



Become ITIL Foundation Certified in 7 Days

Learning ITIL Made Simple with
Real-life Examples

Abhinav Krishna Kaiser

Apress®

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*Dedicated to my family who sacrificed several evenings and
weekends while I hammered on the keyboard*

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About the Author



Abhinav Krishna Kaiser is a consulting manager at a global corporation. His experience is varied, and he has worked in IT Service Management Consulting and Training, DevOps Consulting and Training, Operations and Delivery Management, and Project Management.

As a management consultant, Abhinav has consulted with a number of customers to solve problems, design solutions, create value, and achieve intended outcomes. Abhinav is a certified ITIL Expert and Project Management Professional (PMP). He is COBIT certified as well. He is a telecommunication engineer by academics, but proceeded to work in various management roles, and his name has become synonymous with ITIL on various online channels.

Abhinav demonstrated his management consulting abilities in his early days, and this earned him a number of challenging assignments across the globe. He has led numerous engagements to design, implement, and operate ITIL-based service management environments in a number of countries, across five continents. His ability to foresee risks and anticipate challenges has helped him turn the tide in his favor during his assignments. With a fervor toward learning, Abhinav has turned his attention toward DevOps and Agile project management frameworks.

Abhinav is an accredited ITIL trainer for expert-level certifications, and he has conducted hundreds of classroom and online trainings on various ITIL certifications and topics. With a strong grasp of ITIL and effective training techniques, he has transformed the careers of several IT professionals. He has reviewed video trainings on PluralSight (formerly TrainSignal) for the ITIL foundation and intermediate offerings. Abhinav's YouTube channel, Abhinav on the Tube, has received favorable reviews for his incident management training videos.

Workshop in a Box: Communication for IT Professionals is Abhinav's first book, published in May 2015. The book helps IT professionals help overcome communication barriers that exist in IT and become better communicators.

Abhinav started writing blogs and technical articles in 2004. His articles have been highly appreciated for their simplicity, clarity, and the ease with which complicated topics are broken down. He has written articles for *Tech Republic* and *PluralSight* web sites. He writes regularly on his personal blog: Abhinav PMP | Inspiring Management (<http://abhinavpmp.com>).

Bengaluru, the silicon city of the Eastern hemisphere, is Abhinav's abode. He lives with his family. He is a bibliophile and enjoys reading both fiction and nonfiction works.

About the Technical Reviewer



Sumit Jha is an author, a thought leader, and an expert in IT strategy, SIAM, ITSM, and Transformation. He has as been instrumental in setting up and managing service management practices in multiple organizations. He ideated or formulated strategies for creation of Next Generation Service Management offerings and Go-To-Market Strategy for leading IT services companies. He delivered over 50 service management consulting assignments for various banking and finance, telecom, media, manufacturing, health care, and energy and utilities customers across the world.

He has helped many organizations define or evolve their organizational policies for service management and shaped their IT strategies. He transformed and turned around multiple failing accounts (customers). He has also been an entrepreneur for close to five years, building strategies and business and product solutions for his customers.

He authored *Making SIAM work: Adopting Service Integration and Management for Your Business* (the first book on SIAM), *Tackling Roadblocks During IT Implementation*, and an e-book *ITIL & Cloud Computing-A Glance*.

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I thank Brendon Joseph, who was my team leader when I started my journey in ITIL. Without his insistence, I don't know if I would've taken up my first ITIL training.

I also thank all the organizations that I have worked in for believing in me, my managers who turned over the reins to projects that taught me the nuances of ITIL, my customers who questioned the logic and have helped me shape and reflect on the designs, and my team, without whom I wouldn't have been able to complete the projects I embarked on. I also thank my students in various classroom and online trainings who helped me think like a trainer. Finally I thank my online readers who pestered me for a long time, asking why I hadn't written a book on ITIL yet.

Preface

When my first book, *Communication for IT Professionals*, got published, many people told me that they were surprised that it was a book on soft skills rather than on ITIL, due to my prowess in ITIL circles. I knew it was forthcoming, and as it happens often in the movies, an opportunity came knocking when my debut book hit the stands. An acquisition editor from Apress asked me if I was willing to publish a book on ITIL. We shook hands, and within a month, we set the ball rolling.

I have worked as an ITIL trainer. ITIL concepts are pretty dry, you may start mumbling them one after another. So, I found a way to make this interesting. I always explained the concepts with a couple of examples, one from non-IT and the other from IT. This trick worked, and the training feedback further justified my faith in providing examples. Even when I wrote articles on ITIL-based topics, I always added an example. And the appreciation came in! This is the approach that I have undertaken in this book. You will find plenty of examples to relate to and quickly learn the topic rather than memorize phrases for passing the examination.

I signed the book contract while I was working in Sydney, and wrote a few chapters before moving back to Bengaluru for the arrival of my second child. I lost the momentum that I had gathered in Sydney, and the book schedule got delayed, at least by four months. Toward the end, I burned the midnight oil a number of days to finish shaping the book that people always wanted me to write.

Although I have done several ITIL implementations, trainings, and consultations, the journey of *Become ITIL Foundation Certified in 7 Days* taught me several possibilities and new approaches that I hadn't thought of earlier. It helped to tighten my hold on the ITIL framework.

I am heartbroken that this book project that I traversed the past year has ended. However, it gives me a chance to look toward future book projects. I have several ideas: advanced ITIL topics, DevOps, project management, and last but definitely not the least priority, a fiction book. Time and ideas will dictate my next book!

Introduction

The people who undertake ITIL Foundation certification are more often than not IT professionals who work full time and are trying to cram training and certification exams in between. *Become ITIL Foundation Certified in 7 Days* is designed and organized for IT professionals who have the will to go the extra mile and have the motivation to learn and grow.

The book is organized to enable you to be certification exam ready by the end of the seventh day. It is structured to help you study for a couple of hours a day, and in seven days time, without any additional reading, write the ITIL Foundation exam successfully.

I have considered that each day you have around three hours to spare for ITIL Foundation preparation, and in just a week of preparation will earn you the certification that can turn your career on its head.

The book is structured based on the lifecycle phases of ITIL. So the journey through the book will take you through step-by-step building blocks on IT services and how they evolved and were designed, implemented, and maintained.

If you wish to skip ahead, you are not going to miss the connection, as each chapter stands on its own and elaborates on the specifics. However, it is common to find references and interfaces to previous phases.

Chapters 1 and 2 offer general management topics and can be used outside of ITIL too. However, these chapters are included as the information is used heavily in ITIL and forms the basis of many activities, processes, and functions. Chapter 3 introduces the ITIL lifecycle phases, and Chapters 4 through 8 are dedicated to each of the phases in ITIL. The final chapter, Chapter 9, provides all the tips and tricks you need to pass the exam. As a bonus, in this chapter, I have answered several frequently asked questions (FAQs) on ITIL-based careers. Alternatively, you can read Chapter 9 first, and then start from the first chapter to give you the context for questions you might have on the choice of an ITIL career.

CHAPTER 1



Service Management as a Practice

Activities in the information technology (IT) industry can be broadly categorized into IT projects (waterfall, agile, etc) and IT service management. The design, development, testing, and creation of computer programs, mobile applications, telecommunications, data processing, and analytics engines, among others, come under the IT projects' scope. The IT products that are developed need to be maintained on an ongoing basis. They need to be fixed when they break down. Thus, the IT service management sector must take care of the maintenance of these IT products. Maintenance activities include upkeep of the infrastructure and software the way it was designed to work. It further includes activities like monitoring jobs, patching, performing administrative tasks, handling batch tasks, and optimizing performance.

IT projects are driven through frameworks such as Waterfall and Agile methodologies. IT service management, on the other hand, runs on frameworks such as ITIL (Information Technology Infrastructure Library), COBIT (Control Objectives for Information and Related Technology), or MOF (Microsoft Operations Framework).

Let's start by discussing the importance of service management.

1.1 Importance of Service Management

When you buy a product, say a smartphone, what are some of the things that you will consider? You would look at the features, brand, and price for sure. But what else comes up on the list? Perhaps service-related options such as cost of servicing, warranty, availability of service centers, parts covered under the service, and turnaround times are important. In fact, today, a brand gets its value not only from the products it has on the market, but also on the service factor. Apple makes the most popular phone today in iPhone. What else makes the iPhone click? The international warranty, proximity to Apple stores across the globe, professional approach to fixing problems, and the no nonsense approach to keeping the customer happy are of foremost importance.

I repeat. A brand gets its value from the services it offers. Think of all the cars you have owned and the service comfort you have had within the service provider. Yes, the service provider plays a major role in keeping things in motion. It could be the tangibles such as your iPhone 7 or your Chevrolet car. Or, it could be intangibles such as electricity,

mobile Internet, and landscaping. The services offered collectively fall under service management, which branches out toward various specializations like IT, hospitality, and medicine. According to the ITIL publication, service management is defined as:

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

The specialized organizational capabilities point to the technical maturity, experience, customer service, and service frameworks that the service provider brings to the table in servicing the customers, meeting their needs, and creating value.

1.2 Introduction to IT Service Management

There was a time when there was business and then there was IT. Businesses had their set of practices and IT was a supporting agent, helping businesses achieve their tasks, like supplying the business with a word processor for drafting contracts and providing them the ability to compute complex formulas. Without IT, businesses could survive, although surely with some inconvenience.

Today, the world of business has been turned on its head. You take IT out of business and the business will cease to exist. In other words, there is no business without IT. The business relies on IT for its sustenance and IT is not a support function anymore. Rather, it is a partner that enables businesses to achieve their goals and succeed in beating their competitors. Try to think of a midsize business where IT may not be involved. Aha! I know your results came up blank. To reiterate, IT is a part of the business and there is no looking back.

IT service management is defined as the implementation and management of quality IT services that meet the needs of the business. IT services are provided by IT service providers (the entity that provides IT service to internal and external customers) through an appropriate mix of people, processes, and information technology.

There is increased pressure on IT to deliver on its services. IT must deliver services that not only meet its objectives, but also does it effectively and efficiently. And it must be done at a minimal possible cost. The competition in the IT service management industry is fierce. You have some of the biggest names playing ball, cutting down on the IT costs, and providing the best in class service. The world of IT service management is challenging with ever changing technology, exciting with innovative ideas coming into play, and at the same time a race that can be won only if you couple technology with management.

1.3 Welcome to the World of ITIL

The history of ITIL is nebulous and inconsistent. It started sometime during the late 1980s as a collection of best practices in IT management. A department in the UK government, known as the OGC (Office of Government Commerce), sanctioned the coalition. Basically, the best practices of various IT departments and companies in the United Kingdom were studied and documented. It is believed that most of the initial practices that constituted ITIL came from IBM.

The first version of ITIL was bulky and lacked direction with a compilation of over 30 books. The second version of ITIL was cut down to nine books in 2000, but mainly revolved around two books: service delivery and service support. The ITIL certifications were based on these two books as well. ITIL v2 introduced ten processes, five each from service delivery and service support. I started my ITIL journey with ITIL v2.

ITIL v2 was process centric. IT organizations were expected to operate around the ITIL processes. The processes were interconnected but lacked a broader vision and a flow to move things along.

The shortcomings and inadequacies in v2 gave rise to ITIL v3 in 2007. It had an excess of 20 processes, spanning across the entire lifecycle of a service, from conception up to a point where the service runs on regular improvement cycles. I will delve into the details in the Chapter 2.

ITIL v3 came out with five books, each book spanning a lifecycle phase of an IT service.

ITIL v3 has penetrated across most IT organizations. Even the conservative IT organizations have embraced the ITIL v3 service management framework with open arms. The framework is rampant in the industry today and enjoys the monopolistic nature, except for Microsoft, which adheres to a derivative version of ITIL, the Microsoft Operations Framework.

In 2011, ITIL v3 received a minor update where a couple of new processes were added along with some minute changes in definitions and concepts.

The latest version of ITIL is referred to as ITIL 2011 and some people refer to it as ITIL v3 2011, indicating the version and the revision year. It's been close to a decade since the new stable version was introduced, and colloquially people refer to it as simply ITIL, without any versions or revision years appended to it. ITIL currently has 26 processes and four functions.

1.4 Why ITIL Is Successful

ITIL has been dominant for the past two decades. There are no other service management frameworks that are competing for space. It is also quite lonely in the club of service management frameworks. Why do you think this is the case?

A lot of things have worked in ITIL's favor. It has a single objective—to deliver value to the business. To deliver unparalleled value, it has adopted the following characteristics:

- ITIL is based on best practices
- ITIL is nonprescriptive
- ITIL is vendor and technology neutral
- ITIL is nonproprietary

Let's examine each of these characteristics in detail.

1.4.1 ITIL Is Based on Best Practices

One of the chief reasons why ITIL is so successful is because it was born out of the management practices across leading IT services organizations. ITIL borrowed all its concepts from the best practices that existed at the time and has built on this stable foundation since then. Don't forget that the best practices discussed here are a result of efforts from the leaders of the IT services industry and invaluable experiences that made these companies successful in the first place.

1.4.2 ITIL Is Nonprescriptive

ITIL is a framework, not a set of policies and rules, but rather a set of guidelines and best practices. It has been time tested and adopted from the leading organizations and has gone through several iterations of improvements since its inception.

ITIL does not prescribe what the organizations must do. It describes the best practices in achieving service management-related objectives, and the organization implementing it is free to tweak and bend the process around the edges as needed. In other words, it gives you the flexibility that is needed, considering every service provider organization is different and no two businesses (customers) are the same.

1.4.3 ITIL Is Vendor and Technology Neutral

ITIL can be implemented across various technologies and across any organization. There are no limits, and any advancement in technology, including the cloud-based services, does not make ITIL obsolete.

I have seen ITIL implemented in hardcore IT services organizations, manufacturing companies, health care, retail, banking; in short, in any industry. I have worked on ITIL that was implemented in the legendary mainframe systems, as well as the modern SAP, data warehousing, mobile application, and cloud services technologies. ITIL has been just as effective with physical servers as it is with virtual machines. ITIL can work with the Waterfall methodology of project management, as well as the Agile methodology. Devops too! In short, it works no matter what you bring to the table.

1.4.4 ITIL Is Nonproprietary

ITIL is owned by the UK government. The mantle has been handed to Axelos to develop and manage the copyrighted ITIL publication, along with training and certification.

Organizations are free to implement ITIL. They are not required to pay any royalty, nor do they need to inform Axelos that they have implemented ITIL. The nonproprietary nature has made this service management framework far more popular and has brought in a number of experts to collaborate. Just like open source!

1.5 Best Practices Trump Proprietary Knowledge

As mentioned earlier, best practices are collated from various organizations. Some organizations may be doing a great job in gathering requirements, while others focus on identifying improvements. So, when you take the best of such organizations and bring that together, you have knowledge that is enviable.

Proprietary knowledge, on the other hand, stays within close quarters, and fewer heads have been banged together to come up with proprietary knowledge, which may be good, but not as diverse and experienced as public frameworks such as ITIL.

Proprietary knowledge is developed for the sole purpose of meeting the organization's objectives. It is not meant to be adapted and flexed to meet other organization objectives. Moreover, if you are adopting proprietary knowledge, you are expected to pay a fee or royalty of some kind. Public frameworks are free.

When you can get an all-you-can-eat buffet for free, why would you opt for a paid a-la-carte dinner?

1.6 Introduction to IT Service

As mentioned earlier, ITIL v3 is a framework that is centered on IT services. So, it is imperative to first understand the meaning of a service, according to ITIL. Here is the official definition of an IT service:

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

I will break the definition down, part by part, and also provide examples to help you comprehend the concept, which will be the core for everything else you will learn from this point forward.

1.6.1 Understanding the Definition

The best way to understand anything that is complex is to break it into parts. This is my method for understanding the concept of IT services.

The first section of the definition states: means of delivering value to customers by facilitating outcomes that customers want to achieve.

IT services in ITIL are defined from a customer viewpoint. Essentially, an IT service must deliver value to the customer. The value delivered must be something that the customer considers as helpful. Let's take the example of an IT service that is quite common across the board: the Internet. An Internet service delivers value to customers to help them achieve their objectives. So, it fits the bill of what an IT service is all about. If the Internet service provider (ISP) were to provide speeds upward of 100MB per second for a customer who only checks e-mails, it would be overkill. The high speeds offered by ISPs are generally appreciated by gamers and social networking users. In contrast, the customer who uses Internet for checking e-mails does not find any special value between

a high-speed Internet and a normal Internet connection. But for a user who hogs a lot of bandwidth, it is valuable. To summarize, the value of an IT service is derived from the customer's standpoint. So from this example, value to one customer may not be value to another.

Now the last part of the definition states: without the ownership of specific costs and risks.

The customer enjoys the service but does not pay for specific costs. Instead, they pay for the service as a lump sum. For example, in the Internet example, the customer pays for the high-speed Internet a fixed sum every month, not a specific price for the elements that make up a service, such as the infrastructure that supports it, the people who maintain and design, and the other governmental regulation costs. Instead, the customer just pays an agreed amount.

The final part of the definition states that the customer does not take ownership of the risks. Yes, but the Internet service provider does. What are some of the risks that exist in the IT world pertaining to ISPs?

- Fiber cuts
- Availability of support technicians
- Infrastructure stability among others

1.6.2 Understanding ITIL with a Non-IT Example

When I train ITIL students in a classroom setting, they often understand ITIL better when I relate the concepts of ITIL with non-IT examples. I am going to leverage on this teaching maturity in this book and provide non-IT examples at all crucial junctures.

Let's take an example of a lawn mowing service. It's a simple service and quite common in most parts of the world. The customer hires a landscaping company to mow the vast areas of lush lawn. The landscaping company sends in two landscapers, each handling a lawn mowing machine.

In this example, the customer pays an agreed rate to the landscaping company, and as per the agreement, the entire area where there is overgrown lawn will be mowed to 25 mm height. The landscaping company conveys the requirements to their landscapers, who go ahead and do what they are supposed to.

Let's relate this example to the ITIL service definition: delivering value to customers by facilitating outcomes that customers want to achieve. The customer gets value through the mowing of the lawn. This is exactly the service that the customer wanted in the first place and he has gotten it.

From the definition: without the ownership of specific costs and risks. The customer is paying a certain agreed amount to the landscaping company and not paying the specifics, such as the hourly wage for the landscapers, rent for the mowing machines, and other costs like fuel for mowing machines. The customer also does not own the risks. If the landscapers get hurt during the lawn mowing operation, it is not the customer's problem. If the mowing machines stutter and stop working, once again, the customer is not responsible. In other words, the customer does not own the risks that come from the service.

Thus, both parts of ITIL service are satisfied with the lawn mowing service example. I hope you now have a better understanding of the concept of ITIL service. If you have doubts, I suggest you reread these sections before proceeding any further.

1.7 Main Stakeholders in Service Management

Who are the stakeholders? The *Oxford* dictionary states a stakeholder is a person or persons having an interest or concern in something. So, this something here is service management. In a service management organization, you have a number of stakeholders, whom you'll learn about during our journey in learning ITIL. But the main ones who are absolutely necessary are:

- Customers
- Users
- Suppliers

1.7.1 Customers

Customers are perhaps the most common group across all businesses, projects, and management frameworks. The person who pays for the commodity or the delivery that he is getting in return is a customer. In service management, a customer pays for the service.

I will again explain with an example. An accounting company contracts with an Internet service provider to provide high-speed Internet. The accounting company is the customer as it is paying for the services. Simple enough?

1.7.2 Users

Now it gets confusing. You thought that a user was a customer, and now you will see that they have a different role, a prominent one, differentiated from the customer role. A user is someone who uses the service, not necessarily the one who pays for the service. A customer can also be a user, but the distinction is between the person paying and the one using the services.

In the earlier example, the accounting company's employees will use the Internet. They are the users. They don't pay for the service, they only use it.

At home, I pay for my Internet connection. I use the Internet as well. So, I am both the customer and the user.

1.7.3 Suppliers

The service provider leverages other parties to deliver the services. These third parties are referred to as suppliers, and they could provide hardware, software, services, or people.

Let's go back to the earlier example involving the accounting company obtaining Internet service through an ISP. The cabling between the ISP and the accounting company is managed by a different company. This other company is referred to as a supplier, as they are supplying their goods and services to the service provider, not to the customer.

1.8 Internal and External Customers

Not all customers are the same. They come in different shapes and colors. However, in the IT service management area, customers can be broadly divided into two types:

- Internal customers
- External customers

In this section, I'll explain the two types of customers and the differences between them. Figure 1-1 depicts the concepts of internal and external customers.

1.8.1 The Concept

In Figure 1-1, you will see two organizations: A and B. Organization B has multiple business units and an IT team as well. Organization A merely has business units and no IT team.

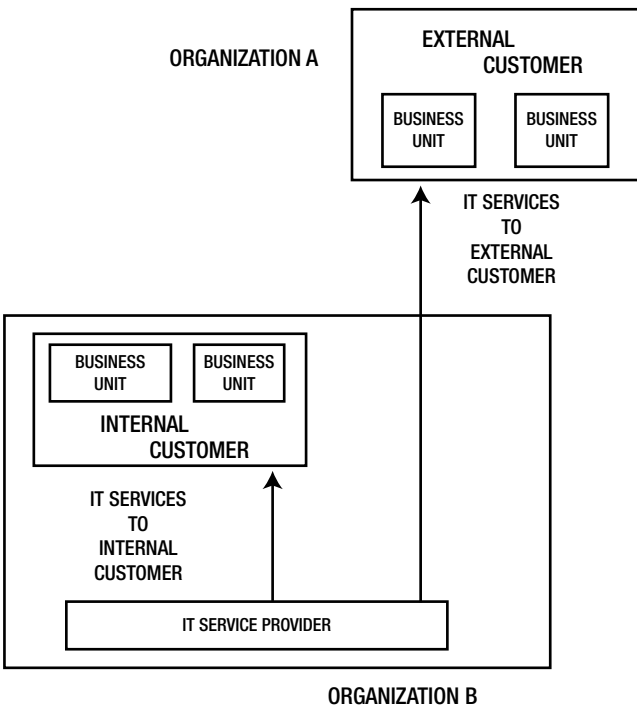


Figure 1-1. Internal and external customers

The business units within Organization B get their IT support from their own organization's IT team. As the business units and the IT teams are embedded within the same organization, the business units are considered to be internal customers for the IT teams.

Now you can guess who the external customers are, can't you? Organization A's business units get their IT support from Organization B. The key here is that the IT support is being provided for an entity outside the organization. This setup essentially makes Organization A external customers for the IT team sitting in Organization B.

1.8.2 The Difference

There is a world of difference between internal and external customers. Because internal customers are from the same organization, the level of service offered can be lax compared to that for an external customer. It is quite likely that an IT team could find themselves relaxed with the internal customers compared to external customers. Ideally, no organization would like their internal users being treated unequally over external customers. So, as a good practice, there are similar service-level agreements (SLA) in place between customers (for both internal and external) to set an expectation and to measure against it.

At the end of the day, it is really just business. The difference between internal and external customers is merely measured in terms of finances. External customers pay real money, and hence their importance is at a high. Internal customers, on the other hand, are an obligation, something that organization must tend to and cannot live without. The internal IT team charges the internal business units notionally. No real money gets transferred between the business units and the IT team, but is noted only in the ledgers. It's like taking money out of your left pocket and depositing it into your right pocket.

1.9 Processes

ITIL is made up of processes. Just as with services, you cannot get into the nitty gritty of ITIL if you don't understand the concept of a process. I will give you some examples to emphasize its importance, so that your foundation is strong for what you have to build on for your career. First, the official definition. ITIL defines a process as:

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

You could envision a process as a set of activities that you need to perform, one after another, to achieve something. Each activity that you perform sets the precedence for the next one, and then the next. The objective of a process would be to achieve an output that is along the expected lines and as desired.

Now for an example to make the concept simple and digestible. A process is very similar to a recipe for cooking a dish. In a recipe, you have several steps that you need to follow, as instructed, to get the dish you desire.