Consistent! Transparent!
D.I.Y. ITSM process assessment approach
Anup Shrestha
Graham Kennedy
12:00 – 13:00
1003
Presentation Outline

• Background and context
• ITSM process assessment
• International standard for process assessment ISO/IEC 15504
• Software-mediated process assessment approach

• Automating business assessments
• Research project value
Research Project

• ISO/IEC 15504 + ISO/IEC 20000
• Research project supported by Australian Research Council (ARC) – Aileen Cater-Steel
• USQ with partners:
  – Assessment Portal – Paul Collins
  – Queensland Government ICT Division (CITEC) – Maria Canard
  – Toowoomba Regional Council (TRC) – Paul Fendley
  – Griffith University – Terry Rout
ITIL CSI Approach

- **What is the vision?**
- **Business vision, mission, goals and objectives**
- **Where are we now?**
- **Baseline assessments**
- **Where do we want to be?**
- **Measurable targets**
- **How do we get there?**
- **Service & process improvement**
- **Did we get there?**
- **Measurements & metrics**

**How do we keep the momentum going?**
ISO/IEC 20000

Service Management System (SMS)
- Management responsibility
- Establish the SMS
- Governance of processes operated by other parties
- Documentation management
- Resource management

Design and transition of new or changed services

Service delivery processes
- Capacity management
- Service level management
- Information security management
- Service continuity & availability management
- Service reporting
- Budgeting & accounting for services

Control processes
- Configuration management
- Change management
- Release and deployment management

Resolution processes
- Incident and service request management
- Problem management

Relationship processes
- Business relationship management
- Supplier management

Customers (and other interested parties) → Service Requirements → Design and transition of new or changed services → Services → Customers (and other interested parties)
ITSM Process Capability Assessment Frameworks

- itSMF
- ITIL®
- CMMI Institute powered by Carnegie Mellon
- COBIT® 5
- TIPA
- HP
- IBM
- Microsoft

#LEADit
Findings

• Reference model:
  – ITIL®

• Measurement frameworks:
  – Capability Maturity Model Integration® (CMMI)
  – ISO/IEC 15504
Issues

• **WHAT** are we measuring?
  – ITIL compliance ??

• **HOW** are we measuring?
  – Assessment method ??
## What does Level 3 mean?

<table>
<thead>
<tr>
<th>ITSM Process Assessment</th>
<th>Achieving Capability Level 3 means...</th>
</tr>
</thead>
<tbody>
<tr>
<td>itSMF self-assessment tool</td>
<td>Relevant <strong>outputs</strong> of the process are produced.</td>
</tr>
<tr>
<td>ITIL Process Maturity Framework (ITIL PMF)</td>
<td>Process has been <strong>defined and documented</strong>.</td>
</tr>
<tr>
<td>Tudor ITSM Process Assessment (TIPA)</td>
<td>Process is <strong>adapted from an established standard process</strong>.</td>
</tr>
<tr>
<td>SCAMPI for CMMI for Services (CMMI-SVC)</td>
<td>Process is <strong>institutionalized</strong> as a defined process.</td>
</tr>
<tr>
<td>COBIT Assessment Programme</td>
<td>Process is <strong>adapted from an established standard process</strong>.</td>
</tr>
<tr>
<td>PinkSCAN</td>
<td>A <strong>standardized and documented</strong> level of process.</td>
</tr>
</tbody>
</table>
ITIL CSI Book

- Disadvantages of ITSM Process Assessments
  - Subjective Evaluation
  - High Costs
  - Limited Expertise in Assessments
Software-Mediated Process Assessment (SMPA)

Use of a software tool for a **TRANSPARENT** approach to data collection, analysis and reporting

<table>
<thead>
<tr>
<th>Reference Model</th>
<th>Measurement Framework</th>
<th>Assessment Model</th>
</tr>
</thead>
</table>

#LEADit
ISO/IEC 15504

- Standard for Generic Process Assessment
- Originally referred to as ‘SPICE’
Process Assessment Model

- ISO/IEC 15504 provides the most transparent Process Assessment Model (PAM) for ITSM
SMPA Tool Development

• **Goal-Question-Metric** Approach

• Provides a top-down process measurement approach

  – ISO/IEC 20000-4
  – ISO/IEC 15504-8
  – ISO/IEC 15504-2
### Example: Goal Statement

<table>
<thead>
<tr>
<th>Analyse (Which Process?)</th>
<th>Problem Management Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the purpose of (Why ?)</td>
<td>Process Capability Determination / Supplier Capability Determination / Process Improvement Recommendations</td>
</tr>
<tr>
<td>With respect to (What Aspect?)</td>
<td>PA2.1 Performance Management (Managing Process Performance)</td>
</tr>
<tr>
<td>From the viewpoint of (Whose Opinion?)</td>
<td>Process Performers / Process Managers / External Stakeholders of the Process</td>
</tr>
<tr>
<td>In the context of</td>
<td>Service Improvement Project / Process Improvement Project / Self-Assessment / ISO/IEC 20000 certification / Audit</td>
</tr>
</tbody>
</table>
### Example: Assessment Question

<table>
<thead>
<tr>
<th>ISO/IEC 15504 Indicator</th>
<th>Assessment Question</th>
</tr>
</thead>
</table>
| GP3.1.2 The standard process’s sequence and interaction with other processes are determined. | Do you think the standard process workflow addresses interfaces to related processes?  
*(Note: when answering this question, consider use of process model diagrams and integration of the process with other ITSM or business processes).* |
# Example: Metric Calculation

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Rating Scale</th>
<th>Scale %</th>
<th>Mean Value of Scale %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, always</td>
<td>Fully</td>
<td>86 - 100</td>
<td>93</td>
</tr>
<tr>
<td>Yes, most of the time</td>
<td>Largely</td>
<td>51 - 85</td>
<td>68</td>
</tr>
<tr>
<td>Yes but only sometimes</td>
<td>Partially</td>
<td>16 - 50</td>
<td>33</td>
</tr>
<tr>
<td>No, never</td>
<td>Not</td>
<td>0 - 15</td>
<td>7.5</td>
</tr>
<tr>
<td>Don’t know</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Don’t understand the question</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
More than Assessment

• Gap Analysis
• Process Improvement Recommendations (ITIL®)

• Don’t expect this to be a turn-key solution!
SMPA Tool Architecture

Assessment Participants → Survey Engine → Process Capability Rating → Knowledge Base → Assessment Report

ISO/IEC 15504
ITIL® Framework

Software-Mediated Process Assessment (SMPA) tool
# Evaluation of SMPA Tool

<table>
<thead>
<tr>
<th>Evaluation Factor</th>
<th>Result</th>
<th>Supporting Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>Negative</td>
<td>“too clinical in the way questions were based on the standard.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“questions need to be more clear…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“need better examples to understand questions…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“need to be able to discuss questions in doubt with peers…”</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>Positive</td>
<td>“dependable approach…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“able to obtain more honest and truthful answers…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“follows international standards…”</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Positive</td>
<td>“does its job…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“capability to ask more people…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“evidence-based decision making…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“scalable and democratic approach… can compare assessment results easily…”</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Positive</td>
<td>“impressive turnaround time for self-assessments…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“a click of a button to send online surveys… a click of a button to generate assessment results…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“automates assessments so that we can focus on improvements…”</td>
</tr>
</tbody>
</table>
Why use ISO/IEC 15504?

- Used by some of the popular frameworks: TIPA and COBIT
- Most transparent and detailed process assessment model available for ITSM
- International community support
- Potential synergy with ISO/IEC 20000 certification for ITSM or process assessment certification for consultants
ISO/IEC 15504 for CSI

- One of many improvement frameworks for CSI
- Flexible: self-assessments OR formal assessments
- Assessment results are consistent & comparable for benchmarking & CSI
- Provides a measure for improvement; but does NOT specify HOW an organisation should improve!
ISO/IEC 15504 updates

• ISO/IEC 15504 was created in a software engineering context - ongoing challenges in applying this to a service management context

• Upcoming changes:

• Watch out for:
  - **ISO/IEC 33062**: Process Assessment Model for ITSM Processes
Research project supported by Australian Research Council (ARC)

USQ with partners:
- Assessment Portal
- Queensland Government ICT Division (CITEC)
- Toowoomba Regional Council (TRC)
- Griffith University
We're looking for a software tool to research on a **TRANSPARENT** approach to conduct assessments.

We have exactly the platform for you and it would be great to be involved in this research.

Bit of a mouthful... we just call it **SMPA**.
And so we became an industry partner in an academic project

Which has been a great experience for us

Project synergy

= Academic rigour + Industry relevance
The most important outcome for us?

An independent valuation by academics and international standard experts has confirmed utility and validity of Assessment Portal.
Incredible value to our partners, clients and of course, ourselves
what’s in it for us?

we have contributed to the validation of international standard assessment practice ...
and therefore to the body of knowledge of continual improvement ...

Endorsed by a track record of academic and industry publications and presentations
There is of course devil in the detail

Use of statistical tools in providing... accurate and reliable assessment results
Rigorous formulas to derive assessment consensus ratings

Use of ISO/IEC 15504 process assessment standard ...
- A general process assessment framework....

Academic papers have been published on:
- Our process selection approach
- Our ITSM process assessment method
- Case studies of successful evaluation of our assessment engagements

Streamlined and accurate responses due to better structuring of assessment questions..
NOW we have solid evidence that ......

Our Portal competently supports all of our assessment types......
i.e. Processes, Organisational, Individual etc..

And we are applying the same level of academic rigour to all our assessments.....
Thank You

• Questions?
Action Plan

• **Monday Morning (PLAN)**
  - Gather organisation support for an ongoing assessment framework as part of your CSI plan

• **Next 90 Days (DO & CHECK)**
  - Administer transparent and efficient self-assessments using online surveys
  - Conduct gap analysis (*where are we now?* & *where do we want to be?*) supported by ITIL® best practice guidelines

• **Next Year (ACT)**
  - Plan/ Consult/ Implement/ Review improvements (*How do we get there?*)
  - Checkpoint Assessments (*Did we get there?*) – make assessments a natural and ongoing part of CSI – a means to an end!
Additional Resources

• USQ ePrints – research on ITSM
• ISO/IEC 15504 ITSM Process Assessment Model
• ISO/IEC 20000 Process Reference Model
• TIPA Online Resource on ISO/IEC 15504

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  University of Southern Queensland
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References


• CMMI, CMMI® for Services, Version 1.3 2010, Software Engineering Institute: Carnegie Mellon University, MA, USA.


