ITSM and Cloud Computing: Integrating ITSM and Cloud into Enterprise IT Governance

Presented by:

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Agenda

• ITSM in Enterprise Governance Context
• ITSM Integration to IT Governance operational governance processes
• ITSM and Cloud computing governance
  – Gaps, Integration,
  – Opportunities and Challenges
• Things to do tomorrow
• **AgilePath’s Enterprise Governance Framework** provides a functional/sequence view of Enterprise Governance Requirements

• **The Four Tiered Model** provides an organizational, functional and process relationship view of Enterprise Governance to help IT Governance ownership, organizational placement, and governance integration threads
AgilePath’s Enterprise Governance Framework: Where does ITSM fit?
AgilePath’s Four Tiers of Enterprise Governance

Enterprise & Strategic Governance

- Business & IT Strategic Planning, Funding & Budgeting, Business & Technology Alignment, Enterprise Portfolio Mgt., Enterprise Architecture, Tech Acquisition, Reqs & Demand Mgt, PMO

Operating Model Governance


IT Delivery Lifecycle Governance


Governance Enabling Technology

- Design-time, Publishing/Discovery, Runtime, Repositories, Registries, Intermediaries, Policy Engines, Distributed Policy Enforcement Points, QA/Test tools, Et al

ITSM Scope
Unpacking the Enterprise Governance Bundle?

- **Corporate Governance**
  - Alignment to Business and IT Governance

- **Business Governance** and **SBU Governance** (Vs. Management)

- **IT Governance**
  - Investment Planning
  - Program Mgt. Office & Portfolio Mgt.
  - Enterprise Architecture & ARB
  - SOA Governance, Data Governance, SDLC Governance
  - SDLC Governance

- **SOA Governance, Mobile, Cloud**...

- **Compliance and Risk**, e.g. PCI, HIPAA et al
Common Enterprise Governance Challenges

- Governance Silos
- Governance “Clouds”
- “Hidden” Governance (via ad hoc and/or heroic efforts of wise veterans)
- IT Shareholder-Stakeholder Paradox
- “Overboard” Governance vs. Event-Driven Governance
- Governance “Overconfidence”

ITIL often is the next “silver bullet” deployed to address IT governance and operational challenges.
Silos of IT Governance Operating Independently

- Strategic Planning & Alignment
- Compliance, Security & Risk
- Program Mgt. & Strategy Execution
- Portfolio Mgt. & Acquisition
- Funding & Budgeting & Resource Allocation
- Requirements & Demand Mgt
- Prioritization & Focus
- Business & Enterprise Architecture

AgilePath
Enterprise Governance Framework
Best Practice: Replace Silos with Gears

Strategic Planning & Alignment

Compliance, Security & Risk

Program Mgmt. & Strategy Execution

ITIL

Portfolio Mgmt. & Acquisition

PMO & Portfolio Mgmt.

Funding & Budgeting & Resource Allocation

ARB / EA

Rqts & Demand Mgt

Prioritization & Focus

Business & Enterprise Architecture

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Governance “Clouds” – Opacity of policy and process; ad hoc processes

Characterized by Unclear or Opaque Policies, Poorly Integrated Processes & Ad Hoc Oversight Mechanisms
IT Process Excellence Connects IT Shareholders to ITIL (One Possible Outcome)

IT Strategic Planning & Investment Planning

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Hidden or Shadow Governance

- Shadow governance is performed bottom-up or in hidden silos without clear alignment to enterprise strategies, goals and objectives.
- Performed under cover or via ad hoc processes with heros.
- Pockets of governance that are not visible or shared as an enterprise best practice.
- Lack of integration with upstream and downstream governance processes & decisions.
Often ARB & SDLC Governance is Immature & Inconsistent

- Silos of processes, inconsistently executed...
Define and link IT Processes as “Governance Threads” that Connect the PMO to ITIL

Replace silos with “Governance Threads” that link core IT Governance Processes to ITILv3.
Designing and Implementing Cloud Governance

- Cloud Governance Introduction and Overview
- Cloud Governance Lifecycle Overview
- ITSM coverage for Cloud Governance
Definitions

• **Cloud Governance** refers to the decision making processes, criteria and policies involved in the planning, architecture, acquisition, deployment, operation and management of a Cloud computing capability.

• The **Cloud Governance Lifecycle** describes the end-to-end requirements of Cloud Governance, from planning, architecture and deployment to bursting, switching Cloud providers, and offboarding from a Cloud.
Five Reasons for Cloud Governance

1. Enable “Business at Cloud Speed” and establish a Cloud-Centric IT operating model based on the speed, agility and cost of Cloud computing.

2. Enable appropriate Cloud decision-making without friction.

3. Integrated with existing Enterprise IT Governance processes, policies, boards and tools.

4. Balanced appropriate coverage for key decisions, investments and risks while achieving the benefits of Clouds.

5. Proactive to anticipate and prevent Shadow Clouds and unauthorized Cloud activities that expose organizational risks.
Risks of Poor/No Cloud Governance

- Cloud Security Risks
- Cloud Proliferation and Sprawl (vs. VM Sprawl)
- Cloud Integration (post proliferation)
- Cloud Portability & Interoperability
- Cloud Vendor Lock-In
- Cloud Applications Governance – designing and migrating applications to appropriate Cloud pattern(s)
- Lack of Incentives for Consumers to Onboard/Consume Cloud resources
- Shadow IT and Hidden Clouds
Cloud in an Enterprise Governance Framework Context

Enterprise Governance Framework

- Strategic Alignment & Strategic Planning
- Compliance, Security & Risk
- Enterprise Requirements & Demand Mgt
- Program Mgt/PMO & Execution
- Prioritization & Focus, Investment Planning
- Resource Allocation, Funding
- Business & Enterprise Architecture
- Portfolio Mgt., Acquisition & Legal
Challenge: Inserting Cloud Governance into Existing Enterprise Governance Models

Cloud Governance

New Governance Requirement(s)

- Cloud Governance
- SOA Governance
- New compliance requirements
- Revised Investment Planning process

Corporate Governance
Enterprise/Strategic Governance
Bus. Ops Governance
IT Governance
Domain Governance
Lifecycle/Systems Engineering Governance
Cloud Architecture and Interoperability Roadmap

Cloud Governance Lifecycle

Cloud Governance Model

Cloud Vision & Strategy

Cloud Reference Model

Cloud Reference Architecture

Interoperability & Portability Model

Cloud Transition Architecture

Implementation & Deployment

Evolution & Sustainment

Cloud Prescriptive Architecture

Prescriptive Architecture
A Cloud Computing Reference Model (CC-RM) Overview

- CC-RM framework for discovering **repeatable Cloud Patterns** that address mission needs based on Cloud-enabled resources
- A robust framework for **Cloud Modeling and Architecture** efforts
- **Four supporting sub-Models**
  - Cloud Enablement Model
  - Cloud Deployment Model
  - Cloud Governance and Operations Model
  - Cloud Ecosystem Model
- **Applied in Federal Government, DoD and Commercial Clients**
AgilePath’s Cloud Reference Model: Cloud Governance Lifecycle & Operations Model
Cloud Governance SPOT Framework

- **Scope & Stakeholders**
- **Policies & Processes**
- **Organizations**
- **Tools and Enabling Technologies**
Cloud Governance Decomposition

Cloud Strategy and Planning

Cloud Architecture, Design and Deployment

Cloud Acquisition, Vendor Selection & Contract Negotiation

Resource Provisioning & Management

Cloud Operations & Runtime Management
Cloud Governance Includes Many Diverse Requirements

**Discovery**
- Application Engineering
- SOA Service Engineering
- Data Arch. & Engineering
- Platform Engineering
- Infrastructure Engineering
- Data Center Engineering

**Define**
- Software as a Service (SaaS)
- SOA as a Service (SOAaaS)
- Data as a Service (DaaS)
- Platform as a Service (PaaS)
- Infrastructure as a Service (IaaS)

**Design**

**Develop**

**Test**

**Deploy**

**Maintain**

ITSM Scope

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Things to Do Tomorrow

- **Establish clear, measurable business and IT goals** for Cloud computing (Cloud Strategy)
- **Align and design your Cloud Governance Model to achieve business goals**, e.g. “Business at CloudSpeed”, cost reductions, efficiencies, agility
- **Integrate Cloud Governance with IT governance** processes, policies, organizations and tools (PP/OT)
- **Balance your Cloud governance model** to achieve speed and capability enablement, without friction and politics
- **Ensure ITSM coverage and integration** for new Governance requirements, e.g. Cloud, Mobile, Social and others

**Govern Clouds early and often.** Cloud Governance will ensure realization of business, IT and operational objectives. Risks of poor Cloud Governance are dire.
Thank You!

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