

>> ITIL-compliant Service Management
IT Infrastructure Library (ITIL)



ITIL - An Introduction

ITIL - An Introduction

• Management Summary	3-5
• Overview of Service Support	6
Service Desk (Functions)	7
Incident Management	8
Problem Management	9
Configuration Management	10
Change Management	11
Release Management	12
• Overview of Service Delivery	13
Service Level Management	14
Financial Management for IT Services	15
Capacity Management	16
IT Service Continuity Management	17
Availability Management	18
• ITIL-compliant Service Management	19
• Glossary	20

MANAGEMENT SUMMARY

The success of a company is very much dependent on the quality of its IT infrastructure. Improving IT service quality while simultaneously standardising services and reducing costs generates a competitive advantage.

Business Service Management (BSM) provides a strategic approach to the consistent alignment of the most important IT services to a company's business processes. Within the framework of a BSM strategy, companies and public authorities gain a better understanding and an optimised forecast of the contribution performed by IT in reaching their business targets. For the first time, those responsible for IT are in a position to assess a drop in performance or the malfunction of a service component. This is how BSM goes above and beyond pure IT service management.

The IT Infrastructure Library (ITIL) is a collection of specialist methodological principles for best practices with the purpose of optimising IT service processes. ITIL was developed at the end of the '80s by the United Kingdom Office of Government Commerce (OGC) to optimize the IT services within UK public administrations. In the meantime a whole industry has developed around the ITIL philosophy, based upon best practices from private industry and public administrations. ITIL services include training, certification, consulting, software and the appropriate implementation.

ITIL is a set of rules, independent of manufacturers, that describes systematic procedures for the introduction, operation and

The objectives for IT service management according to ITIL are:

- The orientation of IT services towards current and future business requirements.
- The orientation of all IT services towards the requirements of the customer.
- Constant quality improvement of IT services together with long term constant or reduced costs.

MANAGEMENT SUMMARY

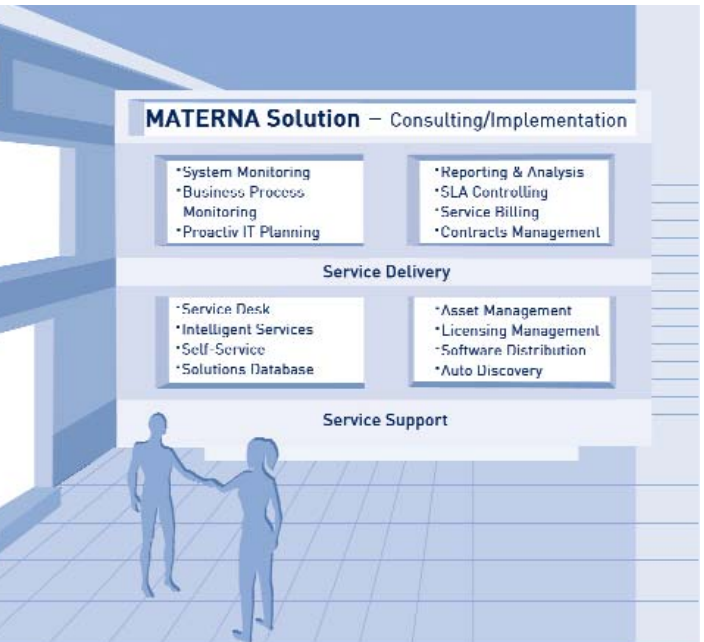
management of IT and its services. ITIL describes processes, functions, roles, responsibilities and creative elements. This forms the basis for efficient, effective IT operations.

The alignment of the central elements of these procedures is based on the three pillars of **customer, process** and **quality orientation**. IT service management is the management of an IT infrastructure with which IT services can be provided. All the components necessary for IT services are part of the IT infrastructure: hardware, software, processes, relevant communication, documentation and specialist resources.



ITIL incorporates a multitude of documents, which address a wide variety of subjects and audiences. In the following, the ten most important disciplines, which are combined in the service support and the service delivery set, are presented.

ITIL describes what has to be done – but not how it has to be done! The ITIL disciplines provide best practice procedures but do not supply detailed instructions for their implementation. Support from qualified IT service management consultants is needed to adapt IT service processes to specific company conditions and to make them ITIL compliant.



OVERVIEW OF SERVICE SUPPORT

Service Support is comprised of the components necessary to ensure the stability and flexibility of the IT services. Service support includes the following disciplines:

- **Service Desk (function)**
The single point of contact for the user/customer
- **Incident Management**
Processing of incidents, enquiries and complaints
- **Problem Management**
Lasting correction of all errors
- **Configuration Management**
Logical model of the IT infrastructure
- **Change Management**
Secure implementation of changes to the IT infrastructure
- **Release Management**
Controlled distribution of new or changed IT service components

The ITIL philosophy assumes that the success of a company is becoming more and more dependent on its IT. The quality of the IT services must therefore be tuned to support business processes reliably. The operational efficiency of process management is of the highest priority.

Following on from this idea, all IT processes must receive the same amount of attention.

SERVICE DESK

“The service desk is the organizational unit of an IT service provider, which supplies functions or processes. The service desk is the single point of contact for users, customers and IT service support units.”

A service desk is not a process, but a function, with the task of ensuring a reliable contact interface between customers/users and IT service organizations. ITIL provides instructions for the setting up and operation of a service desk as a means of efficient communication between IT service providers and their client groups.

The service desk is therefore the **single point of contact** for the customer.

The IT service desk is the most important interface with the customer and therefore is the key element for ensuring efficiency and customer satisfaction. Incidents and service requests are dealt with at the service desk. The primary task of the service desk is to restore normal service operations as quickly as possible with the least amount of disturbance to daily business.

The service desk acts as an important interface and provider of information for other IT disciplines such as change, problem, configuration and release management.

“Incident management describes the fastest possible recovery of service operations. An incident is an event outside the standard IT service operations which causes an interruption or interference with IT service quality.”

The service desk plays a central role in incident management. This is where service interferences are received and documented centrally. Incident management serves to monitor the defined procedures for recording and removal of errors. It diagnoses and classifies errors.

Target:

To recover services as quickly as possible (within the agreed time) and to keep interference to business operations at as low a level as possible. Maximum service quality should be available long term

Contents:

- **Incident**
 - Discovery
 - Recording
 - Identification
 - Classification
 - Diagnosis
 - Removal

Questions regarding quality evaluation of incident management:

- How quickly are disturbances discovered and how high is the level of service desk availability?
- How often does the service desk receive interferences or enquiries?
- How long does it take to solve interference problems?
- Are service levels kept to?
- How high are the average costs for the processing of errors?

PROBLEM MANAGEMENT

“A problem is an unknown cause of one or more incidents. Problem management consists of systematic error finding and recovery.”

Analysis and diagnosis should reduce the number of incidents long-term. Regular reporting about types of solutions to problems enables the management to induce corrective or preventative measures in advance.

Target:

The proactive prevention and minimisation of problems in the IT infrastructure in order to avoid any lasting disadvantageous effects on business operations

Contents:

- **Fast and effective correction of problems**
- **Problem control (problem treatment)**
 - Identification, classification and analysis of errors
- **Error control**
 - Documentation and evaluation of errors
 - To initiate change management processes or request for change (RFC)
 - Documentation of error correction
 - Tracking of steps during error correction

Questions regarding the quality evaluation of problem management:

- How many problems arise?
- How many problems interfered with business processes to a high degree?
- How often do similar problems arise?
- How and within which time frame can problems be solved?
- How high are the average costs for problem solving?

CONFIGURATION MANAGEMENT

“Configuration management documents all IT components as well as their relations to each other. The information stored here forms the configuration management database (CMDB)”

Configuration management supplies a logical model. It reflects the scheme of the IT infrastructure. By identifying, maintaining and verifying all configuration components, a logical picture of the existing structure is produced. The CMDB administrates all information. This forms the basis for the planning of service processes, supports problem solving and provides important input for asset management.

Target:

The documentation and verification of configuration information from all IT infrastructure components as the basis for efficient support of the incident, problem and change management modules. A large amount of information with a minimum effort of documentation is clearly recommended

Contents:

- Identification of all relevant configuration data
- Monitoring of data management
- Generate information and make it available
- Constantly monitor and, if necessary, improve data quality

Questions regarding the quality evaluation of configuration management:

- How quickly and how comprehensively are the IT component data available when needed?
- Are the data correct and up to date?
- How much effort is required to maintain the data?

CHANGE MANAGEMENT

“Change management takes on the standardised evaluation and planning of supplements, changes or replacement of one or more components within the IT infrastructure.”

Change management includes the comprehensive treatment of changes in the IT infrastructure. Changes can be as a reaction to the demands of business or proactively planned to increase efficiency. A coordinated procedure for the implementation of changes leads to the achieving of aims and simultaneously minimises the errors that resulted from the change.

Target:

Fast (to deadline) realisation of changes without affecting the IT service quality

Contents:

- Planning of changes
- Assess relevance and approve changes
- Execution and monitoring of changes
- Evaluation and reporting of changes

Questions regarding quality evaluation of change management:

- How many successful changes have been carried out?
- How many changes have a considerable negative effect on business?
- How often do similar problems occur?
- How many changes are implemented correctly according to time and costs?
- How many changes have caused how many problems?

"Release management comprises the planned and authorized implementation of changes to IT components."

Release management coordinates the preparation, testing and approval of IT infrastructure components. In this way, software roll-outs which are wide-reaching or crucial to the business operations can be implemented efficiently. This process also entails the introduction, training and documentation of new hardware or software. Release management defines which hardware and software is required throughout the company, and is closely linked with change management.

Target:

Coordinated implementation of releases, causing the least possible interference for the user of the IT service components – with a comprehensive view to all related tasks, such as distribution and monitoring

Contents:

- Planning and monitoring releases
- Carrying out acceptance tests
- Ensuring the integration of change and configuration management
- Planning and execution of roll-outs
- Informing affected users/customers

Questions regarding quality evaluation of release management:

- Are all necessary infrastructure data for the planning of an release on hand?
- How frequently do roll-outs lead to serious interruptions to the IT services?
- How high is the error rate?
- What is the average cost of implementing a release?
- Is the inventory still up to date after a release?

OVERVIEW SERVICE DELIVERY

Service delivery supports the customer-appropriate provision of IT services and involves the following functions and processes:

- **Service Level Management**
Agreement and monitoring of service targets
- **Financial Management for IT Services**
Analysis, planning and budgeting the IT costs
- **Capacity Management**
Planning of capacity and performance
- **IT Service Continuity Management**
Securing the necessary IT service resources
- **Availability Management**
Guaranteeing the availability of all IT components essential for business operations

Service delivery covers the processes required by the IT service management to fulfill the customer's requirements as efficiently as possible.

SERVICE LEVEL MANAGEMENT

"The documentation and monitoring of IT services agreed between the IT service provider and the customer."

Service level management summarizes service targets, specifications and the proposed method of implementation into service level agreements (SLA). The service level management process accounts for and optimizes service agreements.

Service level management is core to ITIL and is connected on an organizational level with all other ITIL disciplines. SLAs define the targets and metrics of IT services, improving transparency and comparability for the customer.

Target:

To ensure that the IT services actually provided comply with the agreements

Contents:

- Recording customer requirements
- Ensuring that services are performed as agreed
- Create SLAs
- Ascertaining and, if necessary, improving the status of service quality
- Compiling and continually extending the service catalogue
- Definition of the operational level agreements (OLA)

Questions regarding quality evaluation of service level management:

- How many SLAs are available?
- Are all SLAs being complied with?
- How often are agreements not adhered to or can be fulfilled to a limited degree only?
- Are the agreements planned cost-effectively?
- What coverage does the service catalog achieve?
- What are the average costs for monitoring and reporting SLAs?
- Are the customers satisfied?

FINANCIAL MANAGEMENT FOR IT SERVICES

"Financial management for IT services provides all business management tasks required for the cost-effective control of an IT service organization."

Financial management for IT services enables a more efficient use of resources. It provides all major management information relevant for the planning and performing of cost-effective IT services. Financial management for IT services is indispensable for cost-effective IT service management.

Target:

Cost-effective management of the IT components and efficient use of the financial resources applied for the rendering of IT services

Contents:

- Planning IT service budget
- Ascertaining service costs
- Checking expenses
- Definition of overhead key
- Setting prices
- Continual target/actual monitoring

Questions regarding quality evaluation of financial management for IT Services:

- Is there a complete IT service cost overview?
- Is there a detailed charging mechanism in place?
- Do all service providers work cost-consciously?
- Are the calculation and invoicing comprehensible for the customer?
- Are economic targets being met?

"Capacity management enables planning of the necessary IT resources fit for the future and allows an efficient long-term IT service management."

Capacity management ensures that all necessary IT capacities are available to fulfill the (growing) IT service requirements of a company both at present and in the long term. For capacity management, the aspect of cost-efficiency is crucial. Its database contains all key figures that flow into a capacity plan, and is based on ongoing analyses. The amount of work arising in future and the required IT resources can thus be forecasted. It is of major importance that company plans can be translated into technical capacity requirements.

Target:

Long-term and cost-effective assurance of agreed IT resources

Contents:

- Definition of business requirements
- Translation into requirements of the IT infrastructure
- Planning and providing resources
- Analysis and monitoring of services delivered
- Maintenance of capacity plan

Questions regarding quality evaluation of capacity management:

- Which SLAs are there? Which SLAs are to be notified and does a relevant resource planning take place?
- Are the IT services suited to the business objectives?
- How frequently do incidents occur as a result of insufficient IT resources?
- What are the most important contents of the business planning?
- Are the IT systems operating to full capacity?
- Is there a current and a planned budget?

IT SERVICE CONTINUITY MANAGEMENT

"IT service continuity management provides backup resources so that business operations can continue even in exceptional circumstances."

IT service continuity management describes how a company can guarantee the agreed IT services, even in the case of an interruption to business operations. It provides information about the processes required to keep implications (e.g. after a major system breakdown) for the business to an absolute minimum. IT service continuity management defines concrete contingency plans. A consistent implementation of this process reduces financial risks and leads to greater customer confidence with regard to the agreed services.

Target:

Assured execution of agreed services in exceptional circumstances

Contents:

- Requirement definition of the IT service continuity management
- Definition of measures and appropriate strategies
- Develop contingency plans (disaster recovery)
- Testing the breakdown situation

Questions regarding quality evaluation of IT service continuity

Management:

- Are the risks which may face an IT organization known?
- Are the effects of a potential risk on the company known?
- What requirements of the risk containment may arise from third parties?
- What would an unplanned ad-hoc retrieval of the IT service operation cost?
- What would an interruption to operations cost?

"Availability management optimizes the performance of an IT infrastructure to guarantee the availability of IT services."

Business processes depend to a large extent on the availability of the IT infrastructure. Availability management ensures and improves the availability of the IT. Current availability data concerning all relevant IT components are collected, analyzed and serve as a basis for the safeguard planning for SLAs. The specific requirements are compiled and recorded in an availability plan.

Target:

Assurance and improvement of the agreed service availability under consideration of cost-effectiveness

Contents:

- Definition of the availability requirements
- Analysis of availability status
- Drawing up forecasts and appropriate measures
- Improving availability

Questions regarding quality evaluation of availability management:

- How frequently are services unavailable?
- Which downtimes are critical for business operations?
- What (financial) consequences would a downtime have?
- Which business processes are affected by downtimes?
- How can the continuous optimization of availability be guaranteed?

ITIL-COMPLIANT IT SERVICE MANAGEMENT

Consulting and implementation

ITIL supplies the "best practice" description – MATERNA supports you all the way in customizing IT Service Management to your specific company requirements. With experience gathered throughout more than 500 IT service management projects, MATERNA has established itself as a proficient partner for ITIL-compliant consulting and the implementation of IT service management processes and technologies. Above all, the topics of ITIL, IT service management and system management are at the focal point of our BSM strategy.

Our services include consulting, tried and tested procedural models and the implementation of processes and technologies. MATERNA has developed an ITIL consulting methodology consisting of several phases, which is based on a comprehensive analysis of the company. The second and third phases are of particular importance. This is where the current status of the company is analysed and compared with the target status. The gaps which are identified here lead to the recommended actions that MATERNA prioritises together with you in the fourth phase. Phase five deals with the question as to how far the company is already prepared for these changes and where action is necessary. We also offer you ITIL training programmes for ITIL Foundation and ITIL Service Manager.

Optimizing processes, connecting technologies

MATERNA is one of the leading information and communications technology companies in Europe. As an IT service provider we have been supplying our customers with innovative IT solutions and services for the last 25 years. Within the Business Unit Information, MATERNA implements professional IT solutions, which optimise the IT processes in companies and public authorities. Among these can be found the subjects of business service management, customer service & support, business portals as well as sector solutions with a focus on solutions for public administrations. Under the brand of Anny Way, the Business Unit Communications develops and markets products and services in the field of telecommunications for network providers, service providers and companies.

GLOSSARY OF IT SERVICE MANAGEMENT

Capacity Plan

Describes current and future requirements of the range and capability of the resources.

Change

Every modification to configuration elements.

Configuration Element (Configuration Item, CI)

All elements (IT components, applications, software status etc.) necessary to perform an IT service.

Configuration Management Database (CMDB)

All objects that make up the IT infrastructure, as well as any changes made to them, are documented as configuration items in the Configuration Management Database (CMDB).

Impact

The scale of effects on the business of incidents, problems and changes.

Incident

An event that leads to an interruption of the normal operations.

IT Service Continuity Plan

A contingency plan describing the procedure followed in the event of a problem.

Known Error

The cause of the error is known.

Operational Level Agreement (OLA)

An agreement concerning the performance of an internal supplier, serves to guarantee the SLAs agreed with the customer.


Problem

An error of unknown cause that leads to an interruption to IT operations.

Release

The consolidation of a number of new and/or modified configuration elements.

Request for Change (RFC)

To implement modifications to a configuration element, an input field must be filled in. It records details and information concerning all RFCs.

Roll-Out

Hardware and software components are introduced throughout the organization or within a defined area.

Service Catalogue

A compilation of all IT services available.

Service Desk

The central point of incident management; it receives, describes and classifies errors, orders and inquiries.

Service Level Requirements

Describe the customer's requirements of the IT service, serve as a basis for the agreed SLAs.

Single Point of Contact (SPOC)

The central contact point for customers and users to report problems etc. to the IT service.

Underpinning Contract (UC)

An agreement relating to the service of an external supplier, serves to guarantee the SLAs.



MATERNA GmbH

Information & Communications

Phone: +49 231 55 99-160 (Headquarters)

E-Mail: marketing@materna.de

© 2005 by MATERNA GmbH. All rights reserved.

The product names used are the trademarks of each manufacturer.

We reserve the right to make any changes: E-07-2005