Moving on in IT Service Management

Brian Scott - SMSG

18th September 2013 – BCS Nottingham & Derby Branch
Introduction

- Information Technology is continually moving forward - whether infrastructure, application or delivery model. Service Management underpins how these components combine to deliver business value. ITSM itself needs to move forward in line with these.

- This session will discuss the core concepts and structures of ITSM, and the maturity stages required to match increasingly demanding business needs from IT services. It aims to demonstrate that "Whatever your role in IT - with Service Management, everyone's involved."

Agenda
- Service
- Service Management
- Patterns of Development
  - Foundation
  - Service Delivery Resilience
  - Business Focus
  - Delivery Model Flexibility
- How do you develop and mature?
- Benefits of Service Management
- Some useful resources
Episode 1

Getting Started with ITIL

SMSG

17th June 2013 – BCS Nottingham & Derby Branch

Agenda

- What is IT Service Management?
- The benefits of IT Service Management
- What is ITIL?
- Key concepts
- The Service Lifecycle
- ISO/IEC 20000
- Associated topics
- Further information
- Questions

ITIL ® is a Registered Trade Mark, and a Registered Community Trade Mark of the Office of Government Commerce, and is Registered in the U.S. Patent and Trademark Office.
SM Café – Service Interactions

Shop Floor

Order coffee
Front of House
Take customer orders and payments

Fulfil Orders
Preparation
Prepare coffee and deliver to customers

Provide coffee to customers
Deliver coffee
Buy Coffee / Provide Great Coffee

Product ≠ Service

Consumables Provision
Source and deliver coffee, milk, sugar, etc.

Machine Provision
Provide and maintain coffee machines

SM Café

Megabucks Inc.

Customer
Understanding ‘Service’ – the Service Quality Model

Gaps that can lead to failure to meet customer expectations regarding the services delivered (Δ5):

- **Δ1: Customer Expectations vs. Provider Management Perceptions**
  - The customer’s expectations are not understood or adequately considered

- **Δ2: Provider Management Perceptions vs. Service Design**
  - The service architecture and infrastructure is specified incorrectly and/or incomplete

- **Δ3: Service Design vs. Service Delivery**
  - The service delivery processes do not deliver the specified quality (service activities or processes are not aligned and/or the appropriate resources are not assigned)

- **Δ4: Service Delivery vs. Customer Communications**
  - The services delivered do not match the announced services

Source: Delivering Quality Service, V. Zeithaml
Positioning Service Management
Service Management: IT Services metamodel as a basis for viewing the challenges

- Provides a high-level view of all the entities that need to be managed for effective IT Services Management

**Service Offering**

- External view of the available services appropriate to the needs of those buying and selling the services
- Describes the locations, roles and skills used to deliver service
- Describes the tasks, activities and processes needed to deliver IT Service Management, and shows how they link together in specific flows

**Service Provision**

- Internal view of available services appropriate to those who provide and deliver the service
- Contains the entities for the data and information required to support IT Service Management
- Describes the hardware and software tools and technologies used in the delivery of service

**Organization**

**Process**

**Tools & Technology**

**Data & Information**
There is no single right way to go about adopting SM – but there are some common patterns

- There is no single right way to adopt SM nor an ideal sequence to go through
- The right way for you will always depend on your starting point and the goals you are trying to achieve
- However we do see common patterns in the stages that many organisations go through:
  - **Wave 1 – Foundation**
    - In ITIL v2 speak: Service Support
  - **Wave 2 – Service Delivery Resilience**
  - **Wave 3 – Business Focus**
    - Considering service earlier in the lifecycle
  - **Wave 4 – Delivery Model Flexibility**

Waves 3 and 4 may be reversed or performed in parallel
Traditional Service Management – Linking IT Systems Management to Service

- The Help Desk becomes The Service Desk
- Link between users and techies – a bridge and a barrier
- Systems or Services? Defining Services in terms of Systems, Assets, technology and teams
- Lists of applications and systems – Inventory and topology become CMDB(s)
- Shelved SLA’s are dusted off and renewed mapping to OLA’s and U/Cs
- Incident handling but mainly silo’d NOC, App teams and detached data centre staff handling faults and defects so…
- Focus on Functions and Service Operations as the foundation
- Functions helps teams understand their place and their relationship to the Service Desk – the foundation Service.
- Mapping Incidents to faults, events, alerts brings Service process close to NOC “procedures”
- ITSM mapped to FCAPS (Telecoms and System Management model – Fault Mgt, Config Mgt, Availability Mgt, Performance Mgt and Security Mgt) for example
Scenario across Process, Data, Organisation, and Tools

1. Monitoring Data and Event Resolution
2. Event to Incident, resolved there
3. Incident to Problem
4. Incident or Problem requires an RFC for resolution
Quality service delivery depends on integration

The lack of lifecycle integration between development and operations continues to drive costs up and operational service quality down.
Trace problems from operations into development

- Using open API linkage with development activity tracking products, operations tooling can create and track work items for the development organisation
  - Helps in managing coordinated actions with development
Identifying and prioritising essential IT capabilities and services

Customer Vision Of Ideal Value Delivery

Customer Wants and Needs

- Customer-defined service vision
  - Identify the value that the customers receive from this service
  - Then, envision ideal performance or delivery of that value

IT Capabilities

- Fit for Purpose
  - Services Portfolio
  - Service and Performance Levels

IT Services

Enablers: Organisation structure
- IT Processes
- Measures, rewards, and culture
- Information Technology

- Enabling Infrastructure

- The dependencies that must be present to enable the essential capabilities
- Actionable Design Points

BCS SMSG Team
Combining the service and process perspectives

- Provides an understanding of how well IT services support those business capabilities
- Assessing the services is a useful way to prioritize future investigation of the underlying process or technology
- Factors indicating this perspective is lacking:
  - There is a lack of focus on the IT customer or there are customer dissatisfaction issues
  - There are conflicting requirements for new IT support
  - Responsibilities are not clear for the delivery of IT services
Multiple service providers introduce both flexibility AND complexity

Integrated Governance

- Enterprise Business Units
- IT Operations
- Integrator Function
- ITIL / CMMI / Cobit
- Integrated Operations Environment Tools

OLAs
- Internal AMD Service
- Other AMD Services

Local procedures
- Local procedures

§ Standard process interfaces
§ Standard integration interfaces
§ Standard KPIs

ETC...
A “Technology Framework” is needed to minimise technology interdependencies

- ENTERPRISE SERVICE BUS
  - “Universal Translator”
  - Bridge Building Tool Kit – adaptors based, avoids point:point bridges
  - Integration by Standards – all tools, e.g. XML over SOAP

- Enhanced Agility
  - New suppliers can be inserted quickly
  - Tools can be replaced as needed
  - Suppliers can change tools without affecting function
Lifecycle of a Cloud Service – new challenges

Service Offering Subscription & Instantiation
- Select Service, specify parameters and SLA’s
- Automatically instantiate the Service

Service Offering Creation & Registration
- Define Service based on Template and register it in the Catalog

Service Template Definition
- Create Build- and Management Plans for Service

Subscription & Instantiation
- Subscriber (e.g. Line of Business)

Service Offerings
- Provider / IT Dept
- Service Catalog Manager

Cloud Service

Definition & Design

Service Transition

Production

Service Operations

Termination

Manual or Autonomic Execution of Management Plans leveraging Automation and Virtualization
- Ensure SLA Conformance

Service Instance Termination
- Destroy Service and free up resources

Delivery Model Flexibility

Cloud Service

- System z Ensemble
- Power Ensemble
- System x Ensemble

- Ensemble Hardware
- Virtualizers (e.g. z/VM, PHYP, Xen)
- LPAR / VM
- OS

- Individual Servers
- Storage Ensembles
... and increased scope for the SM Architecture
'Measurement' is core to continual improvement

Level 1 – UNFOCUSED
Process is documented and controlled

Level 1.5

Level 2 – AWARE
Weakness are identified

Level 2.5

Level 3 – CAPABLE
Process meet requirements

Level 3.5

Level 4 – MATURE
Process is competitive

Level 4.5

Level 5 – WORLD CLASS
Process has become ingraine and adaptable

Level 5

VALUE CHAIN FOCUS
The process is defect-free with no significant operational inefficiencies and is continuously improved

BUSINESS FOCUS
The process is both effective and efficient. The process is adaptable to business direction changes

CUSTOMER SATISFACTION FOCUS
The process is producing the desired results and is meeting customer requirements

PRODUCT / SERVICE
The weaknesses of the process have been identified and the basics of quality management for the process are being worked on

TECHNOLOGY
There are few stable processes in evidence, and performance can be predicted only by individual rather than organizational capability - "Hero-based success."

How does SM develop and mature?

BCS SMSG Team
# Measurement should cover all the dimensions

<table>
<thead>
<tr>
<th>Assessment Focus areas</th>
<th>Unfocused (1)</th>
<th>Aware (2)</th>
<th>Capable (3)</th>
<th>Mature (4)</th>
<th>World Class (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process Foundation</strong></td>
<td>No mission defined. No agreement or understanding of objectives</td>
<td>General awareness of mission and performance criteria</td>
<td>Mission and objectives defined and understood by most</td>
<td>Mission and objectives defined and understood by all</td>
<td>Mission promoted by all and created together with users, objectives promoted by all</td>
</tr>
<tr>
<td><strong>Process Execution</strong></td>
<td>Not done or occasionally in a reactive mode</td>
<td>Some activities done only during major events</td>
<td>Some activities planned on a regular basis</td>
<td>Many activities done, some measurement and reporting</td>
<td>All activities done with involvement of all key players</td>
</tr>
<tr>
<td><strong>Process Integration</strong></td>
<td>No linkages</td>
<td>Occasional interfaces as necessary</td>
<td>Usually considered, some definition</td>
<td>Generally defined and followed</td>
<td>All interfaces well defined and well established</td>
</tr>
<tr>
<td><strong>Organizational Clarity</strong></td>
<td>No owner no role definitions few skills</td>
<td>Multiple owners, no agreed to roles, skills limited</td>
<td>Assigned Process Owner and roles, skills cover some technologies</td>
<td>Single owner, roles documented, and authority understood, solid skill sets</td>
<td>Owner does continuous improvement, roles kept current</td>
</tr>
<tr>
<td><strong>Tools</strong></td>
<td>None</td>
<td>General tools, low usage, little automation</td>
<td>Effective use of some tools, some tool integration</td>
<td>Effective use of most tools with some automation and integration</td>
<td>Effective use of a wide range of tools and technology basis</td>
</tr>
<tr>
<td><strong>Measurement &amp; Control</strong></td>
<td>None</td>
<td>Focus on quantity, not quality</td>
<td>Emphasis on components routine processes have been optimized</td>
<td>Emphasis on end-to-end, most processes are optimized</td>
<td>In line with business objectives, all processes optimized</td>
</tr>
</tbody>
</table>
ISO/IEC 20000 provides an excellent structure

How does SM develop and mature?

Overall Management System
Planning and Implementing Service Management
Planning and Implementing New/Changed Service

Service Delivery Processes
- Capacity Management
- Service Continuity and Availability Management
- Service Level Management
  - Service Reporting
- Information Security Management
- Budgeting and Accounting for IT Services

Control Processes
- Configuration Management
- Change Management

Release Processes
- Release Management

Resolution Processes
- Incident Management
- Problem Management

Relationship Processes
- Business Relationship Management
- Supplier Management

ISO20000

BCS SMSG Team
... and a body of knowledge such as ITIL provides ‘building materials’

<table>
<thead>
<tr>
<th>Strategy Management for IT Services</th>
<th>Service Catalogue Management</th>
<th>Transition Planning &amp; Support</th>
<th>Event Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Management</td>
<td>Service Level Management</td>
<td>Change Management</td>
<td>Incident Management</td>
</tr>
<tr>
<td>Financial Management for IT Services</td>
<td>Capacity Management</td>
<td>Service Asset and Configuration Management</td>
<td>Request Fulfillment (standard changes)</td>
</tr>
<tr>
<td>Service Portfolio Management</td>
<td>Availability Management</td>
<td>Release and Deployment Management</td>
<td>Problem Management</td>
</tr>
<tr>
<td>Business Relationship Management</td>
<td>IT Service Continuity Management</td>
<td>Service Validation and Testing</td>
<td>Access Management</td>
</tr>
<tr>
<td></td>
<td>Supplier Management</td>
<td>Knowledge Management</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Design Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processes</td>
</tr>
<tr>
<td>Functions</td>
</tr>
</tbody>
</table>

How does SM develop and mature?

BCS SMSG Team
Cost of fixing design vs. post deployment – Services and Service hooks in design and development

- For example, in *Software Engineering: A Practitioner's Approach*, author Robert Pressman shows that for every dollar spent to resolve a problem during product design, $10 would be spent on the same problem during development and $100 or more if the problem had to be solved after the product's release. Simply stated, the lesson is clear: It is far less expensive to prevent a problem occurring in the first place than to fix it later. One of the best ways to prevent problems from occurring, and to protect your development investment at the same time, is to keep your users and customers involved through the entire development cycle.

Cost of quality
- difference between price of non-conformance and conformance
  - cost of doing things wrong
    - 20 to 35% of revenues
  - cost of doing things right
    - 3 to 4% of revenues

Quality Management and User Centred design must apply to ITSM design and the design of Services – it follows that Service is designed in line with Product, Application and System!

Source: Roberta Russell & Bernard W. Taylor, III
A focus upon improved management practices is the key to improving productivity and service quality.

“IT expenditures have little impact on productivity unless they are accompanied by first rate management practices.

Indeed, companies can significantly raise their productivity solely by improving the way they operate.”

– Stephen Dorgan and John Dowdy

“When IT Lifts Productivity”

McKinsey Quarterly, 2004

Source: London School of Economics – McKinsey survey and analysis of 100 companies in France, Germany, UK and US

BCS SMSG Team
Q&A
Forthcoming Events
http://www.bcs.org/category/12227
Appendix
Resources
SMSG Past Events
Rather than interpreting the ITIL volumes from scratch look at available process reference models, some are freely available.
Resources (cont.)

- [http://www.foxit.net/pages/resources/ITIL-v3-wall-chart.shtml](http://www.foxit.net/pages/resources/ITIL-v3-wall-chart.shtml)
- [http://www.itsmtv.co.uk/](http://www.itsmtv.co.uk/)
### SMSG Past Events

**http://www.bcs.org/category/12228**

- **BCS Service Management present: The Future of ITIL, an Evening with AXELOS**
  - Thursday 12 September 2013

- **Service Management Roadshow - Introduction to ITSM at the BCS Nottingham & Derby Branch**
  - 17 Jun 2013, Nottingham

- **BCS Service Management - CPD for the Information Age! Fostering Service Management Competence and Lifelong Learning**
  - 7 May 2013, London

- **BCS Service Management Master Class: The Service Design Package - too difficult, too vague, who uses it?**
  - 11 April 2013, London

- **Mastering ITSM! Service Management in Academic & Professional Development**
  - 7 March 2013, London

- **Advanced ITIL, COBIT and ISO20000**
  - 28 February 2013, Guildford

- **BCS SMSG Master-class series presents: Reactive? Proactive? It's all Problem Management**
  - 14 January 2013, London