Chapter 12
Focused Improvements of IT Service Processes in a Complex Environment

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ABSTRACT

Comprehensive frameworks such as ITIL provide best practices in a context of IT Service Management but do not support the specific tailoring of processes in a practical setting. This problem has been attacked successfully for systematic IT Service improvement at a large telecommunication enterprise leading to a generalized approach for the improvement of IT Service Processes. In order to cope with multifaceted processes within a complex infrastructure an elected approach is necessary: key stakeholders must be identified and Quality Function Deployment may be used to elicit and prioritize requirements effectively. The requirements can be employed to focus the analysis on the most relevant parts of the given framework leading to a focused audit and yielding specific improvement measures. In combination with further analysis as Pareto and Portfolio analysis a well-thought-out solution portfolio could be proposed, dependent on the impact on the solution and the difficulty of implementation.

IT SERVICE PROCESSES AND BEST PRACTICES

The improvement of IT development processes has been the primary concern of quality initiatives (e.g. Humphrey 1989, Paulk 1995). Recently professionalization of IT Service processes gained increasing attention in business and academia (e.g. Forrester et al 2009) supported by the emergence of the process-oriented IT Infrastructure Library (ITIL), a best practice library which emerged from a British governmental initiative and is recognised as the international de-facto standard for IT Service Management and lead into ISO/IEC 20.000 (Office of Government Commerce 2007, p. 145). ITIL describes functions, processes and tools which
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Focused Improvements of IT Service Processes should be employed, but not how they should be implemented. However, there are just five books on IT Services with a total of 1343 pages within the current Version 3.0 of ITIL, whereas IT Service Management only is one part of the Best Practices provided by the ITIL Framework. If ITIL is implemented in a specific business environment, the ‘how’ must be specified in detail increasing complexity by an order of magnitude.

CASE STUDY

Improvement of IT Service Processes

An extensive employment of such a complex framework like ITIL may lead to over-regulation. But which are the most important elements of ITIL for a specific environment? ITIL is a best practice library and does tell what is appropriate but not how to tailor it for a specific context.

This question has been addressed within a large telecommunication enterprise, solved with an innovative approach, and validated within a pilot project serving as the case for this chapter. The approach and the project have been devised to lead IT Service improvement initiative within the enterprises in different branches, cultures and countries. The results have been approved with regard to a complex environment which is typical for large IT Service providers based on the experience of the authors. The description of the approach and the case are omitting enterprise-specific details which have been considered to be irrelevant with regard to proven practices to be analysed by scientists or adopted by practitioners.

A leading telecommunication service provider in Germany has been experiencing major problems regarding the quality of IT Services Support: a substantial number of major incidents occurred causing strong dissatisfaction of customers. IT Service Support is embedded in a very complex structure and there are several interdependencies between internal and external customers and suppliers. Large effort has been invested into quality and process management since, whereas technical issues, i.e. the implementation of the helpdesk software played a central role in IT Service Design so far.

Several initiatives have been undertaken to alleviate service degradations but none had a significant impact on the perception of the customer. Management was searching for an independent analysis of causes and thorough measures in order to improve quality of IT Support Services sustainably.

AN APPROACH FOR FOCUSED IT SERVICE IMPROVEMENT

Process Improvement Strategies in General

Several strategies, methods and instruments have been proposed for the improvement of IT processes (Ward et al. 2005, p. 135ff.) with different goals, scope and level of detail – most of them follow one or a combination of the following basic approaches to quality improvements:

• Top-down: deriving requirements from problems, devising and implementing solutions based on requirements (Ward et al. 2005, p. 161; Six Sigma: Chrissis et al. 2007, p. 26ff.);
• Best-Practices: relying on well-proven solutions from practice (Evolution of CMMI: Chrissis et al. 2007, p. 9ff.).

IT Service Processes have been established up to here within the described case at first top down employing the large body of knowledge within
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