Chapter 6.3
Application Management:
Provide Service Quality from a Business Perspective

Marc-Oliver Kociemba
S&N AG, Germany

ABSTRACT

Quality is about meeting the stakeholder's expectations: the subjective perception is often more important than hard facts. Therefore, a common understanding between all involved parties – especially business owners as well as service providers – concerning the quality of a service is mandatory. Application Management is defined as the concept and all required techniques to monitor, measure and record data for operating services. It has a significant impact on the quality of an IT service. Based on the so-called value chain – a phased approach starting with a business point of view followed by IT development and operation – necessary activities as well as quality indicators are identified and described for each step in the software development livecycle. The aspects of Application Management are illustrated by using a real world example of implementing an output management system within a bank.

1 APPLICATION MANAGEMENT: AN INTRODUCTION

Quality is about meeting the stakeholder's expectations. Especially when providing individual services to the customer it is often not a matter of hard facts, but of subjective perception. Peter Ferdinand Drucker, a well-known business economist, stated in 1985 "'Quality' in a product or service is not what the supplier puts in. It is what the customer gets out and is willing to pay for" (Drucker, 2007, pg. 206). A number of other definitions have been summarized by Hoyle (2009, pg. 24) including the definition given in the ISO

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9000 standard which defines quality as the "degree to which a set of inherent characteristics fulfills requirements". A similar perspective is used within project management methodologies. The widely used Project Management Body of Knowledge (Project Management Institute, Inc., 2008) defines quality in the same way as the ISO 9000 standard.

Therefore, it is necessary to build a common understanding between all involved parties concerning quality in terms of IT service operation and consumption. A well established standard for providing IT services is the *IT Infrastructure Library* (ITIL®). ITIL® is a registered trademark owned by the British Office of Government Commerce (OCG). The IT Infrastructure Library provides "a set of Best Practice guidance for IT Service Management. ITIL is owned by the OCG and consists of a series of publications giving guidance on the provision of Quality IT Services, and on the Processes and facilities needed to support them" (Office of Government Commerce, 2007). The services are provided based on a *Service Level Agreement (SLA)* signed by the customer and the provider. A Service Level Agreement according to ITIL is defined as "an Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer" (Office of Government Commerce, 2007).

From a formal point of view the SLA forms the basis between the customer and the service provider and it defines which quality of service has to be delivered. In order to monitor and record the appropriate service delivery it is required that the service provides built-in functions or interfaces to record the agreed parameters. Most often, these so called key performance indicators (KPI) focus on technical aspects like response times and error logs, but the business perspective is just as important as the technical perspective. Looking at the indicators of a business process instance, like the average time required for a credit approval process or the average cash flow of an automated teller machine, provides important insights to the processes involved and allows the option to optimize these processes. The area of Application Management covers these aspects throughout the whole process of service design and delivery.

Our view of *Application Management* covers the concept and required techniques to monitor, measure and record data for operating one or more services. This data is also used for the analysis of the service operation from two points of view: the business perspective as well as the perspective of the service provider. In order to have appropriate Application Management functions in place, Application Management activities have to be included in the service design phase during the project as well as in service delivery during operations.

This covers at least but not only the following aspects:

- Measuring of the quality and availability of the user transactions provided by the service
- Layer independent measuring and monitoring of performance, resources, response times, etc.
- Technology independent solutions
- Integration of service workflows
- Coverage of development and operating phase of a solution
- Involvement of the business organization, the software development group and the service provider

During this chapter we will follow the so-called *value chain* (S&N AG, 2010) starting with the business oriented innovation and consulting phase, followed by the development centric initialization and implementation phase, and finally the preparation and actual performance of the IT operation.

This chapter will provide an in-depth view to Application Management and how Application Management can help to increase the quality of IT solutions and services. We will cover both

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