

## Chapter 8.15

# Aligning Six Sigma and ITIL to Improve IT Service Management

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### ABSTRACT

Organizations are implementing IT Service Management (ITSM) and creating quality standards to design, deliver, and manage IT services to meet or exceed an agreed level of quality. ITSM uses the best practices of IT Infrastructure Library (ITIL) that informs IT management what needs to be done and how it will get done from the process perspective. However when undertaking an ITSM a project to implement ITIL, ITIL does not provide a method for measuring quality or identifying and completing process improvement projects. By integrating the Six Sigma quality methodology, IT management will have the methodology

and tools for measuring quality and improving processes. Adopting Six Sigma principles also helps IT managers focus on their business strategy and customers, manage proactively based on facts, and reinforce collaboration across the enterprise. The framework in our exploratory experience based research has been built upon a deductive study which has been developed through a literature review and synthesis and an exploratory inductive research which has been developed using a qualitative case study methodology in the e-services and mobile applications field. [Article copies are available for purchase from [InfoSci-on-Demand.com](http://InfoSci-on-Demand.com)]

## OVERVIEW OF INFORMATION TECHNOLOGY SERVICE MANAGEMENT (ITSM)

Today's executives are challenged to deliver value to their shareholders in a global market place and to compete, organizations are setting business strategies for the entire organization. This management change presents a significant change for Information Technology (IT) organizations that have historically dealt with individual business units or functional domains. Now IT must support the enterprise's business strategy and the entirety of the enterprise. Technology organizations must deliver interoperation of processes, people and technology to the entire enterprise.

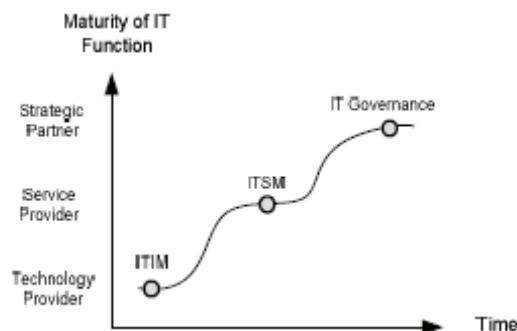
The rise of services oriented architecture, client server computing, virtualization and distributed applications have created a plethora of moving targets in the information technology (IT) organization. IT organizations have had to deal with a business that have historically been siloed by function or department and have been separated from the business. However since organizations have adopted an enterprise approach running their businesses, IT managers can no longer run an IT organization as a technology-based organization. They must be able to migrate to being a value-based service provider and contributor to the enterprise strategy instead of an overhead cost. IT Service Management (ITSM) is a process-based practice

intended to align the delivery of IT services with needs of the enterprise, emphasizing benefits to customers. ITSM involves a paradigm shift from managing IT as stacks of individual components to focusing on the delivery of end-to-end services using best practice process models (WhatIs.com, 2008). Information Technology Infrastructure Library (ITIL) is a globally recognized collection of best practices for information technology (IT) service management.

ITSM audits are based on analysis of four key performance indicators in specific ways:

- Growth and value, which involves tracking revenue growth against investment and utilization.
- Budget adherence, which involves optimizing the use of available funds and avoiding unnecessary expenditures.
- Risk impact, which involves identifying and evaluating the consequences of risks taken or avoided.
- Communication effectiveness. IT managers need to adopt a service management approach consisting of well-defined IT processes and a continuous improvement program in order to meet their customer's expectations and contribute to the enterprise's goals.

Figure 1. Evolution of the IT function within organizations (Salle, 2004, p. 1)



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