Effective SOA Governance

Andrew Hately
IBM Software Standards
hately@us.ibm.com
Topics to be Covered

- 1: SOA and SOA Governance Value Proposition
- 2: SOA Governance Definition
- 3: IBM SOA Governance and Management Method
- 4: Service Lifecycle Governance
- 5: Open Group SOA Governance Activities
Topic 1: SOA and SOA Governance
Value Proposition
SOA characteristics of loose-coupling, reuse and extensibility are the basis for creating an agile business environment for competitive advantage.

This agility can only be attained when each line of business maintains their service entities and is reasonably assured that other lines of business are doing the same with the services under their purview.

This assurance can only be realized through SOA Governance.
“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.”


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).


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
Principles for SOA Success

- Organizing business functionality into shareable services that meet the needs of the business
- Breaking down silos and unlocking the value of legacy systems while making software less brittle.
- Cross functional nature of SOA requires improving the alignment between business and IT

- Enabling organizations to achieve the desired goals and promises of SOA requires an interlock between People, Process and Technology.
- SOA governance is a means to facilitate the dialog and interactions between business and IT.
SOA Governance – Success criteria

- Effectively, governance is “the set of rules, practices, roles, responsibilities and agreements – whether formal or informal – that organize how we do work”

- Good governance is all about transparency

- SOA requires additional governance over standard IT governance because of:
  - Change: SOA introduces new technologies, roles and responsibilities
  - More Change: SOA requires new patterns of thought – taking an organization-wide viewpoint rather than an application, line of business (LOB) or project viewpoint for example

- SOA governance is the mechanism by which we first create the SOA vision and then control the implementation of that vision.

- SOA governance should work for both holistic IT decisions and one service at a time
Topic 2: SOA Governance Definition
What is Governance?

Governance is the establishment of:

- **Chains of responsibility** to empower people
- **Measurement** to gauge effectiveness
- **Policies** to guide the organization to meet their goals
- **Control mechanisms** to ensure compliance
- **Communication** to keep all required parties informed

Governance components are established by:

- Assessing the need for them within an organization
- Defining them so they are embraced and accepted
- Implementing and enabling them with the help of tools
- Measuring them to metrics that reinforce initial goals
What is SOA Governance?

It’s all part of Corporate Governance

What is IT governance?

IT Governance includes the decision rights, accountability framework and processes, to encourage desirable behavior in the use of IT.

What is SOA governance?

Focus on governing the service lifecycle, supporting service infrastructure and compliance with the service oriented architecture of the organization.

SOA Governance is a catalyst for improving overall IT governance.
Open Group SOA Governance definition

- SOA Governance is the application of Enterprise Architecture, IT & Corporate Governance to Service Oriented Architecture
  - SOA Governance processes focus on governing the service lifecycle, supporting service infrastructure and compliance with the service oriented architecture of the organization

- Architecture governance is the practice and orientation by which enterprise architectures and other architectures are managed and controlled at an enterprise-wide level.
  - Source: (TOGAF 8.1.1)

- IT Governance includes the decision rights, accountability framework and processes, to encourage desirable behavior in the use of IT.
  - Source: (based on CobiT4.0)

- Corporate Governance is the set of processes, customs, policies, laws and institutions affecting the way a corporation is directed, administered or controlled.
  - Source: (WikiPedia based on OECD Principles of Corporate Governance)
SOA Governance Landscape

Corporate Governance
(example: OECD Corporate Governance Principles)

IT Governance
(example: CobiT)

Enterprise Architecture Governance
(example: TOGAF)

SOA Governance

SOA Governance Landscape

Corporate Governance
(example: OECD Corporate Governance Principles)

IT Governance
(example: CobiT)

Enterprise Architecture Governance (example: TOGAF)

SOA Governance

- Service Lifecycle/Portfolio Management
- Service Infrastructure Management
- SOA Reference Architecture Conformance
Mr. Speaker, I’m an Enterprise Architect, why do I care about SOA Governance?

- You are working on Enterprise Architecture Governance
- You are already providing oversight on solution design
- You are probably the connection point between business and IT
- You are a technical leader in your organization

- You will be the one answering questions about SOA
Topic 3: The IBM SOA Governance and Management Method
SOA Governance Pre-Requisites

- Engagement and Active Participation from Business Stakeholders
- Alignment of the SOA Value Proposition with Business Goals and Objectives
- Commitment to and Realization that Governance is Essential to Realizing the SOA’s Value
- Understand Existing IT Governance and Decision Making Framework
- Support and Commitment from Executive Management
IBM SOA Governance and Management Method
SOA Governance - Plan

Objective:

- Create a common vision for an organization’s adoption of SOA by making key decisions about service funding ownership and SOA adoption rate. Review current capabilities for architecture and governance in the organization.

When to perform?

- At the start of SOA adoption, or whenever there is a significant change in the organization’s SOA maturity
SOA Governance - Define

Objective:

- Introduce the **Service Lifecycle** – a formal SOA methodology that covers the entire analysis, specification, design development & deployment of services and automated business processes.

- If needed, create, train & mentor a Center of Excellence team to operate to this Service Lifecycle

When to perform?

- At the start of SOA adoption. There should be regular reviews every 6 months or so to determine if there are any potential improvements to the process and decide if the CoE is still necessary. Once the SOA approach becomes the norm, the CoE may be disbanded, and the skilled resources returned to their original operating units.
Service Lifecycle Governance

Service Modeling
- Role of Service
- Service Ownership
- Establish funding
- Impact analysis and scheduling

Service Assembly
- Development, test
- Architecture adherence
- Design for reuse
- Design for declarative policy

Service Management
- Policy Enforcement
- Monitoring/Key Performance
- QoS Management
- Service steady state - revision/retirement

Service Deployment
- Adherence to change management
- Configuration and workload
- Verification of deployment
- Deployment to production

Service Identification
- Authorize
- Certify

Service Specified
- Model
- Assemble
- Deploy

Service Implemented
- Manage

Service Operation
- Retire

Service Retired

Service steady state - revision/retirement
Governance in an Existing Service Lifecycle

Service Identification (RUP Inception)

- Candidate Consumers Identified
- Operations Specified
- Search for Existing Implementation
- Identify Service Providers
- Triage & Prioritize Operations
- Review & Publish Operations List

Service Specification (RUP Elaboration)

- Create Service Specification
- Document Provider Interfaces
- Document High Level Design
- Service High-Level Design Review
- Operations List Updates
- Business Services Portfolio
- Service Specification

Service Development

- Develop Components
- Integrate & Test
- Create Deployment Unit
- Acceptance Test
- Create Product to Release

Service Management

- Certify & Publish Service
- Operational Service
- Monitor SLA Compliance
- Plan New Service Version
- Deprecate Service
- Decommission Service

Legend

- Governance
SOA Governance - Enable

Objective:

- Execute the control points in the Service Lifecycle
- Deploy processes and infrastructure to enable governance checkpoints.
  - System of record from the service lifecycle – service repositories
  - Leads to the creation and deployment of services and automated business processes appropriate for the service consumers

When to perform?

- Continuously. This is the new way that IT will operate and communicate with the organization
SOA Governance - Measure

Objective:

- Measure the effectiveness of SOA Governance through the effectiveness of the SOA solutions
  - Ensure that all deployed services honor their Service Level Agreements
  - Tune the deployment options of high-usage services & automated processes
  - Determine the actual level of use and reuse
  - Manage operational expenses

When to perform?

- Continuously. This is the new context for IT management and organizations will gain insight into effectiveness of SOA governance
Topic 5: SOA Governance in the Open Group
SOA Governance Project in the Open Group

- Established a SOA Governance working definition and project scope

Next Steps:

- Establish SOA Governance Principles
  - Document in the same format as TOGAF 8.1.1 Principles
- Establish SOA Governance Reference Model
  - Based on IT Governance processes from CobiT and establish effects of and considerations particular to SOA solutions on those processes
  - Provide SOA Key Performance Indicators for IT Governance and EA Governance processes
- Examine impact of SOA Governance on IT processes
  - Evaluate impact on ITILv2 and/or ITIL refresh
SOA Governance Work Plan Highlights

- TOGAF Architecture Governance and Management
- High level/graphical view of SOA Governance model
Summary: Enabling SOA Governance

- Methods, process, tools and technology for:
  - Defining/refining governance approach
  - Identifying high value business services and instantiating policy and standards
  - Managing the lifecycle of services and other assets
  - Gaining visibility to performance against goals

- Develop services and expertise to assist across the entire service lifecycle
- Participate in the industry definition of SOA Governance at the Open Group

More information at: http://www.opengroup.org/projects/soa
More information at: http://www.ibm.com/soa
Thank you.

Andrew Hately
IBM Software Standards
hately@us.ibm.com
SOA CoE Organizational Blueprint reflects the combination of technical and business expertise for the whole service lifecycle.
**Detailed view of Method**

**Plan**
- Determine the Governance Focus
  - Understand current governance structures
  - Create IT governance baseline
  - Define scope of governance
  - Conduct change readiness survey

**Define**
- Define SOA Governance
  - Define and refine governance processes
  - Define organizational change
  - Define IT changes in SOA development

**Enable**
- Implement the SOA Governance Plan
  - Implement the transition plan
  - Initiate Org Changes
  - Launch the SOA Center of Excellence
  - Implement infrastructure for SOA

**Measure**
- Feedback to Refine
  - Effectiveness of processes
  - Effectiveness of organization change
  - Review and refine operational environment

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*Continuous SOA Governance Process Measurement & Improvement*