



Become ITIL® 4 Foundation Certified in 7 Days

Understand and Prepare for the
ITIL Foundation Exam with
Real-life Examples

Second Edition

Abhinav Krishna Kaiser

Apress®

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Abhinav Krishna Kaiser
Staines, UK

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*Dedicated to my wife Radhika and
my kids Anagha and Aadwik who endured
several hours away from me during “family time.”*

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About the Author



Abhinav Krishna Kaiser is a well-known authority in DevOps, Agile, and ITIL frameworks. He has developed DevOps architectures and transformed client organizations into Agile ways of working by playing the roles of an Agile architect and an Agile coach. He continues to innovate with novel ways of working and automation opportunities. His name is widely associated with the ITIL framework.

His most notable ITIL designs have been in the configuration management practice, where he has designed architectures in complex environments involving multiple interfaces and tools such as ServiceNow and BMC Atrium.

Abhinav has delivered numerous trainings in ITIL, DevOps, and Agile across the globe. His trainings are particularly powerful with the use of day to day examples to explain tough concepts.

He works as a senior manager in a leading consulting firm. He consults with client organizations in his areas of expertise. Being a consultant, he is always on the move. He is from Bangalore but currently lives in Staines-upon-Thames, United Kingdom. Abhinav is happily married to Radhika, and they have a daughter (Anagha) and a son (Aadwik).

Abhinav started as a blogger in 2004 when the world was getting to know blogs, and graduated to writing on famed websites such as Tech Republic and Plural Sight. His first book was on soft skills: *Workshop in a Box: Communication Skills for IT Professionals*. Then he wrote *Become*

ABOUT THE AUTHOR

ITIL Foundation Certified in 7 Days, which is one of the top guides for the ITIL V3 framework. His previous book was *Reinventing ITIL in the Age of DevOps*, wherein he tweaks and customizes the ITIL V3 framework to fit the contours of DevOps projects. This tweaked framework has been implemented across industries with great success.

Abhinav blogs and writes guides and articles on DevOps, Agile, and ITIL at <http://abhinavpmp.com>. While most of his works are associated with IT, he has a passion for fiction as well. He has written a few short stories on <http://indiancritic.com> and hopes to write a full length novel someday—hopefully not too far off in the future.

About the Technical Reviewer



Jaya Tiwari is an ISTQB®, PRINCE2®, ITIL®, PSM™ I, Lean Six Sigma Green Belt Certified test lead who has been working in the software telecom industry for the last ten years, with a focus on software quality assurance and best practices. She has managed departments encompassing all aspects of the software life cycle, including requirement design and analysis, software development, database design, software quality assurance, software testing, technical documentation, and reviews.

In addition to working as a “Test Professional”, Jaya is a Quality and Agile coach and provides trainings for ISTQB test certifications and Agile frameworks. She strongly believes that continuous learning and adaptation leads to a phenomenal transformation in every individual.

Preface

In 2017, two years before ITIL 4 hit the scene, I wrote *Become ITIL Foundation Certified in 7 Days*. When ITIL 4 was announced in 2018, I felt that I was hit by a crater. I had dodged several requests from publishers over the years, and when I finally decided to write a book on ITIL, the version was coming to a premature end. Nevertheless, my ITIL foundation book became an instant success within the year of publication and my publisher was soon knocking on my door again to write the second edition. I am thankful to all the readers of the first edition for extending their support in making my book the premier guide for taking up the ITIL Foundation examination. ITIL V3 may have been officially upgraded to ITIL 4, but the framework lives on. The logical sequence of developing a service from nothingness to a full-blooded beast is a journey that lives on in most organizations, and its greatest strength is that its application is still relevant to non-IT organizations. ITIL V3 is a beautiful framework that is evergreen and provides a strong foundation for ITIL 4 and DevOps to flourish.

When my publisher approached me for the second edition, I told them that the first and second editions are worlds apart. An edition change would generally have updates that are overshadowed by the remaining content of the book. In contrast, the book that I was asked to write as the second edition was going to be the polar opposite. I was going to rewrite at least 80 percent of the book; such was the change between the two ITIL versions.

Between my first and second editions, I wrote a book in 2018 on an ITIL framework that would work in DevOps projects. *Reinventing ITIL in the Age of DevOps* was built on ITIL V3 and considered tweaks and

PREFACE

customizations to the organization structures, and most ITIL processes went under the scanner for DevOps refitting. Plus, special emphasis and opportunities were identified where technology and automation could be employed for increasing efficiency and reducing defects. The framework tweak that I proposed in the book is relevant with ITIL 4, as some of the tweaks that I had preempted in my framework have been considered in ITIL 4 and blend seamlessly.

One of the core principles of ITIL is to give liberty for service architects to come up with a framework design that fits the organization. *Reinventing ITIL in the Age of DevOps* adapts the ITIL framework to work for DevOps, in the process prescribing ITIL for projects that work in a DevOps mode. If you are looking to get into ITIL or transition into ITIL 4 from ITIL V3, *Become ITIL 4 Foundation Certified in 7 Days* is your go-to book. If you are looking to implement ITIL in a DevOps setting, *Reinventing ITIL in the Age of DevOps* should be your best bet.

I started my ITIL journey way back in 2005-2006 with the second version of ITIL. I grew rapidly from being an ITIL practitioner to an ITIL consultant and undertook several ITIL implementations over the years. My perspective of the world of services changed as I started donning the role of a service architect and then eventually the ITIL Expert track that I embarked on. As I started to explore ITIL and manipulate services to get the intended results, the ITIL framework workings seemed like second nature to me. I headed the training and consulting practice in an organization and conducted hundreds of Foundational and Expert-level trainings. I gained fame and positions of authority, and then something happened.

An organization change resulted in me getting grouped with DevOps consultants and the DevOps practice. At around the same time, my manager who was familiar with my expertise (which was ITIL at the time and not DevOps) quit the organization. A new manager took over and one day while I was packing up, walked up to me and said: “Abhinav, I am looking at you to be one of the DevOps trainers.” I could have told him that I am not DevOps, but ITIL. I remained silent and accepted the assignment.

For the next month and a half, I ate, slept, and dreamed DevOps and DevOps alone. I studied everything on DevOps that I could get my hands on. In those days, DevOps resources were few and far between, unlike today.

The assignment started and I began with a bang. Combined with my training prowess, DevOps knowledge that I had acquired made me an instant success. I started training IT developers and testers across multiple continents for the next 12 months on various DevOps concepts and processes. My life had changed the moment I remained silent, and I never looked back at my decision to jump ship from one segment of IT to another. As I delved deeper into DevOps, it was apparent that DevOps and ITIL were not worlds apart, and there was a bridge that was believed to be too far. Through this and my *Reinventing* book, I hope that I have brought the two parcels of IT together.

As the world is getting flatter, so are the different branches in IT. They all seem to be converging under the DevOps umbrella. Prior to my DevOps career, I would have sworn that you are either in service management or in project management (development) and your career will go into either of these areas. These days, I see the convergence. I have designed DevOps architectures where both development and service management happen in the same hut, and the same set of people are responsible for both. When you read *Become ITIL 4 Foundation Certified in 7 Days*, have an open mind. Do not be of the view that this is something that you do not do, so it is not important. You may not be doing it today, but tomorrow's responsibilities are anybody's guess.

This book does not only prepare you for the exam, but a world that is dauntingly getting unified with DevOps. The book will help you become a fully rounded IT professional who is set for what the future has to offer.

Introduction

Predictability is a critical quality of planning in IT. Preparing for an IT certification is no different. I have tried to imbue this quality in *Become ITIL 4 Foundation Certified in 7 Days*. Working professionals need to know the kind of time commitments that need to be set aside for taking up new trainings for certification exams. The entire book is sliced into 7 unequal parts, and I have suggested how you could read the book and complete it in 7 days. I have gone one step ahead and also estimated the time that you may require to read and understand every chapter. This will give you a decent handle on planning your learning activities.

I must also remind you that ITIL is nonprescriptive; in the same spirit, the 7 days that I have put forth is a suggestion and not a prescription. I have considered a common working IT professional who has about an hour a day after office hours. If you have more time on your hands, then you can finish it faster. If you have only weekends, then two weekends may be what you need. Plan your study to suit your needs. At the end of the day, there is no point in getting stressed over setting targets that are not achievable. As they say, we must plan toward achieving success and not make the target so steep that failure seems imminent.

If you are new to ITIL, you might find the going a little rough getting used to the service management concepts. To help you wade through these waters, Chapters 1, 2, and 3 are especially for you. I have explained the basics of ITIL and DevOps with day to day examples to help you grasp the concepts.

ITIL 4 gets going from Chapter 4. If you are coming from ITIL V3, you will find that the concepts such as service value system, service value chain, and four dimensions are completely new. Yes, they have been

INTRODUCTION

introduced in ITIL 4. They are, however, not completely novel; they are derived from the service lifecycle that you are familiar with. When you read through Chapters 4 and 5, you will realize that ITIL V3 and ITIL 4 are not much different after all.

What we used to call processes in ITIL V3 is referred to as practices in ITIL 4. It is not the same though. There are no functions. ITIL 4 takes a different view of clubbing process and functions together to come up with practices.

Every chapter (3-14) ends with exercises. They are aimed toward helping you recollect the chapter contents and to prepare you for the upcoming examination. Remember that definitions are especially important in ITIL Foundation exams; this one is no different. Understanding concepts is necessary and, alongside memorizing the definitions, helps you in easy recall. Axelos provides a sample paper as well, which you must plan to attempt before the certification exam. I have provided these details in Chapter 14. For those who have questions on ITIL-based careers, I have answered a select few frequently asked questions in Chapter 14.

There are 34 practices in ITIL, and you will not be studying all of them for the examination. Fifteen practices are considered in the syllabus for ITIL 4 Foundation examination. If you are interested in the practices that are outside the scope of the exam, head over to my blog (<http://abhinavpmp.com>) where the remaining practices are laid out.

DAY 1

Approximate Study Time: 1 hour and 12 minutes

Chapter 1 - 25 minutes

Chapter 2 - 47 minutes

On the first day of your ITIL 4 Foundation journey you will get into the overview, history, and differences between ITIL 4 and ITIL V3, and you will learn DevOps concepts and processes. The details of the ITIL Foundation certification examination are covered, and the other ITIL certifications on offer are discussed.

CHAPTER 1

Introduction to the New ITIL

ITIL is in its fourth incarnation, and the new one has something exciting to offer. It not only offers a new variant of a framework to manage services but provides a fresh perspective into the world of services. This is especially interesting because the boundary between the development stage and operations stage is not razor thin but rather has vanished into thin air. With the absence of a barrier to distinguish the activities surrounding development stages and operational activities, the relevance of ITIL as a framework to manage operations has been scrutinized. The answer is a new version of ITIL that is tailored for the digital age.

ITIL is widely employed across IT organizations in various levels of maturity and implementation. It is the standard today to run IT operations. With the advent of the digital age and DevOps, the principles and the core understanding of management of services were somewhat shaken. A new version of ITIL was conceived to adapt to the fast-changing IT world and to keep the principal service management framework relevant.

In fact, several eulogies were written to extol the service management framework that stood guard for at least two and a half decades. It was felt that in this age of *digital everything*, the service-focused ITIL V3 was obsolete.

Why ITIL 4?

ITIL has come a long way. It started out being Information Technology Infrastructure Library (ITIL) and then moved into the realm of all things service management. Now in its fourth avatar as the digital ITIL, the framework is making a strong comeback.

When ITIL 4 was announced in 2017, more people feared than rejoiced. The primary concern was the certifications that people held. Traditionally, ITIL certifications become redundant with the advent of newer versions, and the bridge course is generally a bridge too far. “You might as well study the whole thing instead” was the talk of the town.

Apart from the certification pangs, others who knew the industry and where it was headed felt a tad happy to see a refresh. They felt that the refresh was late by at least 4 to 5 years; nevertheless, better late than never.

There was a question that everybody had. ITIL V3 was so much more successful than anything that was out there. Every organization practicing service management opted for it without a blink of an eye. The framework was rugged; nonprescriptive; technology neutral; and free to be adopted, adapted, and implemented. Why was a new framework needed? The answer is simple: it was out of touch with the times.

ITIL V3 Was Not for the Digital Age

ITIL V3 reminded me of Nokia. When the cell phone age started, the word cell phone was synonymous with Nokia and vice versa. And when the touchscreen phones became a reality, Nokia just faded into the background. The reason can be as straightforward as that the company did not keep up with the changing times, and they continued to invest in traditional phones with keys rather than with screens that are touch sensitive. The result was disastrous. They realized it a bit too late for them to return with a thumping roar, and they remain on the sidelines.

With ITIL too, the story would have been similar had it remained with ITIL V3. Like Nokia, ITIL V3 and service management mean the same. There is no alternative, absolutely no opposition or a competitor to it. Yet its mere existence was doubted as we embarked into the digital age. Many critics and digital champions wrote eulogies for ITIL and basically said that in the age when change happens at the speed of light, a traditional and process-driven framework has absolutely no room to play. The digital age needed plenty of agility, dynamism, and rapid decision making. ITIL V3 with its phases, processes, and functions was never going to cut it, they said.

It was then that the company behind ITIL, AXELOS, initiated a refresh by reaching out to about 2,000 professionals from various organizations to come together with the single objective of creating a framework that was agile and innovative. The outcome is ITIL 4.

Emergence of DevOps

There was an explosion that made tradition get locked up in a box, and two distinct parts of IT had to come together under the same umbrella. Development and operations had always been at loggerheads and had been the IT industry's favorite blame game. If too many incidents were reported, the development side of things was blamed. If resolution took too long, the developers pegged it on the operational inefficiencies. While the industry had accepted living with this arrangement, Patrick Debois had other plans. He proposed that all the inefficiencies could be put to rest and synergy amplified by asking development and operations to work as a single unit. No more blame games and no more passing the buck; only collaboration, he surmised.

Not that the industry fell all over the DevOps methodology when it was first socialized. But when it got into the biggies such as Accenture and IBM, every other company wanted to get into this model. In fact, running projects in a DevOps model became a sales pitch. The customers too wanted the new shiny thing and headed towards the DevOps methodology.

Underneath the game of development and operations, there was a major shift that the IT industry witnessed. It was no longer project management and service management that drove the combined parts that came together. It was rather replaced by product management. So, everything that we knew about project and service management became obsolete and there was hunger for the digital ways of thinking. It came in Agile flavors in the place of project management; then there was Lean that promised cutbacks and minimalism; and finally, on the operations front, there were hubbubs that operations was no longer needed if the product management was done brilliantly. They said that if you provide a perfect product without defects, then what incidents would operations resolve, and what was the need to go through the whole nine yards of service management? The industry did not really buy into the concept of no ops but instead started to look for options to take over from the mighty ITIL that had dominated the service management space. This is when the new ITIL was announced and this was the time when my work toward reinventing ITIL began.

In a DevOps project, essentially the development of a product happens alongside the operations. More often than not, there will be a single product backlog to feed off from, and the same set of people are tasked with working on both sets of activities. This changes the equation for ITIL V3 to work in a way that is most commonly implemented—take, for example, the change management process. It is meant to be a governance

process that builds into a certain level of bureaucracy. And bureaucracy takes time to process due to various approvals and checks and balances. DevOps is like a startup company. It does not like bureaucracy. It does not believe in waiting unless there is a real dependency. In this situation, how do you implement change management for a DevOps project? How can you keep both sides happy? Maybe standardize all forms of changes? Think again! Does it defeat the purpose of the change management process if all changes are to be standardized? Perhaps. Most likely. Likewise, there are several conflicts and contradictions that came out while designing ITIL for a DevOps project. The major one was the ITIL's service lifecycle.

Incompatible Service Lifecycle

ITIL V3's biggest USP (Unique Selling Proposition) from its previous version was the logical beginning to identify services and its lifecycle. The definition of the entire lifecycle of a service brought a new meaning to how services were valued and defined. This literally was the game changer.

There are five phases in the ITIL V3 service lifecycle:

1. Service strategy
2. Service design
3. Service transition
4. Service operations
5. Continual service improvement

The five phases are represented in Figure 1-1.

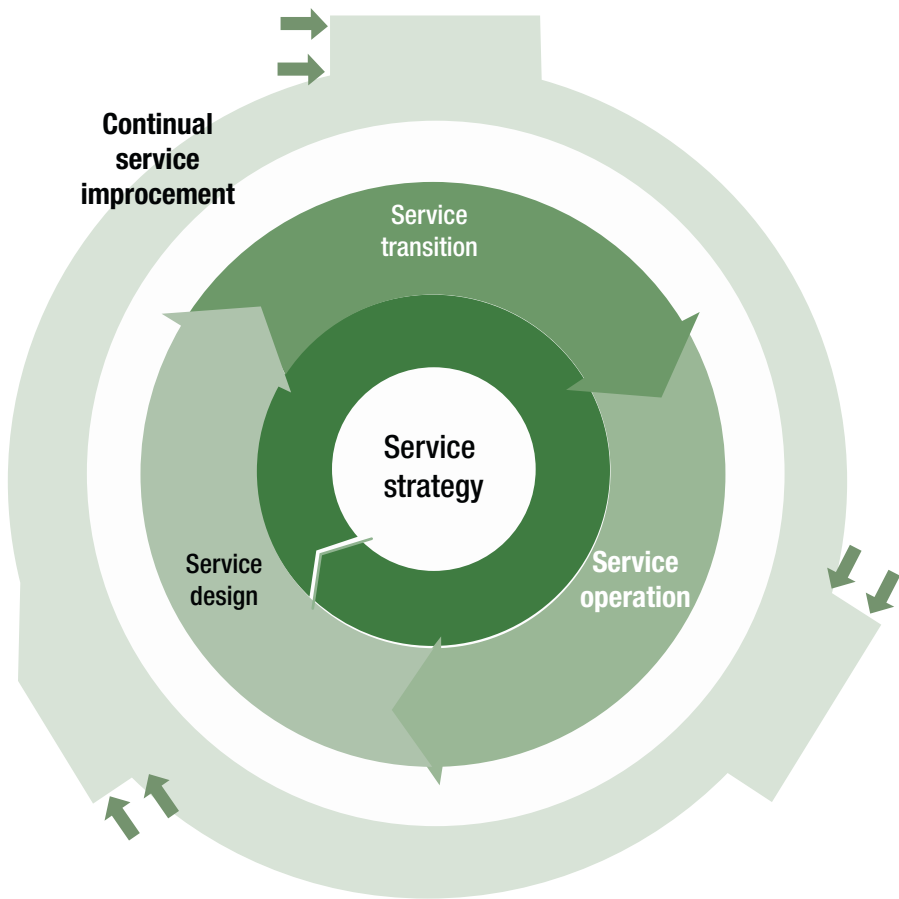


Figure 1-1. *ITIL V3 service lifecycle*

It shows service strategy at the core to indicate the importance and involvement of a sound strategy in the inception of IT services. Service strategy provides guidance around existing and new IT services. Surrounding service strategy are service design, service transition, and service operations. Service design provides the direction pertaining to realization of a service. The IT services that are identified in the service strategy are defined and designed, and blueprints are created for their development. These designs are built, tested, and implemented in the