IT SERVICE MANAGEMENT BASED ON ITIL® V3 -
A POCKET GUIDE
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The IT Service Management Forum (itSMF) is the association for practitioners and organizations who practice ITSM. itSMF’s goal is to promote innovation and IT management. Suppliers and customers are equally represented within the itSMF. The Forum’s main focus is exchange of peer knowledge and experience. Our authors are global experts.

The following publications are, or soon will be, available.

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- Foundations of IT Service Management based on ITIL® (V2, Arabic, Chinese, German, English, French, Italian, Japanese, Korean, Dutch, Brazilian Portuguese, and Russian; Danish and Spanish)
- Foundations of IT Service Management based on ITIL® (V3, English, Dutch)
- IT Service Management - An Introduction (V2, being replaced by V3, only a few languages left)
- IT Service Management - An Introduction (V3, English, Dutch)
- IT Services Procurement based on ISPL - An Introduction (Dutch)
- Project Management based on PRINCE2™ 2005 Edition (Dutch, English, German)

**IT Service Management - best practices**

- IT Service Management - best practices, part 1 (Dutch)
- IT Service Management - best practices, part 2 (Dutch)
- IT Service Management - best practices, part 3 (Dutch)
- IT Service Management - best practices, part 4 (Dutch)

**Topics & Management instruments**

- Metrics for IT Service Management (English)
- Six Sigma for IT Management (English)
- The RFP for IT Outsourcing - A Management Guide (Dutch)
- Service Agreements - A Management Guide (English)
- Frameworks for IT Management (English, German, Japanese)
- IT Governance based on COBIT® - A Management Guide (English, German)

**Pocket guides**

- IT Service Management - A summary based on ITIL® (V2, Dutch)
- IT Service Management based on ITIL V3 - A Pocket Guide (V3, English, Dutch)
- IT Services Procurement based on ISPL - A Pocket Guide (English)
- IT Service CMM - A Pocket Guide (English)
- Six Sigma for IT Management - A Pocket Guide (English)
- Frameworks for IT Management - A Pocket Guide (English, Dutch)

**Miscellaneous**

- IT Service Management from Hell!! (V2, English)
- IT Service Management from Hell. Based on not-ITIL (V3, English)

Foreword

The long-awaited update of ITIL®, launched in June 2007, presents a rigorously updated source of best practices on IT service management. For most of the existing practitioners, trainers, consultants and other users of ITIL V2 documentation, there are significant changes as ITIL V3 follows quite a different approach. The updated version introduces the Service Lifecycle as the main structure for its guidance, whereas V2 is mainly based on processes and functions.

This concise summary offers a very practical and valuable introduction to the content of the five new ITIL V3 core books. It explains the structure and way of thinking of the new Service Lifecycle. In addition, by presenting the information about processes and functions in a separate section, it also provides support for all the existing users of V2 that are looking for a bridge to the new edition. This second section shows all the elements that were present in the Foundation-scope of ITIL V2, as well as all new processes, functions and main activities of V3.

The resulting pocket guide provides the reader with a quick reference of the basic concepts of ITIL V3. Readers can use the itSMF publication “Foundations of IT Service Management based on ITIL V3” or the ITIL core volumes (Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement) for more detailed understanding and guidance.

This pocket guide was produced in the same way as other publications of the ITSM Library: a broad team of expert editors, expert authors and expert reviewers contributed to a comprehensive text, and a great deal of effort was spent on the development and review of the manuscript.
I’m convinced that this new pocket guide will provide an excellent reference tool for all those practitioners, students and others who want a concise summary of the key ITIL V3 concepts.

Jan van Bon
Managing Editor ITSM Library
Acknowledgements

Following the official publication of ITIL V3, this pocket guide was developed as a concise summary of the ITIL V3 core books, by the authors of the itSMF publication “Foundations of IT Service Management - Based on ITIL V3”. For reasons of continuity the Review Team of the Foundation title was the base for the pocket guide Review Team. Additionally, all members of IPESC, itSMF International’s Publication Committee, were invited to participate in the review. Thirteen itSMF chapters actively participated in the review, with effectively seventeen reviewers that provided comments after reviewing the text.

The integrated Review Team was composed of the following:

• Rob van der Burg, Microsoft, Netherlands
• Judith Cremers, Getronics PinkRoccade Educational Services, Netherlands
• Dani Danyluk, Burntsand, itSMF Canada
• John Deland, Sierra Systems, itSMF Canada
• Robert Falkowitz, Concentric Circle Consulting, itSMF Switzerland
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• Wim Hoving, BHVB, Netherlands
• Brian Johnson, CA, USA
• Steve Mann, SM2 Ltd, itSMF Belgium
• Reiko Morita, Ability InterBusiness Solutions, Inc., Japan
• Ingrid Ouwerkerk, Getronics PinkRoccade Educational Services, Netherlands
These reviewers spent their valuable hours on a detailed review of the text, answering the core question “Is the content a correct reflection of the core content of ITIL V3, given the limited size of a pocket guide?”. Providing several hundreds of valuable improvement issues, they contributed significantly to the quality of this pocket guide, and we thank them for that.

The review process was managed by Mike Pieper, managing editor at Inform-IT. He managed the development of this pocket guide, making sure that the procedures were followed carefully, and that all issues were followed up to the satisfaction of all reviewers. The editorial support was provided by another five expert editors from Inform-IT’s Editors Team:

- Arjen de Jong
- Axel Kolthof
- Ruby Tjassing
- Annelies van der Veen
- Tieneke Verheijen

Due to the expert services of the Review Team and the professional support by the Editors Team, the resulting pocket guide is a great new asset for the itSMF, providing an excellent entry into the core ITIL V3 books. We are very satisfied with the result, which will be of great value for people wanting to get a first high-level grasp of what ITIL V3 is really all about.

Jan van Bon,
Chief Editor “IT Service Management Based on ITIL V3 - A pocket Guide”
Managing Editor ITSM Library
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1 Introduction

This pocket guide provides the reader with a quick reference of the basic concepts of ITIL version 3 (ITIL V3). Part 1 describes the Service Lifecycle as documented in ITIL V3 and part 2 describes the associated processes and functions.

Readers can use the publication “Foundations of IT Service Management based on ITIL V3” or the ITIL core volumes (Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement) for more detailed understanding and guidance.

1.1 What is ITIL?

The Information Technology Infrastructure Library™ (ITIL) offers a systematic approach to the delivery of quality IT services. ITIL was developed in the 1980s and 1990s by CCTA (Central Computer and Telecommunications Agency, now the Office of Government Commerce, OGC), under contract to the UK Government. Since then, ITIL has provided not only a best practice based framework, but also the approach and philosophy shared by the people who work with it in practice. ITIL has now been updated two times, the first time in 2000-2002 (V2), and the second time in 2007 (V3).

Several organizations are involved in the maintenance of the best practice documentation in ITIL:

- **OGC (Office of Government Commerce)** - Owner of ITIL, promoter of best practices in numerous areas including IT Service Management.
- **itSMF (IT Service Management Forum)** - A global, independent, internationally recognized not-for-profit organization dedicated to support the development of IT Service Management, e.g. through publications in the ITSM Library series. It consists of a growing number
of national chapters (40+), with itSMF International as the controlling body.

- **APM Group** - In 2006, OGC contracted the management of ITIL rights, the certification of ITIL exams and accreditation of training organizations to the APM Group (APMG), a commercial organization. APMG defines the certification and accreditation schemes for the ITIL exams, and publishes the associated certification system.

- **Exam bodies** - To support the world-wide delivery of the ITIL exams, APMG has accredited (at the time of publishing this pocket guide) a number of exam bodies: EXIN, BCS/ISEB, and Loyalist Certification Services (LCS).

## 1.2 ITIL exams

In 2007 the APM Group launched a new certification scheme for ITIL, based on ITIL V3. ITIL V2 will be maintained for a transition period, continuing up until at least the year 2008.

ITIL V2 has qualifications on three levels:

- **Foundation Certificate** in IT Service Management
- **Practitioner’s Certificate** in IT Service Management
- **Manager’s Certificate** in IT Service Management

The ITIL V2 exams proved to be a great success. Up to 2000, some 60,000 certificates had been issued, in the following years the numbers rocketed, and by 2006 had broken the 500,000 mark.

For ITIL V3 a completely new system of qualifications has been set up. There are four qualification levels:

- **Foundation level** - This level is aimed at basic knowledge of, and insight into, the core principles and processes of ITIL V3. This qualification is positioned at the same level as the ITIL version 2 Foundation exam.
• **Intermediate level** (based on two work streams, one based on the Service Lifecycle, and one based on practitioner capabilities).

• **Advanced level** - This level was still under development when this pocket guide was being written.

For each element in the scheme a number of credits can be obtained, that can be used to obtain the ITIL V3 Diploma. Credits are also awarded for the certificates from the ITIL version 2 scheme. Various ‘bridge exams’ are offered in order to upgrade version 2 certificates to the version 3 qualifications.

Further information on the actual status of this system can be found at the APMG website: www.apmgroup.co.uk.

### 1.3 Structure of this pocket guide

The body of this pocket guide is set up in two Parts: Part 1 deals with the ITIL V3 Service Lifecycle, Part 2 deals with the individual functions and processes that are described in ITIL V3.

**Part 1** starts with Chapter 2, introducing the Service Lifecycle, in the context of IT Service Management general principles. In Chapters 3 to 7, each of the phases in the Service Lifecycle is discussed in detail, following a standardized structure: Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement.

**Part 2** starts with Chapter 8, introducing the functions and processes that are referred to in each of the lifecycle phases. This chapter provides general information on principles of processes, teams, roles, functions, positions, tools, and other elements of interest. It also shows how the 27 processes and functions are clustered in the 5 ITIL core books.
In Chapters 9 to 13, the processes and functions are described in more detail. For each process and function, the following information is provided:

- Introduction
- Basic concepts
- Activities
- Inputs/Outputs

1.4 How to use this pocket guide

Readers who are primarily interested in getting a quick understanding of the Service Lifecycle can focus on Part 1 of the pocket guide, and pick whatever they need on functions and processes from Part 2.

Readers who are primarily interested in an overview of the functions and processes in ITIL can focus on the functions and processes of their interest, described in Part 2.

This way, the pocket guide provides support to a variety of approaches to IT Service Management based on ITIL.
PART 1
THE ITIL SERVICE LIFECYCLE
2 Introduction to the Service Lifecycle

2.1 Definition of Service Management
ITIL is presented as a good practice. Good practice is an approach or method that has proven itself in practice. Good practices can be a solid backing for organizations that want to improve their IT services.

The ITIL Service Lifecycle is based on ITIL’s core concept of “service management” and the related concepts “service” and “value”. These core terms in service management are explained as follows:

- **Service management** - A set of specialized organizational capabilities for providing value to customers in the form of services.
- **Service** - A means of delivering value to customers by facilitating outcomes the customers want to achieve without the ownership of specific costs or risks. 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. This increases the chances of the desired outcomes being realized.
- **Value** - Value is the core of the service concept. From the customer’s perspective, value consists of two core components: utility and warranty. Utility is what the customer receives, and warranty is how it is provided. The concepts “utility” and “warranty” are described in the Section “Service Strategy”.

2.2 Overview of the Service Lifecycle
ITIL V3 approaches service management from the lifecycle aspect of a service. The Service Lifecycle is an organizational model that provides insight into:

- The way service management is structured.
- The way the various lifecycle components are linked to each other.
• The impact that changes in one component will have on other components and on the entire lifecycle system.

Thus, ITIL V3 focuses on the Service Lifecycle, and the way service management components are linked. Processes and functions are also discussed in the lifecycle phases.

The Service Lifecycle consists of five phases. Each volume of the new ITIL describes one of these phases. The related processes are described in detail in the book in which they find their key application. The five phases (domains of the core books) are:

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

Figure 2.1 The Service Lifecycle
Service Strategy is the axis of the Service Lifecycle (Figure 2.1) that drives all other phases; it is the phase of policymaking and setting objectives. The Service Design, Service Transition and Service Operation phases are guided by this strategy, their continual theme is adjustment and change. The Continual Service Improvement phase stands for learning and improving, and embraces all other lifecycle phases. This phase initiates improvement programs and projects, and prioritizes them based on the strategic objectives of the organization.
3 Lifecycle Phase: Service Strategy

3.1 Introduction
In this section, the axis (principle line of development, movement, direction, reference point) of the lifecycle is introduced. As the axis of the lifecycle, Service Strategy delivers guidance with designing, developing and implementing service management as a strategic asset. Service Strategy is critical in the context of all processes along the ITIL Service Lifecycle.

The mission of the Service Strategy phase is to develop the capacity to achieve and maintain a strategic advantage.

The development and application of Service Strategy requires constant revision, just as in all other components of the cycle.

3.2 Basic concepts
To formulate the strategy, Mintzberg’s four Ps are a good starting point (Mintzberg, 1994):

- **Perspective** - Have a clear vision and focus.
- **Position** - Take a clearly defined stance.
- **Plan** - Form a precise notion of how the organization should develop itself.
- **Pattern** - Maintain consistency in decisions and actions.

*Value creation* is a combination of the effects of utility and warranty. Both are necessary for the creation of value for the customer. For customers, the positive effect is the “utility” of a service; the insurance of this positive effect is the “warranty”:

- **Utility - fitness for purpose.** Functionality offered by a product or service to meet a particular need. Utility is often summarized as “what it does”.

Value creation is a combination of the effects of utility and warranty. Both are necessary for the creation of value for the customer. For customers, the positive effect is the “utility” of a service; the insurance of this positive effect is the “warranty”:

- **Utility - fitness for purpose.** Functionality offered by a product or service to meet a particular need. Utility is often summarized as “what it does”.
• **Warranty - fitness for use.** A promise or guarantee that a product or service will meet its agreed requirements. The availability, capacity, continuity and information security necessary to meet the customers’ requirements.

The **value networks** are defined as follows: “A value network is a web of relationships that generate both tangible and intangible value through complex and dynamic exchanges between two or more organizations.”

Resources and capabilities are the **service assets** of a service provider. Organizations use them to create value in the form of goods and services.

• **Resources** - Resources include IT Infrastructure, people, money or anything else that might help to deliver an IT service. Resources are considered to be the assets of an organization.

• **Capabilities** - Capabilities develop over the years. Service providers must develop distinctive capabilities in order to maintain services that are difficult to duplicate by the competition. Service providers must also invest substantially in education and training if they are to continue to develop their strategic assets and maintain their competitive advantage.

Service providers are organizations that supply services to one or more internal or external customers. Three different types of service providers are distinguished:

• **Type I: Internal service provider** - An internal service provider that is embedded within a Business Unit. There may be several type I service providers within an organization.

• **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.
The Service Portfolio represents the opportunities and readiness of a service provider to serve the customers and the market space. The Service Portfolio can be divided into three subsets of services:

- **Service Catalogue** - The services that are available to customers.
- **Service Pipeline** - The services that are either under consideration or in development.
- **Retired Services** - Services that are phased out or withdrawn.

### 3.3 Processes and other activities

This section briefly explains the processes and activities of Service Strategy. More information about each of these processes can be found in Chapter 9 of this pocket guide.

The Service Strategy processes:

- **Financial management** - An integral component of service management. It anticipates the essential management information in financial terms that is required for the guarantee of efficient and cost-effective service delivery.
- **Demand management** - An essential aspect of service management in which offer and demand are harmonized. The goal of demand management is to predict, as accurately as possible, the purchase of products and, where possible, to balance the demand with the resources.
- **Service Portfolio Management (SPM)** - Method to manage all service management investments in terms of business value. The objective of SPM is to achieve maximum value creation while at the same time managing the risks and costs.

The Service Strategy activities:

- **Defining the market** - Understand the relation between services and strategies, understand the customers, understand the opportunities, and classify and visualize the services.
• **The development of the offer** - Create a Service Portfolio that represents the opportunities and readiness of a service provider to serve the customers and the market.

• **The development of strategic assets** - Define the value network and improve capabilities and resources (service assets) to increase the service and performance potential.

• **Preparation for execution** - Strategic assessment, setting objectives, defining Critical Success Factors, prioritizing investments, et cetera.

### 3.4 Organization

There are five recognizable phases in organizational development within the spectrum of centralization and decentralization:

1. **Stage 1: Network** - An organization in stage 1 focuses on fast, informal and ad hoc provision of services. The organization is technologically oriented and is uncomfortable with formal structures.

2. **Stage 2: Directive** - In stage 2, the informal structure of stage 1 is transformed into an hierarchical structure with a strong management team. They assume the responsibility for leading the strategy and for guiding managers to embrace their functional responsibilities.

3. **Stage 3: Delegation** - In stage 3, efforts are made to enhance technical efficiency and provide space for innovation in order to reduce costs and improve services.

4. **Stage 4: Coordination** - In stage 4 the focus is directed towards the use of formal systems as a means of achieving better coordination.

5. **Stage 5: Collaboration** - During stage 5, the focus is on the improvement of cooperation with the business.

The goal of the Service Strategy is to improve the core competencies. Sometimes it is more efficient to outsource certain services. We call this the SoC principle (Separation of Concerns, SoC): that which results from the search for competitive differentiation through the redistribution of resources and capabilities.
The following generic forms of outsourcing can be delineated:

- **Internal outsourcing:**
  - Type 1 Internal - Provision and delivery of services by internal staff; this offers the most control, but is limited in scale.
  - Type 2 Shared services - Working with internal BUs; offers lower costs than Type 1 and more standardization, but is still limited in scale.

- **Traditional outsourcing:**
  - Complete outsourcing of a service - A single contract with one service provider; better in terms of scaling opportunities, but limited in best-in-class capabilities.

- **Multi-vendor outsourcing:**
  - Prime - A single contract with one service provider who works with multiple providers; improved capabilities and risks, but increased complexity.
  - Consortium - A selection of multiple service providers; the advantage is best-in-class with more oversight; the disadvantage is the risk of the necessity of working with the competition.
  - Selective outsourcing - A pool of service providers selected and managed through the service receiver; this is the most difficult structure to manage.
  - Co-Sourcing - A variation of selective outsourcing in which the service receiver combines a structure of internal or shared services with external providers; in this case, the service receiver is the service integrator.

### 3.5 Methods, techniques and tools

Services are socio-technical systems with service assets as the operational elements. The effectiveness of Service Strategy depends on a well-managed relationship between the social and technical sub-systems. It is essential to identify and manage these dependencies and influences.
Tools for the Service Strategy phase can be:

- **Simulation** - System Dynamics is a methodology for understanding and managing the complex problems of IT organizations.
- **Analytical modeling** - Six Sigma, PMBOK® and PRINCE2® offer well tested methods based on analytical models. They must be evaluated and adopted within the context of Service Strategy and service management.

Three techniques for quantifying the value of an investment are suggested:

- **Business case** - A way of identifying business objectives that are dependent on service management.
- **Pre-Program ROI** - Techniques used to quantitatively analyze investments before committing resources.
- **Post-Program ROI** - Techniques used to retroactively analyze investments.

### 3.6 Implementation and operation

Strategic goals are to be converted into plans with objectives and ultimate goals, based on the lifecycle. Plans translate the intentions of the strategy into actions, through Service Design, Service Transition, Service Operation, and Continual Service Improvement.

Service Strategy provides every phase of the lifecycle with input:

- **Strategy and design** - Service strategies are implemented through the delivery of the portfolio in a specific market area. Newly chartered services or services that require improvements in order to suit the demand are promoted to the Service Design phase. The design can be driven by service models, outcomes, constraints or pricing.
- **Strategy and transition** - To reduce the risk of failing, all strategic changes go through Service Transition. Service Transition processes analyze, evaluate and approve strategic initiatives. Service Strategy provides Service Transition with structures and constraints like the Service Portfolio, policies, architectures, and the contract portfolio.
• **Strategy and operations** - The final realization of strategy occurs in the production phase. The strategy must be in line with operational capabilities and constraints. Deployment patterns in Service Operation define operational strategies for customers. Service Operation is responsible for delivering the contract portfolio and should be able to deal with demand changes.

• **Strategy and CSI** - Due to constant changes, strategies are never static. Service strategies need to be developed, adopted and continually reviewed. Strategic imperatives influence quality perspectives processed in CSI. CSI processes deliver feedback for the strategy phase on for example: quality perspective, warranty factors, reliability, maintainability, redundancy.

Challenges and opportunities:

• **Complexity** - IT organizations are complex systems. This explains why some service organizations are not inclined to change. Organizations are not always in a position to anticipate the long-term consequences of decisions and actions. Without continual learning processes, today’s decisions often end up as tomorrow’s problems.

• **Coordination and control** - The people who make the decisions often have limited time, attention and capacity. Therefore they delegate the roles and responsibilities to teams and individuals. This makes coordination through cooperation and monitoring essential.

• **Preserving Value** - Customers are not only interested in the utility and warranty that they receive for the price they pay. They want to know the Total Cost of Utilization (TCU).

• **Effectiveness in measurement** - Measurements focus the organization on its strategic goals, follow the progression and provide the organization with feedback. Most IT organizations are good at monitoring data, but often they are not very good at providing insights into the effectiveness of the services that they offer. It is crucial to perform the right analyses and to modify them as the strategy changes.
The implementation of strategy leads to changes in the Service Portfolio. This involves management of related risks. Risk is defined as follows: “a risk is an uncertain outcome, or in other words, a positive opportunity or a negative threat.” Risk analysis and risk management must be applied to the Service Pipeline and Service Catalogue in order to identify, curb and mitigate the risks within the lifecycle phases.

The following types of risks are recognized:

- contract risks
- design risks
- operational risks
- market risks