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Passing the ITIL® Foundation Exam

2011 EDITION



Passing the ITIL® Foundation Exam
2011 Edition

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2011 EDITION

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Foreword

Since the late 1980s many IT professionals have participated in ITIL training and have gone on to sit the examinations. The challenge with exams is that many of us are out of practice in sitting them. What is needed is assistance in studying that covers the material completely but succinctly, and that makes the concepts memorable. This study guide provides the structure, key details and study tips to assist you in passing your ITIL exam. It puts context around key ITIL ideas and provides memory aids to help you recall key points.

You are taking the first step towards taking ITIL – training and obtaining the qualifications. Once the education and examination are complete your next step is to apply what you have learned to your work. When you do, I ask you to consider the mistakes other organizations have made so that you avoid repeating them. These include claiming to use ITIL, but forgetting to educate IT staff; not using ITIL to drive out metrics and measure performance; and not engendering adoption of common vision and terminology, putting service provision at risk.

I would be remiss if I didn't mention the current sea change in IT – the advent of cloud computing – especially as ITIL plays a key role in leveraging this new world of work for IT professionals. Cloud computing is another great leap forward in what IT makes possible, and with that possibility, IT becomes more sophisticated, and demands and expectations from customers wanting IT Service delivered faster, cheaper and with continuous availability reach new heights. To seize the opportunity of on and off premise cloud computing, organizations will need to bridge the globe, integrate many cultures and have standardized processes integrated with the virtualization technology. What it will take for this to happen is capable IT professionals with a shared code of good practice in mind to manage, organize, conduct processes, share knowledge and develop people along a path that makes the most of the opportunities with the cloud. Without such shared thinking and action, the opportunity will be lost for some organizations, a gain for competitors and newcomers who do rise to the challenge. It is therefore critical that you integrate ITIL with your technology, educate your organization on the benefits of ITIL, and instill a culture of Continuous Service Improvement so you can meet the challenges of the cloud and future strategies in IT.

It is important to remember that with cloud computing, as with any new technology, the people and process aspects of IT, those supported and enabled by ITIL, are vital to ensuring the new technology translates into better, faster and cheaper IT services. I wish you the best of luck in this, the first step in your journey to support, enable and leverage what has arrived and comes next in IT: the age of cloud computing.

Kathleen Wilson

August 8, 2011, Mississauga, Ontario, Canada

Acknowledgements

The goal of this publication is to provide a concise set of ITIL information at the Foundation level, and to provide the practical tips, examples and provoking questions that are necessary to help the reader grasp the critical ITIL concepts required to pass the ITIL Foundation certification examination.

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Preface

While the ITIL books contain all the content required to pass the Foundation examination, two things are missing for those who seek to study and pass the examination and apply what they have learned back on the job.

The first and most important for you, the examination-takers, is content presented in a way that helps make the terminology, principles, and models in the framework memorable. We have endeavored to provide that here, in the form of examples, key questions, checklists, stories, anecdotes, metaphors, mnemonics and so on – anything that helps you grasp the concepts vividly so they are at the ready in your mind when you sit the examination.

The second is content that helps you get started on applying what you have learned back on the job. It is likely that you are taking the exam to demonstrate your knowledge of the concepts, with the goal of transferring that knowledge into effective and efficient action back in your job. The pedagogical elements mentioned above are also intended to drive applicability home, to help you answer the question for yourself: “Okay, I get it. Now what? What is most important to do when I get back to my workplace? How can I make the most of what I have learned to make a difference for myself, for my team, for the organization overall, and for my suppliers, customers, and end users?” Thinking through how to apply the concepts learned back at your organizations sets the stage for later application and also can help make the concepts “stick” in your mind, useful when you sit the examination.

Any study aids that are used in addition to the source materials must make it easy to cross-reference the source materials to make it easy to traverse the materials and to ensure the learning of full coverage of content. Accordingly, we have aligned this little book to the ITIL Foundation syllabus and indexed its content against it, so that you can be sure of comprehensive coverage that is easily navigated between this book, ITIL books, and the syllabus.

We wish you luck in your examination preparation and success in the application of the concepts learned back on the job.

David Pultorak, Jon E Nelson, Vince Pultorak

August 8, 2011, Philadelphia, PA USA

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Introduction

This study guide provides the reader with a tool for preparing for the ITIL® Foundation 2011 Edition Foundation certification examination. It includes the core material required for the examination as defined in the course syllabus, along with practical questions, tips and examples to reinforce concepts learned and facilitate the application of learning at individual, team, and organizational levels. This guide is intended for candidates preparing to take the ITIL® Foundation 2011 Edition certification course and examination.

Readers can also use the publication *Foundations of ITIL V3* or the ITIL Core volumes (Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement) for more detailed context and guidance.

Using this Study Guide

This study guide is based on The ITIL Foundation Certificate in IT Service Management SYLLABUS v5.3. Where there are gaps in syllabus reference sequence numbers in this publication, for example, there is an ITILFND02-02-2 but no 02-1, an ITILFND03-03-21 and 03-24 but no 03-22 and 03-23, these are not errors, as these gaps exist in the syllabus and this book is intended to precisely map to the syllabus.

Where the syllabus specifies “understand” as a verb for a learning objective, strongly recommend that students should not only be able to ‘understand’; but also be able to ‘explain’ as it is a skill that can be demonstrated. Syllabus entries have also been modified make sense standing alone, without reference to superordinate or subordinate materials, and to preserve completeness and traceability back to the syllabus and source publications when viewed in isolation. For example, they have been prefixed with their corresponding unit number, for example, entry 01-1 has been prefixed with ITILFND01 (the unit number), and where syllabus entries contain sub-bullets, these entries have been combined into a single syllabus reference. In some cases for readability of section headings, acronyms have been used (for example CSI for continual service improvement).

For each unit, the timing (for example, 90m for ITILFND01) refers to the minimum study period recommended by the syllabus. Where no minimum study period is recommended, it is because the content is recommended to be covered as part of other units.

What is ITIL?

The Information Technology Infrastructure Library (ITIL) offers a systematic approach to the delivery of quality IT service. ITIL was developed in the 1980s and 1990s by the UK government Central Computer and Telecommunications Agency (CCTA), later the Office of Government Commerce (OGC) and now subsumed into the Cabinet Office, under contract to the UK Government, with the objective of ensuring better use of IT services and resources. Since it was introduced, ITIL has provided not only a best practice framework, but also the approach and philosophy shared by the people who work with it in practice. ITIL was updated the first time in 2000-2002 (V2), again in 2007 (ITIL V3), and then in 2011 (ITIL® 2011 edition)

The ITIL® 2011 edition updates to the 2007 edition ITIL publications were released 29 July 2011. The ITIL® 2011 edition publications were designed to be easier to read and understand, to relate more clearly to one another and to correct issues to provide more clarity, consistency, correctness and completeness. The ITIL® 2011 edition updates did not change core ITIL process areas and principles significantly, as the focus of the updates was on clarity and not on introducing new concepts.

The publication (and therefore, the course and examination) most impacted by the ITIL® 2011 edition updates is the ITIL Service Strategy publication, as this is where much of the focus for the 2011 edition updates was placed.

New syllabi and examinations based on the 2011 Edition publications were made available 8 August 2011. Existing certificate holders need not recertify.

Several organizations are involved in promoting the adoption of the best practices described in ITIL and associated examination schemes.

- *The UK Government Cabinet Office* – 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 examinations, and accreditation of training organizations to the APM Group (APMG), a commercial organization. APMG defines the certification and accreditation schemes for the ITIL examinations, and publishes the associated certification scheme.
- *Examination institutes* – To support the worldwide delivery of the ITIL examinations, APMG has accredited ten examination institutes as of the time of publication: APMG-International, BCS-ISEB, CERT-IT, CSME, DANSK-IT, DF Certifying AB, EXIN, Loyalist Certification Services, PEOPLECERT Group, and TÜV SÜD Akademie. For more information, see <http://www.itil-officialsite.com/ExaminationInstitutes/ExamInstitutes.aspx>

- *Publishing organizations* – TSO publishes the Core ITIL framework within 5 titles. A number of publishers also produce derivative works based on the framework under licence.

ITIL examinations

There are four qualification levels:

- *ITIL Foundation* – aimed at basic knowledge of, and insight into, the core principles and processes of ITIL. This qualification is positioned at the same level as ITIL V2 Foundation examination.
- *ITIL Intermediate* – based on two workstreams, one based on the Service Lifecycle, and one based on practitioner capabilities.
- *ITIL Expert* – aimed at those individuals who are interested in demonstrating a high level of knowledge in ITIL in entirety
- *ITIL Master* - aimed at people that are experienced in the industry – typically, but not exclusively, senior practitioners, senior consultants, senior managers or executives, with five or more years' relevant experience. All candidates must hold the ITIL Expert qualification.

For each element in the scheme a number of credits can be obtained that can be used to obtain the ITIL Expert qualification. Further information on the actual status of this system can be found at the ITIL Official Site: <http://www.itil-officialsite.com/>.

Structure of this study guide

This study guide provides you with a tool for preparing for the ITIL Foundation certification examination. It includes the examinable content required for the examination as defined in the official course syllabus.

Using this Study Guide

The text is organized in Units deliberately to help the students: for clarity it does not follow the sequential texts of the core ITIL titles. For the most part, this study guide is structure with two facing pages. The left facing page contains the ITIL content that the syllabus requires the Foundation examination to cover, including a syllabus reference and the associated definitions, concepts and models from ITIL materials. Definitions are denoted with a colored box, for example:

Business case (SS)

Justification for a significant item of expenditure. The business case includes information about costs, benefits, options, issues, risks and possible problems. See also cost benefit analysis.

In many cases, the right facing page contains examples, memory aids and practical guidance developed by IT Service Management Practitioners. The purpose of this content is to drive the ITIL concepts home, to make them memorable so that you can recall them for the exam, and to provide some ideas as to how to get started applying the concepts once back on the job.

In some cases, mostly in the section that covers the ITIL processes, there is no right-facing page; this is due to the volume of generic material that is required to be covered for that topic by the syllabus.

Throughout this guide references to the ITIL Foundation syllabus are included so that you can map what is covered here back to the syllabus, and through the syllabus reference, back to the ITIL books themselves. For example:

ITILFND01-01-1 Describe the concept of best practices in the public domain (SS 2.1.7)

This is a reference to section to unit ITILFND01, topic 01-1 of the syllabus, which covers the concept of good practice; this syllabus entry references the Service Strategy (SS) book, section 2.1.7 for further information. Syllabus references use acronyms for each book, as follows:

- Service Strategy (SS)
- Service Design (SD)
- Service Transition (ST)
- Service Operation (SO)
- Continual Service Improvement (CSI)

This study guide illustrates each syllabus topic in capsule form, along with a relevant example or mnemonic or other device to help make the topic stick; syllabus references are provided so you can trace them back to the full ITIL book coverage of the topic for more information.

This study guide and the syllabus references included here are written to align to the ITIL Foundation syllabus version 5.3.

How to use this study guide

This guide is intended for candidates preparing to take the ITIL Foundation certification course and examination. It can be used as ready reference to learn more about specific topics, or can be read cover to cover for comprehensive examination preparation.

CHAPTER 1

ITILFND01 SERVICE MANAGEMENT AS A PRACTICE (90M)

The purpose of this unit is to help you to define the concept of a service, and to comprehend and explain the concept of service management as a practice.

ITILFND01-01-1 Describe the concept of best practices in the public domain (SS 2.1.7)

BEST PRACTICES IN THE PUBLIC DOMAIN

Best practice is defined as proven activities or processes that have been successfully used by multiple organizations. ITIL is an example of best practice.

Organizations benchmark themselves against peers and seek to identify and close gaps in capabilities to become more competitive. One way to close such gaps is to adopt best practices. There are several sources for best practice including public frameworks, standards and the proprietary knowledge of organizations and individuals.

ITIL is the most widely recognized and trusted source of best practice guidance in the area of ITSM.

Publicly available frameworks and standards such as ITIL, LEAN, Six Sigma, COBIT, CMMI, PRINCE2®, PMBOK®, ISO 9000, ISO/IEC 20000 and ISO/IEC 27001 are attractive compared to proprietary knowledge for the following reasons:

Proprietary knowledge	Public frameworks and standards
Deeply embedded in organizations and therefore difficult to adopt, replicate or even transfer with the cooperation of the owners; often in the form of tacit knowledge which is inextricable and poorly documented.	Validated across a diverse set of environments and situations rather than the limited experience of a single organization.
Customized for the local context and the specific needs of the business to the point of being idiosyncratic. Unless the recipients of such knowledge have matching circumstances, the knowledge may not be as effective in use.	Subject to broad review across multiple organizations and disciplines, and vetted by diverse sets of partners, suppliers and competitors.
Owners expect to be rewarded for their investments. They may make such knowledge available only under commercial terms through purchases and licensing agreements.	The knowledge of public frameworks is more likely to be widely distributed among a large community of professionals through publicly available training and certification. It is easier for organizations to acquire such knowledge through the labor market.

Ignoring public frameworks and standards can needlessly place an organization at a disadvantage. Organizations should cultivate their own proprietary knowledge on top of a body of knowledge based on public frameworks and standards. Collaboration and coordination across organizations become easier on the basis of shared practices and standards. Further information on best practice in the public domain is provided in Appendix D of the SS publication.

ITILFND01-01-1 Describe the concept of best practices in the public domain (SS 2.1.7)

There are certain things you would expect to see in any well-run organization: purpose, outcomes, goals, objectives, roles, activities, deliverables, and tools. There are other things that you might expect to see, but the gist here is that a well-run organization will have the right ones, and those 'right ones' that are generally accepted are known as best practices.

Think about a soccer team for a minute. If they didn't have the objective of winning games, you would certainly think something was amiss. And if there was no manager, or keeper, or the approach to these roles was inadequate or ill-defined, there would be issues. If there was no practice, or practice was conducted irregularly or out of step with ways that improve performance, you would be right to worry about the prospects of the team. And if basic things like goals and balls and gloves were not in evidence or not adequate, you would have further cause for worry about the team's capability to perform.

The same goes for IT organizations. While IT is continually evolving, there are basics you would expect to see in a well-run organization, like basic change management practices in evidence, functions for managing technology, applications, service desk and IT operations.

Why is it that two organizations given roughly the same set of resources will get wildly different results? The answer is capability. The whole idea with best practices and proprietary knowledge is that they give you a competitive advantage, a higher capability.

One sensible approach for leveraging best practices and proprietary knowledge to increase capability is to consider adopting and leveraging as much of what is proven and commoditized before moving on to developing your own methods. In other words, it is usually best to avoid 'reinventing the wheel' when the commonly accepted wheel will do.

Think about your organization. What best practices are in evidence? For the best practices you see, what is positive that is happening in the organization because they are in place? For those that are missing or inadequate, what is the negative impact of this? What proprietary knowledge is in use that is providing competitive advantage?

ITIL is presented as best practice. That is why for those with IT experience, many concepts in ITIL are familiar, although terminology may vary from what they are used to.

Adopting and adapting generally accepted frameworks like ITIL can give you a ready-made basis for organizing IT. It can make what you do more defensible to regulators and auditors, as you are in step with the industry. It can make it easier for you to onboard new staff and suppliers, as it is more likely that you will have a shared view of expected outcomes, practices, and terminology.

ITIL is a framework and is not prescriptive ('how to do'), and is therefore descriptive ('what to do'): the art in applying ITIL successfully is figuring out which areas provide the most benefit for your organization, and driving changes from the top down and the bottom up.

ITILFND01-01-2 Describe and explain why ITIL is successful (SS 1.3)

Why is ITIL so successful?

ITIL embraces a practical approach to service management – do what works. And what works is adapting a common framework of practices that unite all areas of IT service provision towards a single aim – that of delivering value to the business. The following list defines the key characteristics of ITIL that contribute to its global success:

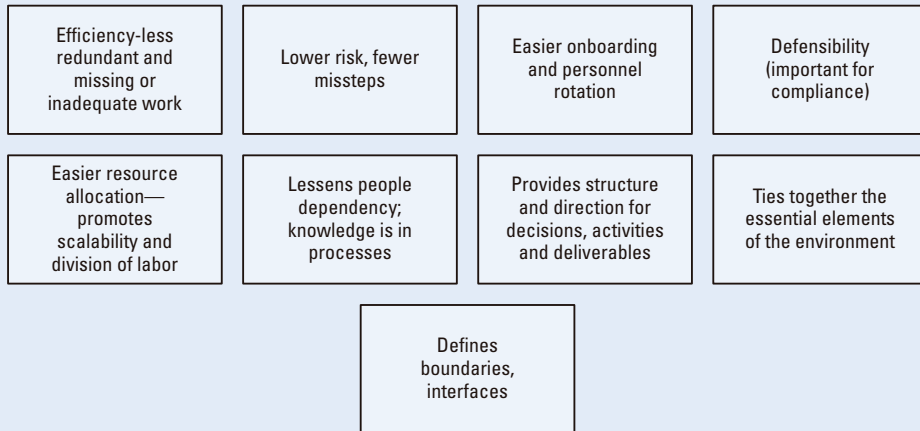
Vendor-neutral	<ul style="list-style-type: none"> • Applicable in any IT organization as it is not based on any particular technology platform or industry type • Owned by the UK government and is not tied to any commercial proprietary practice or solution
Non-prescriptive	<ul style="list-style-type: none"> • Offers robust, mature and time-tested practices with applicability to all types of service organization • Continues to be useful and relevant in public / private sectors, internal / external service providers, small, medium, large enterprises, any technical environment
Best practice	<ul style="list-style-type: none"> • Represents the world's best-in-class service providers' learning experiences and thought leadership

ITIL is successful because it describes practices that enable organizations to deliver benefits, return on investment and sustained success. ITIL is adopted by organizations to enable them to:

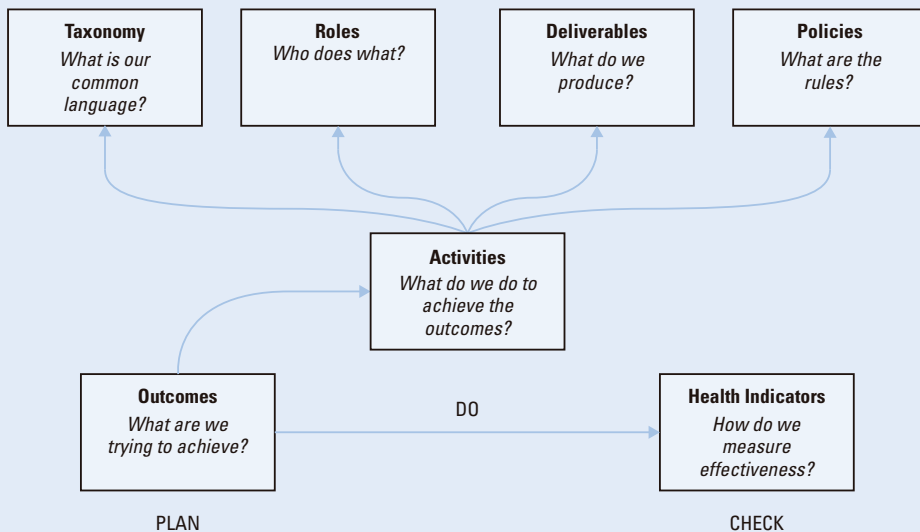
- Deliver value for customers through services
- Integrate the strategy for services with the business strategy and customer needs
- Measure, monitor and optimize IT services and service provider performance
- Manage the IT investment and budget
- Manage risk
- Manage knowledge
- Manage capabilities and resources to deliver services effectively and efficiently
- Enable adoption of a standard approach to service management across the enterprise
- Change the organizational culture to support the achievement of sustained success
- Improve the interaction and relationship with customers
- Coordinate the delivery of goods and services across the value network
- Optimize and reduce costs

ITILFND01-01-2 Describe and explain why ITIL is successful (SS 1.3)

In our work over the years, some of the top reasons why we see organizations turn to ITIL include:



We find that ITIL provides the basis for effective action by helping organizations shape and align themselves in a structured way as they drive towards their key outcomes, as follows.



ITILFND01-01-3 Define and explain the concept of a service (SS 2.1.1)

The Concept of a Service

Service A means of delivering value to customers by facilitating outcomes customers want to achieve without ownership of specific costs and risks

IT service A service provided by an IT service provider made up of information technology, people and processes. A customer-facing IT service directly supports business processes of one or more customers and its service level targets should be defined in an SLA; other IT services (supporting services) are not directly used by the business but are required by the service provider to deliver customer-facing services.

Services facilitate outcomes by enhancing the performance of associated tasks and reducing the effect of constraints. These constraints may include regulation, lack of funding or capacity, or technology limitations. The result is an increased probability of desired outcomes. While some services enhance task performance, others perform the task itself.

Customers seek outcomes but do not wish to have accountability or ownership of all the associated costs and risks. Customers will be satisfied with a service when they judge it a good value based on a comparison of cost or price and reliability with the desired outcome.

Services can be discussed in terms of how they relate to one another and their customers, and can be classified as core, enabling or enhancing.

Core services	Deliver the basic outcomes desired by customers, represent the value the customer wants and is willing to pay for, anchor the value proposition for the customer and provide the basis for their continued utilization and satisfaction.
Enabling services	'Basic factors' required for the 'real' (core) service to be delivered, they are not perceived as services by customers even though they may be visible to them.
Enhancing services	Services added to a core service to make it more exciting or enticing to the customer, unessential to the delivery of a core service, added to a core service as 'excitement' factors to encourage customers to use the core service more (or to choose the service over that of its competitors).

Most service providers will follow a strategy where they can deliver a set of more generic services to a broad range of customers, thus achieving economies of scale and competing on the basis of price and a certain amount of flexibility. One way of achieving this is by using service packages. A service package is a collection of two or more services that have been combined to offer a solution to a specific type of customer need or to underpin specific business outcomes. A service package can consist of a combination of core services, enabling services and enhancing services.

Where a service or service package needs to be differentiated for different types of customer, one or more components of the package can be changed, or offered at different levels of utility and warranty, to create service options. These different service options can then be offered to customers and are sometimes called service level packages.

ITILFND01-01-3 Define and explain the concept of a service (SS 2.1.1)

Why do customers buy IT services, and when they do, what value do they see? Understanding this starts with visiting why you buy and see value in services.

An example may help illustrate: we recently moved in to a 50 year old house and the lawn sprinklers were not working properly. Some didn't come on at all; others just dribbled water.

I went about the job in what I thought was a good, systematic fashion: I got out some graph paper and noted the location of each of the sprinkler heads; I looked at each one and wrote down the type; I dug one of them out and unscrewed it to see the size of the connector so I'd be sure to get the right type at the home store. Once at the home store I got the sprinkler heads, plus a number of other tools for digging them out, screwing and unscrewing them on, as well as adaptors in case I needed them.

I spent more than I thought I would, then went home and started digging out the rest of the sprinkler heads, then unscrewing them one at a time, and replacing them; all was good until I got to the third one, which broke off the steel pipe it was attached to below the thread. Now I had another problem – affixing plastic sprinkler head somehow to a busted rusted metal pipe. In addition I noted that I didn't have the correct sprinkler head inserts for the spray pattern I needed to cover the lawn. So back to the home store.

After a couple more weekends of similar issues and still no sprinklers working, encouraged by my lovely wife, I finally gave in and called a sprinkler installer. The installer showed up with his truck chock full of the right tools, all the right fittings and workarounds, and experience dealing with the precise kinds of issues I was facing; he had the sprinklers up and running in less than two hours.

The moral of the story is that I should have factored in the costs (my time in buckets, all the various parts, including ones I never used and paid for, tools I didn't have that I had to get to use one) and risks (due to the fact that I didn't have knowledge and experience). I should have called the sprinkler person out of the gate. Why? Why for the same reason as defined by ITIL as the concept of a service – that he could do it cheaper, with less risk, than me doing it myself. So in the end it's a higher value. Keep this in mind when considering your services to your customer – do you have the skills and tools and experience to provide a value higher at less risk than them doing it themselves? How about as compared to another IT service provider? You had better – having that value edge is the only sustainable reason for using your services.

Think about an instance where it made sense to choose a service versus doing it yourself. How did this result in better confidence to control costs and risks?

For an example of core, enabling and enhancing services you need look no further than your mobile phone service – core services include being able to place calls and text messages, enabling services include the wireless network that underpin voice and data services, and enhancing services are 'sweeteners' such as video calling and family mapping.

ITILFND01-01-4 Define and explain the concept of internal and external customers (SS 3.2.1.2)

Internal and external customers

There is a difference between customers who work in the same organization as the IT service provider (internal customers), and customers who work for another organization (external customers). Both must be provided with the agreed level of service, with the same levels of customer service.

customer Someone who buys goods or services. The customer of an IT service provider is the person or group who defines and agrees the service level targets.

internal customer A customer who works for the same business as the IT service provider.

external customer A customer who works for a different business from the IT service provider.

The table below, adapted from SS Table 3.1, compares internal and external customers.

	Internal customers	External customers
Funding	Provided internally – IT is a cost to be recovered.	Funded directly by external customers in the form of revenue. IT becomes a generator of income for the organization. The cost of the service, plus a margin, must be recovered from the customer.
Strategy and objectives	Provider and customer share the overall organizational objectives and strategy.	The objectives and strategies of the service provider and the customer are different.
Accounting	The cost of service is the primary driver; the aim of providing services is an optimal balance of service cost and quality supporting achieving organizational objectives.	The price of the service is the primary driver; the aim of providing services to external customers is to maximize profitability while still remaining competitive with pricing.
Service design role	Internal customers tend to be involved in detailed design specifications.	External customers typically buy predefined services and are not involved in design.
Involvement in service transition and operation	Internal customers are often involved in building, testing and deploying services, assessing and authorizing changes, and defining deployment procedures, mechanisms and schedules.	Involvement in change management is clearly documented in the contract. Customers assess requests for change based on impact and price. Deployment involvement is often carefully scripted.
Drivers for improvement	Improvements are driven by impact on the business, specifically balancing cost and quality and the ability to help business units meet their objectives.	Improvements are driven by the need to retain customers that contribute to the profitability of the service provider, and to remain competitive in the market.

ITILFND01-01-4 Define and explain the concept of internal and external customers (SS 3.2.1.2)

Internal customer example	External customer example
The marketing department is an internal customer of the IT organization because it uses IT services. The head of marketing and the CIO both report to the chief executive officer (CEO). If IT charges for its services, the money paid is an internal transaction in the organization's accounting system – i.e. not real revenue.	An airline might obtain consulting services from a large consulting firm. Two-thirds of the contract value is paid in cash, and one-third is paid in air tickets at an equivalent value.

It is important to distinguish first between a user (someone who uses services) and a customer (someone who pays for services and defines and agrees service level targets). Like all distinctions in ITIL, this isn't mere terminology for its own sake – each term is defined and distinguished against others because it is something worth management consideration. Said another way, if you are not recognizing and labeling something in your environment, it is very likely that no one is managing it. So for example, if you don't really distinguish between customers and users, it may be the case that you have systems in place to ensure great user satisfaction, but are completely missing any systematic way to identify customers and keep them happy. This is a grave error of omission – unrecognized stakeholders represent one of the greatest risks to a services enterprise.

Conversely, you might recognize and work for customer satisfaction systematically, but have nothing or little in place to tend to users. So you see this is not mere terminology – it is a set of labels and distinctions made to define what is important and worth managing.

And so it goes with the distinction between the internal and external customers: one is inside your business (internal), the other is outside. You may in fact not have external customers for your IT services, in which case you can skip the discussion. But if you do, you need to distinguish between internal and external customers because they are fundamentally different in nature and, as a result, the practices needed to be effective in dealing with them are fundamentally different as well. A lack of understanding of these dynamics is what causes friction due to under and over and improperly serviced customers. Given scarce resources, you need to apportion them appropriately, both in quantity and quality, and that starts with understanding and distinguishing between types of customers and their characteristics.

ITILFND01-01-5 Define and explain the concept of internal and external services (SS 3.2.2.3)

Internal and external services

Just as there are internal and external customers, there are internal and external services.

Service A means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.

- **Internal service** A service delivered between departments or business units in the same organization.
- **External service** A service delivered to external customers.

Business service A service delivered to business customers by business units; for example, delivery of financial services to customers of a bank, or goods to the customers of a retail store. Successful delivery of business services often depends on one or more IT services.

IT service A service provided by an IT service provider, made up of a combination of information technology, people and processes. A customer-facing IT service directly supports the business processes of one or more customers and its service level targets should be defined in a service level agreement. Other IT services, called supporting services, are not directly used by the business but are required by the service provider to deliver customer-facing services.

Three types of IT services

1. **Supporting service** An IT service that is not directly used by the business, but is required by the IT service provider to deliver customer-facing services (for example, a directory service or a backup service). There can be no service level agreements for supporting services as they are all internal to the same department. Instead, the performance of supporting services should be managed by operational level agreements.
2. **Internal customer-facing service** An IT service that directly supports a business process managed by another business unit – for example, sales reporting service, enterprise resource management. Internal customer-facing services are managed according to service level agreements.
3. **External customer-facing service** An IT service that is directly provided by IT to an external customer – for example, internet access at an airport. These services are managed using a contract – even a simple online agreement constitutes a contract of sale and purchase with terms and conditions.

We differentiate between internal and external services to delineate services that support an internal activity and those that actually achieve business outcomes. The difference between internal and external services is significant because internal services have to be linked to external services before their contribution to business outcomes can be understood and measured. This is especially important when measuring the return on investment of services.

ITILFND01-01-5 Define and explain the concept of internal and external services (SS 3.2.2.3)**Business services questions**

- Can you list the *business services* your firm provides?
- Can you list, for each business service, the IT services that enable its outcomes to be met?

Internal customer-facing services questions

- Can you list the *internal customer-facing services* in your organization?
- Can you list the customer(s) for each?
- Would you say for each those customers are highly aware, aware, or unaware of the services?
- For which of these services are service level agreements defined, agreed and used?
- If you have this in place, or if it is missing or inadequate, what is happening in your organization because of it?

External customer-facing services questions

- Can you list the *external customer-facing services* in your organization?
- Can you list the customer(s) for each?
- Would you say for each those customers are highly aware, aware, or unaware of the services?
- For which of these services are contracts defined, agreed and used?
- If you have this in place, or if it is missing or inadequate, what is happening in your organization because of it?

Supporting services questions

- Can you list *supporting services* that underpin your IT services and cite how they relate?
- Can you identify which support internal and external services only, and which are shared?
- For which of these services are operational level agreements defined, agreed and used?

ITILFND01-01-6 Define and explain the concept of service management (SS 2.1.2)

Service Management

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

Service provider An organization supplying services to one or more internal or external customers

Capability *the ability of an organization, person, process, application, Configuration Item or IT service to carry out an activity*

Resource *a generic term that includes IT infrastructure, people, money or anything else that might help to deliver an IT service*

Service asset *any resource or capability used by a service provider to deliver services to a customer*

Performance *a measure of what is achieved or delivered by a system, person, team, process, or IT service*

Customer asset *any resource or capability used by a customer to achieve a business outcome*

Business outcome *the results as seen by the business*

The more mature a service provider's capabilities are, the greater the ability to consistently produce quality services that meet the needs of the customer in a timely and cost-effective manner. The act of transforming capabilities and resources into valuable services is at the core of service management. Without these capabilities, a service organization is merely a bundle of resources that by itself has relatively low intrinsic value for customers.

Service management is more than just a set of capabilities. It is also a professional practice supported by an extensive body of knowledge, experience and skills. A global community of individuals and organizations in the public and private sectors fosters its growth and maturity. Formal schemes exist for the education, training and certification of practicing organizations, and individuals influence its quality. Industry best practices, academic research and formal standards contribute to and draw from its intellectual capital.

The origins of service management are in traditional service businesses such as airlines, banks, hotels and phone companies. Its practice has grown with the adoption by IT organizations of a service-oriented approach to managing IT applications, infrastructure and processes. Solutions to business problems and support for business models, strategies and operations are increasingly in the form of services. The popularity of shared services and outsourcing has contributed to the increase in the number of organizations that behave as service providers, including internal IT organizations. This in turn has strengthened the practice of service management while at the same time imposed greater challenges.

ITILFND01-01-6 Define and explain the concept of service management (SS 2.1.2)

Given a similar set of resources, why would one IT service provider be better at service provision than another? The answer lies in capability.

Think about it this way for a minute: Let us say a TV station came into your workplace and asked everyone on your immediate team to make an omelet. The omelet would be judged by a famous chef and the person who made the best omelet would win \$100,000 and a kitchen makeover. Who would make the best omelet, and why? Note that part of the rules is that everyone starts with precisely the same ingredients, in the same kitchen, using the same tools.

Well the winner probably is one of the best if not the best organized. They know their way around the kitchen, how each implement is used properly – they have knowledge and experience applying that knowledge. They apply specific techniques and a set of steps that are proven to routine parts of making an omelet, and when faced with an issue, like a stove that doesn't get quite hot enough, they can work around and adapt.

The same goes for IT service providers. The difference in the 'omelet' they produce for their customers does of course depend on resources – the factors of production that go into service provision. So these must be as they should be. But as important is their capabilities – their ability to manage, organize, the knowledge, skill and experience of their people. In a word, in their capability, and for a services firm, that capability is known as IT service management.

Think about it: if most companies have the same basic 'ingredients' (resources) for running IT (networks, ERP applications, servers, data centers, etc.), why do some organizations achieve better results than others? The answer is in their capabilities (management, organization, processes, knowledge, and people), which are the abilities of an organization, person, process, application, Configuration Item or IT service to carry out an activity. Capabilities are intangible assets of an organization.

ITILFND01-01-7 Define and explain the concept of IT service management (SS 2.1.3)

IT service management

Now that we've defined service management, we move on to **IT** service management. Understanding this concept requires first understanding the different perspectives of and meanings assigned to IT: IT as a:

1. Collection of systems, applications and infrastructures
2. Organization with its own set of capabilities and resources
3. Category of services utilized by business
4. Category of business assets

Every IT organization should act as a service provider, using the principles of service management to ensure that they deliver the outcomes required by their customers.

IT service management (ITSM) The implementation and management of quality IT services that meet the needs of the business. IT service management is performed by IT service providers through an appropriate mix of people, process and information technology.

A service level agreement (SLA) is used to document agreements between an IT service provider and a customer. An SLA describes the IT service, documents service level targets, and specifies the responsibilities of the IT service provider and the customer. A single agreement may cover multiple IT services or multiple customers.

IT service provider A service provider that provides IT services to internal or external customers.

ITSM must be carried out effectively and efficiently. Managing IT from the business perspective enables organizational high performance and value creation.

A good relationship between an IT service provider and its customers relies on the customer receiving an IT service that meets its needs, at an acceptable level of performance and at a cost that the customer can afford. The IT service provider needs to work out how to achieve a balance between these three areas, and communicate with the customer if there is anything which prevents it from being able to deliver the required IT service at the agreed level of performance or price.

ITILFND01-01-7 Define and explain the concept of IT service management (SS 2.1.3)

With IT service management we are going to:

1. Organize around IT services as the fundamental organizing concept and focal point for management
2. Carry out and improve best practices processes that underpin the effective and efficient support and delivery of IT services
3. Grow the maturity of our organization and processes and the knowledge and skills of our people
4. Adopt common terminology and practices
5. Insist on a core set of tools required to carry out our profession

It's ironic, really that other professions, like accounting, have had standard terminology, generally accepted processes and principles, and tools for quite some time now. While these evolve over time, it isn't the case (or shouldn't be!) that you walk in to one firm and talk to a particular accountant, and she doesn't use or recognize the terms "liabilities" and "owner's equity", that she doesn't expect the firm to have fairly standard accounts payable and receivable processes, etc. Questions like, "what is the ROI on your general ledger?" if posed would seem ludicrous – an accountant needs the general ledger as a basic tool for doing her work.

On the other hand, look at the "state of the state" in many organizations for the IT profession. "What is the ROI on your CMDB?" is a common question, yet a strong CMDB and CMS underpin (or should!) just about every questions and decision you can make in IT, if you want to work on the basis of facts (and you should!). Terminology is all over the place – one person says "fault", another says, "error", another says, "incident", another, "problem" and they all think they're talking about the same thing and they are not. The overhead of all this translation and miscommunication is frightening, needless, and happily, curable.

IT service management helps us get on the same page with defined terminology definitions and distinctions, key principles and models for managing and organizing. It is a holistic approach for recognizing and managing what is important, and in the end, a worldview – a self-concept for IT services – not the only one, but the one ITIL is suggesting is most effective: "We are here to provide a service to a customer. Everything we do is organized around those services, and we adopt common best practices so we can be as capable as possible given limited resources."

In the end, the big bet with ITIL, as with all management frameworks, is that relatively small changes in thinking and acting can make a huge difference in results. Sure you can throw resources at the problem, but resources alone won't cut it – you need capability. So... what are you doing to improve your IT service management capability, and improve your results?

ITILFND01-01-8 Define and explain the concept of stakeholders in service management (SS 2.1.5)

Stakeholders in service management

Stakeholders have an interest in an organization, project or service etc. and may be interested in the activities, targets, resources or deliverables from service management. Examples include organizations, service providers, customers, consumers, users, partners, employees, shareholders, owners and suppliers.

Stakeholder A person who has an interest in an organization, project, IT service etc. Stakeholders may be interested in the activities, targets, resources or deliverables. Stakeholders may include customers, partners, employees, shareholders, owners etc.

Customers Those who buy goods or services. The customer of an IT service provider is the person or group who defines and agrees the service level targets. This term is also sometimes used informally to mean a user – for example, ‘This is a customer-focused organization.’

Users Those who use the service on a day-to-day basis. Users are distinct from customers, as some customers do not use the IT service directly.

Suppliers Third parties responsible for supplying goods or services that are required to deliver IT services. Examples of suppliers include commodity hardware and software vendors, network and telecom providers, and outsourcing organizations.

The term ‘organization’ is used to define a company, legal entity or other institution. It is also used to refer to any entity that has people, resources and budgets – for example, a project or business. Within the service provider organization there are many different stakeholders including the functions, groups and teams that deliver the services.

There is a difference between customers who work in the same organization as the IT service provider, and customers who work for other organizations. They are distinguished as follows:

<p>Internal customers work for the same business as the IT service provider. For example, the marketing department is an internal customer of the IT organization because it uses IT services. The head of marketing and the chief information officer both report to the chief executive officer. If IT charges for its services, the money paid is an internal transaction in the organization’s accounting system, not real revenue.</p>	<p>External customers work for a different business from the IT service provider. External customers typically purchase services from the service provider by means of a legally binding contract or agreement.</p>
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ITILFND01-01-8 Define and explain the concept of stakeholders in service management (SS 2.1.5)

Stakeholders can have a huge positive or negative impact on your results. Unidentified stakeholders represent one of the biggest risks to an IT service provider. So, can you list:

- Who your key stakeholders are?
- What their stake is, for each?
- What systems you have in place to identify and satisfy key stakeholders? To help them help you achieve outcomes of interest to them?
- Which stakeholders are internal and external customers?
- For each stakeholder, can you identify where they are now and where they want to be against the outcomes they have a stake in?
- Where are your risks relative to stakeholders? Where are they under-represented, served or challenged? Where is there friction or resistance in critical areas?
- What strategies are in play for communicating with stakeholders, anticipating their reactions, ensuring their expectations are met?
- How are you making sure what you are doing is based on real stakeholder needs, and not simply just the perception of those needs?

ITILFND01-01-9 Define processes and functions (SS 2.2.2, 2.2.3.1)

Processes and functions

Note: processes and functions are defined here to contrast them and treated further in the next section.

Processes and functions are not the same. A process is a set of activities; a function is a set of people.

process A structured set of activities designed to accomplish a specific objective. A process takes one or more defined inputs and turns them into defined outputs.

The four key characteristics of a process are:

1. **Measurability** We are able to measure the process in a relevant manner. It is performance-driven. Managers want to measure cost, quality and other variables while practitioners are concerned with duration and productivity.
2. **Specific results** The reason a process exists is to deliver a specific result. This result must be individually identifiable and countable.
3. **Customers** Every process delivers its primary results to a customer or stakeholder. Customers may be internal or external to the organization, but the process must meet their expectations.
4. **Responsiveness to specific triggers** While a process may be ongoing or iterative, it should be traceable to a specific trigger

Function A team or group of people and the tools or other resources they use to carry out one or more processes or activities – for example, the service desk.

- In larger organizations, a function may be broken out and performed by several departments, teams and groups, or it may be embodied within a single organizational unit (e.g. the service desk); In smaller organizations, one person or group can perform multiple functions – for example, a technical management department could also incorporate the service desk function

ITIL Service Operation describes four functions in detail:

1. Service Desk
2. Technical Management
3. IT Operations Management
4. Applications Management

An organization will need to clearly define the roles and responsibilities required to undertake the processes and activities involved in each lifecycle stage. These roles will need to be assigned to individuals, and an appropriate organization structure of, groups, teams, departments, and divisions – be sure to know the definitions and distinctions between these (see the ITIL glossary for help with this).

ITILFND01-01-9 Define processes and functions (SS 2.2.2, 2.2.3.1)

ITIL 2011 Edition specifies 26 processes and 4 functions, as follows:

Service Strategy Processes (5)

1. *Strategy management for IT services (New to 2011 Edition)**
2. Service portfolio management
3. Financial management for IT services
4. Demand management
5. *Business relationship management (New to 2011 Edition)*

Service Design Processes (8)

1. *Design coordination (New to 2011 Edition)*
2. Service catalogue management
3. Service level management
4. Availability management
5. Capacity management
6. IT service continuity management (ITSCM)
7. Information security management
8. Supplier Management

Service Transition Processes (7)

1. Transition planning and support
2. Change management
3. Service asset and configuration management
4. Release and deployment management
5. Service validation and testing
6. *Change evaluation (Renamed in 2011 Edition)*
7. Knowledge management

Service Operation Processes (5)

1. Event management
2. Incident management
3. Request fulfillment
4. Problem management
5. Access management

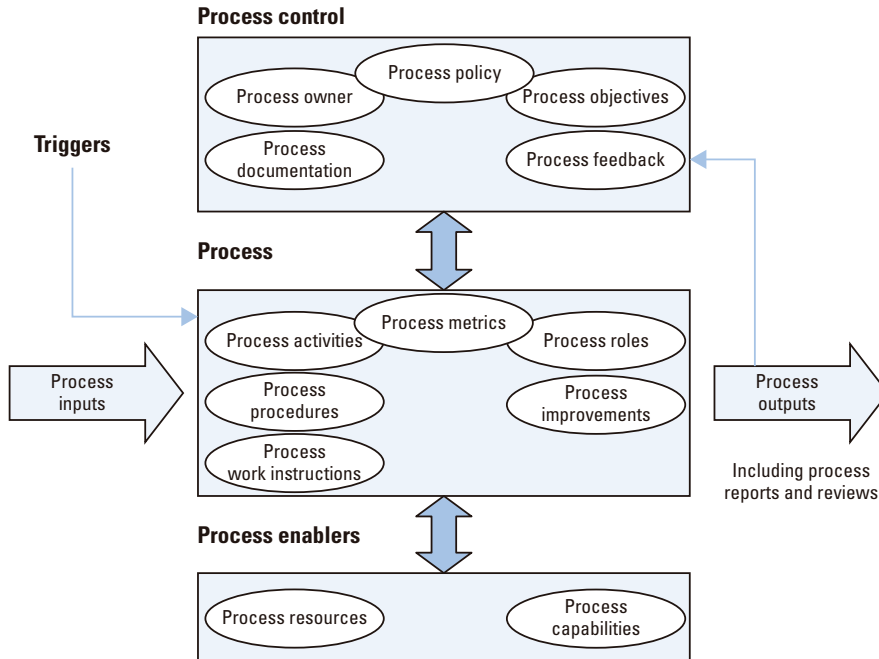
Continual Service Improvement Processes (1)

1. Seven-step improvement process

Service Operation Functions (4)

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

ITILFND01-01-10 Explain the process model and the characteristics of processes (SS 2.2.2, Figure 2.5)



SS Figure 2.5: Process model

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A process is organized around a set of objectives, with outputs driven by the objectives and should include process measurements (metrics), reports and process improvement. The output must conform to operational norms derived from business objectives for the process to be considered effective. If the activities of the process are carried out with a minimum use of resources, the process can also be considered efficient. Inputs are data or information used by the process and may be the output from another process. A process, or an activity within it, is initiated by a trigger such as the arrival of an input or other event. A process may include roles, responsibilities, tools and management controls required to deliver outputs reliably, and define policies, standards, guidelines, activities and work instructions needed. Processes, once defined, should be documented and controlled so they can be repeated and managed. Measurement and metrics can be built into the process to control and improve the process. Analysis, results and metrics should be incorporated in regular management reports and process improvements.

ITILFND01-01-10 Explain the process model and the characteristics of processes
(SS 2.2.2, Figure 2.5)

This model is a straightforward – use the mnemonic POETIC to remember it. Think about our omelet-making example:

1. Process - cooking in the kitchen
2. Outputs - meals served
3. Enablers – kitchen gadgets, cooking know-how
4. Triggers – teenager is hungry
5. Inputs - ingredients for omelet
6. Control – kitchen timer, knob on stove to adjust heat

You must be able to recall the components of the process model. You must know, for example, that a process will not kick in without a specific trigger. Think about, for example, your incident management process – what triggers it? A call from a user, an event trapped in the infrastructure.

It is helpful to know what is included within each component, for example:

- In process control, we see that processes are controlled by assigning a process owner, by having documentation and policies to follow, by having a process objective that functions as a ‘north star’ outcome for the process, and by having a feedback loop; these are just some of the mechanisms that can keep a process on track – can you think of others? If not, it may be easier to list a couple of key ways processes get off track, and some ideas on mechanisms for preventing it from happening – these are process control mechanisms
- The process itself – typically a set of stepwise activities (highest level), procedures (middle level of detail) and work instructions (finest level of detail), metrics for the process, roles (who is doing the activities needs to be clear), and an improvement loop built right into the process
- In process outputs, we see that it’s not just “the omelet” that is produced as output, but also reports and reviews, “mom, I made an omelet for my little brother today, and he said it was delicious!”
- Process enablers – these are the assets (resources and capabilities) used by the process, as distinguished from process inputs

