IBM SOA Executive Summit

Moving Ahead With SOA

IBM Strategy for SOA Governance: *Empowering Teams to Innovate*

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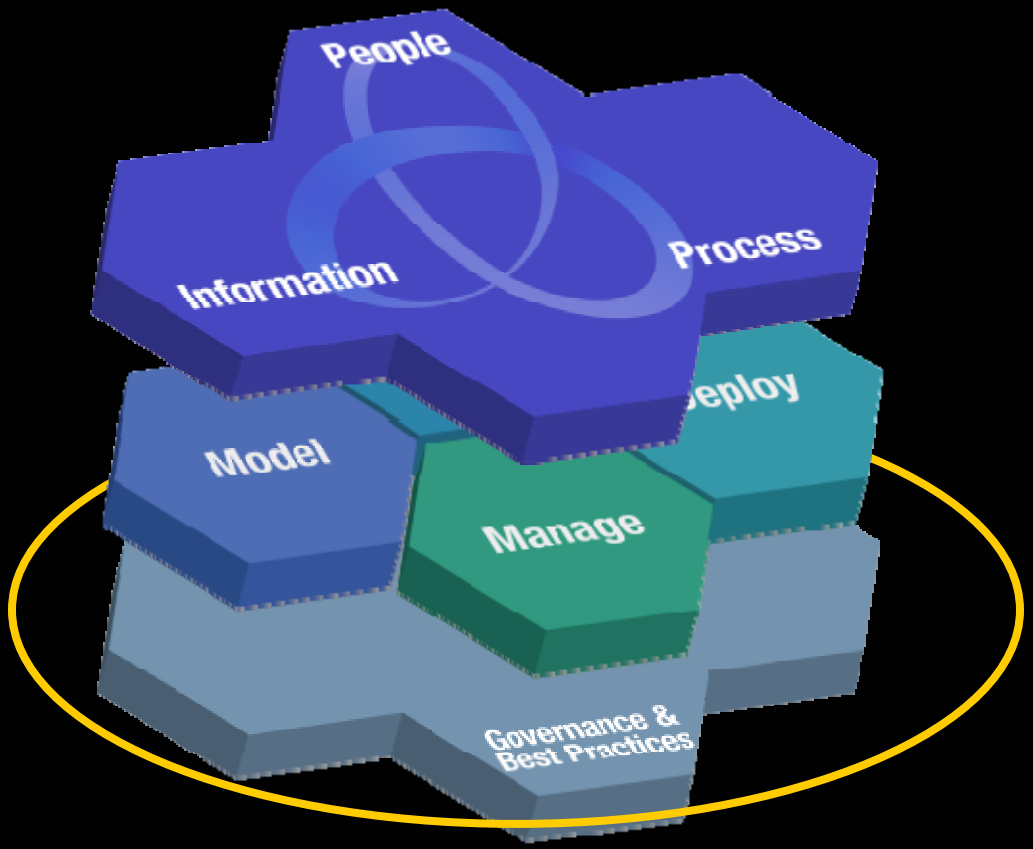
SOA Entry Points Help Customers Get Started

Both Business Centric and IT Focused



SOA Governance is important

"Half of all companies and 77% of large enterprises reported that they are or will be using SOA by the end of 2005. Why? Evidence is mounting that SOA provides real benefits for business integration and flexibility."

Real-World SOA: SOA Platform Case Studies, Forrester Research, Inc., *September 2005*

CIOs continue to struggle to align business and IT in meaningful, measurable ways. More effective IT governance processes and tools are becoming top priorities among business-savvy CIOs.

Five Ways the Rise of IT Governance Will Change How Enterprises Buy IT, Summit Strategies, December 2005

In 2006, lack of working governance mechanisms in midsize-to-large (greater than 50 services) post-pilot SOA projects will be the most common reason for project failure (0.8 probability).

Management Update: Predicts 2006: The Strategic Impact of SOA Broadens, Gartner, Inc., Jess Thompson, Yefim V. Natis, Massimo Pezzini, Paolo Malinverno, November 23, 2005

With the widespread adoption of SOA, the challenges associated with SOA projects are emerging. SOA governance isn't optional — it's imperative. Without it, return on investment will be low and every SOA project out of pilot phase will be at risk.

Service-Oriented Architecture Craves Governance, Gartner, Inc., Paolo Malinverno, January 20, 2006

What is governance?

Chains of responsibility, authority & communications to ***empower*** people

Measurement, policy & control mechanisms to ***enable*** people to carry out their roles and responsibilities

What is IT governance?

Establishing decision-making rights associated with IT

Establishing mechanisms and policies used to measure and control the way IT decisions are made and carried out

What is SOA governance?

Extension of IT governance focused on the **lifecycle of services** to ensure the business value of SOA

SOA Governance is a catalyst for improving overall IT governance

SOA Governance Challenges

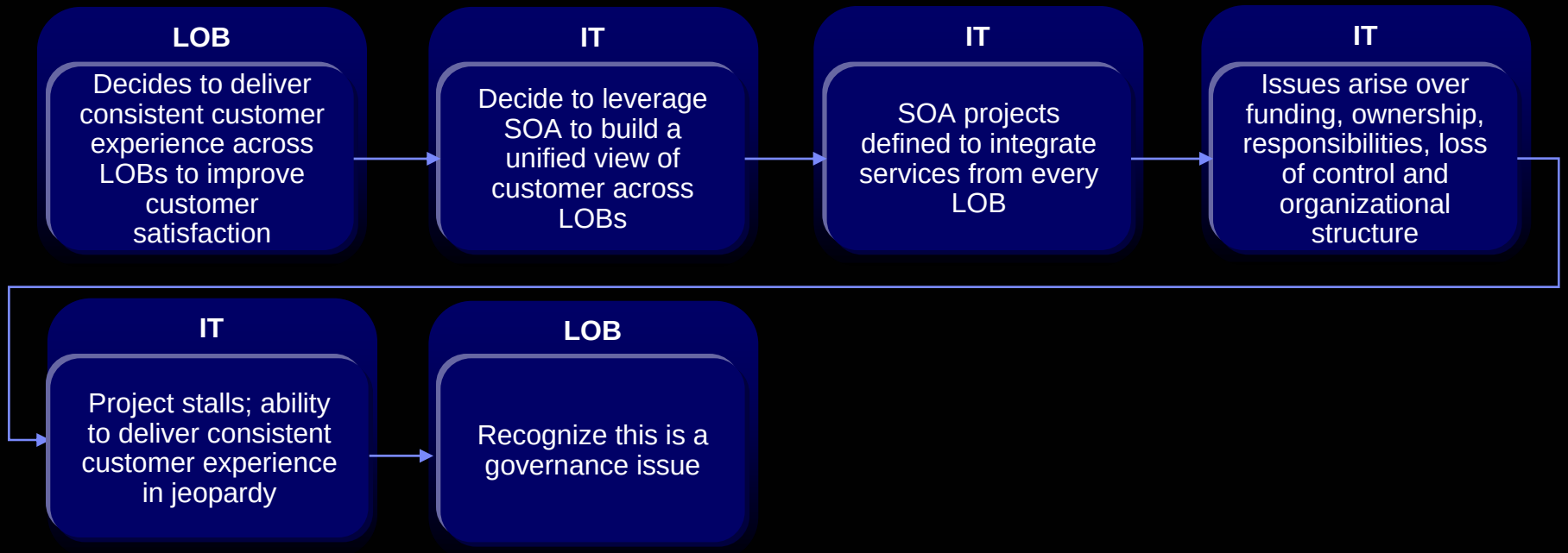
- Establishing decision rights
- Defining high value business services
- Managing the lifecycle of assets
- Measuring effectiveness

Note: Based on real life IBM SOA engagements

Scenario: Establishing decision rights

Everyone is responsible and no one is responsible

Large insurance company offering a variety of services (e.g., home, life, auto) running on a federated model where each LOB operates autonomously and is supported by its own IT organization and infrastructure. Same business process and supporting applications implemented in many ways. Minimal technology standards has created very diverse environments that don't interoperate. Company facing increased competitive pressure and looking for ways to remain competitive.



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How do I execute quickly? How much will it cost?

Who has the best customer data?

Who should lead this cross-LOB initiative?

Who should fund this shared service? Who's responsible to fix it if it breaks? Who owns it?

LOB

Decides to deliver consistent customer experience across LOB ... s...

IT

Decide to leverage SOA to build a unified ... custo... L...

IT

SOA projects defined to integrate ...om every ...B

IT

Issues arise over funding, ownership, responsibilities, loss of control and organizational structure

How do we move forward to deliver application?

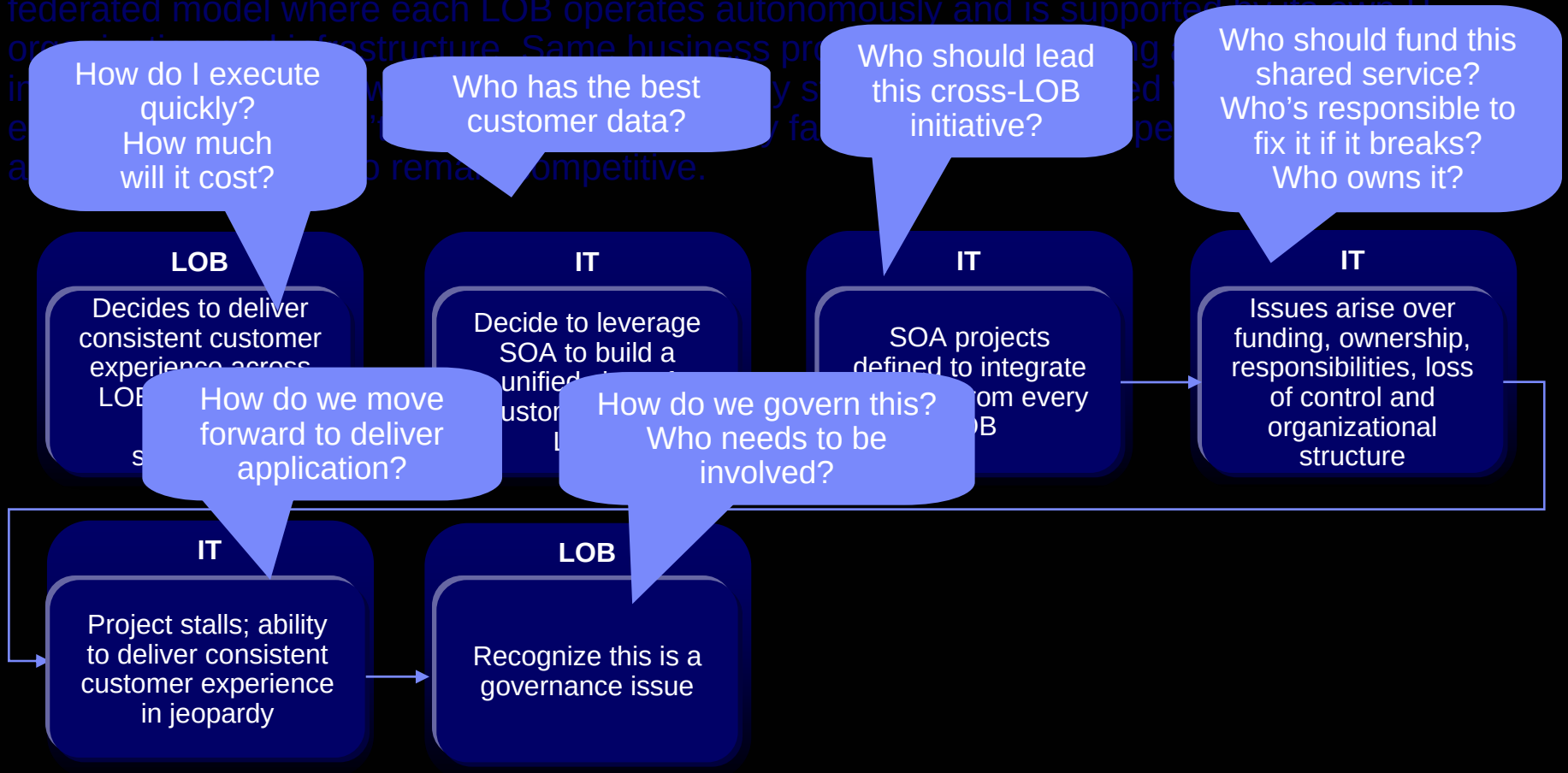
How do we govern this? Who needs to be involved?

IT

Project stalls; ability to deliver consistent customer experience in jeopardy

LOB

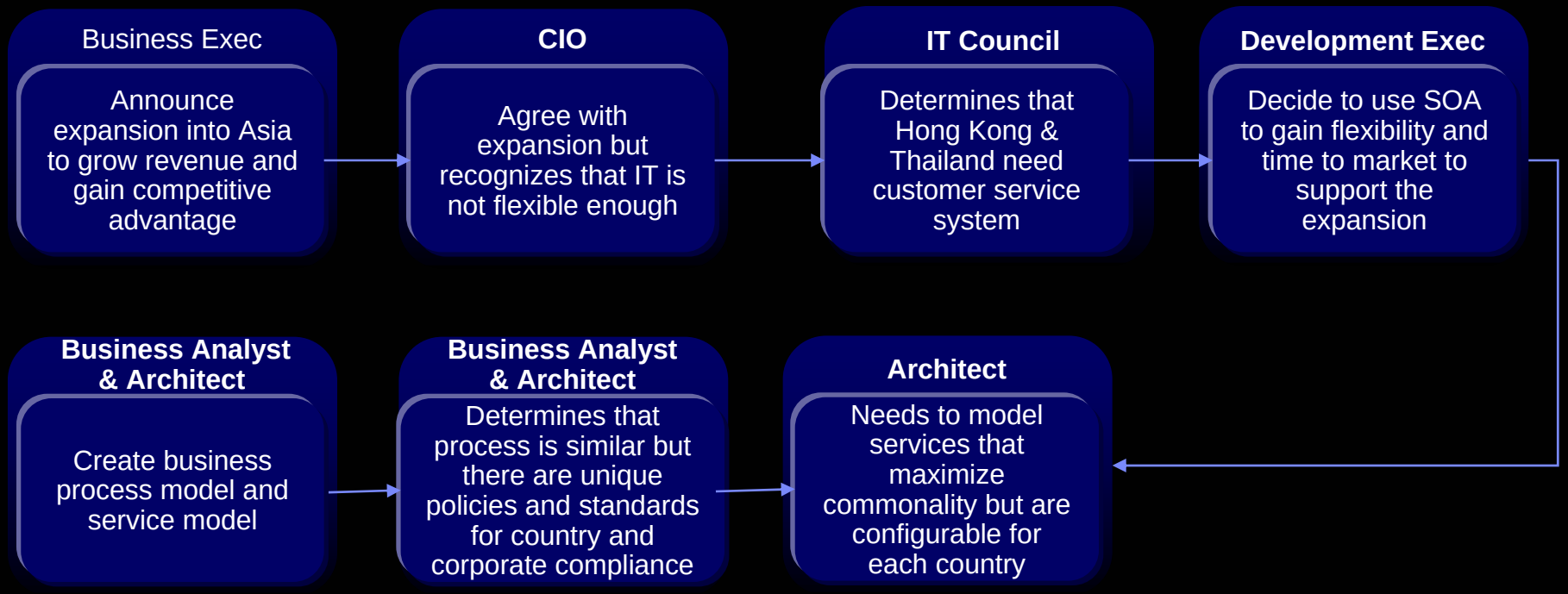
Recognize this is a governance issue



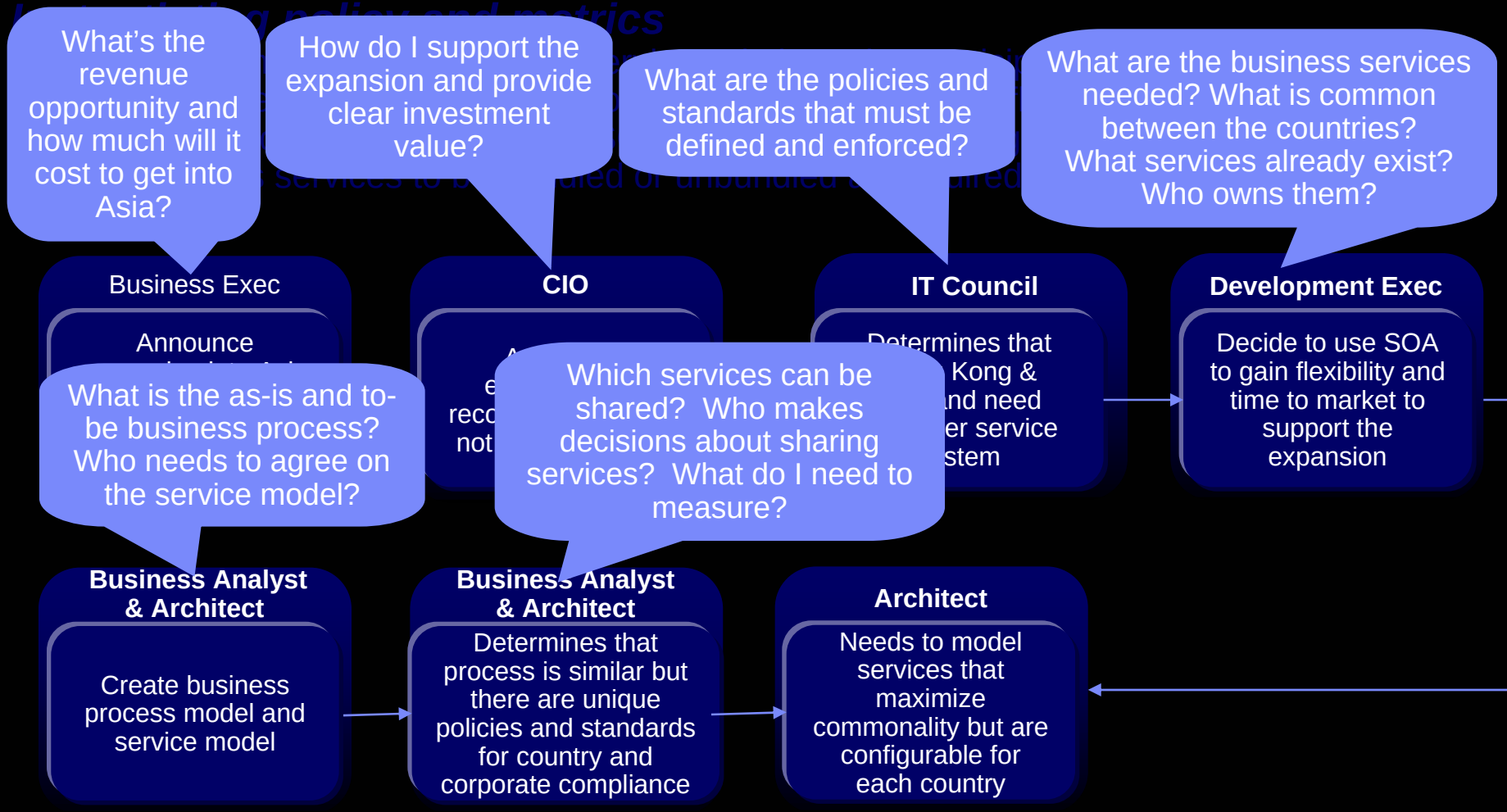
Scenario: Defining high value business services

Instantiating policy and metrics

Large bank rolling out new customer service solution. They anticipate expanding into different countries. To lower total cost of ownership, they want a flexible implementation that can be tailored to local requirements. SOA is a core underpinning of this strategy allowing shared business services to be bundled or unbundled as required by each country.



Scenario: Defining high value business services



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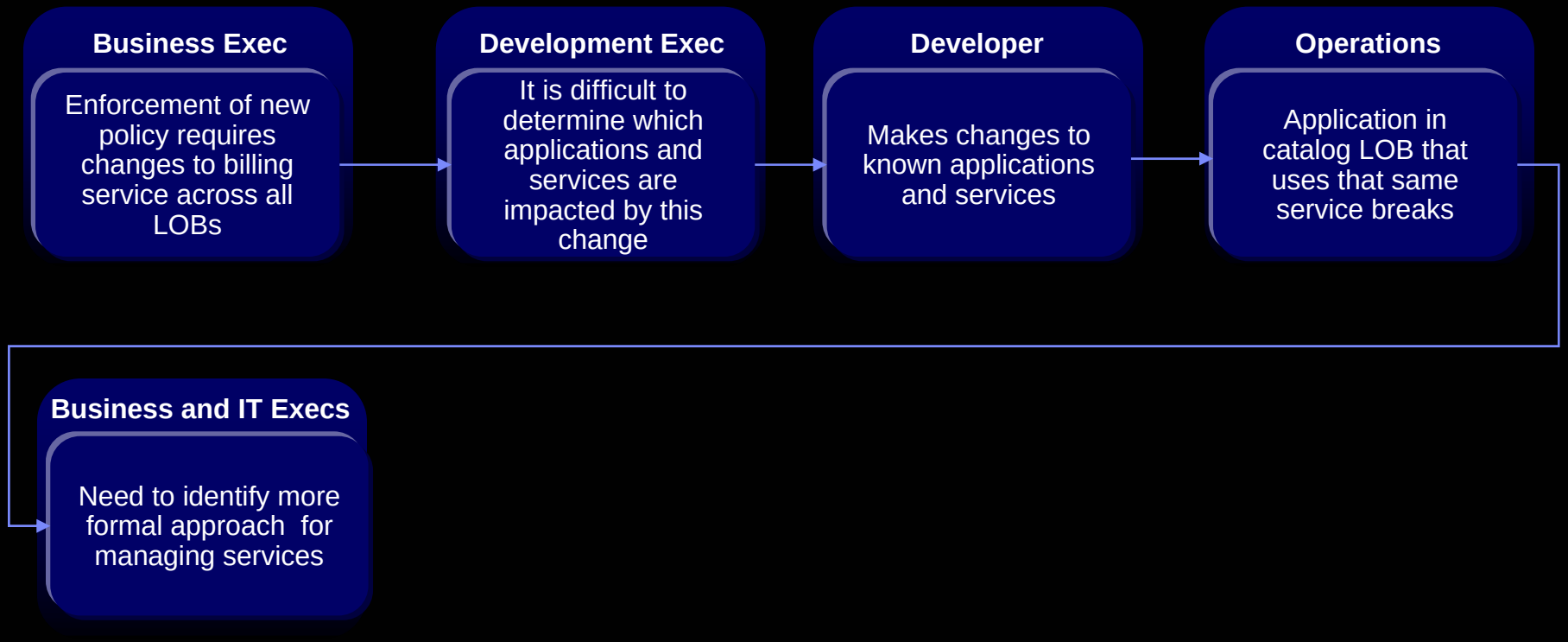
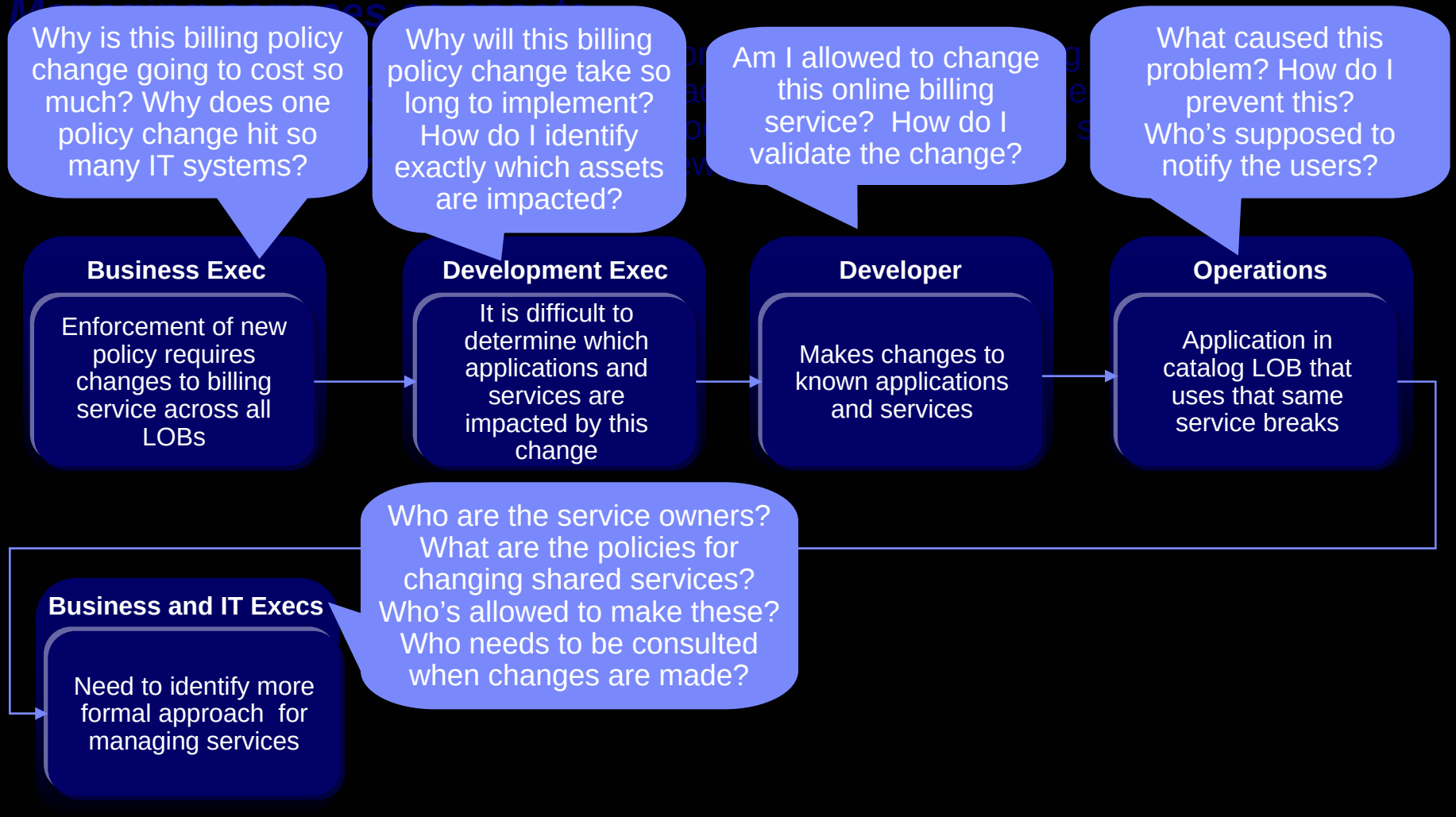
Scenario: Managing the lifecycle of assets

Managing services as assets

Large retailer faced with increasing competition to its online and catalog sales channels institutes a new billing policy. Each LOB has adopted SOA and implemented its own unique solution. It has been determined that this uncoordinated proliferation of services is an impediment to efficiently implementing this new policy.



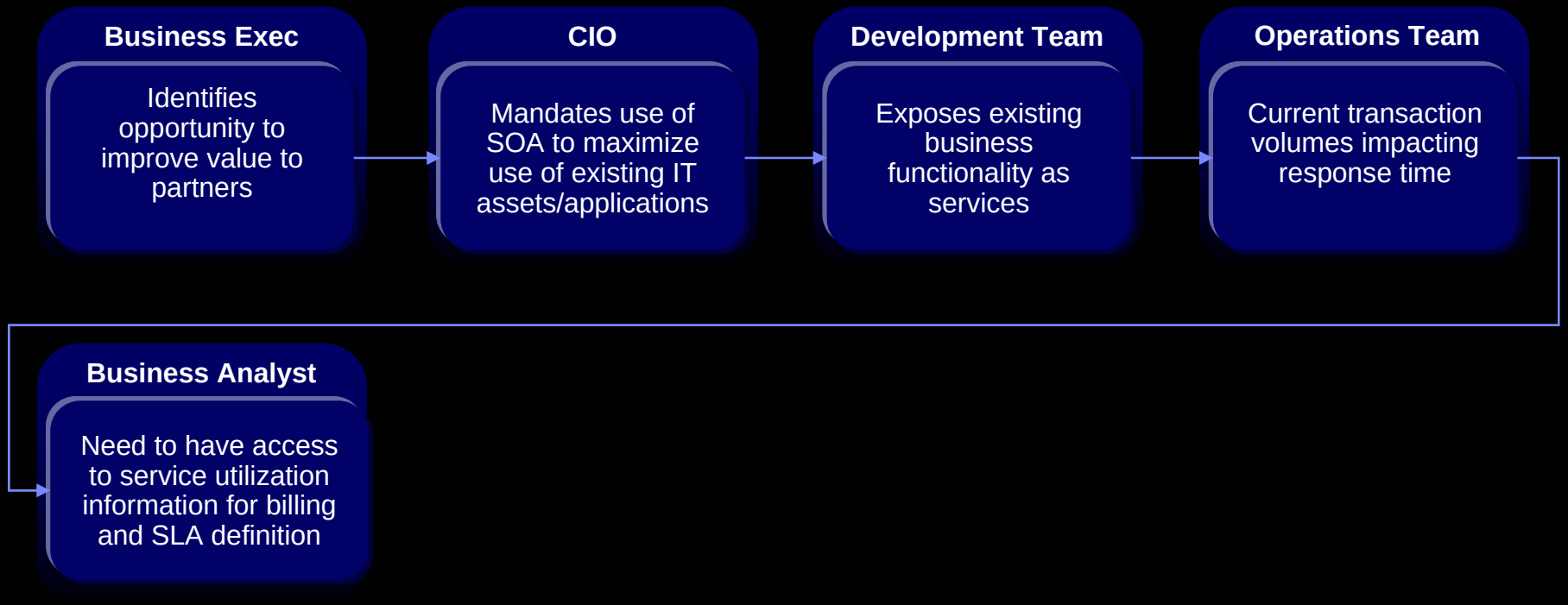
Scenario: Managing the lifecycle of assets



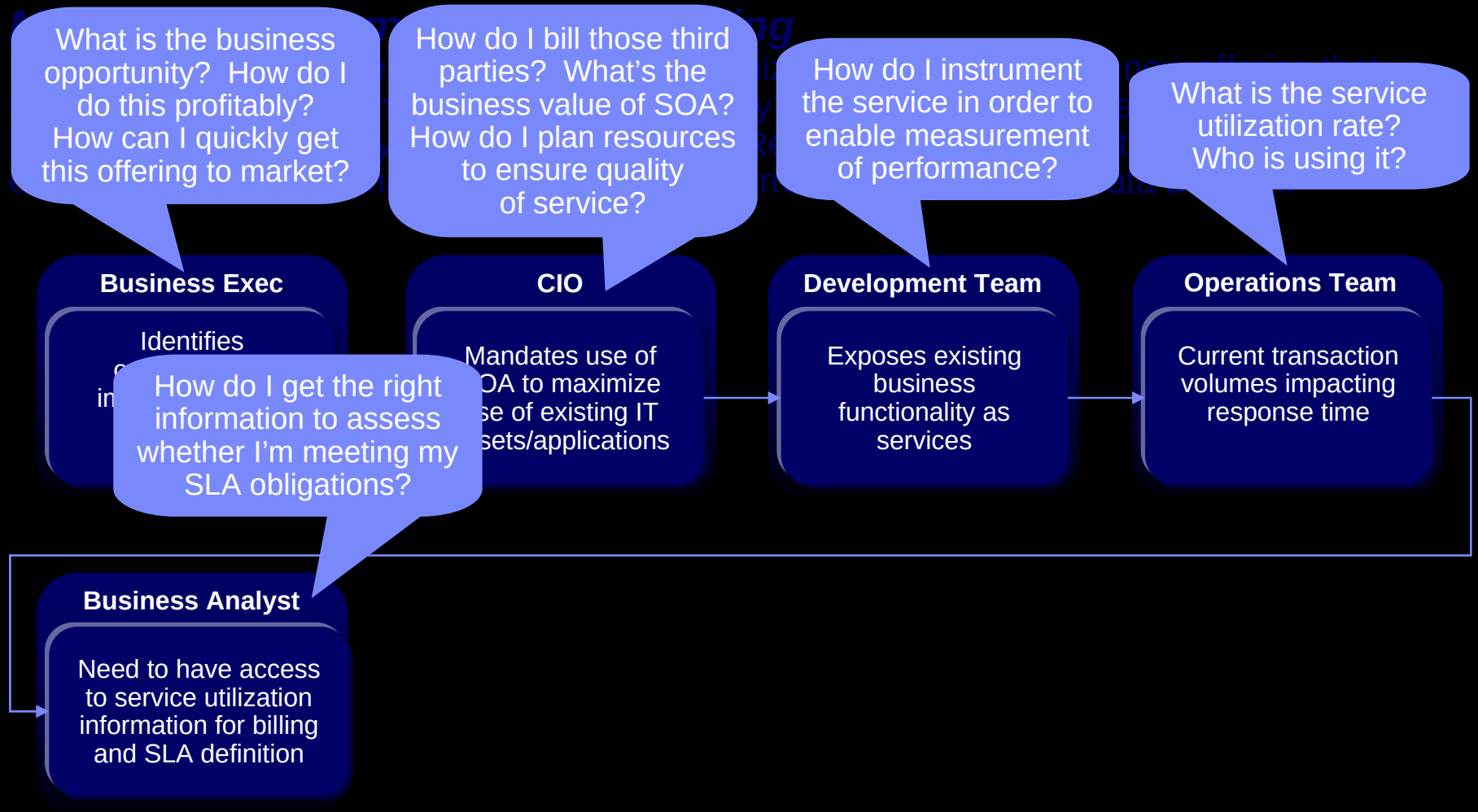
Scenario: Measuring effectiveness

Measuring performance and adjusting

Residential Division in telecommunications organization wants to launch new offering that requires changes to billing system. The company embraced an SOA strategy in order to improve staff productivity and lower costs. The Residential Division wants to reuse an existing customer information retrieval service currently owned by the Data Division.



Scenario: Measuring effectiveness



SOA Governance Challenges: Real Life Examples

Common Scenario	Challenges
Composite applications and services shared across lines of business	No clear decision maker or owner Roles and responsibilities not clear Confusion about funding
LOB and IT not well aligned	Lack of common goals Who and how are success factors defined
Limited visibility to information about the business value and cost of services	Metrics for success ill defined How are cost & benefits balanced between departments
Ad hoc service discovery	Limited reuse resulting in service proliferation Lack of trust

Current approaches to SOA Governance

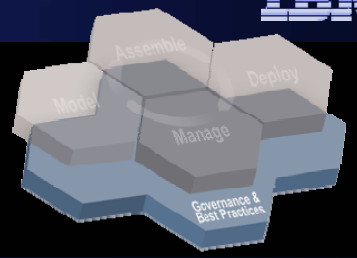
- Deploy SOA technology like service registries and SOA management solutions
  - Registries needed to manage services at runtime but not sufficient on its own
  - Management is most effective when done in the context of governance
- Fragmented, uncoordinated activities around SOA
  - Inconsistent approaches that result in limited ability for reuse
- Business as usual
  - Treat SOA projects same as others
- SOA governance planning

What is needed

- Comprehensive approach encompassing entire services lifecycle with multiple entry points
- Best practices, methodology and processes and tools and technology
- Proper SOA governance as part of a larger IT governance structure allows for rational decision making on tradeoffs between application construction (custom build) vs. application integration (SOA)

Governance is key to realizing the full value of SOA

SOA Governance Lifecycle



Establish the Governance Need

- Document and validate business strategy for SOA and IT
- Assess current IT and SOA capabilities
- Define/Refine SOA vision and strategy
- Review current Governance capabilities and arrangements
- Layout governance plan

Define the Governance Approach

- Define/modify governance processes
- Design policies and enforcement mechanisms
- Identify success factors, metrics
- Identify owners and funding model
- Charter/refine SOA Center of Excellence
- Design governance IT infrastructure

Monitor and Manage the Governance Processes

- Monitor compliance with policies
- Monitor compliance with governance arrangements
- Monitor IT effectiveness metrics

Deploy the Governance Model Incrementally

- Deploy governance mechanisms
- Deploy governance IT infrastructure
- Educate and deploy on expected behaviors and practices
- Deploy policies

Establishing decision rights: Scenario

Scenario:

- SOA initiative already underway
- Services shared across lines of business

Challenges:

- No clear decision maker or owner
- Confusion about funding of shared services
- Standards for services QoS ill defined

Getting Started: Establishing decision rights

Business Executive

IT Executive

Determine business strategy that leverages SOA

SOA Assessment Services

Assess readiness for SOA

SOA Assessment Services

Assess current governance approach

SOA Governance and Management Method

Determine governance plan

Rational Method Composer

Defining high value business services: Scenario

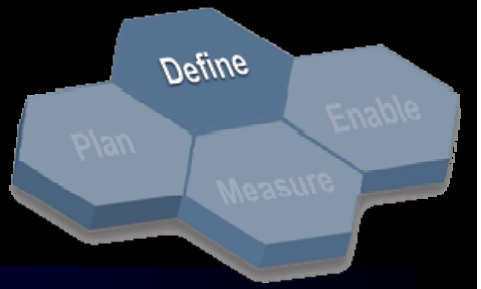
Scenario:

- Limited visibility to information about service value & cost
- Services deployed according to IT cost savings instead of business value

Challenges:

- Lack of clear understanding of business value
- No clear success factors defined for LOB
- Who decides which services are shared and how are costs shared across Lines of Business (value vs. cost based models)

Getting Started: Defining high value business services



Business Executive

Identify key performance indicators

Strategy & Planning Services

Document business strategy milestones

Workplace Business Strategy Execution

Charter Center of Excellence

Center of Excellence Services

IT Executive

Identify metrics

Strategy & Planning Services

Define development process

Rational Unified Process for SOA

Business / System Analyst

Document standards and policies

Rational RequisitePro

Model key performance indicators across business process

WebSphere Business Modeler

Software Architect

Instantiate standards in application design

Rational Software Architect

Data Architect

Instantiate data standards

Rational Data Architect

Managing the lifecycle of assets: Scenario

Scenario:

- Different LOB has implemented different SOA models
- Each LOB has separately funded initiatives and are resistant to change

Challenges:

- Little insight into change management of systems & multiple inter-connected services
- Unclear policies on how are services owners and users are notified of change
- No clear understanding if service owners and service subscribers have decision rights when changes occur

Getting Started: Managing the lifecycle of assets

IT Executive

Establish change management process for development

Rational Unified Process for SOA

Establish change management process for operations

Tivoli Unified Process

Developer

Discover service for reuse / publish service

WebSphere Service Registry and Repository

Manage and track build time assets

Rational ClearCase

Ensure signoff and create audit trail for change

Rational ClearQuest

Record service configuration information

Tivoli Change and Configuration Management Database

Deployment Manager

Security Manager

Validate and authenticate user

Tivoli Federated Identity Manager

Instantiate security policy

Tivoli Access Manager

Measuring Effectiveness: Scenario

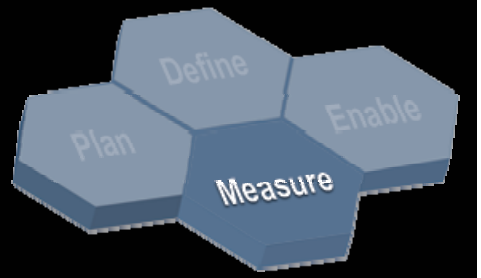
Scenario:

- LOB and IT not well aligned - lack of common goals or agreed upon success factors
- Measurements not standardized across LOBs
- Measurements based on service utilization rates not business value

Challenges:

- Depts or divisions have disparate goals, measurements and success criteria
- No clear definition of business value and IT goals
- Costs / benefits not balanced between depts

Getting Started: Measuring effectiveness



Business Executive

Measure performance against business strategy milestones

Workplace Business Strategy Execution

Monitor key performance indicators

WebSphere Business Monitor

IT Executive

Measure project costs

Rational Portfolio Manager

Operations Manager

Monitor performance against service level agreement

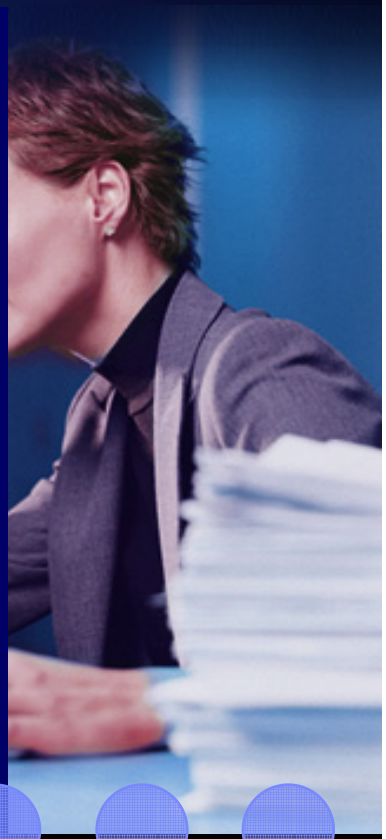
Tivoli Service Level Adviser

Monitor and measure service performance

Tivoli Composite Application Manager

Additional skills and expertise available

- IBM Organizational Design Services to help refine organizational model
- IBM Design Services for SOA to help create services model
- IBM Infrastructure Services for SOA readiness, design and optimization



"To fully realize the potential value of SOA, an organization needs to adjust both its infrastructure and its governance mechanisms. This means providing the information to support good decisions, and the mechanisms governing who can decide what, when and on what grounds. The governance process must also cover the full life cycle of software and infrastructure. IBM through its broad infrastructure and tools base has a unique opportunity to deliver a coherent development, management and governance platform. I am pleased that IBM is taking an SOA governance initiative, and look forward to working together on addressing this important issue."

-Claus Torp Jensen, VP, Head of Architecture and Development Strategy, Danske Bank

Next steps

- Learn more about SOA Governance
  - **ibm.com**/soa/gov
- Download whitepaper
  - **ibm.com**/soa/gov
- Identify aspect of governance for initial focus
- Conduct an SOA Workshop

Thank
You