

# Information Technology Infrastructure Library

The Information Technology Infrastructure Library (ITIL) is a set of concepts and techniques for managing information technology (IT) infrastructure, development, and operations. It is a consistent and comprehensive documentation of best practice for IT Service Management. Used by many hundreds of organisations around the world, a whole ITIL philosophy has grown up around the guidance contained within the ITIL books and the supporting professional qualification scheme.

ITIL consists of a series of books giving guidance on the provision of quality IT services, and on the accommodation and environmental facilities needed to support IT. ITIL has been developed in recognition of organisations' growing dependency on IT and embodies best practices for IT Service Management.

The ethos behind the development of ITIL is the recognition that organisations are becoming increasingly dependent on IT in order to satisfy their corporate aims and meet their business needs. This leads to an increased requirement for high quality IT services.

## Certification

ITIL certifications are managed by the ITIL Certification Management Board (ICMB) which is composed of the OGC, IT Service Management Forum (itSMF) International and two examinations institutes: EXIN (based in the Netherlands) and ISEB (based in the UK). The EXIN and ISEB administer exams and award qualifications at Foundation, Practitioner and Manager/Masters level currently in 'ITIL Service Management', 'ITIL Application Management' and 'ICT Infrastructure Management' respectively.

A voluntary registry of ITIL-certified practitioners is operated by the ITIL Certification Register. Organizations or a management system may not be certified as "ITIL-compliant". An organization that has implemented ITIL guidance in ITSM, however, may be able to achieve compliance with and seek certification under ISO/IEC 20000.

## Overview of the ITIL v3 library

ITIL v3, published in May 2007, comprises 5 key volumes:

1. Service Strategy; 2. Service Design; 3. Service Transition; 4. Service Operation; 5. Continual Service Improvement

## Service Strategy

Service strategy is shown at the core of the ITIL v3.1 lifecycle but cannot exist in isolation to the other parts of the IT structure. It encompasses a framework to build best practice in developing a long term service strategy. It covers many topics including: general strategy, competition and market space, service provider types, service management as a strategic asset, organization design and development, key process activities, financial management, service portfolio management, demand management, and key roles and responsibilities of staff engaging in service strategy.

## Service Design

The design of IT services conforming to best practice, and including design of architecture, processes, policies, documentation, and allow for future business requirements. This also encompasses topics such as Service Design Package (SDP), Service catalog management, Service Level management, designing for capacity management, IT service continuity, Information Security, supplier management, and key roles and responsibilities for staff engaging in service design

## Service Transition

Service transition relates to the delivery of services required by the business into live\operational use, and often encompasses the "project" side of IT rather than "BAU" (Business As Usual). This area also covers topics such as managing changes to the "BAU" environment. Topics include Service Asset and Configuration Management, Transition Planning and Support, Release and deployment management, Change Management, Knowledge Management, as well as the key roles of staff engaging in Service Transition.

## Service Operation

Best practice for achieving the delivery of agreed levels of services both to end-users and the customers (where "customers" refer to those individuals who pay for the service and negotiate the SLAs). Service Operations is the part of the lifecycle where the services and value is actually directly delivered. Also the monitoring of problems and balance between service reliability and cost etc are considered. Topics include balancing conflicting goals (e.g. reliability v cost etc), Event management, incident management, problem management, event fulfillment, asset management, service desk, technical and application management, as well as key roles and responsibilities for staff engaging in Service Operation.

## Continual Service Improvement (CSI)

Once an organization has gone through the process of identifying what its Services are, as well as developing and implementing the IT Service Management (ITSM) processes to enable those services, many believe that the hard work is done. How wrong they are!! The real work is only just beginning. How do organizations get buy-in for using the new processes? How do organizations measure, report and use the data to improve not only the new processes but to continually improve the Services being provided? This requires a conscious decision to adopt CSI with clearly defined goals, documented procedures, inputs, outputs and identified roles and responsibilities. To be successful, CSI must be embedded within each organization's culture.

The service lifecycle is a comprehensive approach to Service Management: seeking to understand its structure, the interconnections between all its components, and how changes in any area will affect the whole system and its constituent parts over time. It is an organizing framework designed for sustainable performance.

The Service Lifecycle can be viewed in a graphical manner, where it is easy to demonstrate the value provided, both in terms of "business contribution" and "profit". The business contribution is the ability for an IT organization to support a business process, managing the IT service at the requested performance. The profit is the ability to manage cost of service in relation to the business revenue.

The service Lifecycle can be viewed as a phased lifecycle, where the phases are: - Defining strategy for the IT Service Management (Service Strategy or SS) - Designing the services to support the strategy (Service Delivery or SD) - Implement the services in order to meet the designed requirements (Service Transition or ST) - Support the services managing the operational activities (Service Operation or SO)

The interaction between phases are managed through the Continual Service Improvement approach, which is responsible for measuring and improving service and process maturity level. After Comparison of all phases, a service period is concluded and another service period begins.

The Continual Service Improvement phase is involved during all phases of the service Lifecycle. It is responsible for measuring the service and the processes, (Service Measurement), and to document the results (Service Reporting) in order to improve the services quality and the processes maturity (Service Improvement). These improvements will be implemented in the next period of Service Lifecycle, starting again with Service Strategy, and after with Service Design and Transition, the Service Operation phase of course continues to manage operations during all service periods.

With the evolution of service periods, the "effort" for each phase will be reduced concerning the strategic and tactical phases (SS, SD and ST), here the SO phase is optimized and takes the primary role. At each cycle of the service (service period) the service will be improved with results of increasing of the Value of business and maximizing of Profits.

In terms of Business Contribution, the IT Service begins to be valuable when in the first step the Service Transition starts.

In terms of profits, the major investments are required with the big implementation projects (ST), when the transition is complete and the Operations start, the service begins to support business process and the new revenues balance the costs. After some periods of service optimization the "Profit & Loss" starts to be profitable and reach the "break even point".

After a number of periods (depending on the complexity of the service and the complexity of the service and the flexibility of the business), the business contribution and the profit will be stabilized, which means that the IT organization has reached the right level of maturity in managing processes and the service has reached the right level of performance in meeting the service level requirements.