ITIL 4® Foundation
Course introduction

v1.1

Trusted partner for your Digital Journey

Course introduction

Group introduction

- Name
- Role within organization
- Professional experience
- What do You know about ITIL?
- Expectations for this training
- What is your hobby?

Course introduction

The purpose of the course

The ITIL 4 Foundation qualification is intended to introduce candidates to the management of modern IT-enabled services, to provide them with an understanding of the common language and key concepts, and to show them how they can improve their work and the work of their organization with ITIL 4 guidance. Furthermore, the qualification will provide the candidate with an understanding of the ITIL 4 service management framework and how it has evolved to adopt modern technologies and ways of working.

Course introduction

Learning objectives

Candidates can expect to gain knowledge and understanding in the following upon successful completion of the education and examination components related to this certification.

- Understand the key concepts of service management
- Understand how the ITIL guiding principles can help an organization adopt and adapt service management
- Understand the four dimensions of service management
- Understand the purpose and components of the ITIL service value system
- Understand the activities of the service value chain, and how they interconnect
- Understand ITIL practices

Course introduction

Course agenda

Day	Topics covered
Day 1, 2	Course introduction
	Key concepts of service management
	ITIL guiding principles
	ITIL Practices
Day 3,4	ITIL Practices (cont.)
	Four dimensions
	ITIL service value system and service value chain
	MOCK 1, MOCK 2

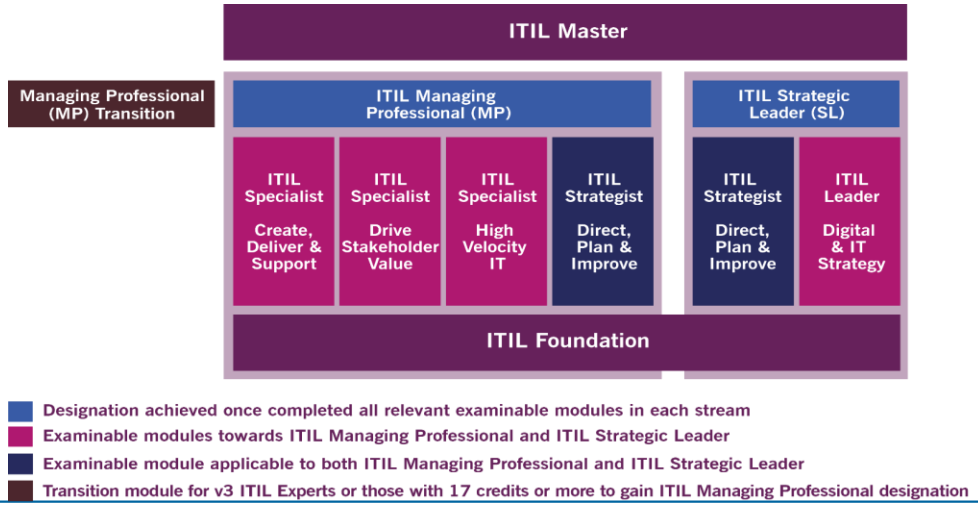
Course introduction

Daily agenda

	Start	Stop	Duration
Morning session 1	08:00	09:30	01:30
Coffee break	09:30	09:45	00:15
Morning session 2	09:45	10:45	01:00
Cofee break	10:45	11:00	00:15
Morning session 3	11:00	12:00	01:00
~~**Coffee break**~~	~~14:45~~	~~15:00~~	~~00:15~~
~~**Afternoon session 2**~~	~~15:00~~	~~17:00~~	~~02:00~~
Homework	Up to You (1-2 hours recommended)		

Course introduction

ITIL 4 qualification scheme



ITIL has led the ITSM industry with guidance, training, and certification programmes for more than 30 years. ITIL 4 brings ITIL up to date by re-shaping much of the established ITSM practices in the wider context of customer experience, value streams, and digital transformation, as well as embracing new ways of working, such as Lean, Agile, and DevOps.

ITIL 4 provides the guidance organizations need to address new service management challenges and utilize the potential of modern technology. It is designed to ensure a flexible, coordinated and integrated system for the effective governance and management of IT enabled services.

Course introduction

Exam overview

Material allowed	None	This is a 'closed book' exam. The ITIL Foundation publication, ITIL 4 edition, should be used for study, but is NOT permitted to be used in the exam.
Exam duration	60 minutes	Candidates taking the exam in a language that is not their native or working language may be awarded 25% extra time, i.e. 75 minutes in total.
Number of marks	40 marks	There are 40 questions, each worth 1 mark. There is no negative marking.
Provisional Pass mark	26 marks	You will need to get 26 questions correct (65%) to pass the exam.
Level of thinking	Bloom's levels 1 & 2	"Bloom's level" describes the type of thinking needed to answer the question. For Bloom's level 1 questions, you need to recall information about the ITIL 4 service management framework. For Bloom's 2 questions, you need to show understanding of these concepts.
Question types	Classic, Negative, Missing word, & List	The questions are all 'multiple choice'.

Thanks

For more information please contact:

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ITIL 4® Foundation

Key concepts of service management

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Key concepts of service management

Service management

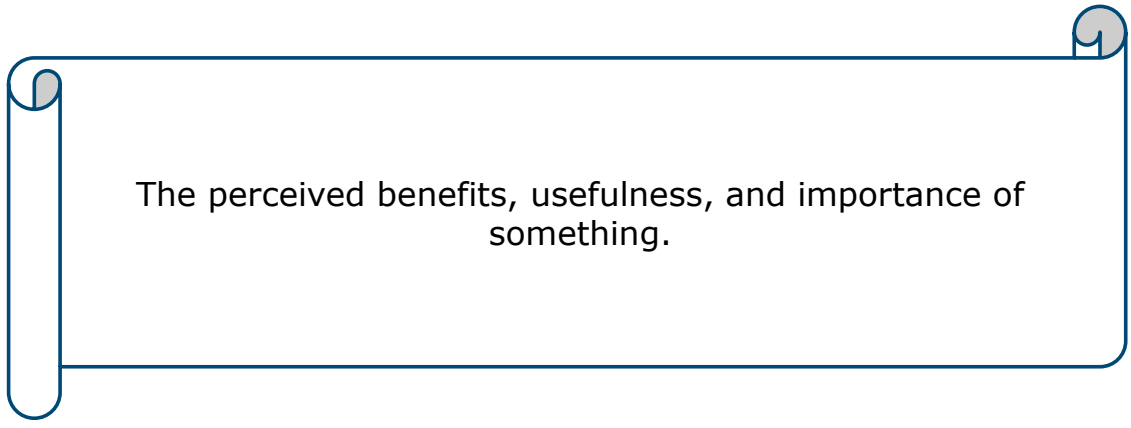
A set of specialized organizational capabilities for enabling value for customers in the form of services.

Developing the specialized organizational capabilities mentioned in the definition requires an understanding of:

- the nature of value
- the nature and scope of the stakeholders involved
- how value creation is enabled through services.

Key concepts of service management

Value



Inherent in this definition is the understanding that value is subject to the perception of the stakeholders, whether they are the customers or consumers of a service, or part of the service provider organization(s). Value can be subjective.

Key concepts of service management

Organization

A person or a group of people that has its own functions with responsibilities, authorities, and relationships to achieve its objectives.

Organizations vary in size and complexity, and in their relation to legal entities, from a single person or a team to a complex network of legal entities united by common objectives, relationships, and authorities.

As societies and economies evolve, the relationships between and within organizations become more complex. Each organization depends on others in its operation and development. Organizations may hold different roles, depending on the perspective under discussion. For example, an organization that coordinates adventure vacations can fill the role of a service provider to a travel agent when it sells a vacation, while simultaneously filling the role of service consumer when it purchases hang-gliding outings to add to their vacation packages.

Key concepts of service management

Service consumer - Customer, user, sponsor

Service consumer roles

Customer – the role that defines the requirements for a service and takes responsibility for the outcomes of service consumption

User – the role that uses the services

Sponsor – the role that authorizes budget for service consumption

When receiving services, an organization takes on the role of **the service consumer**.

Service consumer is a generic role that is used to simplify the definition and description of the structure of service relationships. In practice, there are more specific roles involved in service consumption, such as customers, users, and sponsors. These roles can be separated or combined.

A key focus of service management, and of ITIL, is the way that organizations co-create value with their consumers through service relationships. Beyond the consumer and provider roles, there are usually many other stakeholders that are important to value creation. Examples of these include individual employees of the provider organization, partners and suppliers, investors and shareholders, government organizations such as regulators, and social groups.

For the success, and even the continued existence of an organization, it is important that relationships with all key stakeholder groups are understood and managed. If stakeholders are unhappy with what the organization does or how it does it, the provider's relationships with its consumers can be in jeopardy.

Key concepts of service management

Service, product

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.

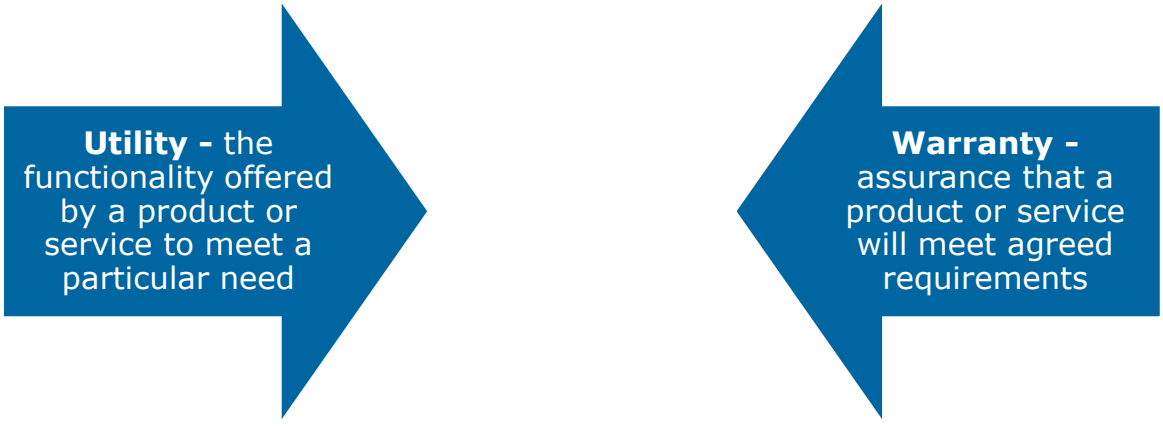
Product - a configuration of an organization's resources designed to offer value for a consumer

Each product that an organization offers is created with a number of target consumer groups in mind, and the products will be tailored to appeal to, and meet the needs of, these groups. A product is not exclusive to one consumer group, and can be used to address the needs of several different groups. For example, a software service can be offered as a 'lite' version, for individual users, or as a more comprehensive corporate version.

Products are typically complex and are not fully visible to the consumer. The portion of a product that the consumer actually sees does not always represent all of the components that comprise the product and support its delivery. Organizations define which product components their consumers see, and tailor them to suit their target consumer groups.

Key concepts of service management

Utility, Warranty

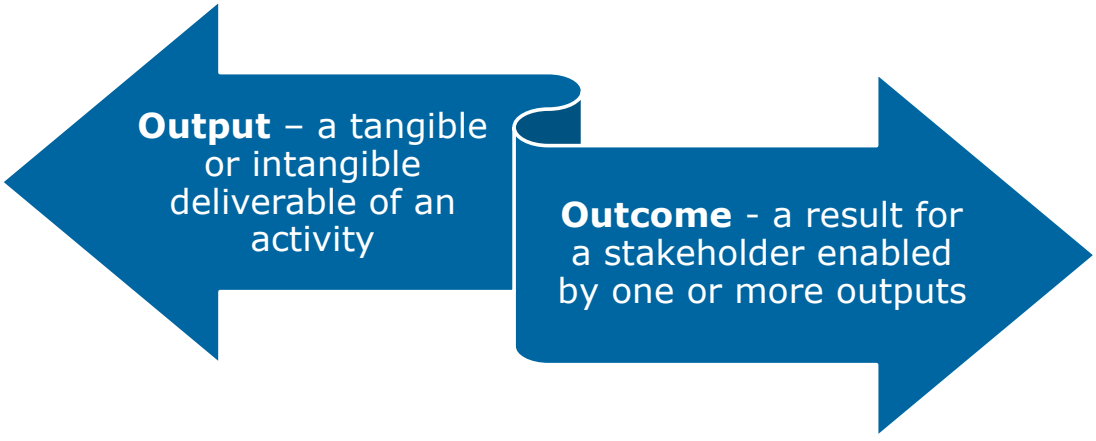


Utility The functionality offered by a product or service to meet a particular need. Utility can be summarized as **'what the service does'** and can be used to determine whether a service is **'fit for purpose'.** To have utility, a service must either support the performance of the consumer or remove constraints from the consumer. Many services do both.

Warranty Assurance that a product or service will meet agreed requirements. Warranty can be summarized as **'how the service performs'** and can be used to determine whether a service is **'fit for use'**. Warranty often relates to service levels aligned with the needs of service consumers. This may be based on a formal agreement, or it may be a marketing message or brand image. Warranty typically addresses such areas as the availability of the service, its capacity, levels of security and continuity. A service may be said to provide acceptable assurance, or 'warranty', if all defined and agreed conditions are met.

Key concepts of service management

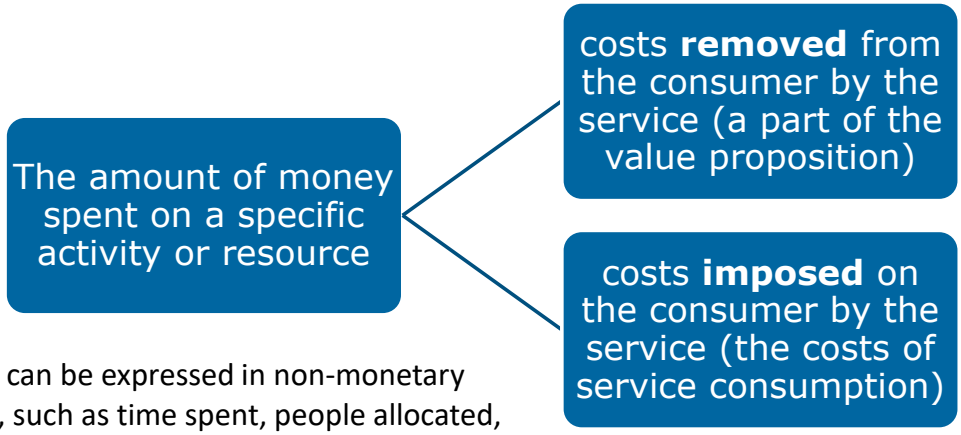
Output, outcome



It is important to be clear about the difference between outputs and outcomes. For example, one output of a wedding photography service may be an album in which selected photos are artfully arranged. The outcome of the service, however, is the preservation of memories and the ability of the couple and their family and friends to easily recall those memories by looking at the album.

Key concepts of service management

Cost



Costs can be expressed in non-monetary terms, such as time spent, people allocated, etc.

From the service consumer's perspective, there are two types of cost involved in service relationships:

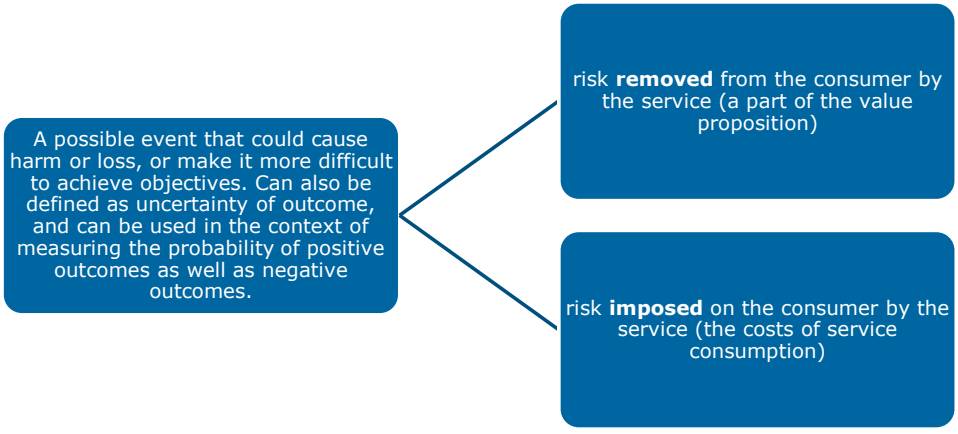
- costs removed from the consumer by the service (a part of the value proposition). This may include costs of staff, technology, and other resources, which the consumer does not need to provide

- costs imposed on the consumer by the service (the costs of service consumption). The total cost of consuming a service includes the price charged by the service provider (if applicable), plus other costs such as staff training, costs of network utilization, procurement, etc. Some consumers describe this as what they have to 'invest' to consume the service.

Both types of cost are considered when the consumer assesses the value which they expect the service to create. To ensure that the correct decisions are made about the service relationship, it is important that both types of cost are fully understood.

Key concepts of service management

Risk



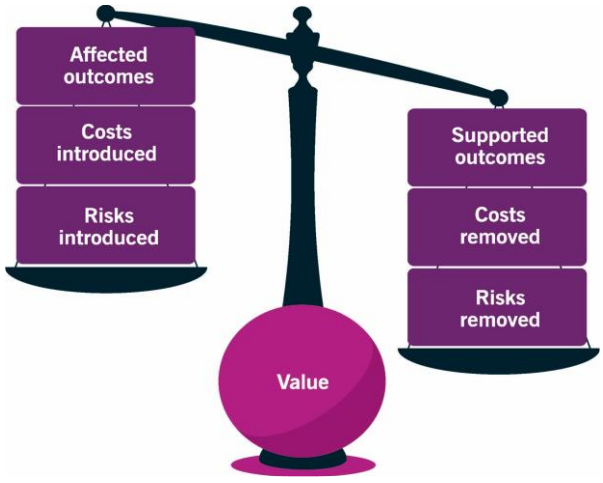
As with costs, there are two types of risk that are of concern to service consumers:

- risks removed from a consumer by the service (part of the value proposition). These may include failure of the consumer's server hardware or lack of staff availability. In some cases, a service may only reduce a consumer's risks, but the consumer may determine that this reduction is sufficient to support the value proposition

- risks imposed on a consumer by the service (risks of service consumption). An example of this would be a service provider ceasing to trade, or experiencing a security breach.

Key concepts of service management

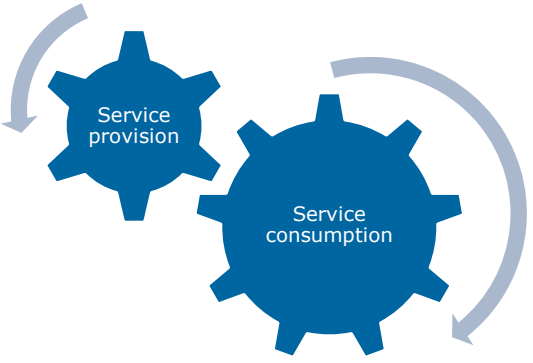
Value: outcomes, costs, and risks



Key concepts of service management

Service relationship

A cooperation between a service provider and service consumer. Service relationships include service provision, service consumption, and service relationship management.



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.

Key concepts of service management

Service provision

Service provision - activities performed by an organization to provide services. Service provision includes:

- management of the provider's resources, configured to deliver the service
- access to these resources for users
- fulfilment of the agreed service actions
- service level management and continual improvement.

Service provision may also include the supplying of goods.

Key concepts of service management

Service consumption

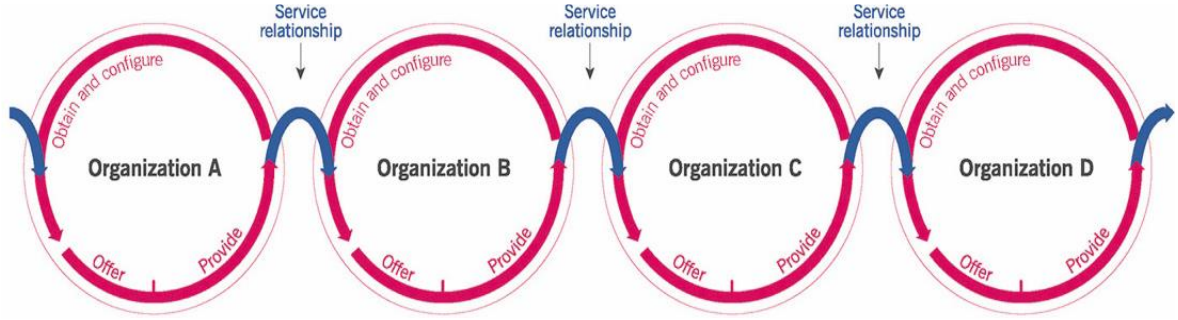
Service consumption - activities performed by an organization to consume services. Service consumption includes:

- management of 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

Service consumption may also include the receiving (acquiring) of goods.

Key concepts of service management

Service relationship model



When services are delivered by the provider, they create new resources for service consumers, or modify their existing ones. For example:

- a training service improves the skills of the consumer's employees
- a broadband service allows the consumer's computers to communicate
- a car-hire service enables the consumer's staff to visit clients
- a software development service creates a new application for the service consumer.

Key concepts of service management

Service offering

A 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 offerings may include:

- **goods** to be supplied to a consumer (for example, a mobile phone). Goods are supposed to be transferred from the provider to the consumer, with the consumer taking the responsibility for their future use.
- **access to resources** granted or licensed to a consumer under agreed terms and conditions (for example, to the mobile network, or to the network storage). The resources remain under the provider's control and can be accessed by the consumer only during the agreed service consumption period.
- **service actions** performed to address a consumer's needs (for example, user support). These actions are performed by the service provider according to the agreement with the consumer.

Key concepts of service management

Exercise 1, output, outcome, service consumers roles

Please consider real ITSM initiatives in which you participated in the past.

List the causes why the ITSM initiative in your organization was fruitful or was a disappointment.

Each group:

- chooses one real ITSM initiative, in which group participated, success of fiasco
- briefly describes the selected initiative:
    - what service or feature has been implemented/improved during the initiative?
    - who has performed the main service consumers roles (sponsor, customer, user)?
    - what was the result of the initiative outcomes, outputs and value/business benefits achieved?

List 4 to 5 reasons why the initiative was successful/failed

Time 30 minutes

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ITIL 4® Foundation

The ITIL guiding principles

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The ITIL guiding principles

Definition

A guiding principle is a recommendation that guides 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.

The guiding principles defined here embody the core messages of ITIL and of service management in general, supporting successful actions and good decisions of all types and at all levels. They can be used to guide organizations in their work as they adopt a service management approach and adapt ITIL guidance to their own specific needs and circumstances. The guiding principles encourage and support organizations in continual improvement at all levels.

These principles are also reflected in many other frameworks, methods, standards, philosophies, and/or bodies of knowledge, such as Lean, Agile, DevOps, and COBIT. This allows organizations to effectively integrate the use of multiple methods into an overall approach to service management.

The guiding principles are universally applicable to practically any initiative and to all relationships with stakeholder groups.

The ITIL guiding principles

Overview

- Focus on value
- Start where you are
- Progress iteratively with feedback
- Collaborate and promote visibility
- Think and work holistically
- Keep it simple and practical
- Optimize and automate

The ITIL guiding principles

Focus on value

Key message

Everything the organization does should link back, directly or indirectly, to value for itself, its customers, and other stakeholders.

This section is mostly focused on the creation of value for service consumers. However, a service also contributes to value for the organization and other stakeholders. This value may come in various forms, such as revenue, customer loyalty, lower cost, or growth opportunities. The following recommendations can be adapted to address various stakeholder groups and the value that is created for them by the organization.

The ITIL guiding principles

Focus on value – key aspects

Who is the service consumer?

When focusing on value, the first step is to know who is being served. In each situation the service provider must, therefore, determine who the service consumer is and who the key stakeholders are (for example, customers, users, or sponsors. In doing this, the service provider should consider who will receive value from what is being delivered or improved.

The consumer's perspectives of value

Next the service provider must understand what is truly of value to the service consumer. The service provider needs to know:

- why the consumer uses the services
- what the services help them to do
- how the services help them achieve their goals
- the role of cost/financial consequences for the service consumer
- the risks involved for the service consumer.

Value can come in many forms, such as increased productivity, reduced negative impact, reduced costs, the ability to pursue new markets, or a better competitive position. Value for the service consumer:

- is defined by their own needs
- is achieved through the support of intended outcomes and optimization of the service consumer's costs and risks

- changes over time and in different circumstances.

The customer experience

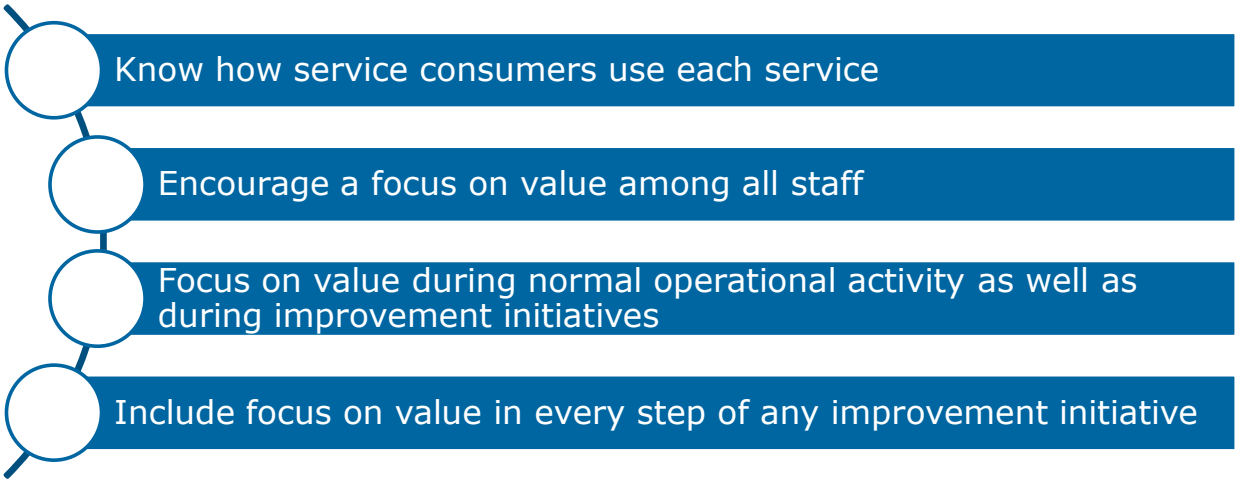
An important element of value is the experience that service consumers have when they interact with the service and the service provider. This is frequently called customer
experience (CX) or user experience (UX) depending on the adopted definitions, and it must be actively managed.

CX can be defined as the entirety of the interactions a customer has with an organization and its products. This experience can determine how the customer feels about the organization and its products and services.
User experience (UX) - the sum of functional and emotional interactions with a service and service provider as perceived by a user.

CX is both objective and subjective. For example, when a customer orders a product and receives what they ordered at the promised price and in the promised delivery time, the success of this aspect of their experience is objectively measurable. On the other hand, if they don't like the style or layout of the website they are ordering from, this is subjective. Another customer might really enjoy the design.

The ITIL guiding principles

Focus on value – applying the principle



To apply this principle successfully, consider this advice:

- **Know how service consumers use each service** Understand their expected outcomes, how each service contributes to these, and how the service consumers perceive the service provider. Collect feedback on value on an ongoing basis, not just at the beginning of the service relationship.
- **Encourage a focus on value among all staff** Teach staff to be aware of who their customers are and to understand CX.
- **Focus on value during normal operational activity as well as during improvement initiatives** The organization as a whole contributes to the value that the customer perceives, and so everybody within the organization must maximize the value they create. The creation of value should not be left only to the people working on exciting projects and new things.
- **Include focus on value in every step of any improvement initiative** Everybody involved in an improvement initiative needs to understand what outcomes the initiative is trying to facilitate, how its value will be measured, and how they should be contributing to the co-creation of that value.

The ITIL guiding principles

Start where you are

Key message

In the process of eliminating old, unsuccessful methods or services 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 necessary, or a 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 over without first considering what is already available to be leveraged.

Assess where you are

Services and methods already in place should be measured and/or observed directly to properly understand their current state and what can be re-used from them. Decisions on how to proceed should be based on information that is as accurate as possible. Within organizations there is frequently a discrepancy between reports and reality. This is due to the difficulty of accurately measuring certain data, or the unintentional bias or distortion of data that is produced through reports. Getting data from the source helps to avoid assumptions which, if proven to be unfounded, can be disastrous to timelines, budgets, and the quality of results.

Those observing an activity should not be afraid to ask what may seem to be stupid questions. It can sometimes be beneficial for a person with little or no prior knowledge of the service to be part of the observation, as they have no preconceptions of the service, and may spot things that those more closely involved with it would miss.

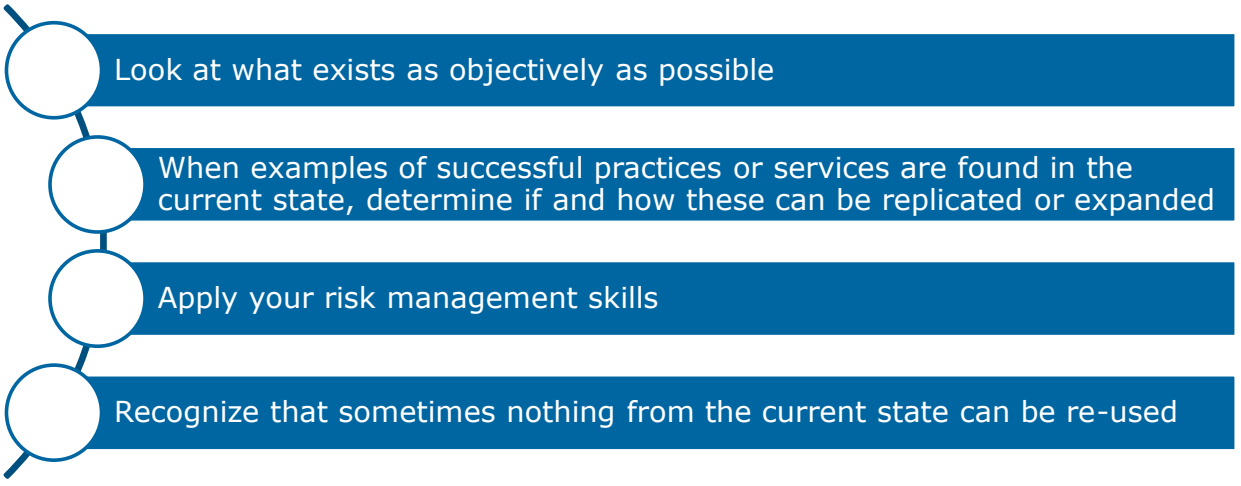
The role of measurement

The use of measurement is important to this principle. It should, however, be used to support the analysis of what has been observed rather than to replace it, as over-reliance on data analytics and reporting can unintentionally introduce biases and risks in decision-making. Organizations should consider a variety of techniques to develop knowledge of the environments in which they work. Although it is true that some things can only be understood through measuring their effect (for example, natural phenomena such as the wind), direct observation should always be the preferred

option. Too often existing data is used with no consideration of direct personal investigation.

The ITIL guiding principles

Start where you are - applying the principle



Applying the principle

Having a proper understanding of the current state of services and methods is important to selecting which elements to re-use, alter, or build upon. To apply this principle successfully, consider this advice:

- Look at what exists as objectively as possible, using the customer or the desired outcome as the starting point. Are the elements of the current state fit for purpose and fit for use? There are likely to be many elements of the current services, practices, projects, and skills that can be used to create the desired future state, provided the people making this judgement are objective.
- When examples of successful practices or services are found in the current state, determine if and how these can be replicated or expanded upon to achieve the desired state. In many, if not most, cases, leveraging what already exists will reduce the amount of work needed to transition from the current state to the desired state. There should be a focus on learning and improvement, not just replication and expansion.
- Apply your risk management skills. There are risks associated with re-using existing practices and processes, such as the continuation of old behaviors that are damaging to the service. There are also risks associated with putting something new in place, such as new procedures not being performed correctly. These should be considered as part of the decision-making process, and the risks of making or not making a change evaluated to decide on the best course of action.
- Recognize that sometimes nothing from the current state can be re-used. Regardless

of how desirable it may be to re-use, repurpose and recycle, or even upcycle, there will be times when the only way to achieve the desired result is to start over entirely. It should be noted, however, that these situations are very rare.

The ITIL guiding principles

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.

The role of feedback

Whether working to improve a service, group of services, practice, process, technical environment, or other service management element, no improvement iteration occurs in a vacuum. While the iteration is being undertaken, circumstances can change and new priorities can arise, and the need for the iteration may be altered or even eliminated. Seeking and using feedback before, throughout, and after each iteration will ensure that actions are focused and appropriate, even in changing circumstances.

A feedback loop is a term commonly used to refer to a situation where part of the output of an activity is used for new input. In a well-functioning organization, feedback is actively collected and processed along the value chain. Well-constructed feedback mechanisms facilitate understanding of:

- end user and customer perception of the value created
- the efficiency and effectiveness of value chain activities
- the effectiveness of service governance as well as management controls
- the interfaces between the organization and its partner and supplier network
- the demand for products and services.

Once received, feedback can be analyzed to identify improvement opportunities, risks, and issues.

Iteration and feedback together

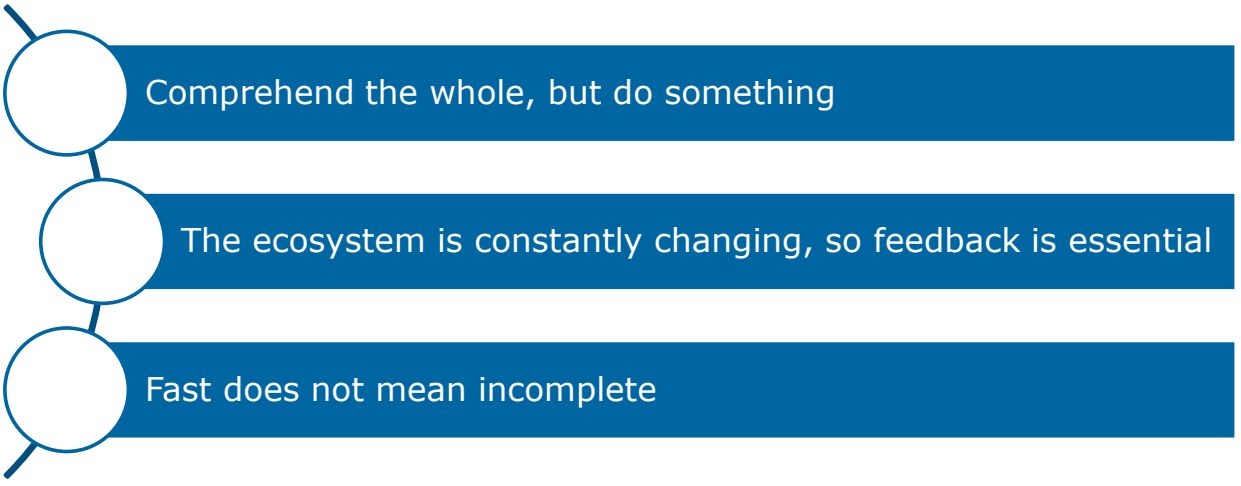
Working in a timeboxed, iterative manner with feedback loops embedded into the process allows for:

- greater flexibility
- faster responses to customer and business needs
- the ability to discover and respond to failure earlier
- an overall improvement in quality.

Having appropriate feedback loops between the participants of an activity gives them a better understanding of where their work comes from, where their outputs go, and how their actions and outputs affect the outcomes, which in turn enables them to make better decisions.

The ITIL guiding principles

Progress iteratively with feedback - applying the principle



Applying the principle

To apply this principle successfully, consider this advice:

- **Comprehend the whole, but do something** Sometimes the greatest enemy to progressing iteratively is the desire to understand and account for everything. This can lead to what is sometimes called ‘analysis paralysis’, in which so much time is spent analysing the situation that nothing ever gets done about it. Understanding the big picture is important, but so is making progress.
- **The ecosystem is constantly changing, so feedback is essential** Change is happening constantly, so it is so important to seek and use feedback at all times and at all levels.
- **Fast does not mean incomplete** Just because an iteration is small enough to be done quickly does not mean that it should not include all the elements necessary for success. Any iteration should be produced in line with the concept of the minimum viable product. A minimum viable product is a version of the final product which allows the maximum amount of validated learning with the least effort.

The ITIL guiding principles

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.

Creative solutions, enthusiastic contributions, and important perspectives can be obtained from unexpected sources, so inclusion is generally a better policy than exclusion. Cooperation and collaboration are better than isolated work, which is frequently referred to as 'silo activity'. Silos can occur through the behavior of individuals and teams, but also through structural causes. This typically happens where functions or business units in an organization are impeded or unable to collaborate, because their processes, systems, documentation, and communications are designed to fulfil the needs of only a specific part of the organization. Applying the guiding principle of think and work holistically can help organizations to break down barriers between silos of work.

Recognition of the need for genuine collaboration has been one of the driving factors in the evolution of what is now known as DevOps. Without effective collaboration, neither Agile, Lean, nor any other ITSM framework or method will work.

The ITIL guiding principles

Collaborate and promote visibility

Whom to collaborate with

Identifying and managing all the stakeholder groups that an organization deals with is important, as the people and perspectives necessary for successful collaboration can be sourced within these stakeholder groups. As the name suggests, a stakeholder is anyone who has a stake in the activities of the organization, including the organization itself, its customers and/or users, and many others. The scope of stakeholders can be extensive.

The first and most obvious stakeholder group is the customers. The main goal of a service provider is to facilitate outcomes that its customers are interested in, so the customers have a large stake in the service provider's ability to manage services effectively. Some organizations, however, do a poor job of interacting with customers. A service provider may feel that it is too difficult to get input or feedback from the customer, and that the resulting delays are a waste of time. Equally, customers may feel that, after they have defined their requirements, the service provider can be left to deliver the service with no further contact needed. When it comes to the improvement of a service provider's practices, the customer may not see any need to be involved at all. In the end, however, the right level of collaboration with customers will lead to better outcomes for the organization, its customers, and other stakeholders. Other examples of stakeholder collaboration include:

- developers working with other internal teams to ensure that what is being

developed can be operated efficiently and effectively. Developers should collaborate with technical and non-technical operational teams to make sure that they are ready, willing, and able to transition the new or changed service into operation, perhaps even participating in testing. Developers can also work with operations teams to investigate defects (problems) and to develop workarounds or permanent fixes to resolve these defects

- suppliers collaborating with the organization to define its requirements and brainstorm solutions to customer problems
- relationship managers collaborating with service consumers to achieve a comprehensive understanding of service consumer needs and priorities
- customers collaborating with each other to create a shared understanding of their business issues
- internal and external suppliers collaborating with each other to review shared processes and identify opportunities for optimization and potential automation.

The ITIL guiding principles

Collaborate and promote visibility

Insufficient visibility of work leads to poor decision-making, which in turn impacts the organization's ability to improve internal capabilities. It will then become difficult to drive improvements as it will not be clear which ones are likely to have the greatest positive impact on results. To avoid this, the organization needs to perform such critical analysis activities as:

- understanding the flow of work in progress
- identifying bottlenecks, as well as excess capacity
- uncovering waste

Communication for improvement

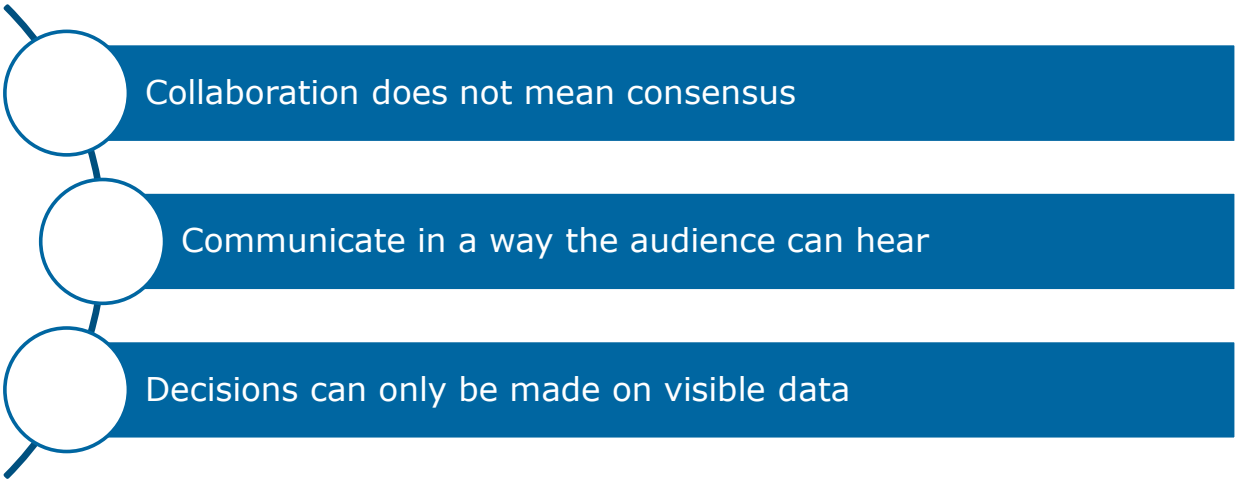
The contribution to improvement of each stakeholder group at each level should be understood; it is also important to define the most effective methods to engage with them. For example, the contribution to improvement from customers of a public cloud service may be through a survey or checklist of options for different functionalities. For an internal customer group, the contribution to improvement may come from feedback solicited via a workshop or a collaboration tool on the organization's intranet.
Some contributors may need to be involved at a very detailed level, while others can simply be involved as reviewers or approvers. Depending on the service and the relationship between the service provider and the service consumer, the expectations about the level and type of collaboration can vary significantly.

Increasing urgency through visibility

When stakeholders (whether internal or external) have poor visibility of the workload and progression of work, there is a risk of creating the impression that the work is not a priority. If an initiative is communicated to a team, department, or another organization and then is never, or rarely, mentioned again, the perception will be that the change is not important. Equally, when staff members attempt to prioritize improvement work versus other tasks that have daily urgency, improvement work may seem to be a low-priority activity unless its importance has been made transparent and it is supported by the organization's management.

The ITIL guiding principles

Collaborate and promote visibility - applying the principle



Applying the principle

To apply this principle successfully, consider this advice:

- **Collaboration does not mean consensus** It is not necessary, or even always wise, to get consensus from everyone involved in an initiative before proceeding. Some organizations are so concerned with getting consensus that they try to make everyone happy and end up either doing nothing or producing something that does not properly suit anyone's needs.
- **Communicate in a way the audience can hear** In an attempt to bring different stakeholders into the loop, many organizations use very traditional methods of communication, or they use the same method for all communication. Selecting the right method and message for each audience is critical for success.
- **Decisions can only be made on visible data** Making decisions in the absence of data is risky. Decisions should be made about what data is needed, and therefore what work needs to be made visible. There may be a cost to collecting data, and the organization must balance that cost against the benefit and intended usage of the data.

The ITIL guiding principles

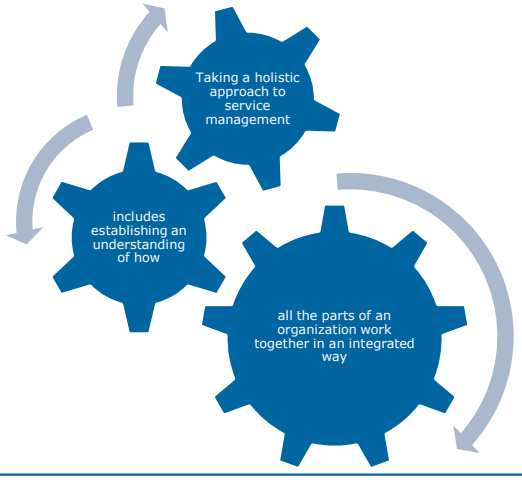
Think and work holistically

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.

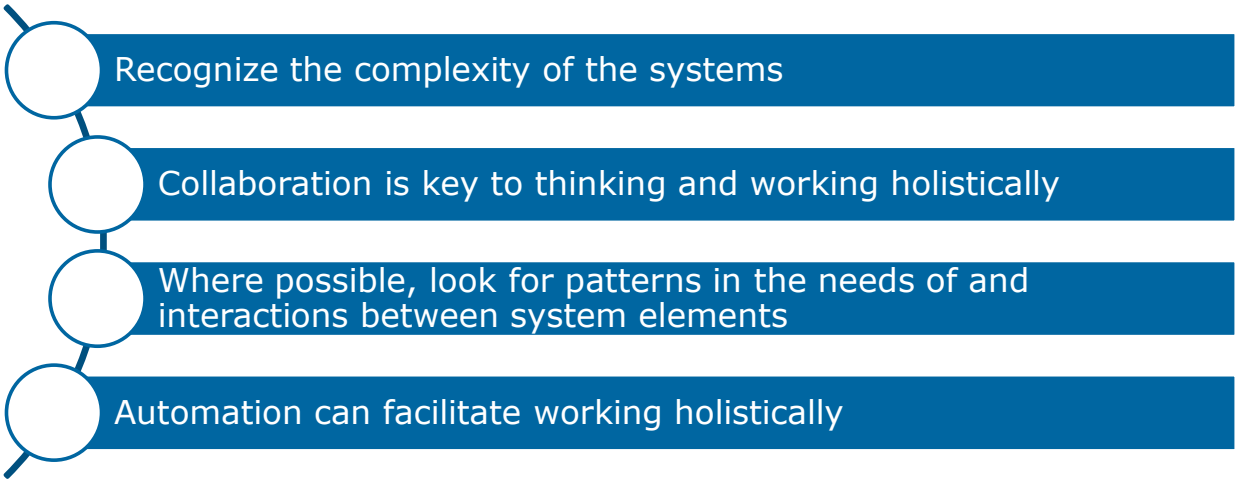
The ITIL guiding principles

Think and work holistically



The ITIL guiding principles

Think and work holistically - applying the principle



Applying the principle

To apply this principle successfully, consider this advice:

- **Recognize the complexity of the systems** Different levels of complexity require different heuristics for decision-making. Applying methods and rules designed for a simple system can be ineffective or even harmful in a complex system, where relationships between components are complicated and change more frequently.
- **Collaboration is key to thinking and working holistically** If the right mechanisms are put in place for all relevant stakeholders to collaborate in a timely manner, it will be possible to address any issue holistically without being unduly delayed.
- **Where possible, look for patterns in the needs of and interactions between system elements** Draw on knowledge in each area to identify what is essential for success, and which relationships between elements influence the outcomes. With this information, needs can be anticipated, standards can be set, and a holistic view point can be achieved.
- A**utomation can facilitate working holistically** Where the opportunity and sufficient resources are available, automation can support end-to-end visibility for the organization and provide an efficient means of integrated management.

The ITIL guiding principles

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.

The ITIL guiding principles

Keep it simple and practical

Trying to provide a solution for every exception will often lead to over-complication

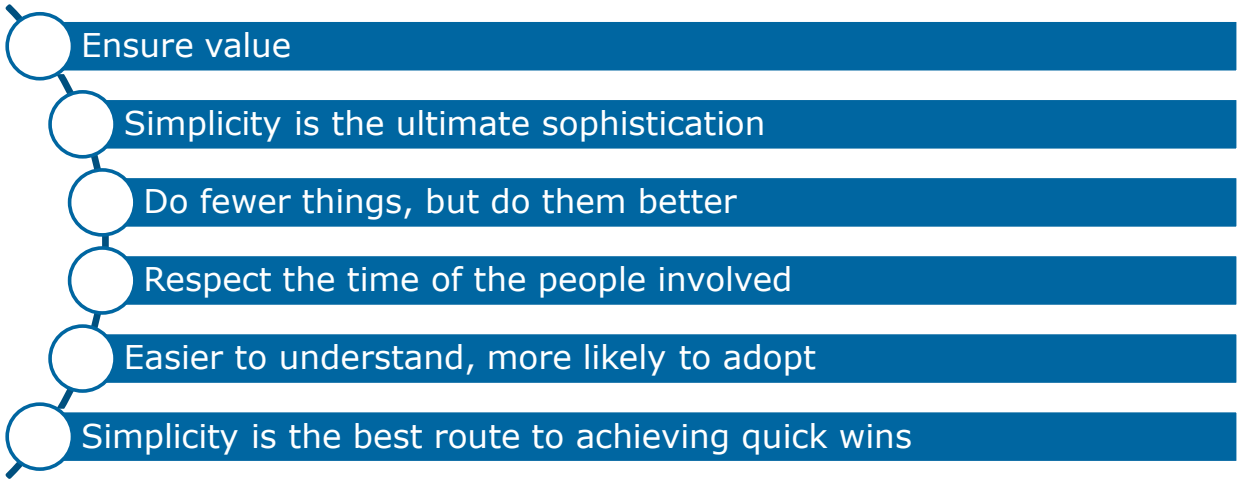
When analyzing a practice, process, service, metric, or other improvement target, always ask whether it contributes to value creation

When designing or improving service management, it is better to start with an uncomplicated approach

When designing, managing, or operating practices, be mindful of conflicting objectives

The ITIL guiding principles

Keep it simple and practical - applying the principle



Applying the principle

To apply this principle successfully, consider this advice:

- **Ensure value** Every activity should contribute to the creation of value.
- **Simplicity is the ultimate sophistication** It may seem harder to simplify, but it is often more effective.
- **Do fewer things, but do them better** Minimizing activities to include only those with value for one or more stakeholders will allow more focus on the quality of those actions.
- **Respect the time of the people involved** A process that is too complicated and bureaucratic is a poor use of the time of the people involved.
- **Easier to understand, more likely to adopt** To embed a practice, make sure it is easy to follow.
- **Simplicity is the best route to achieving quick wins** Whether in a project, or when improving daily operations activities, quick wins allow organizations to demonstrate progress and manage stakeholder expectations. Working in an iterative way with feedback will quickly deliver incremental value at regular intervals.

The ITIL guiding principles

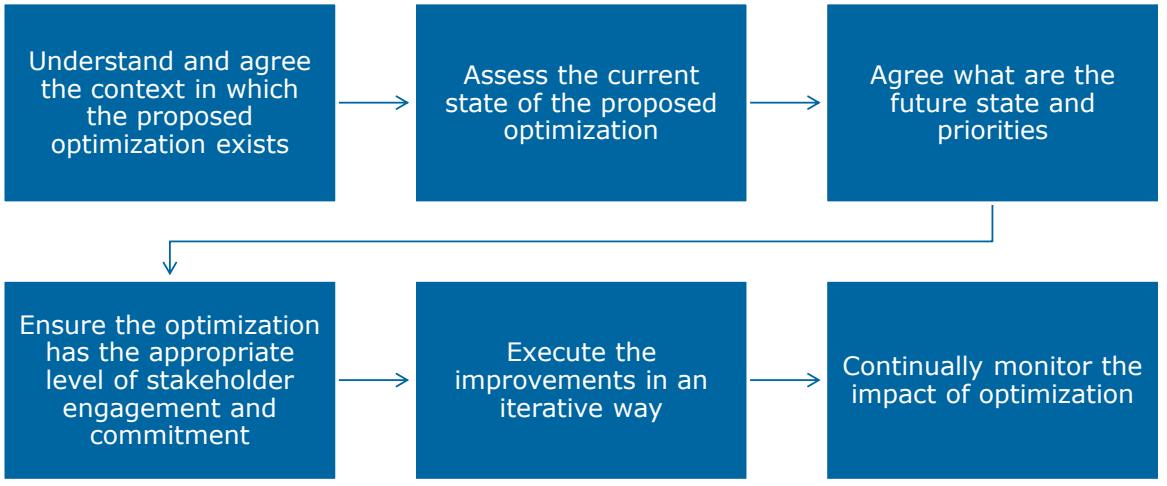
Optimize and automate

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.

The ITIL guiding principles

Optimize and automate – the road to optimization



The road to optimization

There are many ways in which practices and services can be optimized. The concepts and practices described in ITIL, particularly the practices of continual improvement, and measurement and reporting, are essential to this effort. The specific practices an organization uses to improve and optimize performance may draw upon guidance from ITIL, Lean, DevOps, Kanban, and other sources. Regardless of the specific techniques, the path to optimization follows these high-level steps:

- **Understand and agree the context in which the proposed optimization exists** This includes agreeing the overall vision and objectives of the organization.
- **Assess the current state of the proposed optimization** This will help to understand where it can be improved and which improvement opportunities are likely to produce the biggest positive impact.
- **Agree what the future state and priorities of the organization should be, focusing on simplification and value** This typically also includes standardization of practices and services, which will make it easier to automate or optimize further at a later point.
- **Ensure the optimization has the appropriate level of stakeholder engagement and commitment**
- **Execute the improvements in an iterative way** Use metrics and other feedback to check progress, stay on track, and adjust the approach to the optimization as

needed.

- **Continually monitor the impact of optimization** This will help to identify opportunities to improve methods of working.

The ITIL guiding principles

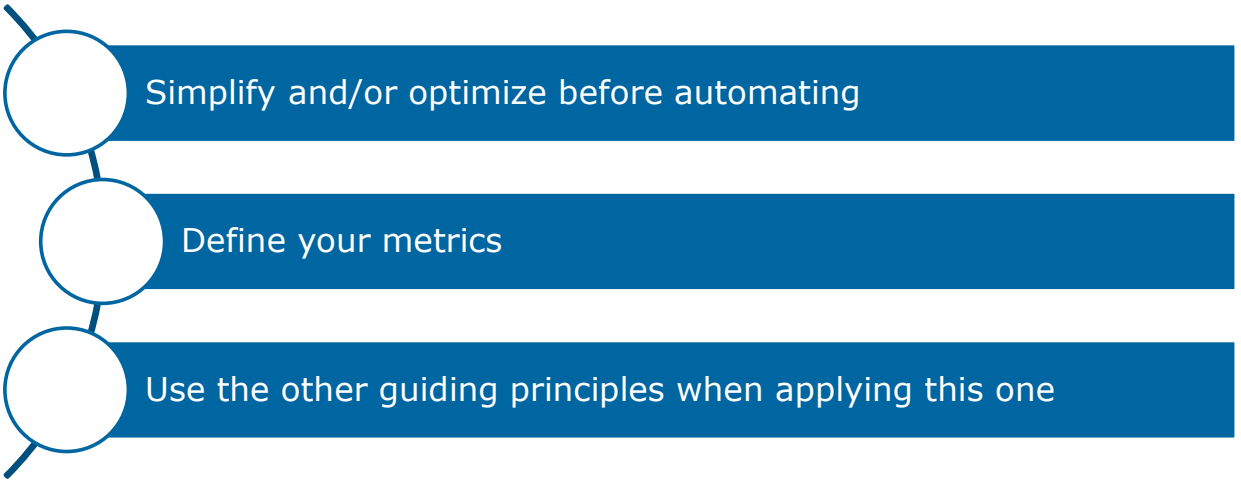
Optimize and automate – using automation

Automation typically refers to the use of technology to perform a step or series of steps correctly and consistently with limited or no human intervention.

For example, in organizations adopting continuous deployment, it refers to the automatic and continuous release of code from development through to live, and often automatic testing occurring in each environment. In its simplest form, however, automation could also mean the standardization and streamlining of manual tasks, such as defining the rules of part of a process to allow decisions to be made 'automatically'. Efficiency can be greatly increased by reducing the need for human involvement to stop and evaluate each part of a process.

The ITIL guiding principles

Optimize and automate – applying the principle



To apply this principle successfully, consider this advice:

- **Simplify and/or optimize before automating** Attempting to automate something that is complex or sub-optimal will not be likely to achieve the desired outcome. Take time to map out the standard and repeating processes as far as possible, and streamline where you can (optimize). From there you can start to automate.
- **Define your metrics** The intended and actual result of the optimization should be evaluated using an appropriate set of metrics. Use the same metrics to define the baseline and measure the achievements. Make sure that the metrics are outcome-based and focused on value.
- **Use the other guiding principles when applying this one** When optimizing and automating, it is smart to follow the other principles as well:
    - **Progress iteratively with feedback** Iterative optimization and automation will make progress visible and increase stakeholder buy in for future iterations.
    - **Keep it simple and practical** It is possible for something to be simple, but not optimized, so use these two principles together when selecting improvements.
    - **Focus on value** Selecting what to optimize and automate and how to do so should be based on what will create the best value for the organization.
    - **Start where you are** The technology already available in the organization may have features and functionalities that are currently untapped or underutilized.

The ITIL guiding principles

Principle interaction

- As well as being aware of the ITIL guiding principles, it is also important to recognize that they interact with and depend upon each other.
- Organizations should not use just one or two of the principles, but should consider the relevance of each of them and how they apply together. Not all 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

Agile and ITIL principles compared

Agile Manifesto	ITIL guiding principles
Individuals and interactions over processes and tools	Keep it simple and practical Start where you are
Working software over comprehensive documentation	Focus on value Think and work holistically
Customer collaboration over contract negotiation	Focus on value Collaborate and promote visibility
Responding to change over following a plan	Progress iteratively with feedback Keep it simple and practical

The ITIL guiding principles

Exercise 2

The same groups as in the previous exercise

Please allocate suitable guiding principles to the explanations for the fruitful/disappointment of initiative described by you in Exercise 1

For successful initiative - what guiding principles were used for the initiative, and why missed principles (if existed) did not impact this initiative in negative way ?

For failed initiative - what guiding principles were missed in the initiative and why ?
What should be done better next time?

Time 30 minutes

Thanks

For more information please contact:

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ITIL practices

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ITIL practices

Definition

A **practice** is a set of organizational resources designed for performing work or accomplishing an objective

General management practices	Technical management practices	Service management practices

ITIL practices

Overview

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	

ITIL practices

Continual improvement

The purpose of the continual improvement practice is to align the organization's practices and services with changing business needs through the ongoing identification and improvement of services, service components, practices, or any element involved in the efficient and effective management of products and services.

Definition: Continual improvement register

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

To track and manage improvement ideas from identification through to final action, organizations use a database or structured document called a continual improvement register (CIR). There can be more than one CIR in an organization, as multiple CIRs can be maintained on individual, team, departmental, business unit, and organizational levels.

Some organizations maintain a single master CIR, but segment how it is used and by whom at a more granular level.

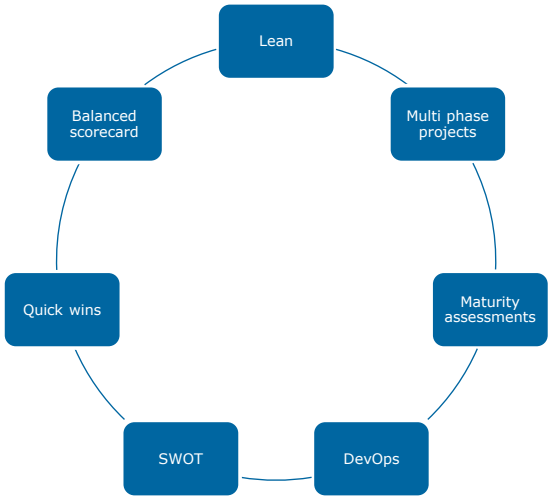
ITIL practices

Continual improvement – key activities

- encouraging continual improvement across the organization
- securing time and budget for continual improvement
- identifying and logging improvement opportunities
- assessing and prioritizing improvement opportunities
- making business cases for improvement action
- planning and implementing improvements
- measuring and evaluating improvement results
- coordinating improvement activities across the organization

ITIL practices

Continual improvement – methods and techniques

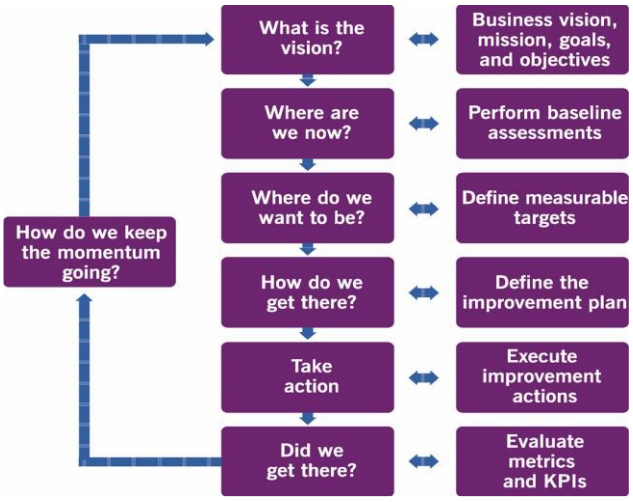


Continual improvement is everyone's responsibility. Although there may be a group of staff members who focus on this work full-time, it is critical that everyone in the organization understands that active participation in continual improvement activities is a core part of their job.

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, as well as in contracts with external suppliers and contractors.

ITIL practices

Continual improvement – the model



ITIL practices

Continual improvement – the model

Step	Description
What is the vision?	Each improvement initiative should support the organization's goals and objectives. The first step of the continual improvement model is to define the vision of the initiative. This provides context for all subsequent decisions and links individual actions to the organization's vision for the future.
Where are we now?	The success of an improvement initiative depends on a clear and accurate understanding of the starting point and the impact of the initiative
Where do we want to be?	Just as the previous step (Step 2) describes Point A on the improvement journey, Step 3 outlines what Point B, the target state for the next step of the journey, should look like. A journey cannot be mapped out if the destination is not clear.
How do we get there?	Details the CSI plan to achieve the vision

ITIL practices

Continual improvement – the model (cont.)

Step	Description
Take action	In Step 5 the plan for the improvement is acted upon.
Did we get there?	Too often, once an improvement plan is set in motion, it is assumed that the expected benefits have been achieved, and that attention can be redirected to the next initiative. In reality, the path to improvement is filled with various obstacles, so success must be validated.
How do we keep the momentum going?	If the improvement has delivered the expected value, the focus of the initiative should shift to marketing these successes and reinforcing any new methods introduced. This is to ensure that the progress made will not be lost and to build support and momentum for the next improvements.

ITIL practices

Continual improvement – heat map

Value chain activity	Contribution
Plan	The continual improvement practice is applied to planning activities, methods, and techniques to make sure they are relevant to the organization's current objectives and context.
Improve	The continual improvement practice is key to this value chain activity. It structures resources and activities enabling improvement at all levels of the organization and the SVS.
Engage	Each of these value chain activities are subject to continual improvement, and the continual improvement practice is applied to all of them.
Design and transition	
Obtain/build	
Deliver and support	

ITIL practices

Information security management

The purpose of the information security management practice is to protect the information needed by the organization to conduct its business. This includes understanding and managing risks to the confidentiality, integrity, and availability of information, as well as other aspects of information security 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).

ITIL practices

Information security management

Information security is critically dependent on the behavior of people throughout the organization. Staff who have been trained well and pay attention to information security policies and other controls can help to detect, prevent, and correct information security incidents.

Poorly trained or insufficiently motivated staff can be a major vulnerability.

Many processes and procedures are required to support information security management.

These include:

- an information security incident management process
- a risk management process
- a control review and audit process
- an identity and access management process
- event management
- procedures for penetration testing, vulnerability scanning etc.
- procedures for managing information security related changes, such as firewall configuration changes.

ITIL practices

Relationship management

The purpose of the relationship management practice is to establish and nurture the links between the organization and its stakeholders at strategic and tactical levels. It includes the identification, analysis, monitoring, and continual improvement of relationships with and between stakeholders.

ITIL practices

Relationship management

The relationship management practice ensures that:

- stakeholders' needs and drivers are understood, and products and services are prioritized appropriately
- stakeholders' satisfaction is high and a constructive relationship between the organization and stakeholders is established and maintained
- customers' priorities for new or changed products and services, in alignment with desired business outcomes, are effectively established and articulated
- any stakeholders' complaints and escalations are handled well through a sympathetic (yet formal) process
- products and services facilitate value creation for the service consumers as well as for the organization
- the organization facilitates value creation for all stakeholders, in line with the organization's strategy and priorities
- conflicting stakeholder requirements are mediated appropriately.

Service providers quite naturally focus most of their efforts on their relationships with service consumers (sponsors, customers, and users). It is a very important stakeholder group; however, organizations should ensure that they understand and manage their relationships with various stakeholders, both internal and external.
The relationship management practice should apply to all relevant parties. This means that the practice contributes to all service value chain activities and multiple value streams.

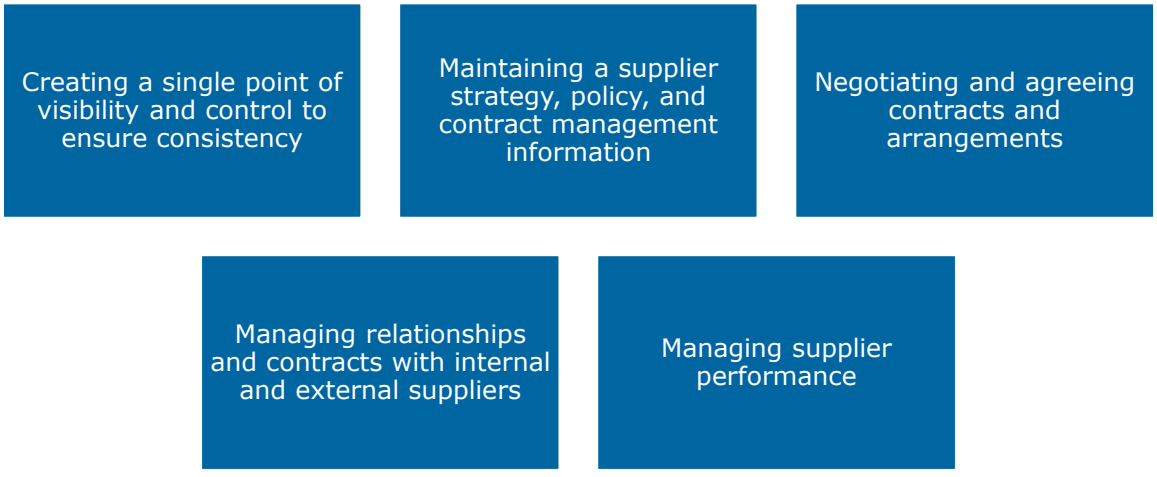
ITIL practices

Supplier management

The purpose of the supplier management practice is to ensure that the organization's suppliers and their performances are managed appropriately to support the seamless provision of quality products and services. This includes creating closer, more collaborative relationships with key suppliers to uncover and realize new value and reduce the risk of failure.

ITIL practices

Supplier management – activities central to practice



Activities that are central to the practice include:

- **Creating a single point of visibility and control to ensure consistency**
  This should be across all products, services, service components, and procedures provided or operated by internal and external suppliers, including customers acting as suppliers.
- **Maintaining a supplier strategy, policy, and contract management information**
- **Negotiating and agreeing contracts and arrangements**
  Agreements need to be aligned with business needs and service targets. Contracts with external suppliers might need to be negotiated or agreed through the legal, procurement, commercial, or contracts functions of the organization. For an internal supplier there will need to be an internal agreement.
- **Managing relationships and contracts with internal and external suppliers**
  This should be done when planning, designing, building, orchestrating, transitioning, and operating products and services, working closely with procurement and performance management.
- **Managing supplier performance**
  Supplier performance should be monitored to ensure that they meet the terms, conditions, and targets of their contracts and agreements, while aiming to increase the value for money obtained from suppliers and the products/services they provide.

ITIL practices

Supplier management - sourcing strategies

- **Insourcing:** The products or services are developed and/or delivered internally by the organization.
- **Outsourcing:** The process of having external suppliers provide products and services that were previously provided internally.
- **Single source or partnership:** Procurement of a product or service from one supplier.
- **Multi-sourcing:** Procurement of a product or service from more than one independent supplier

Evaluation and selection of suppliers

The organization should evaluate and select suppliers based on:

- **Importance and impact**
  The value of the service to the business, provided by the supplier
- **Risk**
  The risks associated with using the service
- **Costs**
  The cost of the service and its provision.

ITIL practices

Supplier management - activities

Activities

Activities of the supplier management practice include:

- **Supplier planning**
  The purpose of this activity is to understand new or changed service requirements and review relevant enterprise documentation to develop a sourcing strategy and supplier management plan, working in conjunction with other practices such as business analysis, portfolio management, service design, and service level management.
- **Evaluation of suppliers and contracts**
  The purpose of this activity is to identify, evaluate, and select suppliers for the delivery of new or changed business services.
- **Supplier and contract negotiation**
  The purpose of this activity is to develop, negotiate, review, update, finalize, and award supplier contracts. The failure of negotiations will trigger a new contract, an updated contract, or a contract termination.
- **Supplier categorization**
  This procedure aims to categorize suppliers on a periodic basis and after the awarding of new or updated contracts. Commonly used categories include strategic, tactical, and commodity suppliers.
- **Supplier and contract management**
  The purpose of this activity is to ensure that the organization obtains value for

money and the delivery of the agreed performance of the supplier against the contract and targets.

- **Warranty management**
  The purpose of this activity is to manage warranty requirements or clauses and make warranty claims when a warranty issue arises, in conjunction with performance management.
- **Performance management**
  This activity includes the setup and continuous tracking of operational measures that have been mutually agreed with internal and external suppliers. It focuses on the key measures, which can then be consolidated on a supplier scorecard. Monitoring will allow for the identification of systemic problems and improvement opportunities and provide a basis for reporting.
- **Contract renewal or termination**
  This procedure aims to manage contract renewals or terminations, which are triggered by either specific or periodic reviews of supplier performance.

ITIL practices

Supplier management – service integration

Service integration is responsible for coordinating or orchestrating all the suppliers involved in the development and delivery of products and services. It focuses on the end-to-end provision of service, ensuring control of all interfaces and outcomes from suppliers, and facilitating collaboration between suppliers.

2 Service management practices

ITIL practices

IT asset management

The purpose of the IT asset management practice is 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, and retirement of assets
- meet regulatory and contractual requirements

Definition: IT asset

Any valuable component that can contribute to the delivery of an IT product or service.

The scope of IT asset management typically includes all software, hardware, networking, cloud services, and client devices. In some cases, it may also include non-IT assets such as buildings or information where these have a financial value and are required to deliver an IT service.

IT asset management can include operational technology (OT), including devices that are part of the Internet of Things. These are typically devices that were not traditionally thought of as IT assets, but that now include embedded computing capability and network connectivity.

ITIL practices

IT asset management – types of assets

- **Hardware assets** must be labelled for clear identification. It is important to know where they are and to help protect them from theft, damage, and data leakage. They may need special handling when they are re-used or decommissioned; for example, erasure or shredding of disk drives depends on information security requirements. Hardware assets may also be subject to regulatory requirements, such as the EU Waste Electrical and Electronic Equipment Directive.
- **Software assets** must be protected from unlawful copying, which could result in unlicensed use. The organization must ensure that license terms are adhered to and that licenses are only re-used in ways that are allowed under the contract. It is important to retain verified proof of purchase and entitlement to run the software. It is very easy to lose software licenses when equipment is decommissioned, so it is important that the IT asset management process recovers these licenses and makes them available for re-use where appropriate.
- **Cloud-based assets** must be assigned to specific products or groups so that costs can be managed. Funding must be managed so that the organization has the flexibility to invoke new instances of cloud use when needed, and to remove instances that are not needed, without the risk of uncontrolled costs. Contractual arrangements must be understood and adhered to, in the same way as for software licenses.
- **Client assets** must be assigned to individuals who take responsibility for their care. Processes are needed to manage lost or stolen devices, and tools may be needed to erase sensitive data from them or otherwise ensure that this data is not lost or stolen with the device.

ITIL practices

Monitoring and event management

The purpose of the monitoring and event management practice is to systematically observe services and service components, and record and report selected changes of state identified as events. This practice identifies and prioritizes infrastructure, services, business processes, and information security events; it also establishes the appropriate response to those events, and conditions that indicate potential faults or incidents.

Definition: Event
Any change of state that has significance for the management of a service or other configuration item (CI). Events are typically recognized through notifications created by an IT service, CI, or monitoring tool

The monitoring and event management practice manages events throughout their lifecycle to prevent, minimize, or eliminate their negative impact on the business.

The monitoring part of the practice focuses on the systematic observation of services and the CIs that underpin services to detect conditions of potential significance. Monitoring should be performed in a highly automated manner, and can be done actively or passively. The event management part focuses on recording and managing those monitored changes of state that are defined by the organization as an event, determining their significance, and identifying and initiating the correct control action to manage them.
Frequently the correct control action will be to initiate another practice, but sometimes it will be to take no action other than to continue monitoring the situation. Monitoring is necessary for event management to take place, but not all monitoring results in the detection of an event.

ITIL practices

Service configuration management

The purpose of the service configuration management practice is to ensure that accurate and reliable information about the configuration of services, and the CIs that support them, is available when and where it is needed. This includes information on how CIs are configured and the relationships between them.

Definition: Configuration Item

Any component that needs to be managed in order to deliver an IT service.

Definition: Configuration management system
A set of tools, data, and information that is used to support service configuration management.

Service configuration management collects and manages information about a wide variety of CIs, typically including hardware, software, networks, buildings, people, suppliers, and documentation. Services are also treated as CIs, and configuration management helps the organization to understand how the many CIs that contribute to each service work together.

Configuration information should be shared in a controlled way. Some information could be sensitive; for example, it could be useful to someone trying to breach security controls, or it could include personal information about users, such as phone numbers and home addresses.

Configuration management typically needs processes to:

- identify new CIs, and add them to the CMS
- update configuration data when changes are deployed
- verify that configuration records are correct
- audit applications and infrastructure to identify any that are not documented.

ITIL practices

Release management

The purpose of the release management practice is to make new and changed services and features available for use.

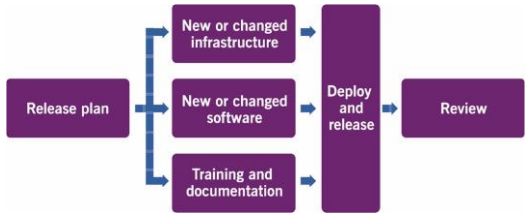
Definition: Release

A version of a service or other configuration item, or a collection of configuration items, that is made available for use.

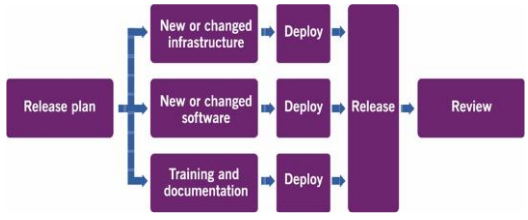
ITIL practices

Release management

Release management in a traditional/waterfall environment



Release management in an Agile/DevOps environment



ITIL practices

Incident management

The purpose of incident management is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible.

Definition: Incident

An unplanned interruption to a service or reduction in the quality of a service.

ITIL practices

Incident management

Different incidents mean different incident management practice to be created	Prioritization	Tools
• Incidents based on impact • Major incidents • Security incidents	• Agreed classification • Incidents with high business impact to be addressed first	• Show related configuration items, changes, problems, known errors etc. • Provide incident matching

Organizations should design their incident management practice to provide appropriate management and resource allocation to different types of incident.
Incidents with a low impact must be managed efficiently to ensure that they do not consume too many resources.
Incidents with a larger impact may require more resources and more complex management. There are usually separate processes for managing major incidents, and for managing information security incidents.

Information about incidents should be stored in incident records in a suitable tool. Ideally, this tool should also provide links to related CIs, changes, problems, known errors, and other knowledge to enable quick and efficient diagnosis and recovery.
Modern IT service management tools can provide automated matching of incidents to other incidents, problems or known errors, and can even provide intelligent analysis of incident data to generate recommendations for helping with future incidents.

ITIL practices

Incident management

Some incidents will be resolved by the users themselves, using self-help

Some incidents will be resolved by the service desk

More complex incidents will usually be escalated to a support team for resolution

Incidents can be escalated to suppliers or partners, who offer support for the products and services they supply

The most complex incidents, and all major incidents, often require a temporary team to work together to identify the resolution

In some extreme cases, disaster recovery plans may be invoked to resolve an incident

SWARMING technique

Effective incident management often requires a high level of collaboration within and between teams. These teams may include the service desk, technical support, application support, and vendors. Collaboration can facilitate information-sharing and learning, as well as helping to solve the incident more efficiently and effectively.

ITIL practices

Incident management – heat map

Value chain activity	Contribution
Plan	Incident records are a key input to planning activities, at tactical and operational level.
Improve	Incident records are a key input to improvement activities, and are prioritized both in terms of incident frequency and severity.
Engage	Incidents are visible to users, and significant incidents are also visible to customers. Good incident management requires regular communication to understand the issues, set expectations, provide status updates, and agree that the issue has been resolved so the incident can be closed.
Design and transition	Incidents may occur in test environments, as well as during service release and deployment. Incident management practice ensures these incidents are resolved in timely and controlled manner.
Obtain/build	Incidents may occur in development environments. Incident management practice ensures these incidents are resolved in timely and controlled manner.
Deliver and support	Incident management makes a significant contribution to support. This value chain activity includes resolving incidents and problems.

ITIL practices

Problem management

The purpose of problem management is to reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors.

Definition: Problem

A cause or potential cause of prior, current, or future incidents

Definition: Known error

A problem that has been analyzed but has not been resolved.

Every service has errors, flaws, or vulnerabilities that may cause incidents. They may include errors in any of the four dimensions of service management. Many errors are identified and resolved before a service goes live. However, some remain unidentified or unresolved, and may be a risk to live services. In ITIL, these errors are called problems and they are addressed by the problem management practice.

ITIL practices

Problem management - phases

Problem identification

- Trend analysis
- Recurring issues
- Major incident management
- Analyzing information received from suppliers and partners
- Analysing information received from internal software developers, test teams, and project teams

Problem control

- Use risk management to prioritize in the right way
- Problem analysis should use all four dimensions

Error control

- Identify permanent solutions
- Re-assess known errors
- Use workarounds

ITIL practices

Problem management - workaround

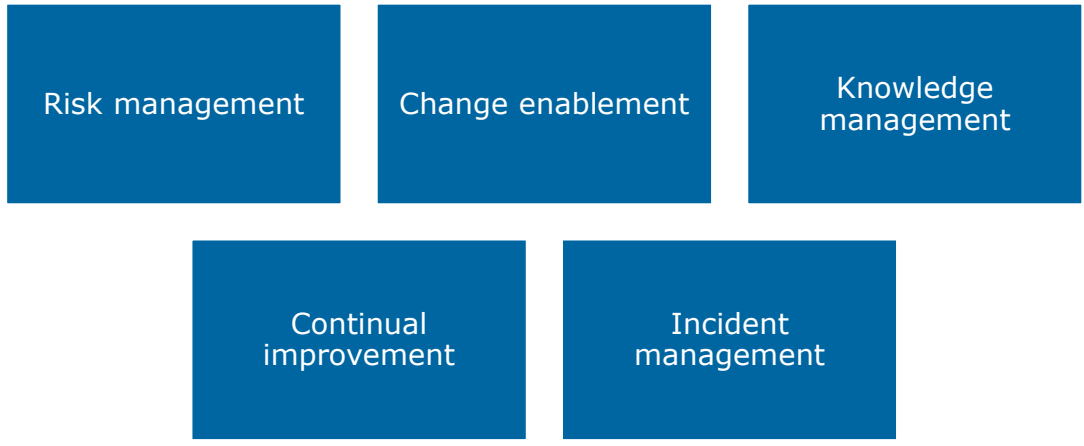
Definition: Workaround

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.

- Every documented workaround should include a clear definition of the symptoms to which it applies
- In some cases, workaround application can be automated
- An effective incident workaround can become a permanent way of dealing with some problems when resolving the problem is not viable or cost-effective

ITIL practices

Problem management - interfaces



Examples of interfaces between problem management, risk management, Change enablement, knowledge management, continual improvement and incident management are as follows:

- Problem management activities can be organized as a specific case of **risk management**: they aim to identify, assess, and control risks in any of the four dimensions of service management. It is useful to adopt risk management tools and techniques for problem management.
- Implementation of problem resolution is often outside the scope of problem management. Problem management typically initiates resolution via **Change enablement** and participates in the post-implementation review; however, approving and implementing changes is out of scope for the problem management practice.
- Output from the problem management practice includes information and documentation concerning **workarounds and known errors**. In addition, problem management may utilize information in a **knowledge management system** to investigate, diagnose, and resolve problems.
- Problem management activities can identify improvement opportunities in all four dimensions of service management. Solutions can in some cases be treated as **improvement opportunities**, so they are included in a **continual improvement register** (CIR), and continual improvement techniques are used to prioritize and manage them, sometimes as part of a product backlog.

- Full and permanent fix of errors found will reduce impact or eliminate some of the incidents.
  Incident management can directly trigger problem management. It can be especially important where multiple incidents appear concerning the same error. Incident and problem management can have the same categorization of records.

ITIL practices

Problem management – heat map

Value chain activity	Contribution
Plan	n/a
Improve	This is the main focus area for problem management. Effective problem management provides the understanding needed to reduce the number of incidents and the impact of incidents that can't be prevented.
Engage	Problems that have a significant impact on services will be visible to customers and users. In some cases, customers may wish to be involved in problem prioritization, and the status and plans for managing problems should be communicated. Workarounds are often presented to users via a service portal.
Design and transition	Problem management provides information that helps to improve testing and knowledge transfer.
Obtain/build	Product defects may be identified by problem management; these are then managed as part of this value chain activity.
Deliver and support	Problem management makes a significant contribution by preventing incident repetition and supporting timely incident resolution.

ITIL practices

Change enablement

The purpose of the change enablement practice is to maximize the number of successful IT 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 is defined by each organization. It will typically include all IT infrastructure, applications, documentation, processes, supplier relationships, and anything else that might directly or indirectly impact a product or service.

It is important to distinguish change enablement from organizational change management. Organizational change management manages the people aspects of changes to ensure that improvements and organizational transformation initiatives are implemented successfully. Change enablement is usually focused on changes in products and services.

ITIL practices

Change enablement – types of changes

Standard	A pre-authorized change that is low risk, relatively common and follows a procedure or work instruction
Normal	Any service change that is not a standard change or an emergency change
Emergency	A change that must be implemented as soon as possible, for example to resolve a major incident or implement a security patch

ITIL practices

Change enablement – change authority and schedule

Change authority

- A person or group responsible for authorizing a change. It's important that correct change authority is assigned to different types of changes.

Change schedule

- The change schedule is used to help plan changes, assist in communication, avoid conflicts, and assign resources. It can also be used after changes have been deployed to provide information needed for incident management, problem management, and improvement planning.

ITIL practices

Change enablement – heat map

Value chain activity	Contribution
Plan	Changes to product and service portfolios, policies, and practices all require a certain level of control, and the change enablement practice is used to provide it.
Improve	Many improvements will require changes to be made, and these should be assessed and authorized in the same way as all other changes.
Engage	Customers and users may need to be consulted or informed about changes, depending on the nature of the change.
Design and transition	Many changes are initiated as a result of new or changed services. Change enablement activity is a major contributor to transition.
Obtain/build	Changes to components are subject to change enablement, whether they are built in house or obtained from suppliers.
Deliver and support	Changes may have an impact on delivery and support, and information about changes must be communicated to personnel who carry out this value chain activity. These people may also play a part in assessing and authorizing changes.

ITIL practices

Service desk

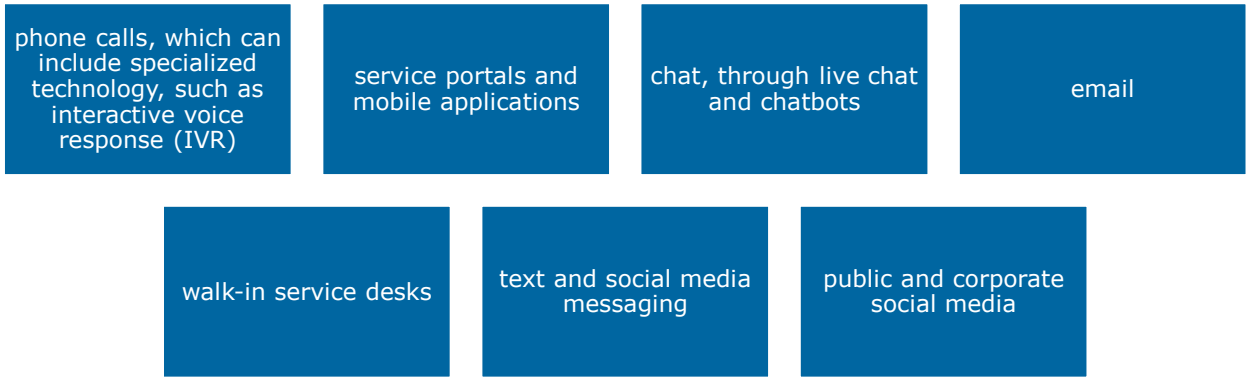
The purpose of the service desk practice is to capture demand for incident resolution and service requests.
It should also be the entry point and single point of contact for the service provider with all of its users.

Service desks provide a clear path for users to report issues, queries and requests, and have them acknowledged, classified, owned and actioned. How this practice is managed and delivered may vary from a physical team of people on shift work to a distributed mix of people connected virtually, or automated technology and bots. The function and value remains the same, regardless of the model.

A key point to be understood is that, no matter how efficient the service desk and its people are, there will always be issues that need escalation and underpinning support from other teams. Support and development teams need to work in close collaboration with the service desk to present and deliver a ‘joined up’ approach to users and customers.

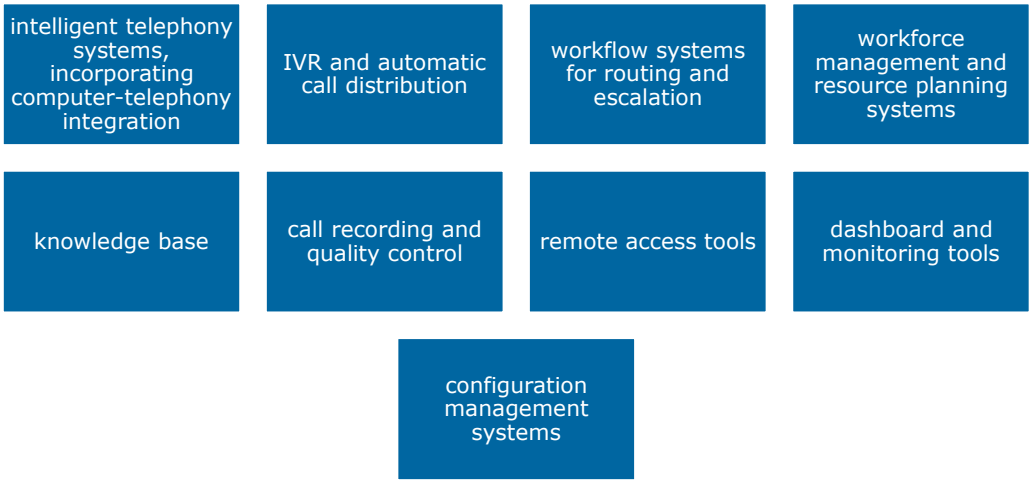
ITIL practices

Service desk - channels for access



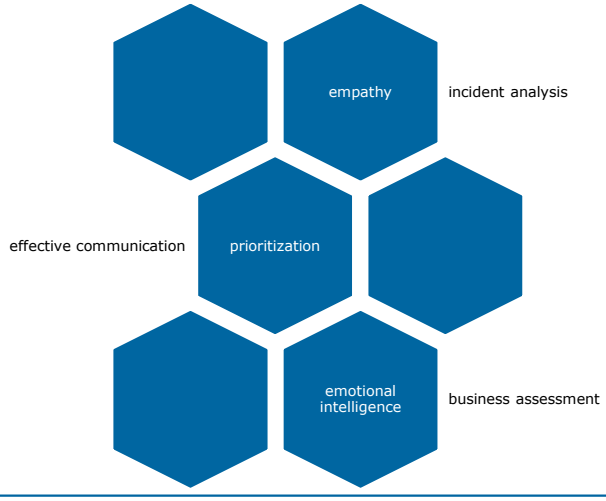
ITIL practices

Service desk – supporting technologies



ITIL practices

Service desk – skills



ITIL practices

Service desk– heat map

Value chain activity	Contribution
Plan	n/a
Improve	Service desk activities are constantly monitored and evaluated to support continual improvement, alignment, and value creation. Feedback from users is collected by the service desk to support continual improvement.
Engage	The service desk is the main channel for tactical and operational engagement with users.
Design and transition	The service desk provides a channel for communicating with users about new and changed services. Service desk staff participate in release planning, testing, and early life support.
Obtain/build	Service desk staff can be involved in acquiring service components used to fulfil service requests and resolve incidents.
Deliver and support	The service desk is the coordination point for managing incidents and service requests.

ITIL practices

Service level management

The purpose of the service level management practice is to set clear business-based targets for service performance, so that the delivery of a service can be properly assessed, monitored, and managed against these targets.

ITIL practices

Service level management – activities

Service level management provides the end-to-end visibility of the organization's services. To achieve this, service level management:

- establishes a shared view of the services and target service levels with customers
- ensures the organization meets the defined service levels through the collection, analysis, storage, and reporting of the relevant metrics for the identified services
- performs service reviews to ensure that the current set of services continues to meet the needs of the organization and its customers
- captures and reports on service issues, including performance against defined service levels

The skills and competencies for service level management include relationship management, business liaison, business analysis, and commercial/supplier management. The practice requires pragmatic focus on the whole service and not simply its constituent parts; for example, simple individual metrics (such as percentage system availability) should not be taken to represent the whole service.

ITIL practices

Service level management – SLA

Definition: Service level agreement

A documented agreement between a service provider and a customer that identifies both services required and the expected level of service.

Some of the key requirements for successful SLAs include:

They must be related to a defined 'service' in the service catalogue	They should relate to defined outcomes and not simply operational metrics	They should reflect an 'agreement', i.e. engagement and discussion between the service provider and the service consumer	They must be simply written and easy to understand and use for all parties

In many cases, 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, if an SLA is based only on the percentage of uptime of a service, it can be deemed to be successful by the provider, yet still miss out on significant business functionalities and outcomes which are important to the consumer. This is referred to as the 'watermelon SLA' effect.

ITIL practices

Service level management – sources for information

Service level management involves collating and analyzing information from a number of sources. These sources include:

- **Customer engagement** This involves initial listening, discovery, and information capture on which to base metrics, measurement, and ongoing progress discussions. Consider asking customers questions such as:
  - What does your work involve?
  - How does technology help you?
  - What are your key business times, areas, people, and activities?
  - What differentiates a good day from a bad day for you?
  - Which of these activities is most important to you?
  - What are your goals, objectives, and measurements for this year?
  - What is the best measure of your success?
  - How do you base your opinion and evaluation of a service or IT/technology?
  - How can we help you more?

ITIL practices

Service level management – sources for information

- **Customer feedback** This is ideally gathered from a number of sources, including:
  - **Surveys** These can be from immediate feedback such as follow-up questions to specific incidents, or from more reflective periodic surveys that gauge feedback on the overall service experience. Both types are event-based.
  - **Key business-related measures** These are measures agreed between the service provider and its customer, based on what the customer values as important. This could be a bundle of SLA metrixs or a very specific business activity such as a sales transaction, project completion, or operational function such as getting an ambulance to the site of an accident within x minutes.
- **Operational metrics** These are the low-level indicators of various operational activities and may include system availability, incident response and fix times, change and request processing times, and system response times.
- **Business metrics** These can be any business activity that is deemed useful or valuable by the customer and used as a means of gauging the success of the service.

ITIL practices

Service level management– heat map

Value chain activity	Contribution
Plan	Service level management supports planning of the product and service portfolio and service offerings with information about the actual service performance and trends.
Improve	Service feedback from users, as well as requirements from customers, can be a driving force for service improvement.
Engage	Service level management ensures ongoing engagement with customers and users through feedback processing and continual service review.
Design and transition	The design and development of new and changed services receives input from this practice, both through interaction with customers and as part of the feedback loop in transition.
Obtain/build	Service level management provides objectives for components and service performance, as well as for measurement and reporting capabilities of the products and services.
Deliver and support	Service level management communicates service performance objectives to the operations and support teams and collects their feedback as an input for service improvement.

ITIL practices

Service request management

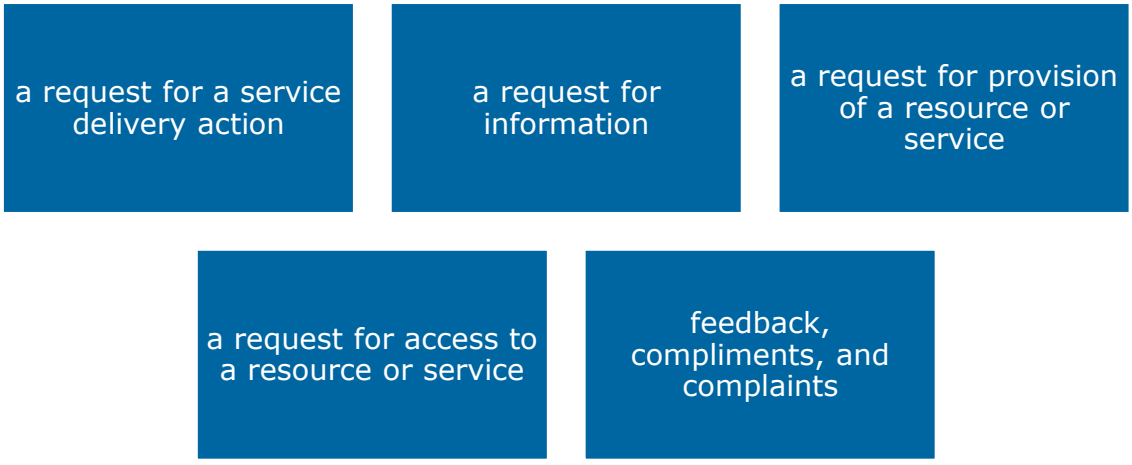
The purpose of the service request management practice is to support the agreed quality of a service by handling all pre-defined, user-initiated service requests in an effective and user friendly manner.

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.

ITIL practices

Service request management – types of request



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

- a request for a service delivery action (for example, providing a report or replacing a toner cartridge)
- a request for information (for example, how to create a document or what the hours of the office are)
- a request for provision of a resource or service (for example, providing a phone or laptop to a user, or providing a virtual server for a development team)
- a request for access to a resource or service (for example, providing access to a file or folder)
- feedback, compliments, and complaints (for example, complaints about a new interface or compliments to a support team).

Fulfilment of service requests may include changes to services or their components; usually these are standard changes.

Service requests are a normal part of service delivery and are not a failure or degradation of service, which are handled as incidents. Since service requests are pre-defined and preagreed as a normal part of service delivery, they can usually be formalized, with a clear, standard procedure for initiation, approval, fulfilment, and management. Some service requests have very simple workflows, such as a request for information. Others, such as the setup of a new employee, may be quite complex and

require contributions from many teams and systems for fulfilment. Regardless of the complexity, 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.

ITIL practices

Service request management - rules

- Service requests and their fulfilment should be standardized and automated to the greatest degree possible
- Policies should be established regarding what service requests will be fulfilled with limited or even no additional approvals so that fulfilment can be streamlined
- The expectations of users regarding fulfilment times should be clearly set, based on what the organization can realistically deliver
- Opportunities for improvement should be identified and implemented to produce faster fulfilment times and take advantage of automation
- Policies and workflows should be included for the documenting and redirecting of any requests that are submitted as service requests, but which should actually be managed as incidents or changes

Service request management is dependent upon well-designed processes and procedures, which are operationalized through tracking and automation tools to maximize the efficiency of the practice. Different types of service request will have different fulfilment workflows, but both efficiency and maintainability will be improved if a limited number of workflow models are identified. When new service requests need to be added to the service catalogue, existing workflow models should be leveraged whenever possible.

ITIL practices

Service request management – heat map

Value chain activity	Contribution
Plan	n/a
Improve	Service request management can provide a channel for improvement initiatives, compliments, and complaints from users. It also contributes to improvement by providing trend, quality, and feedback information about fulfilment of requests.
Engage	Service request management includes regular communication to collect user-specific requirements, set expectations, and to provide status updates.
Design and transition	Standard changes to services can be initiated and fulfilled as service requests.
Obtain/build	The fulfilment of service requests may require acquisition of pre-approved service components.
Deliver and support	Service request management makes a significant contribution to normal service delivery. This activity of the value chain is mostly concerned with ensuring users continue to be productive, and sometimes depends heavily on fulfilment of their requests.

3 Technical management practices

ITIL practices

Deployment management

The purpose of the deployment management practice is 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.

Definition: Deployment

The movement of any service component into any environment.

ITIL practices

Deployment management - approaches

Phased deployment

The new or changed components are deployed to just part of the production environment at a time

Continuous delivery

Components are integrated, tested, and deployed when they are needed, providing frequent opportunities for customer feedback loops.

Big bang deployment

New or changed components are deployed to all targets at the same time.

Pull deployment

New or changed software is made available in a controlled repository, and users download the software to client devices when they choose.

Thanks

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ITIL 4® Foundation

Four dimensions

v1.1

Four dimensions

Overview

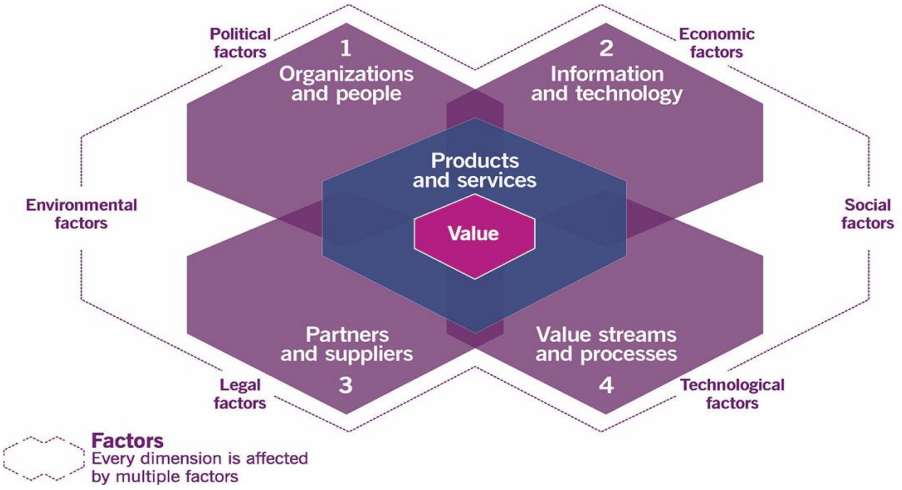
To support a holistic approach to service management, ITIL defines four dimensions that collectively are critical to the effective and efficient facilitation of value for customers and other stakeholders in the form of products and services. These are:

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

These four dimensions represent perspectives which are relevant to the whole SVS, including the entirety of the service value chain and all ITIL practices. The four dimensions are constrained or influenced by several external factors that are often beyond the control of the SVS (PESTLE).

Four dimensions

Overview



Failing to address all four dimensions properly may result in services becoming undeliverable, or not meeting expectations of quality or efficiency. For example, failing to consider the value streams and processes dimension holistically can lead to wasteful work, duplication of efforts, or worse, work that conflicts with what is being done elsewhere in the organization. Equally, ignoring the partners and suppliers dimension could mean that outsourced services are misaligned with the needs of the organization. The four dimensions do not have sharp boundaries and may overlap. They will sometimes interact in unpredictable ways, depending on the level of complexity and uncertainty in which an organization operates.

It is important to note that the four dimensions of service management apply to all services being managed, as well as to the SVS in general. It is therefore essential that these perspectives should be considered for every service, and that each one should be addressed when managing and improving the SVS at all levels.

Four dimensions

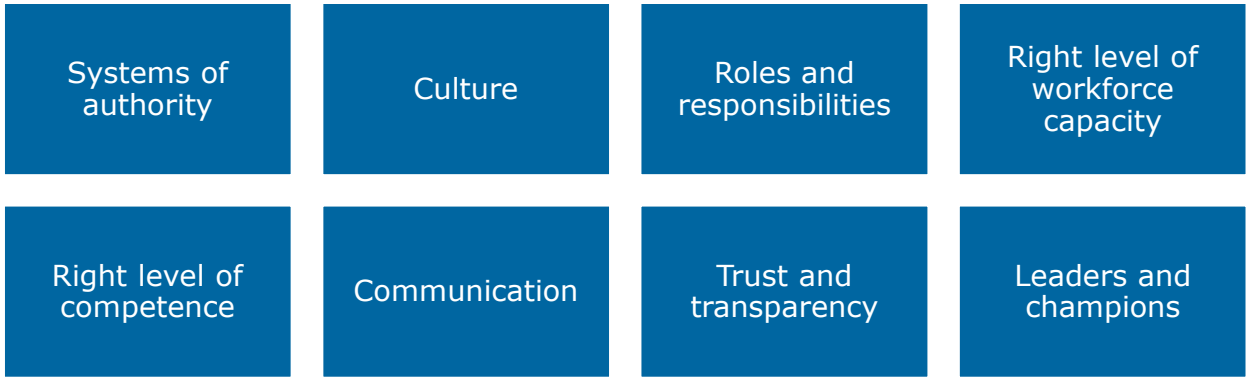
Organizations and people

Key message

The complexity of organizations is growing, and it is important to ensure that the way an organization is structured and managed, as well as its roles, responsibilities, and systems of authority and communication, is well defined and supports its overall strategy and operating model.

Four dimensions

Organizations – aspects of effectiveness

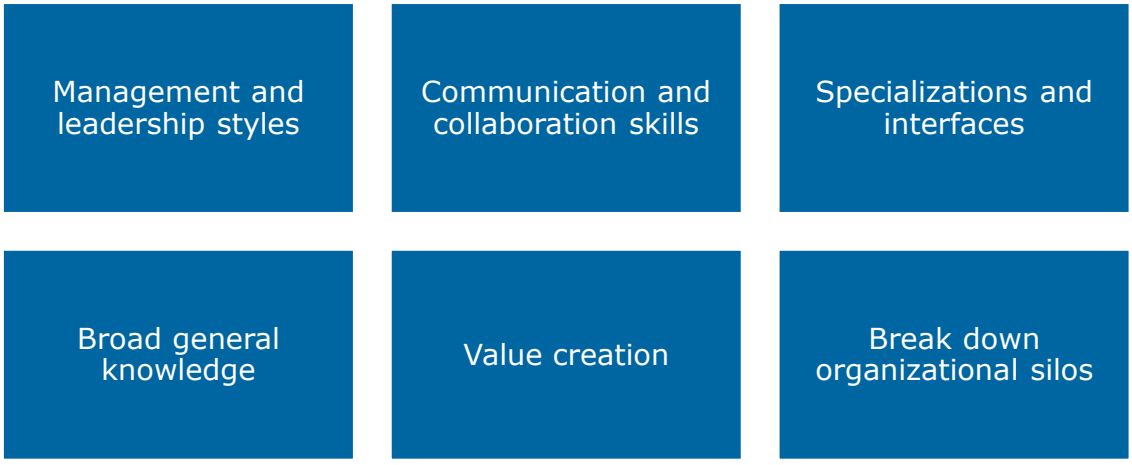


The effectiveness of an organization cannot be assured by a formally established structure or system of authority alone. The organization also needs a culture that supports its objectives, and the right level of capacity and competency among its workforce. It is vital that the leaders of the organization champion and advocate values which motivate people to work in desirable ways. Ultimately, however, it is the way in which an organization carries out its work that creates shared values and attitudes, which over time are considered the organization's culture.

As an example, it is useful to promote a culture of trust and transparency in an organization that encourages its members to raise and escalate issues and facilitates corrective actions before any issues have an impact on customers.

Four dimensions

People – aspects of attention



People (whether customers, employees of suppliers, employees of the service provider, or any other stakeholder in the service relationship) are a key element in this dimension. Attention should be paid not only to the skills and competencies of teams or individual members, but also to management and leadership styles, and to communication and collaboration skills. As practices evolve, people also need to update their skills and competencies. It is becoming increasingly important for people to understand the interfaces between their specializations and roles and those of others in the organization, to ensure proper levels of collaboration and coordination. For example, in some areas of IT (such as software development or user support), there is a growing acknowledgement that everyone should have a broad general knowledge of the other areas of the organization, combined with a deep specialization in certain fields.

Every person in the organization should have a clear understanding of their contribution towards creating value for the organization, its customers, and other stakeholders. Promoting a focus on value creation is an effective method of breaking down organizational silos.

Four dimensions

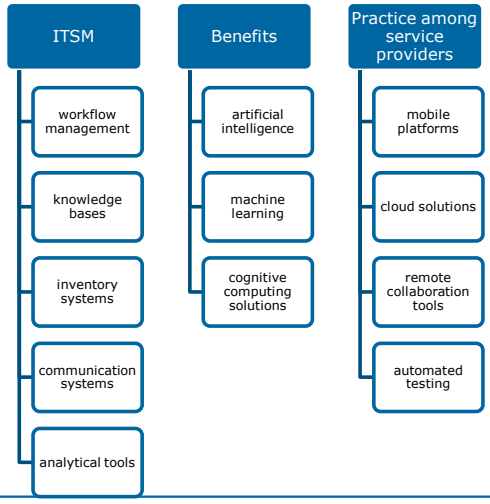
Information and technology

Key message

When applied to the SVS, the information and technology dimension includes the information and knowledge necessary for the management of services, as well as the technologies required. It also incorporates the relationships between different components of the SVS, such as the inputs and outputs of activities and practices.

Four dimensions

Information and technology – supporting technologies



In the context of a specific IT service, this dimension includes the information created, managed, and used in the course of service provision and consumption, and the technologies that support and enable that service. The specific information and technologies depend on the nature of the services being provided and usually cover all levels of IT architecture, including applications, databases, communication systems, and their integrations. In many areas, IT services use the latest technology developments, such as blockchain, artificial intelligence, and cognitive computing. These services provide a business differentiation potential to early adopters, especially in highly competitive industries. Other technology solutions, such as cloud computing or mobile apps, have become common practice across many industries globally.

Four dimensions

Information and technology – areas of focus

In relation to the **information** component of this dimension, organizations should consider the following questions:

- What information is managed by the services?
- What supporting information and knowledge are needed to deliver and manage the services?
- How will the information and knowledge assets be protected, managed, archived, and disposed of?

For many services, information management is the primary means of enabling customer value. For example, an HR service facilitates value creation for its customers by enabling the organization to access and maintain accurate information about its employees, their employment, and their benefits, without exposure of private information to unauthorized parties. A network management service facilitates value creation for its users by maintaining and providing accurate information about an organization's active network connections and utilization, allowing it to adjust its network bandwidth capacity. Information is generally the key output of the majority of IT services which are consumed by business customers. Another key consideration in this dimension is how information is exchanged between different services and service components. The information architecture of the various services needs to be well understood and continually optimized, taking into account such criteria as the availability, reliability, accessibility, timeliness, accuracy, and relevance of the information provided to users and exchanged between services.

Four dimensions

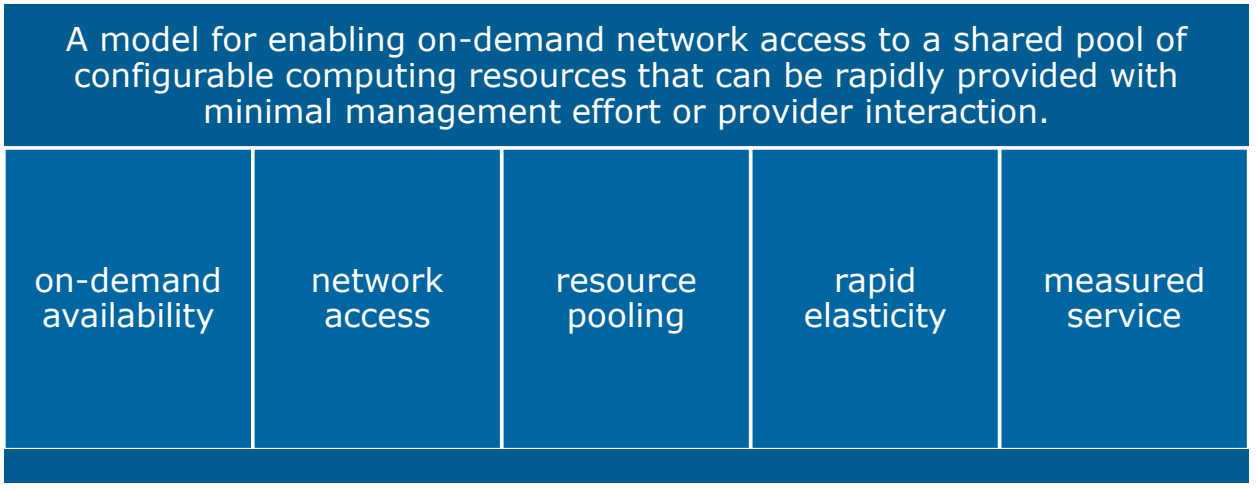
Information and technology – questions when considering a technology for use

Is this technology compatible with the current architecture of the organization and its customers?	Does this technology raise any regulatory or other compliance issues?	Is this a technology that will continue to be viable in the foreseeable future?	Does this technology align with the strategy of the service provider, or its service consumers?
Does the organization have the right skills across its staff and suppliers to support and maintain the technology?	Does this technology have sufficient automation capabilities to ensure it can be efficiently developed, deployed, and operated?	Does this technology offer additional capabilities that might be leveraged for other products or services?	Does this technology introduce new risks or constraints to the organization?

The culture of an organization may have a significant impact on the technologies it chooses to use. Some organizations may have more of an interest in being at the cutting edge of technological advances than others. Equally the culture of some organizations may be focused on a more traditional way of working. One company may be excited to take advantage of artificial intelligence technologies, while another may barely be ready for advanced data analysis tools.

Four dimensions

Information and technology – cloud computing



In the context of ITSM, cloud computing changes service architecture and the distribution of responsibilities between service consumers, service providers, and their partners. It especially applies to in-house service providers, i.e. the organization's internal IT departments. In a typical situation, adoption of the cloud computing model:

- replaces some infrastructure, previously managed by the service provider, with a partner's cloud service
- decreases or removes the need for infrastructure management expertise and the resources of the service provider
- shifts the focus of service monitoring and control from the in-house infrastructure to a partner's services
- changes the cost structure of the service provider, removing specific capital expenditures and introducing new operating expenditures and the need to manage them appropriately
- introduces higher requirements for network availability and security
- introduces new security and compliance risks and requirements, applicable to both the service provider and its partner providing the cloud service
- provides users with opportunities to scale service consumption using self service via simple standard requests, or even without any requests.

Four dimensions

Partners and suppliers

Key message

The partners and suppliers dimension encompasses an organization's relationships with other organizations that are involved in the design, development, deployment, delivery, support and/or continual improvement of services. It also incorporates contracts and other agreements between the organization and its partners or suppliers.

Four dimensions

Partners and suppliers – ranges of relationships and outcomes

Relationships between organizations may involve various levels of integration and formality. This ranges from formal contracts with clear separation of responsibilities, to flexible partnerships where parties share common goals and risks, and collaborate to achieve desired outcomes.

Four dimensions

Partners and suppliers – examples of relationships between organizations

Form of cooperation	Outputs	Responsibility for the outputs	Responsibility for achievement of the outcomes	Level of formality	Examples
Goods supply	Goods supplied	Supplier	Customer	Formal supply contract/ invoices	Procurement of computers and phones
Service delivery	Services delivered	Provider	Customer	Formal agreements and flexible cases	Cloud computing (infrastructure or platform as a service)
Service partnership	Value Co-created	Shared between provider and customer	Shared between provider and customer	Shared goals, generic agreements, flexible case based arrangements	Employee onboarding (shared between HR, facilities and IT)

Note that the forms of cooperation described in table above are not fixed and distinctive but exist as a scale. An organization acting as a service provider will have a position on this scale, which will vary depending on their strategy and objectives for customer relationships. Likewise, when an organization acts as a service consumer, the role it takes on will depend on its strategy and objectives for sourcing and supplier management. When it comes to using partners and suppliers, an organization's strategy should be based on its goals, culture, and business environment. For example, some organizations may believe that they will be best served by focusing their attention on developing certain core competencies, using partners and suppliers to provide other needs. Other organizations may choose to rely as much as possible on their own resources, using partners and suppliers as little as possible. There are, of course, many variations between these two opposite approaches.

One method an organization may use to address the partners and suppliers dimension is **service integration and management.** This involves the use of a specially established integrator to ensure that service relationships are properly coordinated. Service integration and management may be kept within the organization, but can also be delegated to a trusted partner.

Four dimensions

Partners and suppliers

- **Strategic focus** Some organizations may prefer to focus on their core competency and to outsource non-core supporting functions to third parties; others may prefer to stay as self-sufficient as possible, retaining full control over all important functions.
- **Corporate culture** Some organizations have a historical preference for one approach over another. Long-standing cultural bias is difficult to change without compelling reasons.
- **Resource scarcity** If a required resource or skillset is in short supply, it may be difficult for the service provider to acquire what is needed without engaging a supplier.
- **Cost concerns** A decision may be influenced by whether the service provider believes that it is more economical to source a particular requirement from a supplier.
- **Subject matter expertise** The service provider may believe that it is less risky to use a supplier that already has expertise in a required area, rather than trying to develop and maintain the subject matter expertise in house.
- **External constraints** Government regulation or policy, industry codes of conduct, and social, political or legal constraints may impact an organization's supplier strategy.
- **Demand patterns** Customer activity or demand for services may be seasonal or demonstrate high degrees of variability. These patterns may impact the extent to which organizations use external service providers to cope with variable demand.

Four dimensions

Value streams and processes

Key message

Applied to the organization and its SVS, the value streams and processes dimension is concerned with how the various parts of the organization work in an integrated and coordinated way to enable value creation through products and services. The dimension focuses on what activities the organization undertakes and how they are organized, as well as how the organization ensures that it is enabling value creation for all stakeholders efficiently and effectively.

Four dimensions

Value streams for service management

Key message

A value stream is a series of steps that an organization uses to create and deliver products and services to a service consumer. A value stream is a combination of the organization's value chain activities

Definition (value stream)

A series of steps an organization undertakes to create and deliver products and services to consumers

Identifying and understanding the various value streams an organization has is critical to improving its overall performance. Structuring the organization's service and product portfolios around value streams allows it to have a clear picture of what it delivers and how, and to make continual improvements to its services. Organizations should examine how they perform work and map all the value streams they can identify. This will enable them to analyze their current state and identify any barriers to workflow and non-value-adding activities, i.e. waste. Wasteful activities should be eliminated to increase productivity.

Opportunities to increase value-adding activities can be found across the service value chain. These may be new activities or modifications to existing ones, which can make the organization more productive. Value stream optimization may include process automation or adoption of emerging technologies and ways of working to gain efficiencies or enhance user experience.

Value streams should be defined by organizations for each of their products and services. Depending on the organization's strategy, value streams can be redefined to react to changing demand and other circumstances, or remain stable for a significant amount of time. In any case, they should be continually improved to ensure that the organization achieves its objectives in an optimal way. Value stream mapping is described in more detail in other ITIL 4 publications.

Four dimensions

Processes

Key message

A process is a set of activities that transform inputs to outputs. Processes describe what is done to accomplish an objective, and well-defined processes can improve productivity within and across organizations. They are usually detailed in procedures, which outline who is involved in the process, and work instructions, which explain how they are carried out.

Definition (process)

A set of interrelated or interacting activities that transform inputs into outputs. Processes define the sequence of activities and their dependencies.

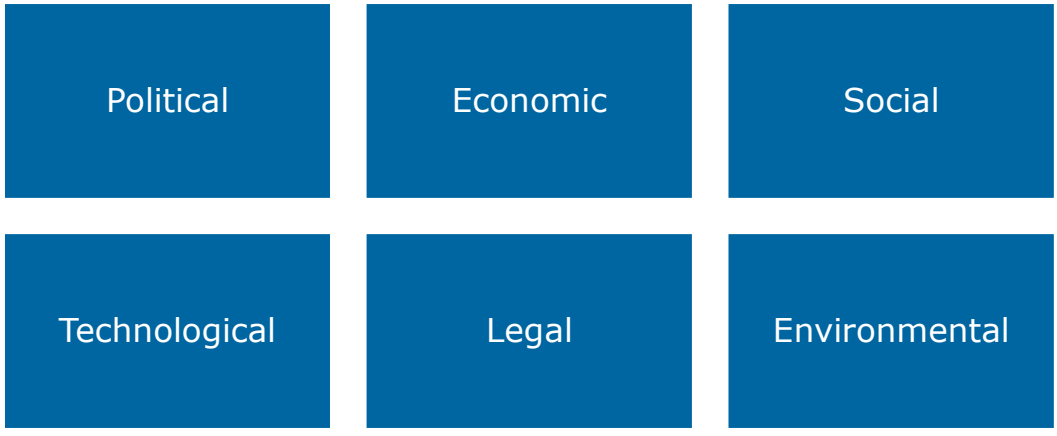
The same structure (of the value chain, value streams, processes, procedures, and work instructions) applies to specific services: to successfully create, deliver, and improve a service, the following questions need to be answered:

- What is the generic delivery model for the service, and how does the service work?
- What are the value streams involved in delivering the agreed outputs of the service?
- Who, or what, performs the required service actions?

Specific answers to these questions will vary depending on the nature and architecture of the service.

Four dimensions

External factors (PESTLE)



Service providers do not operate in isolation. They are affected by many external factors, and work in dynamic and complex environments that can exhibit high degrees of volatility and uncertainty and impose constraints on how the service provider can work. To analyze these external factors, frameworks such as the PESTLE (or PESTLE) model are used. PESTLE is an acronym for the political, economic, social, technological, legal, and environmental factors that constrain or influence how a service provider operates.

Collectively, these factors influence how organizations configure their resources and address the four dimensions of service management. For example:

- Government and societal attitudes towards environmentally friendly products and services may result in the organization investing more in tools and technologies that meet external expectations. An organization may choose to partner with other organizations (or source services from external providers) who can demonstrate environmentally friendly credentials. For example, some companies publish product environmental reports that describe their products' performance against their policies around climate change, safer materials, and other resources.

- Economic and societal factors may influence organizations to create several versions of the same product to address various consumer groups that show different buying patterns. One example is music and video streaming services, many of which have a

free tier (with advertising), a premium tier (without advertising), and in some cases a ‘family plan’ that allows multiple individual profiles under one paid-for account.

- Data protection laws or regulations (like GDPR) have changed how companies must collect, process, access, and store customer data, as well as how they work with external partners and suppliers.

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ITIL 4® Foundation

Service value system and service value chain

v1.1

Trusted partner for your Digital Journey

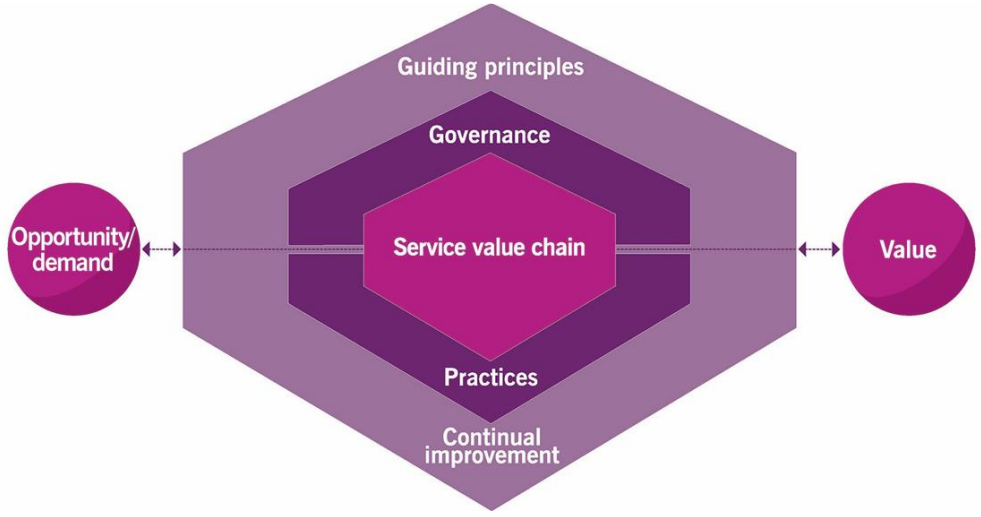
SVS/SVC
Overview

Key message

The ITIL SVS describes how all the components and activities of the organization work together as a system to enable value creation. Each organization's SVS has interfaces with other organizations, forming an ecosystem that can in turn facilitate value for those organizations, their customers, and other stakeholders.

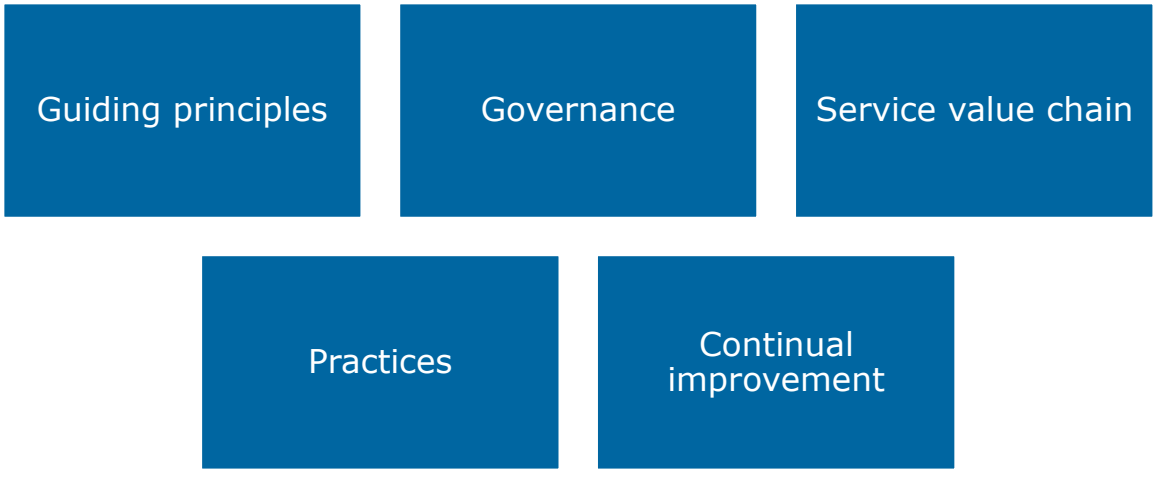
SVS/SVC

Service value system



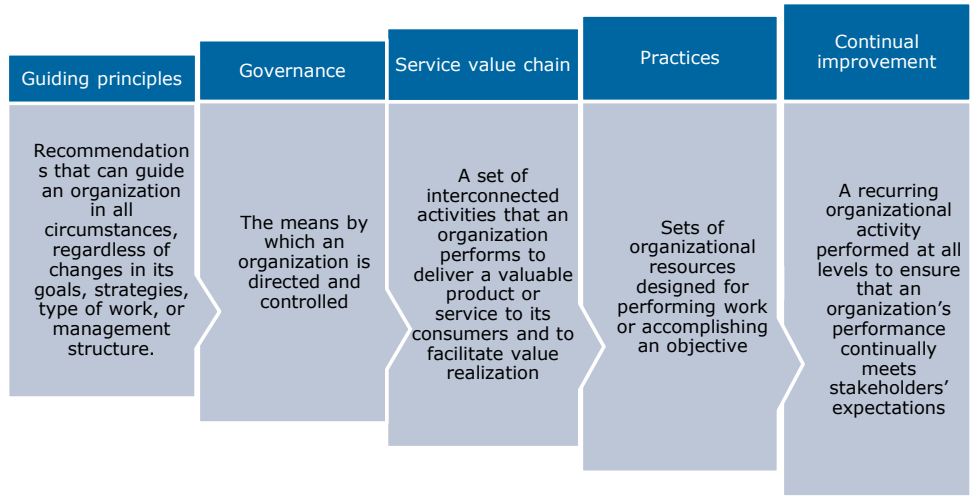
SVS/SVC

Service value system – components



SVS/SVC

Service value system – components



SVS/SVC

Service value system – purpose

The purpose of the SVS is to ensure that the organization continually co-creates value with all stakeholders through the use and management of products and services.

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, is the presence of organizational silos. Organizational silos can form in many ways and for many different reasons. Silos can be resistant to change and can prevent easy access to the information and specialized expertise that exists across the organization, which can in turn reduce efficiency and increase both cost and risk. Silos also make it more difficult for communication or collaboration to occur across different groups.

A siloed organization cannot act quickly to take advantage of opportunities or to optimize the use of resources across the organization. It is often unable to make effective decisions about changes, due to limited visibility and many hidden agendas. Practices can also become silos. Many organizations have implemented practices such as organizational change management or incident management without clear interfaces with other practices. All practices should
have multiple interfaces with one another. 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.

SVS/SVC

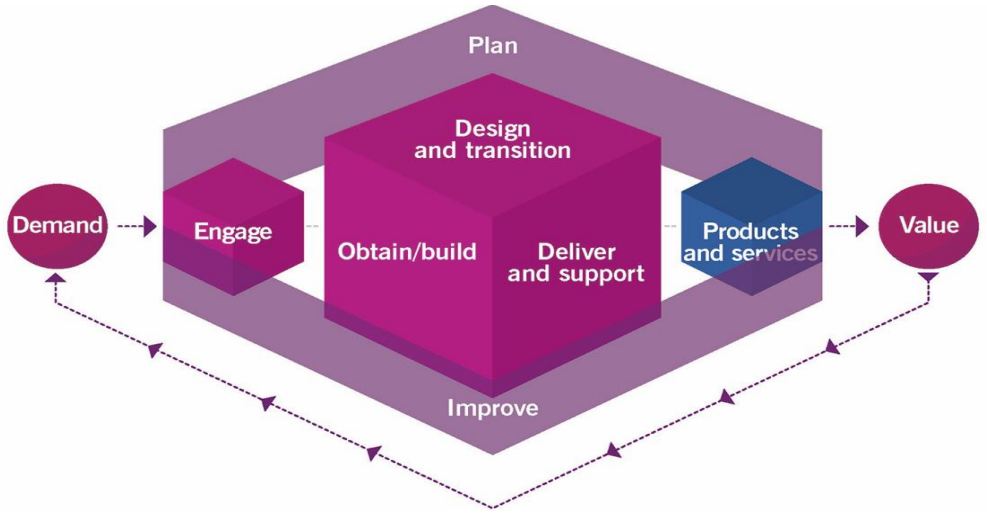
Service value chain

Key message

The central element of the SVS is the service value chain, an operating model which outlines the key activities required to respond to demand and facilitate value realization through the creation and management of products and services.

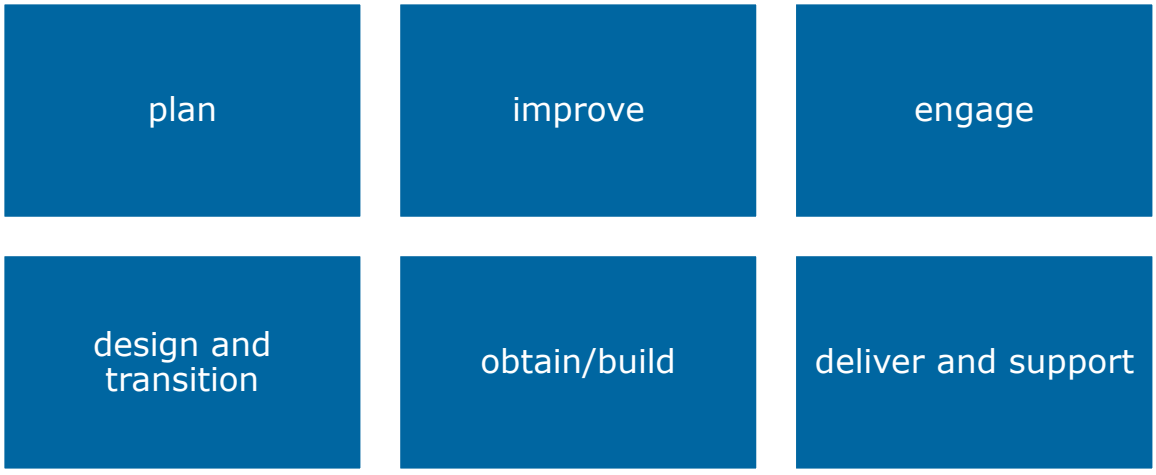
SVS/SVC

Service value chain



SVS/SVC

Service value chain – activities



These activities represent the steps an organization takes in the creation of value. Each activity contributes to the value chain **by transforming specific inputs into outputs**. These inputs could be demand from outside the value chain or outputs of other activities. In this way the activities are connected to, and interact with, one another, with each activity receiving and providing triggers for further actions to be taken.

SVS/SVC

Service value chain - plan

The purpose of the plan value chain activity is 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.

The key inputs to this value chain activity are:

- policies, requirements, and constraints provided by the organization's governing body
- consolidated demands and opportunities provided by engage
- value chain performance information improvement initiatives, and plans provided by improve
- improvement status reports from improve
- knowledge and information about new and changed products and services from design and transition, and obtain/build

The key outputs of this value chain activity are:

- strategic, tactical, and operational plans
- portfolio decisions for design and transition
- architectures and policies for design and transition
- improvement opportunities for improve
- a product and service portfolio for engage
- contract and agreement requirements for engage.

SVS/SVC

Service value chain - improve

The purpose of the improve value chain activity is to ensure continual improvement of products, services, and practices across all value chain activities and the four dimensions of service management.

The key inputs to this value chain activity are:

- 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

The key outputs of this value chain activity are:

- improvement initiatives and plans for all value chain activities
- value chain performance information for plan and the governing body
- improvement status reports for all value chain activities
- contract and agreement requirements for engage
- service performance information for design and transition

SVS/SVC

Service value chain - engage

The purpose of the engage value chain activity is to provide a good understanding of stakeholder needs, transparency, and continual engagement and good relationships with all stakeholders.

The key inputs to this value chain activity are:	The key outputs of this value chain activity are:
• a product and service portfolio provided by plan • high-level demand for services and products provided by internal and external customers • detailed requirements for services and products provided by customers • requests and feedback from customers • incidents, service requests, and feedback from users • cooperation opportunities and feedback provided by partners and suppliers	• consolidated demands and opportunities for plan • product and service requirements for design and transition • user support tasks for deliver and support • improvement opportunities and stakeholders' feedback for improve • change or project initiation requests for obtain/build • contracts and agreements with external and internal suppliers and partners for design and transition, and obtain/build

Another inputs are:

- 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
- improvements initiatives and plans from improve
- improvement status reports from improve

SVS/SVC

Service value chain - design and transition

The purpose of the design and transition value chain activity is to ensure that products and services continually meet stakeholder expectations for quality, costs, and time to market.

The key inputs to this value chain activity are:

- portfolio decisions provided by plan
- architectures and policies provided by plan
- product and service requirements provided by engage
- improvement initiatives and plans provided by improve
- improvement status reports from improve
- service performance information provided by deliver and support, and improve
- service components from obtain/build

The key outputs of this value chain activity are:

- 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

SVS/SVC

Service value chain - obtain/build

The purpose of the obtain/build value chain activity is to ensure that service components are available when and where they are needed, and meet agreed specifications.

The key inputs to this value chain activity are:	The key outputs of this value chain activity are:
• architectures and policies provided by plan • contracts and agreements with external and internal suppliers and partners provided by engage • goods and services provided by external and internal suppliers and partners • requirements and specifications provided by design and transition • improvement initiatives and plans provided by improve • improvement status reports from improve	• service components for deliver and support • service components for design and transition • knowledge and information about new and changed service components to all value chain activities • contract and agreement requirements for engage • performance information and improvement opportunities for improve

Another inputs are:

- 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.

SVS/SVC

Service value chain – deliver and support

The purpose of the deliver and support value chain activity is to ensure that services are delivered and supported according to agreed specifications and stakeholders' expectations.

The key inputs to this value chain activity are:	The key outputs of this value chain activity are:
• new and changed products and services provided by design and transition • contracts and agreements with external and internal suppliers and partners provided by engage • service components provided by obtain/build • improvement initiatives and plans provided by improve • improvement status reports from improve • user support tasks provided by engage	• services delivered to customers and users • information on the completion of user support tasks for engage • product and service performance information for engage and improve • improvement opportunities for improve • contract and agreement requirements for engage • change requests for obtain/build • service performance information for design and transition

SVS/SVC

Exercise 3, Value Stream and Value Stream Activities

Please choose one value stream from your department, should correspond to the real activities in the organization, all group members should be familiar with this. For example please choose one of them or propouse your own activities.

- Major security incident resolution
- Release and deployment of the normal/emergency change
- Security issue discovered in supplier's software used by organization
- Root Cause Analysis preparation

Time 30 minutes

SVS/SVC

Exercise 3, Value Stream and Value Stream Activities

Value Stream	Practice	Role	Service Value Chain
Activity 1 **Activity 2** **Activity 3**			Engage Deliver and support
Activity 4 **Activity 5**			Plan Improve
Activity 6 **Activity 7**			Engage Plan
Activity 8 **Activity 9** **Activity 10**			Design and Transition

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