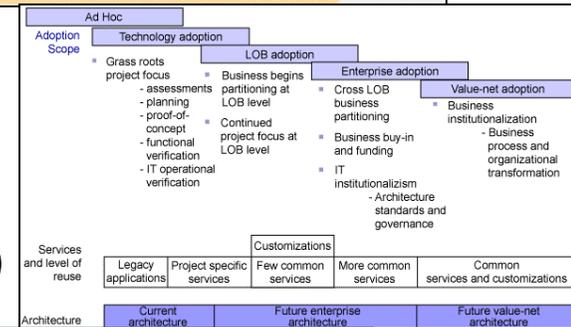
Source: BEA Systems

SOA Maturity and Roadmap Critical Success Factors

Critical Success Factors

- Business value driven
- Meld strategic and tactical view
  - Long and short term
  - Direct and indirect
- Capability based
- Spans all roles and responsibilities
  - business, technology, architecture, life cycle process, organization
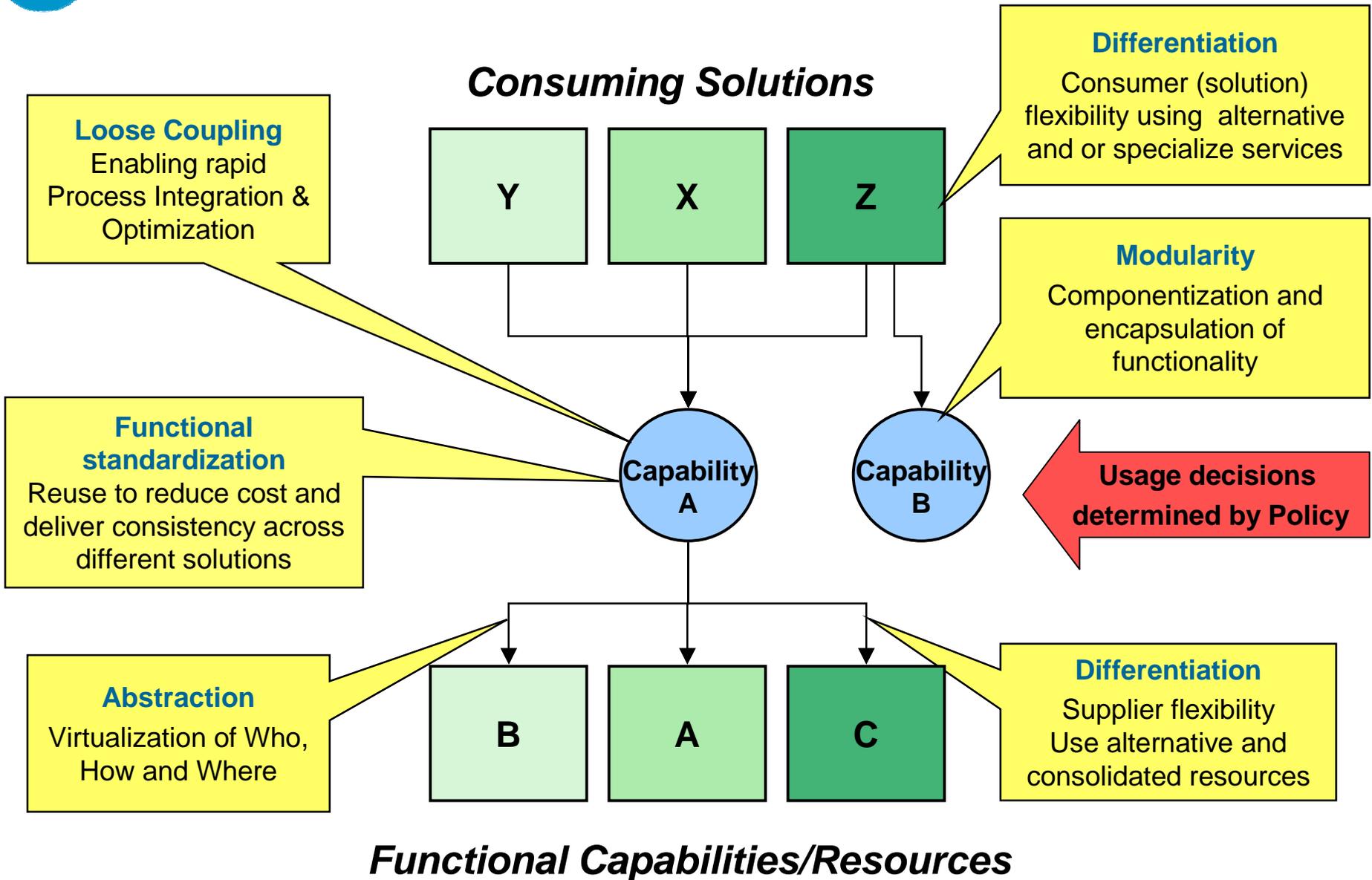- Evolving architectural focus

CBDi SOA Maturity
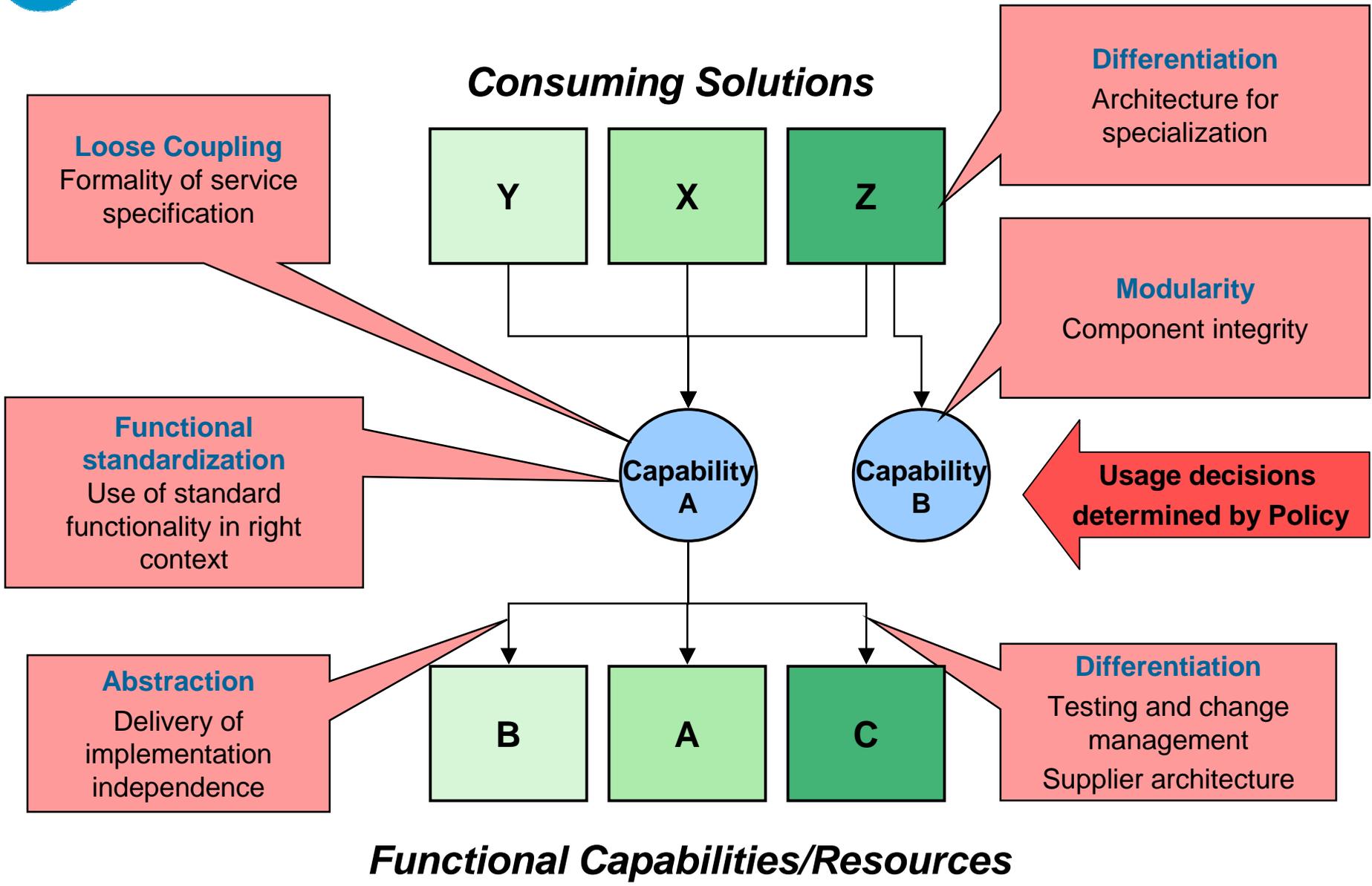
Vision

Cultural Integration
Reengineering
Integration
Early Learning

What Needs to be Done?   What Capabilities?

Who does what?

Trust

Semantics

SDLC

Common service infrastructure

Joined up processes

Core SOA Characteristics

Consuming Solutions

Loose Coupling
Enabling rapid Process Integration & Optimization

Differentiation
Consumer (solution) flexibility using alternative and or specialize services

| Y | X | Z |

Modularity
Componentization and encapsulation of functionality

Functional standardization
Reuse to reduce cost and deliver consistency across different solutions

Capability A

Capability B

Usage decisions determined by Policy

Abstraction
Virtualization of Who, How and Where

| B | A | C |

Differentiation
Supplier flexibility Use alternative and consolidated resources

Functional Capabilities/Resources

SOA Governance

Consuming Solutions

Differentiation
Architecture for specialization

Loose Coupling
Formality of service specification

| Y | X | Z |

Modularity
Component integrity

Functional standardization
Use of standard functionality in right context

Capability A   Capability B

Usage decisions determined by Policy

Abstraction
Delivery of implementation independence

| B | A | C |

Differentiation
Testing and change management
Supplier architecture

Functional Capabilities/Resources

Strategic Choices by Maturity Level

Strategy or Tactic	Early Learning	Integration	Reengineering	Cultural Integration
Role	Service builder	Service builder Service consumer	Service supplier Service consumer	Service supplier
Consumption scope	LOB/Division	Enterprise	Process partners and ecosystem	Customers (supply chain) Suppliers
Supply scope	LOB/Division	Enterprise	Process partners	Channels, Customers, Suppliers
Planning sequence	Concurrent plan & provision	LOB services in advance	Enterprise services in advance	Process partners, ecosystem
Provisioning tactics	Solution driven; services by opportunity	Services in advance	Services as product,	Services for sale
Planning scope	LOB/Division Business process	Domain/Value Chain	Joined up business process/value chain	Process partners, ecosystem
Source of commitment	IT	CIO	LOB Management	Senior business management
Realization technology	Java services; Web services	Hub ESB architecture	Federated ESB Infrastructure	Virtualized infrastructure
Service application strategy	Wrapping	Componentization	Commoditization	Virtualization
Stability strategy	Extensions & new versions	Context or Non core	Commodity – no change allowed	
Triage strategy	Informal	Formal – core/context split		
Design style	Specific	Generalized, standardized	Customizable	

Roadmap Planning

- Provides framework for managing the adoption and transition to SOA
- Separates planning activity into dedicated streams to establish and manage
- Organizationally neutral, supports federated environment
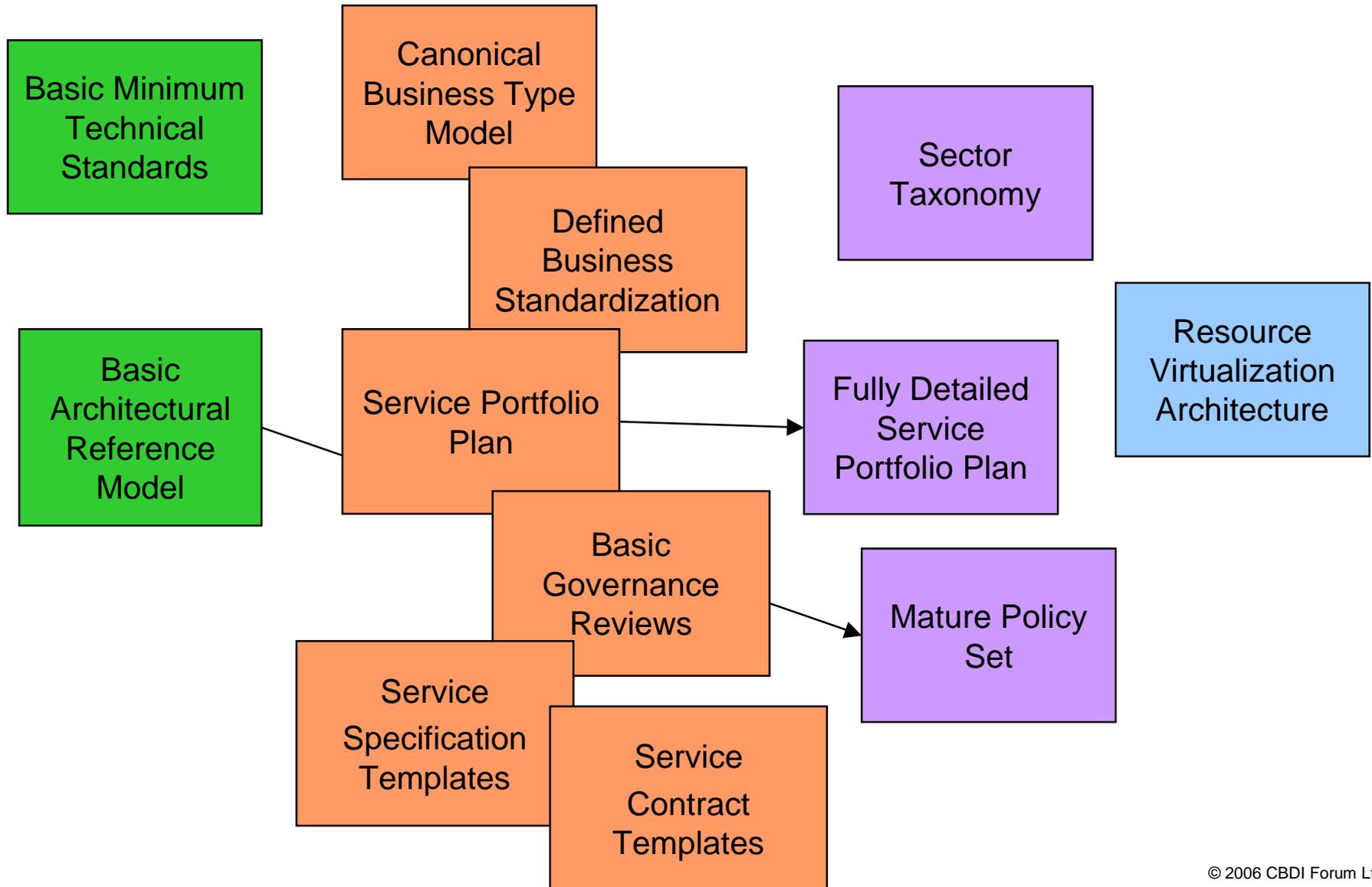- Facilitates communication, measurement and monitoring
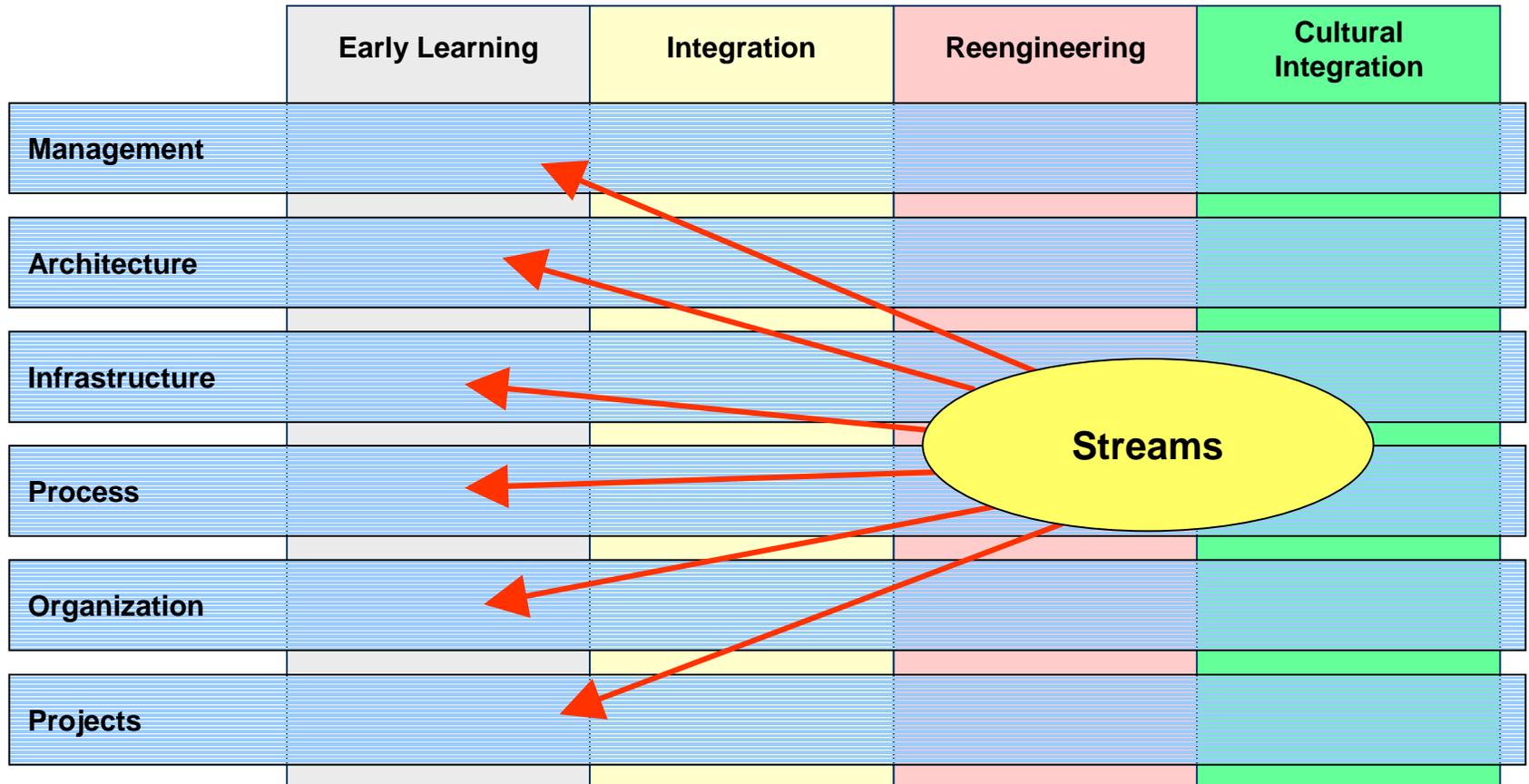
Stream Definitions

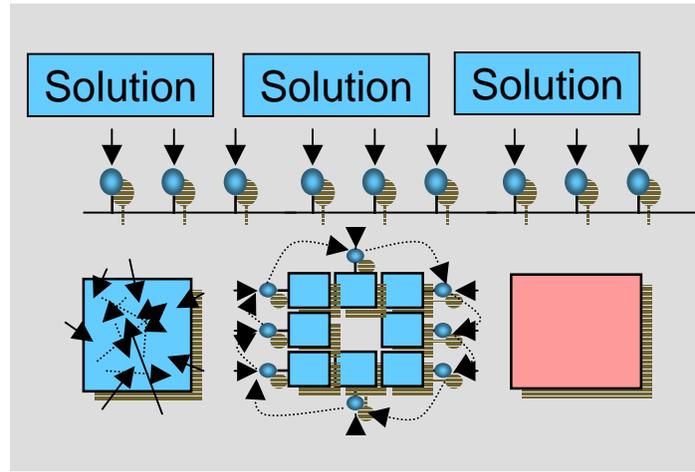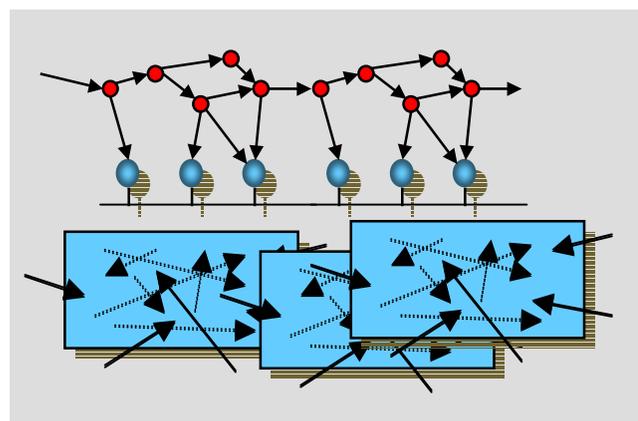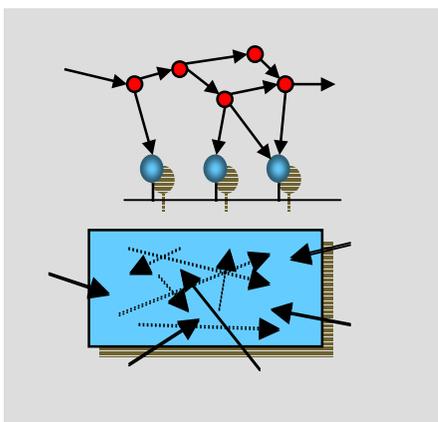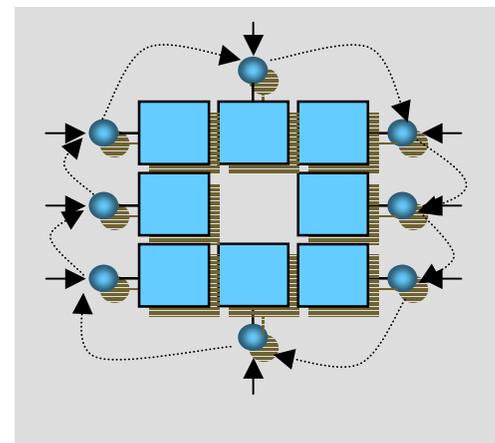| Stream	Focus	Description
Management	WHY	Driving and coordination of the whole adoption program.
Architecture	HOW	Alignment between the demands of the organization (WHY) and the constraints imposed (via Policy and Process) over the Projects (WHAT).
Infrastructure	WHERE	Creating the technology platforms and standards (WHERE) Split into **Operational Infrastructure** and **Service Lifecycle Infrastructure**
Process	WHEN	Alignment between the Infrastructure (what the technology is capable of) and the Projects (how the organization is using the technology)
Organization	WHO	Developing the individual and collective capability, through assignment of role and responsibilities.
Projects	WHAT	WHAT is being done that uses the SOA technology within the SOA organization

One Sample – Architecture

Early Learning / Integration / Re-engineering / Cultural Int.

Basic Minimum Technical Standards

Canonical Business Type Model

Sector Taxonomy

Defined Business Standardization

Basic Architectural Reference Model

Service Portfolio Plan

Fully Detailed Service Portfolio Plan

Resource Virtualization Architecture

Basic Governance Reviews

Mature Policy Set

Service Specification Templates

Service Contract Templates

Architecture Maturity

Early Learning / Integration / Re-engineering / Cultural Int.

Interop → *Process Optimization* → *Reuse/Agility* → *Federation* → *Virtualization*
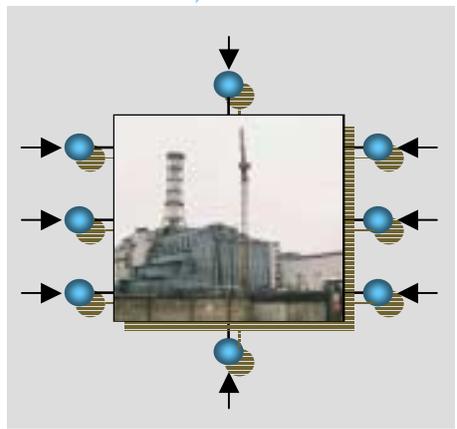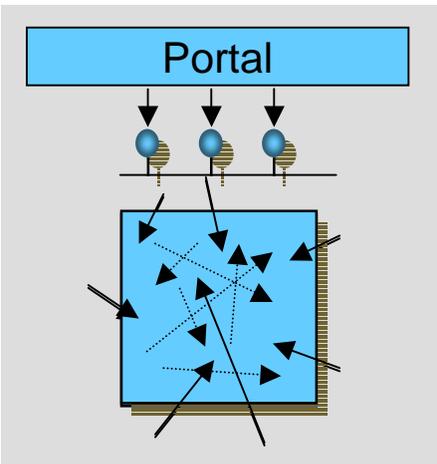
SOA Reference Architecture

	Data (What)	Function (How)	Policy (How)	Network (Where)	People & Participants (who)	Time (when)	Motivation (Why)
Conceptual	Business Ontology	Business Capability Model	Business Rule & Policies	Orchestration	Business Workflow Model	Business Event Response Model	Business Outcome Model
	Business Intelligence	Value Chain Model		Context			
	Business Type Model	Service Portfolio Plan	Service Policies	Business Collaboration Model	Ownership Model	Service Synchronization	ROI
	Domain Model	Service Description					
		Service Dependency Model					
	Business Component Model						Change Management Plan
Logical	Data Model	Service Specification	Service Provisioning Policies	Service Implementation Model			
	Service Information Model	Process Model	Service Implementation Policies			Service Synchronization	
		Component Model					
		Composite Application Model			Application Workflow Model		
Physical	Data Source	Operational Services	Service Deployment Policies	Service Deployment Model			QoS
		Service Mediation Model	Service Operation Policies				

BUSINESS   **SERVICE**   **TECHNICAL**

Coordinated Roadmaps

Business interoperability requires shared understanding and alignment of

Business Outcome & Goals
Business Obligations
Business Process
Business Semantics
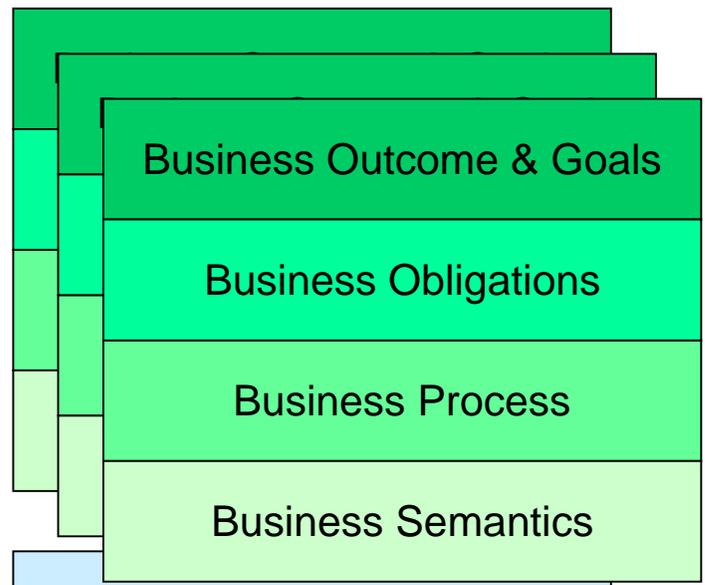
What do we expect the result to be?

What do we have to do?

When do we do it?

What do we mean by…?

SOA requires shared understanding and alignment of

Services
Message Format
Protocols
Status (manageability)
Security
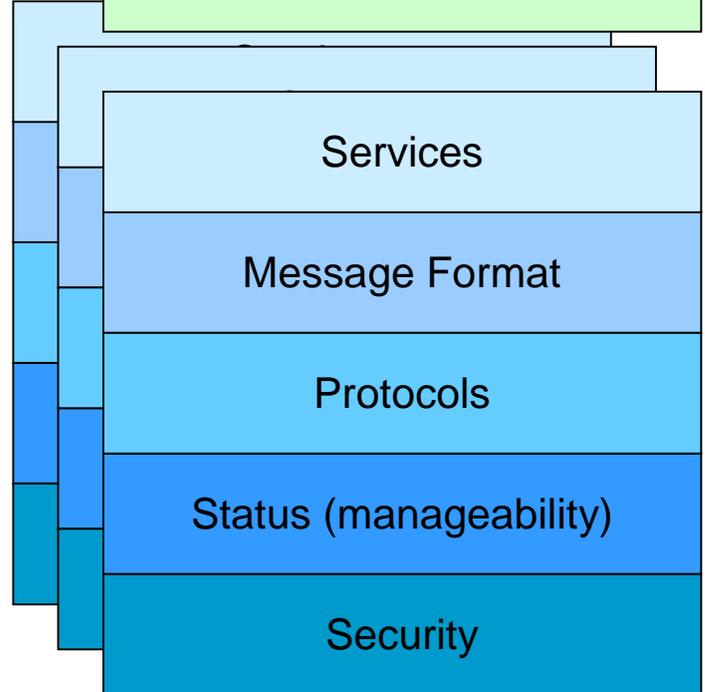
What are the Services that we provide to each other?

What are the messages we will exchange?

What are the protocols of the exchange?

What is the status of the process, etc?

How do we identify each other, and manage privacy and integrity?

Summary

- SOA adoption requires:
    - blend of strategic and tactical perspectives
    - understanding of real business opportunity and value
    - more than just architecture – it needs project profiles, processes, organization and management
- A structured roadmap allows enterprises and ecosystems to:
    - Develop collaborative plans
    - Communicate
    - Sell
    - Manage
    - Measure

CBDI on SOA Maturity and Roadmap

Publicly Available

○ CBDI Roadmap site
   http://roadmap.cbdiforum.com/

Premium Service

○ SOA Maturity Models
   http://www.cbdiforum.com/secure/interact/2005-12/The_SOA_Maturity_Model.php

○ Developing the Architectural Framework for SOA - Part 6 – Transitioning to SOA
   http://www.cbdiforum.com/secure/interact/2005-11/Dev_Archi_Framework_SOA_Prt6_Transitioning_to_SOA.php

○ SOA Governance –from Chaos to Order – The Transformation of Enterprise Architecture
   http://www.cbdiforum.com/secure/interact/2005-11/SOA_Governance_Chaos_to_Order.php

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