Classifying ITIL Processes
A Taxonomy under Tool Support Aspects

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What we would like to do,...
(An abridged motivation)

• ITIL is not about IT management tools, but about
  – What people can do for service quality improvement
  – Control Mechanisms for coping with imperfect infrastructures and tools
  – Coordinating actions for not predetermined events and tasks
  – IT Service Management „business“ processes

• Yet, ITIL defines business processes – and workflow management is about supporting business processes

\[\downarrow\]

Shouldn’t we be able to build workflow management systems to support the execution of any ITIL process \(X\)?
...how we would like to go about it...

- Take a top–down, model-based approach
- Take the ITIL process descriptions
- Build reference models of them
- Elicit requirements from those
- Base system design on these requirements
- ...
...and why it doesn’t work – at least for some ITIL processes

Subjective experience:
Hard to build useful workflow models for some processes!
Is there a mystery behind this?
Or am I the only one having this problem?

Circumstantial evidence that other people have stumbled over similar problems:

• Commercial ARIS ITIL Reference Model
  – Not workflows for all processes
  – Workflow definitions for some processes do not “feel right”

• ITIL implementations in IT organizations
  – Often only Service Support and SLM
  – Most difficulties with Configuration Management

• ITIL tools
  – Many tools for some processes, not others
  – Numerous and specific tool certifications for some processes, not others
Suspicion & preliminary line of investigation

Part of the answer might lie not in the different content and goals of the processes, but in differences of “character”

Approach

① Identify characteristics
   - Relevant for tool support issues
   - Applicable to all IT Service Management (ITSM) processes

② Rate ITIL processes according to characteristics

③ Identify basic classes of ITSM process types and assign ITIL processes to them
First suspects
Five basic ITSM process characteristics

1. **Recurrence**
   How many process instances per hour/day/year?

2. **Lead Time**
   Duration of an instance (hours/days/weeks)?

3. **Organizational Complexity**
   How many parties are involved?
   How complex are their interactions?

4. **Service Level Impact**
   How immediately will process performance impact Service Levels?

5. **Structure**
   How structured is the process?
   Is there a clearly definable workflow?
Looking for evidence
Determining ITIL process characteristics

• No formal deduction, but based on
  – ITIL definitions
  – Real world implementations
  – Common sense

• Only relative placement against other ITIL processes!
## Summary of process characteristics

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- Not all characteristics can be determined for all processes
- Underlying cause: lack of single workflow-structure makes identification of process instances impossible
Prime suspects
A simple taxonomy under tool support aspects

Organizational Complexity

Quadrant III
- many parties & interactions / semi-structured
- e.g. project-like processes
- possibly application area for cooperation support systems

Quadrant IV
- many interactions / well-structured
- "classic", workflow-driven processes
- application area for workflow management systems

Quadrant I
- fewer parties & interactions / semi-structured
- e.g. creative, planning, strategic "processes"
- comprehensive tool support difficult

Quadrant II
- few parties & interactions / well-structured
- e.g. system administration procedures
- application area for classic task automation
Identifying the victims
Placement of ITIL processes in taxonomy

Legend
- **Organizational Complexity**
  - Configuration Management
  - Continuity Management
  - Availability Management
  - Financial Management
  - Capacity Management
  - Service Level Management
  - Problem Management
  - Change Management
  - Incident Management
  - Release Management
- **Structure**
- **Workflow management**
  - Task automation
  - Only partial tool support
  - Only tool support

Organizational Complexity

Structure
Conclusion
Findings

No fundamental redefinition of ITIL, but:

• Not all ITIL processes are created equal
  - ITIL takes a very broad view of the term “process”
  - Fundamental differences in characteristics like structure, organizational complexity etc.
  - Not all processes can be modeled in the same way
  - Not all processes can be supported by the same type of tool
  - Best candidates for workflow support: Incident, Problem, Change Management

• Intuitive perceptions of differences in ITIL process “character” now explicit and explainable

• Starting point for further discussion! (Early results, nothing carved in stone yet)
Case closed?
Open issues & planned work

• Maturing of the classification scheme / taxonomy
  – Validation of findings in real-world ITIL implementations?
  – What are essential ITIL process characteristics, what is just a problem of ITIL’s documentation style?
  – Other characteristics?
  – Other taxonomies for other purposes?

• Further Topics
  – Meaning of findings for other process life cycle phases (design, analysis)?
  – Evaluating modeling concepts for quadrant I and III
  – What if we divide up quadrant I processes?
  – …

• Planned work
  – Definition of reference models for quadrant IV processes
  – Elicitation of requirements
  – Attempt a system design for workflow support (with integration of traditional management tools)