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E-Governance: Project Management Practices through Information Technology Infrastructure Library

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Abstract: *E-Governance implementation requires certain service levels to be achieved as they replace traditional manual processes thereby increasing the dependence of government agencies on information technology based services. High quality services entail high performance, availability, and scalability among other service characteristics. Strict measures are required to help e-governments evaluate the service level and assess the quality of the service. In this paper, we introduce the IT Infrastructure Library (ITIL) framework - a set of best practices to achieve quality service and overcome difficulties associated with the growth of IT systems and discuss its significance and benefits in E-Governance implementation.*

Keywords: *E-Governance, ITIL, ITSM, Project Management.*

I. INTRODUCTION

In the race of computerizing manual processes, many E-Governance projects across the world have failed due to ineffective project management practices. This is led various governments and IT organizations look to the ITIL framework for guidance. ITIL, or the IT Infrastructure Library, is widely accepted international standards of IT practices. It requires a certain service level to be attained as they replace traditional manual processes and increases the dependence of government on information technology based services. High quality services entail high performance, availability, and scalability among other service characteristics. Defining the requisite service levels for such characteristics is a key activity. ITIL provides a systematic approach for attaining pre-defined service levels for various service characteristics. The processes identified, designed and implemented as part of the ITIL framework can be considered as a measure or means to achieve pre-defined service levels for E-Governance.

II. IT INFRASTRUCTURE LIBRARY

The Information Technology Infrastructure Library was born from the marriage of IT and business strategy after the realisation of the significance of IT service management. It is basically a set of policies and concepts for managing IT infrastructure and service effectively and efficiently. It was first published in the 1980s by The U.K. Central Computer and Telecommunications Agency, and it is still governed by the U.K. Office of Government Commerce. Even though ITIL was developed during the 1980s, adoption was light until the early 1990s and has only gained traction in the U.S. within the past few years.

ITIL makes E-Governance implementation easier by providing a structured, flexible guidelines for governance standards around IT service management. It improves the alignment between the operations and IT, increasing citizen satisfaction, lowering costs, optimizing outsourcing, improving service levels, increasing service availability, and improving the ability to manage change, among other things. Some may find the guidelines as prescriptive and inflexible and it may appear for some as barriers to adoption due to lengthy implementation, disruption of current processes, change issues but in long run, it is very fruitful.

ITIL comprises of two domains and eleven processes of IT service management which are as follows:

- a. The Service Support Domain which has the following processes:
 - (i) Service Desk.
 - (ii) Incident Management.
 - (iv) Problem Management
 - (v) Configuration Management.
 - (vi) Change Management.
 - (vii) Release Management.

- b. The Service Delivery Domain with the following processes:
 - (i) Service-level Management.
 - (ii) Capacity Management.
 - (iii) IT Service Continuity Management.
 - (iv) Availability Management.
 - (v) Financial Management for IT services.

A hierarchical structure of roles and responsibilities is provided within each process as well (Figure 1). Moreover, the International Organization for Standardization (ISO) established the 'ISO20000' as the specification of international standards for IT service management in 2005, which succeeded the 'BS15000' specification of the British Standard Institution based on the ITIL of OGC. The United Kingdom's Central Computer and Telecommunications Agency (CCTA) created ITIL in response to the growing dependence on Information Technology to meet business needs and goals. ITIL provides E-Government with a framework that is customizable to select the best practices from the industry and achieve a high level of quality service. It also caters for scalability in future.

The core of ITIL comprises five service delivery processes (Table 1) and five service support processes and one service support function (service desk). Service support processes apply to the operational level of the organization whereas the service delivery processes are tactical in nature.

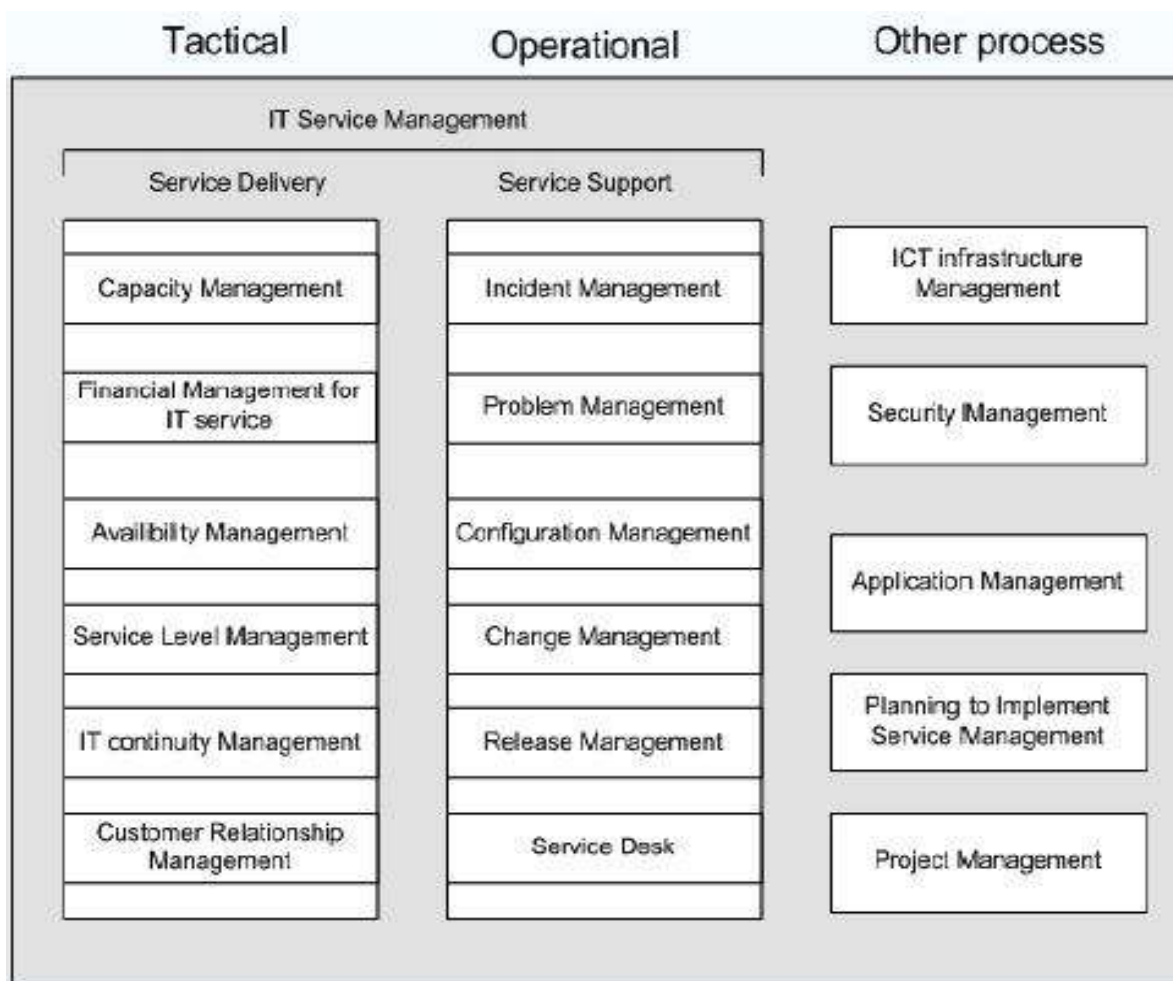


Figure 1. ITIL Infrastructure

Table1. Description of Core ITIL Components (Adapted from OGC 2006)

Service Delivery Domain – Tactical Level	
Service Level Management (SLM)	Negotiates service level agreements (SLA) and ensures that these are met.
Capacity Management	Ensures that the capacity of IT services and the IT infrastructure is able to deliver agreed service level targets in a cost effective and timely manner.
IT Service Continuity Management	Manages risks that could seriously impact IT services. ITSCM ensures that the IT service provider can always provide minimum agreed service levels, by reducing the risk to an acceptable level and planning for the recovery of IT services.
Availability Management	Defines, analyses, plans, and measures and improves all aspects of the availability of IT services.
Financial Management	Manages an IT service provider’s budgeting, accounting, and charging requirements
Service Support Domain – Operational Level	
Service Desk	The single point of contact between the service provider and the users.
Incident Management	Manages the lifecycle of all incidents. Its primary objective is to return the IT service to customers as quickly as possible.
Problem Management	Manages the lifecycle of all problems. Its primary objectives are to prevent incidents from happening and to minimize the impact of incidents that cannot be prevented.
Change Management	Controls the lifecycle of all changes. The objective is to enable beneficial changes to be made with minimum disruption to IT services.
Release Management	A collection of hardware, software, documentation, processes or other components required to implement p proved changes to IT services.
Configuration Management	Responsible for maintaining information about C Configuration items required to deliver an IT

III. BENEFITS

Though ITIL and other Project Management Practices like PMP have turned out to be very fruitful for E-Governance implementation. Some of the IT specific benefits are enumerated below:

- a) Increased IT efficiency and productivity through defined roles and responsibilities and repeatable and scalable best-practice-based processes.
- b) Better support for regulatory and compliance challenges and increased control.
- c) Increased customer perception of IT and its services and the business value they deliver.
- d) Increased visibility and understanding of IT services.
- e) Better IT service suitability and availability by reducing the “incident lifecycle,” with the ability to prevent issues before the occur the proactive identification of problems and reducing their adverse impact on business operations having a better ability to react to the business’s need for rapid change.
- f) The ability to measure and improve operational performance.

Some of the organisation benefits are as follows:

- a) Increased IT efficiency and productivity through a better understanding of business requirements, resulting in better-fitting IT services.
- b) Increased business productivity through higher IT service availability levels.
- c) Increased IT cost efficiency and value.
- d) Better expectations management.
- e) Reducing the business impact of incidents.

IV. CONCLUSION

In E-Governance the interaction with stakeholders is through IT, so IT drives the Governance today. The fact is that the E-Governance effectiveness and citizen service quality is dependent on a high availability, dependability, security, and performance of IT services. ITIL provides the foundation for quality e-Governance application management]. It supports governance aims by offering services which are based on efficient citizen centric principles and adequately fulfil governance requirements.

REFERENCES

1. Cater-Steel, A. 2007a. "Integration of service management with CMMI and SPICE". Proceedings of the 5th Annual SEPG Australia Conference. Gold Coast, Australia.
2. Cater-Steel, A. 2007b. "ITIL adoption in Australia: 2 years of it SMFA surveys and case studies". In it SMF Australia 10th National Conference and Expo. Melbourne.
3. Cater-Steel, Aileen, and Toleman, Mark. 2007. Education for IT service management standards. International Journal of IT Standards and Standardization Research, 5 (2), pp. 27-41
4. 2006. "Transforming IT Service Management -- The ITIL Impact". Proceedings of it SMF Australia 10th National Conference and Expo. Adelaide, Australia.
5. Carter, L., & Belanger, F. 2005. The utilization of e-government services: Citizen Trust, innovation, and acceptance factors. Information Systems Journal, Vol. 15, pp. 5–25.
6. Conger, Sue, Winniford, MaryAnne, and Erickson-Harris, Lisa. 2008. "Service Management in Operations". Proceedings publication at the 13th Americas Conference on Information Systems (AMCIS), Toronto, CA
7. Coopers, D. & Schindler, P. 2003. Business Research Methods. 8th Ed. New York: McGraw-Hill/Irwin
8. Evans, D., Yen, D. C. 2005. E-government: An analysis for implementation: Framework for understanding the cultural and social impact. Government Information Quarterly Vol.22 pp.354–373
9. Hochstein, A., Tamm, G., & Brenner, W. 2005. Service-Oriented IT Management: Benefit, Cost and Success Factors. 15th European Conference on Information Systems, Regensburg, Germany.
10. ISO/IEC. 2005a. ISO/IEC 20000:2005 Information technology - Service management - Part 1: Specification. Geneva: International Organization for Standardization.
11. ISO/IEC. 2005b. ISO/IEC 20000:2005 Information technology - Service management - Part 2: Code of practice. Geneva: International Organization for Standardization.
12. ITSM. 2010. ITSM - IT Service Management <http://www.itsm.info/ITSM.htm>. Accessed on June 15, 2010
13. Joshi, N., W Riley, J Schneider, Y-S Tan. 2007. "Integration of domain-specific IT processes and tools in IBM Service Management." IBM Systems Journal. Armonk: Jul-Sep 2007. Vol. 46(3); pp. 497-512.
14. Lewis K., Schwartz L. 2009. A case for ITIL returns on investment – white paper, ITSM Academy.
15. Lloyd, V., Peters, L., Rupchock, K. & Wilkinson, P. 2003. Planning to Implement IT Service Management. 3rd Ed. London: The Stationary Office
16. OGC. 2006. Introduction to ITIL. London: Stationery Office.
17. Praeg, C.-P. & Schnabel, U. 2006. IT-Service Cachet - managing IT-service performance and IT-service quality. *Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06)*.
18. Sallé, M. 2004. IT Service Management and IT Governance: review, comparative analysis and their impact on utility computing (No. HPL-2004-98). Palo Alto: Hewlett-Packard Company.
19. SRO, 2010 <http://www.sro.vic.gov.au/sro/SROnav.nsf/Home+Page/SRO~Home+Page?open> State Revenue Office (AU).(Accessed on June 15, 2010)
20. TSO. 2005. ITIL V2 Glossary v01 London: Office of Government Commerce. ITIL V2 Glossary
21. Zeng, Jihong. 2007. "Improving IT Service Delivery Quality: A Case Investigation. Journal of American Academy of Business. Vol. 12(1); pp. 24-31. Cambridge. Hollywood.