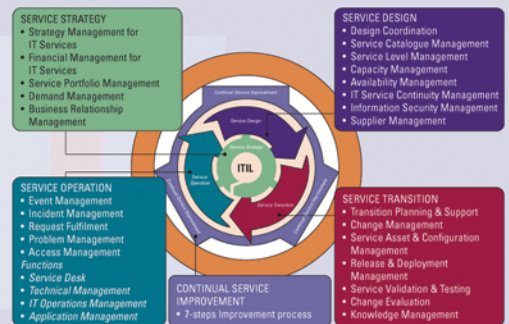


BEST PRACTICE

IT SERVICE MANAGEMENT BASED ON ITIL®

2011 Edition

Pierre Bernard



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IT Service Management based on ITIL® 2011 Edition



Colophon

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Foreword

The aim of this book is to provide an easy to read and easy to use introduction to the broad library of ITIL core books and to support the understanding and the further distribution of ITIL as a popular industry framework. The previous editions of this book, based on ITIL V2 and ITIL V3, have gained a worldwide reputation as an easy access training aid, used by many IT professionals as study guidance for the ITIL Foundation and ITIL Intermediate (lifecycle and capability) exams. This book is a certainly a true successor, aiming at the same target groups.

Van Haren Publishing has been publishing supporting material on ITIL since 2002 and have been very fortunate in gaining the expertise and support of many global industry experts in authoring and reviewing the material. Over this period ITIL has developed from a set of simple processes into a framework that reflects the increasing trends for organizations to work within large enterprise environments across national borders. However it is also clear that many of our readers fall into either of the following two broad categories: those starting their careers within IT service management and those involved with the execution of processes. For these readers simple, concise overviews and explanations of the elements of the framework will be the most useful. Introductory books are very useful as reference material. In addition many organizations use multiple frameworks and methods and thus, there is a requirement for colleagues in other disciplines to understand the basics of ITIL and how it might affect and support their own operations.

Looking forward: There is no “one-size-fits-all framework” or “the mother of all methods”. Organizations around the world will continue to adopt newer technologies and service offering such as mobile computing and cloud-based services. Therefore it is paramount for the success of the IT organizations that they adopt and adapt the various elements of ITIL and other frameworks and methods to suit their innovative solutions. This title celebrates the ‘select and integrate’ approach of many around the world by presenting ITIL elements in succinct, discrete packages.

The continued publication of up-to-date material that covers the key elements of the ITIL Lifecycle approach is therefore very welcome. Like previous editions, this title benefits from the wisdom and support of many colleagues within the IT service management industry and we believe that it presents a strong, quality piece of text that will continue to prove extremely useful to students, executives and managers alike.

Acknowledgements: The format of the content of this book is based on the Dutch edition that was edited by René Visser. The role of René for improving the consistency of the text was very important to realize this English language edition.

September 2014,
Pierre Bernard

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1

Introduction

■ 1.1 BACKGROUND

Since the year 2000, technological developments such as smartphones, tablets, cloud services, near-field-content, Wi-Fi, and especially social media have had a tremendous effect on the world we live in. With the emergence of extremely powerful hardware, highly versatile software and super-fast networks – and their wide-spread acceptance and use – organizations worldwide have been able to develop their information-dependent products and services to a greater extent, and to bring them to the market much faster. These, as well as many other socio-economic and political developments have marked the superimposition of the **information age** upon the industrial age. In this “*information age*”, where everything is connected, the dissemination of data and information has become faster and more dynamic as well as a worldwide phenomenon.

Quoting from one of Bob Dylan's¹ songs titled “*The Times They Are A-Changin*” is quite appropriate here as indeed the traditional view and role of the Information Technology organization (IT) are dramatically altered based on the above. To be successful, organizations will need to be as nimble as possible in order to react to rapidly changing market demands and technologies. First, there is a movement concerning renaming IT to Information Services (IS). Second, cloud computing is becoming a more viable option and a more common solution. This is a result of organizations realizing that technology is not always one of their core competences and that outsourcing provides them with a more accurate and predictable cost structure.

Organizations should also start considering the significant impact of the arrival in the workplace of extremely technology-savvy employees. These new employees have been using technology almost since birth; they are not only the early adopters of mobile technologies but of social media as well. Information is now at their fingertips and they will expect the same in the workplace. In addition to this new generation of employees,

1 Bob Dylan – American singer, songwriter, musician (1941 -)

organizations need to consider how they will handle the same demands from their existing and potential customers.

There are numerous books, whitepapers, and articles² about the need to break down vertical business silos and shift the business model to more horizontal **processes**, thus “flattening” the organization. The authors of these documents are advocating that decision-making powers should be increasingly bestowed on the employees. Again, according to these various sources, an important advantage of process-oriented organizations is that processes can be designed to support a **customer-oriented approach**. This has made the alignment between the IT organization (responsible for supplying information) and the customer (responsible for using these information systems in their business) increasingly significant. This is usually known as **Business-IT Alignment (BITA)**.

It is against this background that the world of IT Service Management (ITSM) has arisen and gained in popularity.

The above authors are not wrong, nor are they lacking vision; on the contrary. As organizations gained more experience with the **process-oriented approach** of ITSM, it became clear that these processes must be managed coherently. Moreover, it became obvious that the introduction of a process-oriented work method meant a major change for organizations that were primarily line and project-oriented. Culture and change management are crucial elements for a successful organizational design. Change management here refers to business change, as well as changes in attitudes, aptitudes, behaviors, the adoption of frameworks and methodologies adapted to suit the organizational needs.

The truth about processes and BITA is that organizations have always used processes and IT has always been part of the organization. However, we must acknowledge that processes are often conducted in isolation by a few individuals or groups. Processes are often neither shared nor documented. One of the causes for the above is that many people believe that “*knowledge is power*”, as illustrated in the following two quotes:

Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family.

- Kofi Annan

Knowledge is power. Information is power. The secreting or hoarding of knowledge or information may be an act of tyranny camouflaged as humility.

- Robin Morgan

² See Appendix A for some examples

³ Attributed to Sir Frances Bacon (Viscount of Saint Alban, 1561 – 1626)

In the author's opinion, "*knowledge **sharing** is power*".

Another important lesson learned was that the IT organization must not lose itself in a process culture. Just like the one-sided project-oriented organization, a one-sided process-oriented organization was not the optimum type of business. Balance was, as always, the magic word. In addition, it became clear that the customer-oriented approach required that an **end-to-end** and **user-centric** approach must be followed: it was of no help to the user to know that "*the server was still in operation*" if the information system was not available at the user's workplace. IT services must be viewed in a larger context. The need for the recognition of the **Service Lifecycle**, and the management of IT services in light of that lifecycle, became a concern.

Due to the fast growing dependency of business upon information, the quality of information services in companies is being increasingly subjected to stricter **internal and external requirements**. The role of **standards** is becoming more and more important, and **frameworks** of "*best practices*" help with the development of a management system to meet these requirements. Organizations that are not in control of their processes will not be able to realize great results on the level of the Service Lifecycle and the end-to-end-management of those services. Organizations that do not have their internal organization in order will also not achieve great results. For these reasons, all these aspects are handled alongside each other in the course of this book.

■ 1.2 WHY THIS BOOK

This book has been developed for all those responsible for setting up and delivering the information services. Additionally, it contains a lot of useful information for those who are responsible for strategic information issues. This is supported by both the description of the Service Lifecycle, as documented in ITIL and by the description of the processes that are associated with it. The ITIL core books are very extensive: almost 2000 pages. These ITIL core books can be used for a thorough study of contemporary best practices of ITSM. This book provides the reader with an easy-to-read comprehensive introduction to the broad library of ITIL core books. And finally, the contents of this book cover the specifications for the ITIL Foundation exam from AXELOS; this book has proven useful in preparing for this exam.

In 2007 Version 3 of the ITIL framework was published. This version offered a new concept or ITSM. Additional to the processes approach the concept of the lifecycle approach was introduced with ITIL V3. In 2011 a second edition of ITIL V3 was published. This new ITIL 2011 Edition is comprised mostly of cosmetic, grammatical, and syntactic modifications.

ITIL offers a systematic approach to the delivery of quality of IT services. It provides a detailed description of most of the important processes for an IT organization, and includes information about procedures, tasks, roles, and responsibilities. These can be used as a basis for tailoring the framework to the needs of individual organizations.

Over the years, ITIL has become much more than a series of useful books about ITSM. The framework for the “*best practice*” in ITSM is promoted and further developed and influenced by advisors, educators, trainers, and suppliers. These suppliers include a wide variety of technological solutions such as hardware, software, and cloud computing products. Since the 1990s, ITIL has grown from a theoretical framework to the de facto approach and philosophy shared by the people who work with it in practice.

Being an extended framework of best practices for ITSM itself, the advantages and disadvantages of frameworks in general, described in Section 2.6, are also applicable to ITIL. Of course, ITIL was developed because of the advantages mentioned earlier. Many of the pointers from “*best practices*” are intended to avoid potential problems or, if they do occur after all, to solve them.

ITIL examinations

For the new 2011 Edition of ITIL, the syllabuses for all qualifications have been updated. The most significant changes relate to new/modified section numbers as well as improved wording and/or clarification for some learning objectives and section details.

At the publication date of this book, well over 2 million people worldwide have achieved one or more levels of ITIL certification.

There are four qualification levels relating to the ITIL framework. They are:

- Foundation Level
- Intermediate Level (Lifecycle Stream & Capability Stream)
- ITIL Expert
- ITIL Master

For more information about the ITIL V3 Qualification Scheme, please visit <http://www.itil-officialsite.com>.

■ 1.3 ORGANIZATIONS INVOLVED IN ITIL

Cabinet Office and AXELOS

Initially ITIL was a product of CCTA, a UK government organization. In 2001 CCTA was incorporated by the Office of Government Commerce (OGC) who became the new owner of ITIL. As a result, the UK Government became the owner of the Intellectual

Property Rights (IPR), including the copyrights and trademark rights, of ITIL. Since June 2010 the operational and control tasks were in the hands of the Cabinet Office.

On 1 July 2013 a new organization was created for the further development and exploitation of ITIL and the PPM portfolio (including PRINCE2): AXELOS. This Limited company is a joint venture of the Cabinet Office and Capita PLC. As a result, this joint venture became the new owner of ITIL and the PPM portfolio. The UK government holds 49 percent of the shares of AXELOS while Capita PLC holds the remaining 51 percent.

itSMF

The target group for this publication is anyone who is involved or interested in ITSM. A professional organization, working on the development of the ITSM field, has been created especially for this target group.

In 1991 the Information Technology Service Management Forum (*itSMF*), originally known as the Information Technology Infrastructure Management Forum (ITIMF), was set up as a UK association. In 1994, a sister-association was established in the Netherlands, following the UK example. Since then, independent *itSMF* organizations have been set up in nearly fifty countries, spread across the globe, and the number of “*chapters*” continues to grow. All *itSMF* organizations operate under the umbrella organization, *itSMF* International (*itSMF-I*).

The *itSMF* is aimed at the entire professional area of ITSM. It promotes the exchange of information and experiences that IT organizations can use to improve their service provision. The *itSMF* is also involved in the use and quality of the various standards and methods that are important in the field. One of these is ITIL. The *itSMF-I* contributes to the promotion of the role of ITIL.

Certification, examination, and accreditation

AXELOS is responsible for managing the ITIL copyrights, the certification of the ITIL examinations and the accreditation of examination institutes. AXELOS is also responsible for the publication of the ITIL certification system and for the official ITIL publications (manuals).

In 2014 AXELOS has accredited seven Exam Institutes (EIs) for the distribution around the globe of the ITIL exams:

- BCS-ISEB CERT-IT,
- CSME, DANSK IT,
- DF Certifiering AB,
- EXIN,
- LCS (Loyalist Certification Services),

- PEOPLECERT Group,
- TÜV SÜD Akademie.

For more information, see www.itil-officialsite.com.

■ 1.4 DIFFERENCES FROM PREVIOUS EDITIONS

Previous editions of this book have played a key role in the distribution of ideas on ITSM and ITIL for many years. The title has been translated into thirteen languages and is recognized as the most practical introduction to the leading “*best practices*” in this field. Earlier editions of this book focused on the content of three books from the ITIL series (Version 2): Service Support, Service Delivery, and Security Management, and placed them in a broader context of quality management.

The main difference between ITIL Version 2 and 3 lies in the Service Lifecycle, introduced in Version 3. Where the scope of Version 2 focused on single practices, clustered in Delivery, Support, and Security Management, the scope in Version 3 takes the entire Service Lifecycle into account.

■ 1.5 STRUCTURE OF THIS BOOK

This book starts with an introduction on the backgrounds and general principles of ITSM and the context for ITIL (**Chapter 1**). It describes the parties involved in the development of best practices and standards for ITSM, and the basic premises and standards that are used.

The body of the book is set up in two large parts: **Part 1** deals with the Service Lifecycle and the four functions in ITIL, **Part 2** deals with the individual processes that are described in ITIL.

Part 1, consisting of **Chapters 2 and 3**, introduces the Service Lifecycle, in the context of ITSM and IT Governance. It discusses principles of organizational maturity, and the benefits and risks of following a service management framework. The section introduces and discusses the functions involved in service management good practices. This enables the reader to better relate the processes in Part 2, and their related concepts and activities, back to the “*people aspect*” of ITSM.

In **Part 2**, consisting of **Chapters 4 to 8**, each of the phases in the Service Lifecycle are discussed in detail, following the structure of the ITIL core books: Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement.

These chapters provide a detailed view on the characteristics of the Service Lifecycle, its structure and its elements. The main points of each phase are presented in a consistent way to aid readability and clarity.

Each of these processes is described in an identical manner, in terms of:

1. Introduction (containing: Goal, Objectives, Scope, Value for the business)
2. Activities, methods and techniques
3. Management information
4. Interfaces
5. Triggers
6. Inputs
7. Outputs
8. Critical Success Factors
9. Metrics
10. Challenges
11. Risks

The **Appendices** provide useful sources for the reader. Appendix A is a reference list of the sources used in this book is provided. Appendix B offers an overview of the most important differences between ITIL V3 (2007) and ITIL 2011 Edition.

■ 1.6 HOW TO USE THIS BOOK

Readers who are primarily interested in the Service Lifecycle can focus on Part 1 of the book, and pick whatever they need on functions and processes from Part 2.

Readers who are primarily interested in the functions and processes and are not ready for a lifecycle approach yet, or who prefer a process approach, can read the introductory chapters, and then focus on the functions and processes of their interest.

Readers who want a thorough introduction to ITIL, exploring its scope and main characteristics, can read Part 1 on the Lifecycle, and add as many of the processes from Part 2 as required.

This book aims to provide support to a variety of approaches to ITSM based on ITIL.

This book covers all exams specs for the ITIL Foundation exam and is therefore a useful tool when preparing for this exam. However, this book covers more subjects than the exam specs. If a reader intends to study only the subject of the exam specs, he should best rely on the Preparation Guide (ITIL Foundation Syllabus), available through:

<http://www.iti1-officialsite.com/Qualifications/ITILQualificationLevels/ITILFoundation.aspx>.

Additionally this book offers a useful support when preparing for the ITIL Intermediate examination (lifecycle and capability exams).

The official ITIL Glossary, the official list of all ITIL terminology, is available via the product page for this book on www.vanharen.net.

PART

1

THE ITIL SERVICE LIFECYCLE

2

Introduction to Service Management and the Service Lifecycle

■ 2.1 BASIC CONCEPTS

The information provision role and system have grown and changed since the launch of ITIL Version 2 (in 2000/02). IT supports and is part of an increasing number of goods and services. In the business world, the information provision role has changed as well: the role of the IT organization role is no longer just supporting, but has become the baseline for the creation of business value.

ITIL intends to include and provide insight into the new role of IT in all its complexity and dynamics. To that end, a new service management approach has been chosen that does not center on processes, but focuses on the Service Lifecycle.

Before describing the Service Lifecycle, we first need to explain some basic concepts.

2.1.1 Best practice

ITIL is presented as a best practice. This is an approach or method that has proven itself in practice. These good practices can be a solid backing for organizations that want to improve their IT services. In such cases, the best thing to do is to select a generic standard or method that is accessible to everyone – ITIL®, COBIT®, CMMI®, PRINCE2®, and ISO/IEC 20000®, for example. One of the benefits of these freely accessible generic standards is that they can be applied to a number of real-life environments and situations.

2.1.2 Service

A service is about creating value for the customer. ITIL defines a service as follows:

A **service** is a means of delivering value to customers by facilitating outcomes the customers want to achieve without the ownership of specific costs or risks.

The above definition is not very useful when trying to provide additional details. Table 2.1 provides further explanation about the above definition.

Table 2.1 Definition of key terms in the “service” definition

Mean:	The actual “ <i>physical</i> ” product the customer can actually see, touch, or use.
Value:	The customer defines value based on the desired business outcomes by the customer, their preferences, and their perceptions.
Outcome:	The business activity or result to be used by the business or delivered to the external customer.
Specific costs:	The customer does not want to worry about all costs relating to the end-to-end provision of the service. The customer prefers to consider IT as a utility, which is a more predictable expense.
Specific risks:	The IT organization takes on most of the risks on behalf of the customer, allowing the latter to focus on their core business competences.

Outcomes are possible from the performance of tasks, and they are limited by a number of constraints. Services enhance performance and reduce the pressure of constraints.

IT service

IT services are offered by IT service providers. ITIL’s definition of an IT service is:

An **IT service** is a combination of people, processes, and technology. A customer oriented IT service offers a direct support to the business processes of one or more customers; the service level targets involved have to be specified in a service level agreement. Other IT services, also known as supporting services, will not be used directly by the business, but are services that are required for the service provider in order to be able to offer customer oriented services. The service provider purchases supporting services from internal or external suppliers.

Three groups of services

ITIL makes a distinction between three groups of client oriented services: core, enabling and enhancing (see Table 2.2).

A service provider may decide to offer a custom (unique) service to a small group of customers. The cost price for this will be very high because of the development costs and specific resources required. The market for these services will therefore be very limited. Therefore many service providers follow the strategy that enables them to deliver the more generic service to a large group of customers. Bundling these services into one group will result in an economy of scale. In this way the service providers are able to offer a variety of service packages to their customers. A service package is a collection of two or more services that have been combined to help deliver specific business outcomes. It is also possible that a service or service package is offered in different levels of utility (fitness for purpose) and warranty (fitness for use). For example as bronze, silver or gold service level packages.

Table 2.2 Three types of customer related services

Core services	Delivers the basic outcomes desired by one or more customers. E.g.: the service <i>"Document processing"</i> would enable clients to create, read, change, and store documents.
Enabling services	Services required for the successful delivery of a core service. E.g.: downloading and automatic installation of updates.
Enhancing services	Services added to a core service to make it more appealing or enticing to the customer. E.g.: the printing of documents on a professional color printer for high quality brochures.

Utility and warranty of a service

From the customer's point of view, value is subjective. Although, at its core, value consists of achieving business objectives, it is influenced by the customer's perceptions and preferences. From a service provider point of view, the value of a service is created by combining two primary elements: utility (fitness for purpose) and warranty (fitness for use). These two elements work together to achieve the desired outcomes upon which the customer and the business base their perceptions of a service.

Utility is the functionality offered by a product or service to meet a particular need. Utility can be summarized as *"what the service does"*, or *"fit for purpose"*. Utility refers to those aspects of a service that contribute to tasks associated with achieving outcomes: the removal of constraints and an increase in performance.

Warranty is an assurance that a product or service will meet its agreed requirements. Warranty refers to the ability of a service to be available when needed, to provide the required capacity, and to provide the required reliability in terms of continuity and security. Warranty can be summarized as *"how the service is delivered"* or *"fit for use"*.

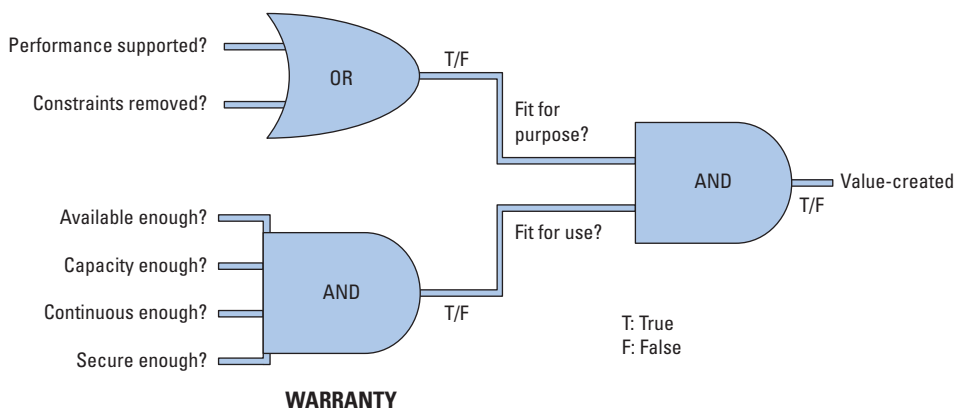


Figure 2.1 Services are designed, built, and delivered with both utility and warranty

(source: AXELOS)

2.1.3 Service management

In order to offer and provide services, the service provider must effectively and efficiently manage the entire lifecycle of the services. Transforming the service provider's capabilities and resources into valuable services is the core of service management. Service management is also a professional practice supported by an extensive body of knowledge, experience, and skills.

ITIL defines service management as:

Service management is a set of specialized organizational capabilities for providing value to customers in the form of services.

2.1.4 ITSM

An IT organization is, by definition, a service provider. It uses the principles of service management to ensure the successful delivery of the outcomes desired by the customers.

Table 2.3 ITSM and IT service providers

ITSM	ITSM is performed by IT service providers through an appropriate mix of people, process, and information technology.
IT service provider	A service provider that provides IT services to internal or external customers

The IT service provider must utilize ITSM effectively and efficiently. By managing IT from the business perspective (as opposed to simply being a technology broker) the service provider will generate higher organizational performance and create greater value.

2.1.5 Service providers

There are three main types of service provider. Although almost all aspects of service management apply equally to all types of service provider, there are certain aspects that take on different meanings depending on the type of provider. These aspects include terms such as customers, contracts, competition, market spaces, revenue, and strategy.

Table 2.4 Service provider types

Type I Internal service provider	An internal service provider that is embedded within a business unit.
Type II Shared services unit	An internal service provider that provides shared IT services to more than one business unit
Type III External service provider	A service provider that provides IT services to external customers

2.1.6 Stakeholders in service management

A stakeholder is an individual or a group that has a vested interest in an organization, project, service, etc. Of interest to the stakeholders are such service management deliverables as activities, targets, resources, etc.

Table 2.5 Stakeholders

Customers	Those who buy goods or services.
Users	Those who use the service on a day-to-day basis.
Suppliers	Third parties responsible for supplying goods or services that are required to deliver IT services
Internal customers	These are customers who work for the same organization as the IT service provider.
External customers	These are customers who work for a different organization from the IT service provider.

2.1.7 Assets, resources, and capabilities

The use of assets forms the basis for the relationship between service providers and their customers. Each relationship involves an interaction between the assets of each party.

Table 2.6 Assets

Asset	Any resource or capability. Assets of a service provider include anything that could contribute to the delivery of a service. Assets can be one of the following types: management, organization, process, knowledge, people, information, applications, infrastructure, and financial capital.
Customer asset	Any resource or capability used by a customer to achieve a business outcome
Service asset	Any resource or capability used by a service provider to deliver services to a customer.

Resources and capabilities are two types of asset used by both service providers and customers. Resources are direct inputs for production; they are “consumed” or “modified”. According to ITIL the most important resources are: financial capital, applications, infrastructure, information, and people. Capabilities represent an organization’s ability to coordinate, control, and deploy the resources. According to ITIL the capabilities of an organization are found in people, knowledge, processes, organization, and management.

■ 2.2 FUNCTIONS AND PROCESSES

2.2.1 Functions

ITIL defines service management as a set of specialized organizational capabilities that have been developed by an organization. Using these capabilities a IT service provider is able to provide value to customers in the form of services. These capabilities are taking shape as functions and processes. Well implemented functions and processes enable an IT service provider to manage services throughout their entire lifecycle.

It is of the utmost importance for anyone in an organization, especially in the IT organization, to understand the difference between a function and a process.

A **function** is a subdivision of an organization that is specialized in fulfilling a specified type of work, and is responsible for specific end results. Functions are semi-autonomous groupings with capabilities and resources that are required for their performance and results. They have their own set of tasks, roles, and area of responsibilities as well as their own body of knowledge.

A poor coordination between functions combined with an inward focus leads to the rise of “*silos*”. This does not benefit the success of the organization. Processes run through the hierarchical structure of functions; functions often share many processes. This is how processes contribute to an ever improved coordination between functions.

Table 2.7 Organizational structure breakdown

Group	A group is a number of people who are similar in some way
Team	A team is a more formal type of group. These are people who work together to achieve a common objective, but not necessarily in the same organizational structure
Department	Departments are formal hierarchical, organizational-reporting structures which exist to perform a specific set of defined activities on an on-going basis
Division	A division refers to a number of departments that have been grouped together, often by geography or product line

According to ITIL four important functions are required in the design, testing, deployment and improvement of IT services:

1. Service Desk
2. IT Operations Management
3. Technical Management and
4. Application Management

These functions will be described in Chapter 3. Additional to these four functions ITIL contains 26 processes. These processes will be described in Chapter 4 to 8.

Table 2.8 The four functions in ITIL

Service Desk	This function acts as the single point of contact and communication to the users and a point of coordination for IT groups and processes
IT Operations Management	This function executes the daily operational activities needed to manage IT services and the supporting IT infrastructure. Consists of two sub-functions; IT operations control and facilities management.
Technical Management	This function provides detailed technical skills and resources needed to support the on-going operation of IT services and the management of the IT infrastructure.
Application Management	Is responsible for managing applications throughout their lifecycle. The Application Management function supports and maintains operational applications.

2.2.2 Processes

Processes comprise groups of activities executed for a specific goal. ITIL's definition of a process is:

A process is a structured set of activities designed to accomplish a specific objective. Processes result in a goal-oriented change, and utilize feedback for self-enhancing and self-corrective actions. Processes simply group together related activities to simplify and unify their execution and accomplishment.

The characteristics of these processes are described in Table 2.9.

People and tools execute the activities of processes. Employees, related to a specific function, will execute the day to day activities within various processes. Service Desk personnel may be involved in processes such as Incident Management, Problem Management, Request Fulfilment, and Change Management.

Table 2.9 The four characteristics of processes

Measurability	Processes are designed for a specific target. They are measurable because it is possible to set specific targets related to the process performance and measure against them: i.e.: they are performance-oriented.
Specific results	The reason a process exists is to deliver a specific result. This result must be delivered at the right moment and at the right quality level.
Customers and/or stakeholders	Every process delivers its primary results to a customer or stakeholder.
Responsiveness to specific triggers	They respond to an identified trigger. A process is indeed continual and iterative, but it is always originating from a certain identified trigger.

For some people, it may be difficult to differentiate between a function and a process. The difficulty arises when an organization already has a group of people called by the name of a process. This group is usually dedicated primarily to the execution of what appears to be a single process. However, every group of people is involved in the execution of process activities.

In themselves, processes do nothing. People (and tools) execute the activities of various processes. Based on the above definitions, a function (group of people) performs the activities of various processes. A good example of a function is the Service Desk; a good example of a process is Change Management.

A poor coordination between functions combined with an inward focus leads to the rise of “silos”. This does not benefit the success of the organization. Processes run through the hierarchical structure of functions; functions often share many processes. This is how processes contribute to an ever-improved coordination between functions.

When arranging activities into processes, we look at the **objective** of the process and the **relationships** with other processes. A process is a series of activities carried out to convert input into an output, and ultimately into an outcome. The **input** is concerned with the resources being used in the process. The (reported) **output** describes the immediate results of the process, while the **outcome** indicates the long-term results of the process (in terms of meaningful effect). Through **control** activities, we can associate the input and output of each of the processes with **policies and standards** to provide information about the results to be obtained by the process. Control regulates the input and the **throughput** in case the throughput or output parameters are not compliant with these standards and policies. This produces chains of processes that show the input that goes into the organization and what the result is, and it also monitors points in the chains in order to check the quality of the products and services provided by the organization on specific points in the chains.

The standards for the output of each process have to be defined, in such a way that the complete chain of processes in the process model meets the corporate objective. If the output of a process meets the defined requirements, then the process is **effective** in transforming its input into its output. To be really effective, the outcome should be taken into consideration rather than merely focusing on the output. If the activities in the process are also carried out with the minimum required effort and cost, then the process is **efficient**. It is the task of process management to use **planning and control** to ensure that processes are executed in an effective and efficient way.

When a person performs an activity within a certain process, he/she does this as part of a specific role. Roles are often confused with job titles. However, they are not the same. Each organization must define appropriate job titles and job descriptions to suit their needs. Individuals holding these job titles can perform one or more of the required roles.

Role: A role is a set of responsibilities, activities, and authorities granted to a person or team. A role is defined in a process or function. One person or team may have multiple roles.

2.2.3 Roles and responsibilities

Highly performing organizations are able to take the right decisions fast and accurately and execute them successfully. To achieve this, it is crucial that the roles and responsibilities of the process are clearly defined.

The RACI model is one of many useful model in achieving this. RACI is an acronym for the four most important roles:

- **Responsible** – the person who is responsible for completing the task
- **Accountable** – the only person who is accountable for each task
- **Consulted** – people who give advice
- **Informed** – people who must be kept in the loop regarding the progress of the project

In establishing a RACI system, the following steps are necessary:

- Identify activities and processes
- Identify and define functional roles
- Conduct meetings and delegate the RACI-codes
- Identify gaps and potential overlaps
- Distribute the RACI chart and build in feedback
- Ensure that the allocations are followed

Role or Employee Process activities	Process owner	Service owner	Service desk	Support team #2	Support team #3	External support	End user	Customer
Activity #1	A	R	R	R	R	R	R	R
Activity #2	A	C	R					C
Activity #3	A	C	R					C/I
Activity #4	A		R					C/I
Activity #5	A	C	R	R	R	R	R	C
Activity #6	A	C	R	R	R	R	R	C/I
Activity #7	A		R	C/I	C/I	C/I	C/I	C/I

Figure 2.2 Sample of filled out RACI model

In establishing a RACI system, the following steps are necessary:

- Identify activities and processes
- Identify and define functional roles
- Conduct meetings and delegate the RACI codes
- Identify gaps and potential overlaps
- Distribute the RACI chart and build in feedback
- Ensure that the allocations are followed

ITIL distinguishes three generic process roles: process owner, process manager, and process practitioner.

The **process owner** is responsible for defining the process goals, the strategy related to the process, the guidelines for the process output, the performance indicators, availability of the required resources and the process results.

The **process manager** is responsible for the realization and structure of the process, and reports to the process owner. He/she is responsible for the operational management of the process. The responsibilities of a process manager are: planning and coordination of all activities that have to be achieved, and the monitoring and reporting of the process.

The **process practitioners** are responsible for correctly completing specific activities within the process.

The management of the organization can provide control based on the process quality of the process as demonstrated by data from the results of each process. In most cases, the relevant **performance indicators** and standards will already be agreed upon. In this case the process manager can do the day-to-day control of the process. The process owner will assess the results based on a **report** of performance indicators and checks whether the results meet the agreed standard. Without clear indicators, it would be difficult for a process owner to determine whether the process is under control, and if planned improvements are being implemented.

Processes are often described using **procedures** and **work instructions**.

A **procedure** is a specified way to carry out an activity or a process. It describes the “*how*”, and can also describe “*who*” carries the activities out. A procedure may include stages from different processes. A procedure can vary depending on the organization.

A set of **work instructions** defines how one or more activities in a procedure should be carried out in detail, using technology or other resources.

A process is defined as a logically related series of activities executed to meet the goals of a defined objective. Processes are composed of two kinds of activities: the activities to realize the goal (operational activities concerned with the throughput), and the activities to manage these (control activities). The control activities make sure the operational activities (the workflow) are performed in time, in the right order, etc. (For example, in the processing of changes it is always ensured that a test is performed *before* a release is taken into production and not *afterwards*.)

Processes and departments

Most businesses are hierarchically organized. There are departments that are responsible for the activities of a group of employees. There are various ways of structuring departments, such as by customer, product, region, or discipline. IT services generally depend on several departments, customers, or disciplines. For example, if there is an IT service to provide users with access to an accounting program on a central computer, this will involve several disciplines. The computer center has to make the program and database accessible, the data and telecommunications department has to make