

COURSE BOOK

ITIL® FOUNDATION

The logo features the text "ITIL® 4" in a bold, white, sans-serif font. It is centered within a series of concentric white circles. The background is a solid purple color with a subtle pattern of thin, white, radial lines emanating from the center, creating a sense of depth and focus.

ITIL® 4



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ITIL® Foundation | r1.4.0

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Acknowledgements

We would like to sincerely thank the experts who have contributed to the design and development of the ITIL® Foundation course.

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As an IT Service Management trainer, consultant and line manager with over 25 years of experience in IT, Marcel has performed strategic and tactical assignments in a wide variety of areas. His experience includes project and program management including process design, product management, requirements analysis and training delivery related to the IT Service Management international best practice, in both the private and public sectors on a global scale. His area of consulting expertise is in advising organizations on IT Service Management, based on ITIL best practices, and in the management of these initiatives to improve organizational and operational efficiencies and service delivery quality. He also excels as an experienced facilitator, trainer and lecturer.

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For the ITIL® (4) Foundation course, Marcel participated as a Lead Author in the design, development, and review of core course components and additional learning material.

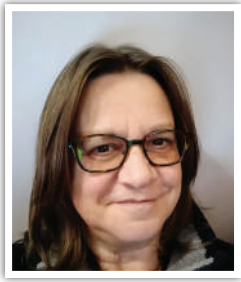


Simone Jo Moore

Simone is recognized as a leading industry thought leader and is known as a “Service Management Mixologist” probing the hearts and minds of what makes business and IT tick to jumpstart people’s thinking to evolve behavior and actions at any level. People connected, knowledge shared, possibilities discovered, and potential realized are the active values that Simone uses to help organizations build a resilient foundation for their ongoing transformation and digital journey.

Simone is a contributing author to VeriSM Unwrapped and Applied, is a senior consultant, master trainer, author, podcast co-host, and mentor in various frameworks such as BRM, ITIL, KCS, DevOps, and SFIA. Simone is a HDI Faculty member and on the International Certification Standards Committee (ICSC) as well as an ICMI Senior Contact Centre Manager.

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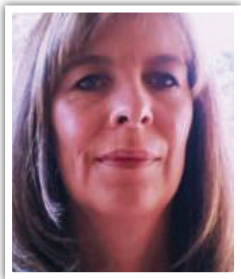
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Helen provides quality training and consultancy to organizations, assisting with delivery of IT service management.

Helen Morris has over 25 years of experience in service management including operational management of services in a variety of industry sectors. She holds the ITIL® Expert qualification and is an experienced trainer for ITIL Foundation and ITIL Intermediate training. She has coauthored a number of study guide publications and distance-learning courses covering the service management qualifications.

As an experienced consultant, Helen has led a number of successful service management improvement programs, working with organizations to develop their service management strategy and being a key player in the implementation of the strategy within the organizations. She has delivered strategic improvements in customer satisfaction, service delivery, and regulatory standards. Helen is also a certified ISO/IEC 20000 consultant.

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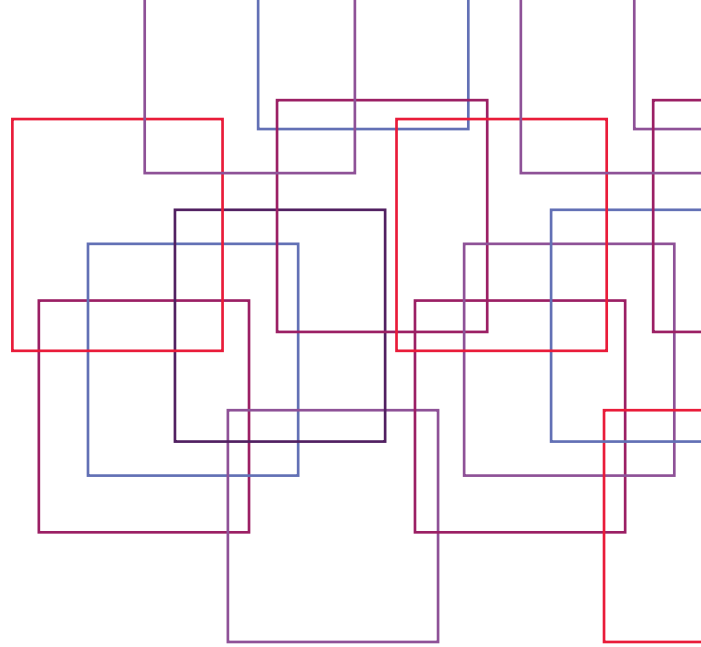
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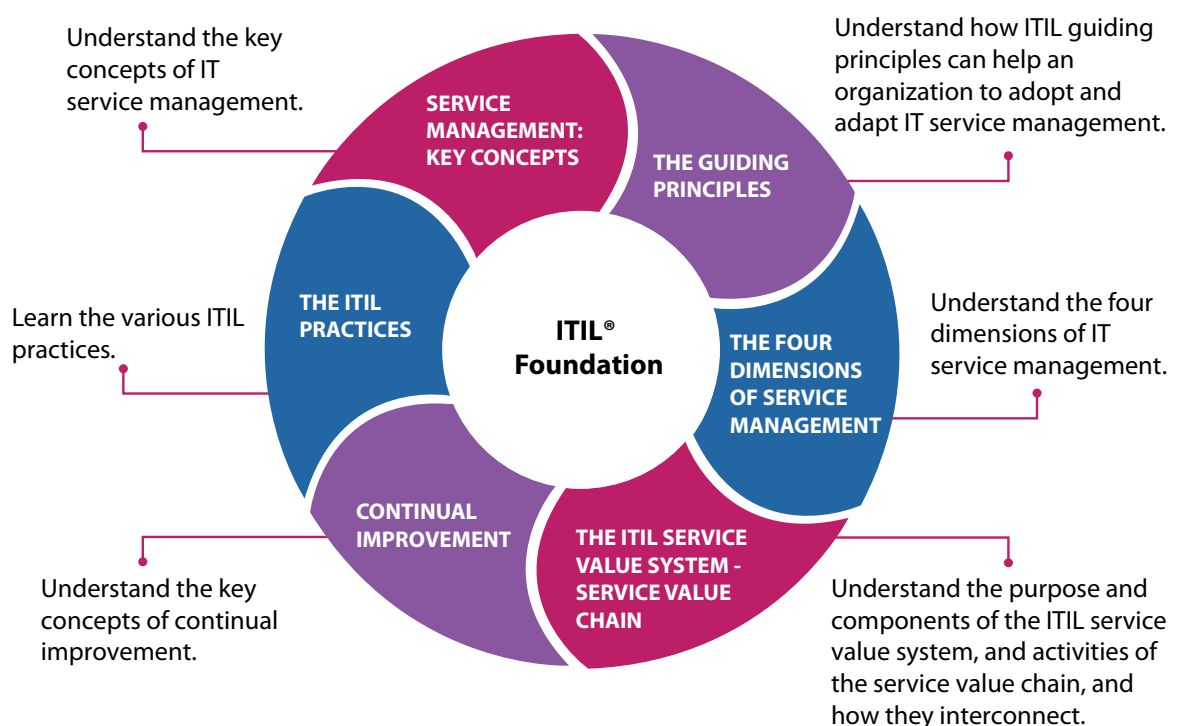
COURSE INTRODUCTION

Course Overview

The ITIL 4 Foundation course is based on the ITIL® 4 Foundation candidate syllabus from AXELOS. The course provides an extensive introduction to the core concepts of ITIL 4. With the help of ITIL 4 concepts and terminology, activities, exercises, and examples included in the course, you will acquire relevant knowledge to pass the ITIL® 4 Foundation exam.

This course is designed to provide learners an extensive understanding of the ITIL 4 principles and to show how they can improve their work and the work of their organization as a whole with the ITIL 4 guidance. The course will inspire you to serve as a change champion by sharing and using what you have learned, and continue to learn, about ITIL 4 to lead and mentor others.

Course Learning Objectives



At the end of the course, you will be able to:

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

Course Components



Course Modules



Videos



Case Study



Case Study Discussions and Activities



Exam Information



Additional Components

Course Agenda

	Module	Subject	Start	End	Total Time (In hours)
Day 1	01	Introduction and recap of ITIL 4 concepts based on pre-course reading	09:00	10:00	00:60
	02	Service Management: Key Concepts - Part 1	10:00	10:30	00:30
		<i>Morning Tea</i>	10:30	10:45	00:15
	02	Service Management: Key Concepts - Part 2	10:45	11:45	00:60
	03	The Guiding Principles - Part 1	11:45	12:30	00:45
		<i>Lunch</i>	12:30	13:20	00:50
	03	The Guiding Principles - Part 2	13:20	14:30	00:70
	04	The Four Dimensions of Service Management	14:30	15:20	00:50
		<i>Afternoon Tea</i>	15:20	15:35	00:15
	04	The Four Dimensions of Service Management (Contd.)	15:35	16:00	00:25
	05	The ITIL Service Value System	16:00	16:40	00:40
		Questions / Debrief Day 1 / Homework	16:40	17:00	00:20
		Total (Less Lunch and Tea)			06:40
		Total			08:00

	Module	Subject	Start	End	Total Time (In hours)
Day 2		Review of Day 1 / Homework	09:00	09:30	00:30
	05	The ITIL Service Value System (Contd.)	09:30	10:00	00:30
		<i>Morning Tea</i>	10:00	10:15	00:15
	06	Continual Improvement	10:15	10:50	00:35
	07	The ITIL Practices	10:50	12:30	00:100
		<i>Lunch</i>	12:30	13:20	00:50
	07	The ITIL Practices (Contd.)	13:20	15:20	00:120
		<i>Afternoon Tea</i>	15:20	15:35	00:15
	07	The ITIL Practices (Contd.)	15:35	16:00	00:25
		Day 2 Wrap up / Exam Preparation Guide/ Mock Exam / Advice	16:00	17:00	00:60
		Total (Less Lunch and Tea)			06:40
		Total			08:00

Note: Exam can be conducted in the class on the third day, or participants can take the exam later through online format.

Introduction to IT Service Management in the Modern World



<https://player.vimeo.com/video/300692621>

This video talks about the digital transformation and the evolution of ITSM practices, introducing ITIL 4.

Transcript for Video

Hi, my name is Simone Jo Moore. I am one of the authors of this ITIL 4 courseware.

In an ever changing world where manufacturers of the past are becoming service providers of the future. The digital transformation revolution affects all industries and is about more than just technology.

Businesses are rethinking their organizational structures to stay at the top of the game. They are breaking down barriers from the past and building collaborative units that takes them beyond their current way of working.

Technology is advancing faster today than ever before. Developments such as cloud computing, infrastructure as a service, machine learning, and block chain, have opened up fresh opportunities for value creation, and led to IT becoming an important business driver and source of competitive advantage.

With the necessity for an organization to stay current, IT service management is a key strategic capability. ITIL, the most adopted guidance in the world within IT Service management (ITSM), has also evolved.

Remember, ITIL is a framework and as such provides guidance in ITSM. We don't "do" or "implement" ITIL as an objective. There is no "one-size-fits-all" way of working so look to ITIL as a toolbox. ITIL 4 is designed to collaborate with many frameworks and methods in the IT industry, such as Lean, DevOps, Agile and many more.

It is essential you strive to understand the practices across ITSM and not take them out of context but adopt and adapt them to your organization's need.

So, welcome to the ITIL 4 Foundation Course and enjoy this learning experience.

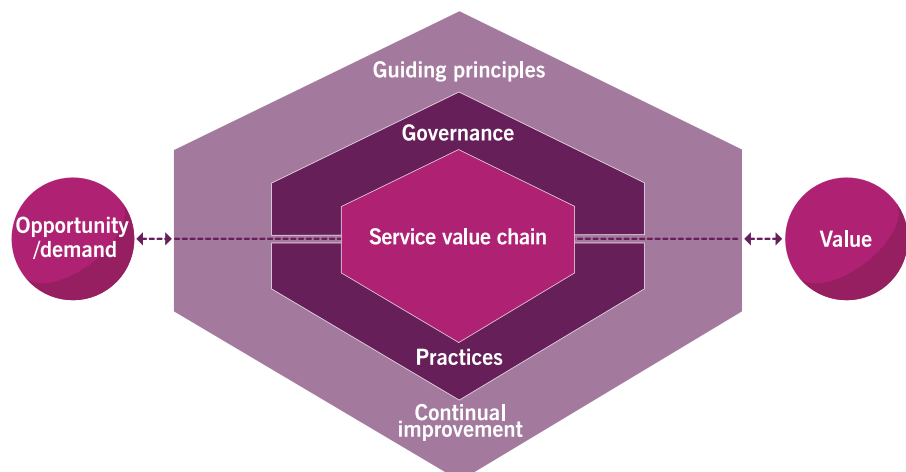
Introduction to ITIL 4

ITIL 4 provides a practical and flexible approach to support various organizations on their journey to the new world of digital transformation.

ITIL 4 provides an end-to-end digital operating model for the delivery and operation of IT-enabled products and services and enables IT teams to continue play an important role in a wider business strategy. ITIL 4 also provides a holistic end-to-end approach that integrates frameworks such as Lean, Agile, and DevOps.

Structure and Benefits of ITIL 4

The following figure shows the structure of the Service Value System.



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The key components of the ITIL 4 framework are the **Service Value System (SVS)** and the **Four Dimensions model**. The SVS represents how the various components and activities of the organization work together to facilitate value creation through IT-enabled services. The SVS facilitates the integration and coordination and provides a strong, unified, value-focused direction for the organization.

To ensure a holistic approach to service management, ITIL 4 defines four dimensions of service management:

- Organizations and people
- Information and technology
- Partners and suppliers
- Value streams and processes

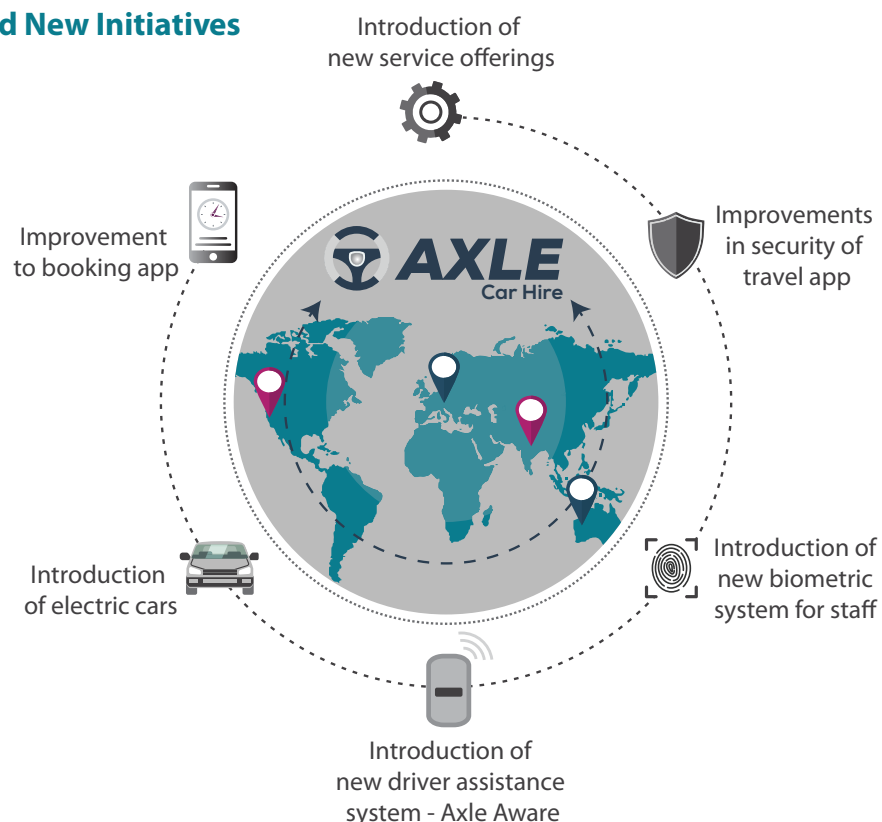
To ensure that SVS remains balanced and effective, it is important to give each of the four dimensions an appropriate amount of focus.

Case Study: Axle Car Hire

This course uses the exploits of a fictional company “Axle Car Hire” to enable a thorough analysis and understanding of the concepts of ITIL 4. Axle Car Hire is transforming to modernize its services and improve its customer satisfaction and retention levels, and is using ITIL 4 to do this. In each module of the course, the employees of Axle will describe how the company is improving its services, and explain how they are using ITIL best practice to do this.

The introduction to the case study is provided in the appendix.

Improvements and New Initiatives by Axle Car Hire



Case Study: The CIO's Vision for Axle

This video is based on the Axle Car Hire case study, sourced from the ITIL® Foundation (ITIL® 4 edition) manuscript by AXELOS.



<https://player.vimeo.com/video/300717123>

Henri is the new Chief Information Officer (CIO) of Axle Car Hire and he is planning to adopt ITIL 4 along with the new and improvement initiatives that Axle is considering. Before moving on, let us hear what message is the CIO of Axle conveying to his employees.

Transcript for Video

Good Morning! Thank you very much for joining. I am Henri, your new Chief Information Officer. It is an honor for me to lead and serve this great company of ours and I look forward to working with you all!

We all know that since adapting the ITIL framework to our business, Axle has improved its reputation in the market. But in recent years, we are coming across new challenges, such as the digital revolution and a need for being faster, cheaper, greener and easier. We want to become the market leader and so we're going through a phase of reinventing ourselves by updating our approach through ITIL 4.

It's time for us to consider a few important items that we need to improve and some new ideas to experiment with. One of the items we should consider for improvement is the booking app. Our booking app is out of date and our technology is not keeping pace with changes in our service offerings.

This digital era requires us to do the old things in new ways and find a way to do things we couldn't manage before. The complexity of our systems goes beyond the technology - we must never forget the human side, the people and the practices we use to make things happen.

I think with the adoption of ITIL 4, we learn to have a balanced focus on our technology, people, and practices. And this may also help us to have more inclusive relationships across our enterprise. Most importantly, ITIL 4 enables us to bring what we do into a more encompassing value chain.

We can't predict all the opportunities or changes this will bring to our business, but one thing is clear, we will take our customers and partners with us during this journey and continue to promote creative and innovative services and products for our customers.

Axle is more than just hiring a vehicle. We focus on our customers' whole travel experience and will continue to do so.

Let's look forward for the best results as we start adopting ITIL 4.

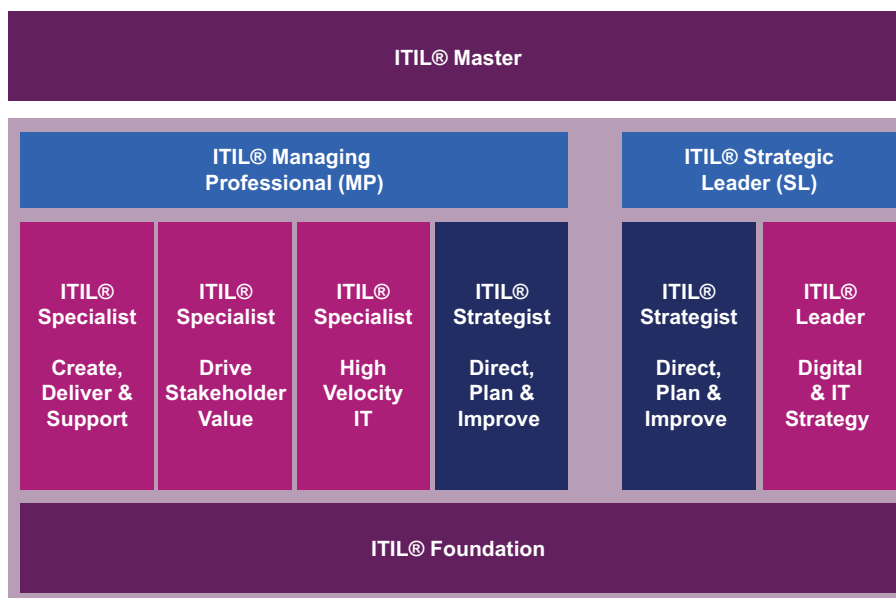
Exam Details

At the end of the course, an exam will be conducted. The exam details are:

- **Bloom Level:** 1 and 2
- **Exam Format:**
 - Close Book format
 - Web-based and paper-based
- **Questions:** 40 Multiple Choice Questions (MCQs)
- **Passing Score:** 65%
- **Exam Duration:**
 - 60 minutes
 - 15 minutes extra for non-native English speakers
- **Proctoring:** Live/Webcam

After completing this training, you will be planning to take the ITIL® Foundation certification exam. To give you an idea about the certification exam, mock exam is included within the course.

ITIL 4 Certification Scheme



The ITIL® (4) Foundation is the entry level certification, offering a general awareness of the key concepts, elements, and terminology of ITIL 4. This certification is targeted at professionals who need a basic understanding of ITIL or who would like to progress to higher levels of the ITIL 4 certification scheme.

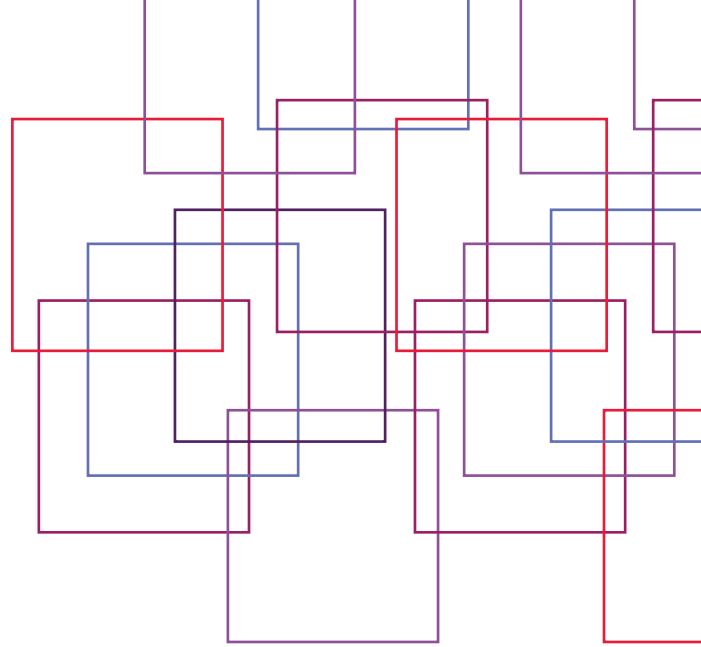
After attaining the ITIL Foundation certification, a candidate may choose to take the ITIL Managing Professional stream or the ITIL Strategic Leader stream.

The ITIL Managing Professional stream includes four modules. All four modules are valuable independently, but all four modules must be completed to obtain the ITIL Managing Professional designation. The ITIL® (4) Foundation certification is a prerequisite for the ITIL Managing Professional modules.

The ITIL Strategic Leader includes two modules, which are both valuable independently but both must be completed to obtain the ITIL Strategic Leader designation. The ITIL Strategist Direct, Plan, & Improve module is common to both streams. The ITIL Leader Digital & IT Strategy module requires 3 years of experience (along with the ITIL (4) Foundation certification) as a prerequisite.

If a candidate completes all 5 modules, gaining both designations from the two streams, they will be eligible for assessment to become an ITIL® Master.

2



SERVICE MANAGEMENT: KEY CONCEPTS

Intent and Context

To address the real world challenges of service management and adopt a service management framework, such as ITIL, it is important to understand the key concepts of service management. These key concepts include:

- Organizations, service providers, service consumers, and other stakeholders
- Value and value co-creation
- Products and services
- Service relationships

These are generic concepts of service management and apply to all services and service relationships.

Let us see what the experts say about the key concepts of service management.



<https://player.vimeo.com/video/302760468>

Transcript for video

Welcome to the module on key concepts of Service Management.

The concepts within this module, apply to all services and service relationships, regardless of their nature and underpinning technology. A shared understanding of the key concepts and terminology of ITIL

by organizations and individuals is fundamental to address real world service management challenges as it gives a common language and focus.

To that end, this module explains some of the important concepts of service management, including:

- The nature of value and value co-creation
- Organizations, service providers, service consumers and other stakeholders
- Products and services
- Service relationships
- Outcomes, costs and risks

Before we go any deeper, let's first understand the nature of value and value co-creation. Value is not a complex concept, it simply means "being of use". Something has value to someone as long as it is useful or important and it can offer benefits.

Value is delivered by the service provider through its products and services and the consumer receives value; but does this mean that the consumer plays no role in the creation of value for themselves? Not exactly!

The relationship between a service provider and the consumer is not one-sided. Value is co-created through an active and collaborative partnership between service provider and consumer, as well as other stakeholders. These other stakeholders can be investors and shareholders, regulators, partners and suppliers, communities, and societies.

Delivering a service is not a passive experience. It is important to recognize that the role of provider and consumer are sometimes interchangeable. Organizations also use other service providers and are thereby recognized as a consumer.

Let's continue with the other concepts!

Learning Objectives

At the end of this module, you will be able to:

- Understand the concept of value and co-creation of value by service provider and service consumer.
- Understand how organizations create value through products and services.
- Identify the importance of service relationships and service relationship management.
- Describe the key concepts of creating value with services, including outcome, output, cost, risk, utility and warranty.

Key Terms Covered in the Module

Organization	"A person or a group of people that has its own functions with responsibilities, authorities, and relationships to achieve its objectives."
Service Management	"A set of specialized organizational capabilities for enabling value for customers in the form of services."
Service	"A means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks."
Service Provider	"When provisioning services, an organization takes on the role of the service provider. The provider can be external to the consumer's organization, or they can both be part of the same organization."
Service Consumer	"When receiving services, an organization takes on the role of the service consumer."
Product	"A configuration of an organization's resources designed to offer value for a consumer."
Value	"Value is the perceived benefits, usefulness and importance of something."
Customer	"The role that defines the requirements for a service and takes responsibility for the outcomes of service consumption."
User	"The role that uses services."
Sponsor	"The role that authorizes budget for service consumption."
Service Offering	"A formal description of one or more services, designed to address the needs of a target consumer group. A service offering may include goods, access to resources, and service actions."
Service Relationship	"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."
Output	"A tangible or intangible deliverable of an activity."
Outcome	"A result for a stakeholder enabled by one or more outputs."
Cost	"The amount of money spent on a specific activity or resource."
Risk	<p>"A possible event that could cause harm or loss, or make it more difficult to achieve objectives."</p> <p>"Can also be defined as uncertainty of outcome, and can be used in the context of measuring the probability of positive outcomes as well as negative outcomes."</p>
Utility	"The functionality offered by a product or service to meet a particular need."
Warranty	"The assurance that a product or service will meet agreed requirements."

Service Management

Service Management

“Service management is defined as a set of specialized organizational capabilities for enabling value to customers in the form of services.”

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

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

The key focus of this module is the concept of “value”. The different key concepts of service management are discussed as concepts for creating value with services.

The Axle Car Hire Story

“**Su:** At Axle, our service is travel experience. We provide this service to our customers to create value both for them and for Axle. Service management helps us to realize this value.”

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Topics Covered

- Value and Value Co-Creation
- Value: Services, Products, and Resources
- Service Relationships
- Value: Outcomes, Costs, and Risks

VALUE AND VALUE CO-CREATION

Organization

Organization

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

(adapted from ISO 9001:2015)

An organization can be a legal entity, a part of a legal entity, or a number of legal entities.

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Organizations vary in size and complexity. An organization can be a legal entity, a part of a legal entity, or a complex network of legal entities united by common objectives, relationships and authorities.

The relationships between and within organizations are complex. Each organization depends on others in its operation and development. Organizations may hold different roles, depending on the different perceptions. In the context of service management, an organization can act as a service provider or as a service consumer; in reality, **an organization can play both roles at any given moment**.

EXAMPLE

an organization can play both roles at any given moment

An organization that coordinates holiday packages can fill the role of service provider when it sells a package to customers, while simultaneously filling the role of service consumer when it hires cab service to pick its customers from airport.

Value

Value

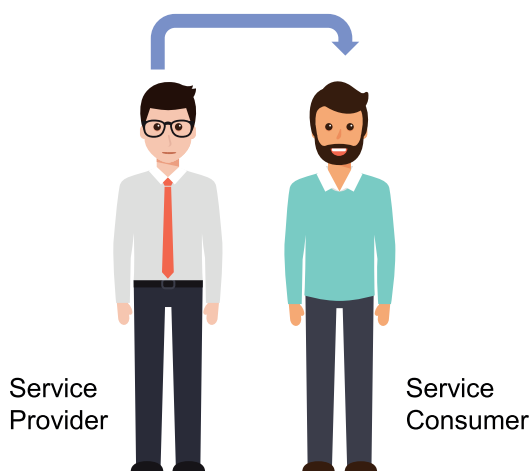
“Value is the perceived benefits, usefulness and importance of something.”

The purpose of an organization is to create value for stakeholders. Different person, groups, or entities in an organization always operate in an integrated and coordinated way to facilitate value creation and fulfil a common set of objectives. The term ‘value’ is an important concept in service management, and it is a key focus of ITIL 4.

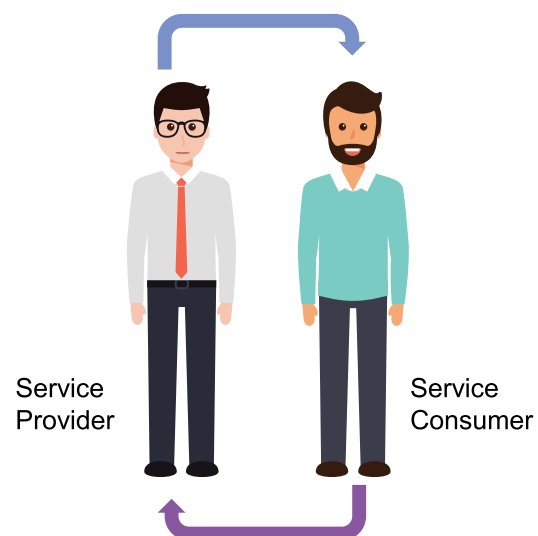
Value is not a fixed term; it is subject to the perception of the stakeholders, whether they are the customers or consumers of service or part of the service provider organization(s).

Co-Creation of Value

There was a time when the relationship between the service provider and service consumer was considered to be mono-directional and distant.



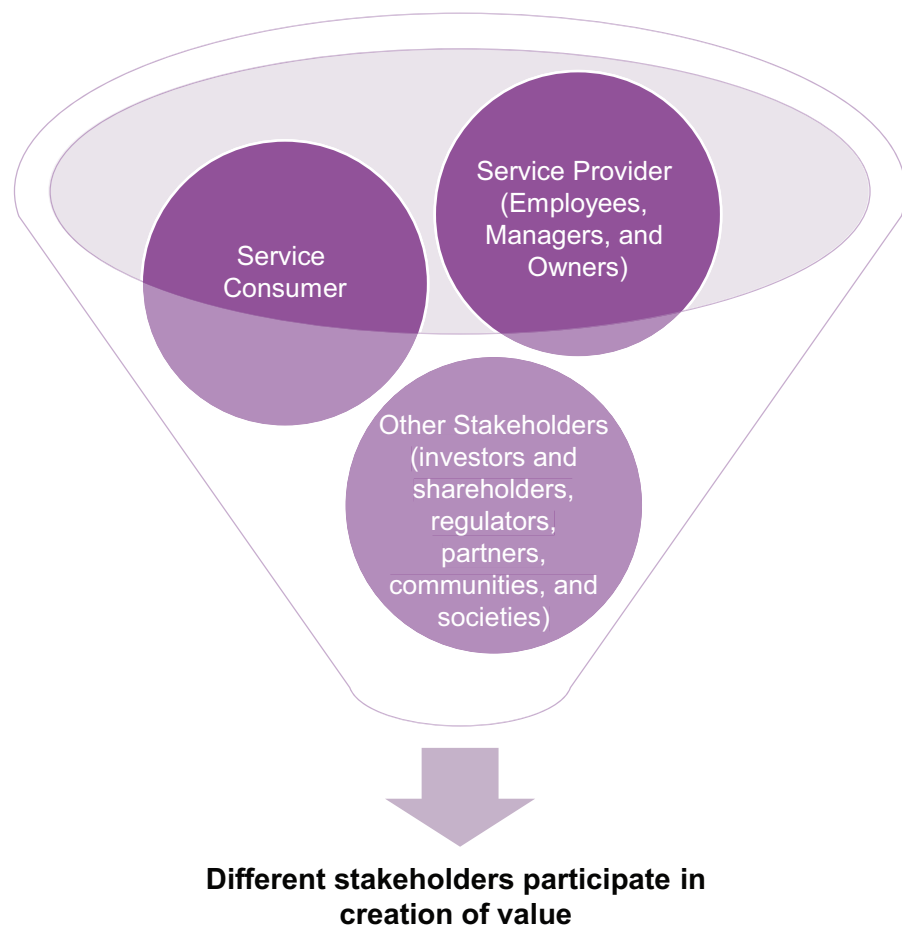
Over the time, organizations recognized that value is co-created through an active collaboration between service providers and service consumers.



There was a time when the relationship between the service provider and service consumer was considered to be mono-directional and distant. It was determined that the service provider delivers the service and the service consumer receives value; the service consumer plays no role in the creation of value for themselves. This view fails to take into consideration the complex and interdependent service relationships that exist in reality.

Over the time, organizations recognized that value is co-created through an active collaboration between service providers and service consumers, and other stakeholders. Service providers should not work in isolation to define the value for their customers and users. They should establish service relationships with consumers to co-create value.

Service Providers, Service Consumers, and Other Stakeholders



One of the most important stakeholder groups for any organization is service consumers – organizations and individuals that consume the services the organization provides. However, in service management there are many other groups of stakeholder, including investors and shareholders, regulators, partners, communities, and societies. Each of these stakeholders must be understood in the context of the creation of value in the form of services. The organization itself

(service provider) is also a key stakeholder, including its employees, managers and owners.

For the success and the continued existence of an organization, it is important that relationships with all key stakeholder groups are considered and managed. If stakeholders do not relate to with what the organization does or how it does it, the provider's relationships with its consumers can be impacted badly.

Service Providers

Service Provision

"When provisioning services, an organization takes on the role of the service provider. The provider can be external to the consumer's organization, or they can both be part of the same organization."

It is important that the service provider has a clear understanding of who its consumers are in a given situation and who the other stakeholders are in the associated service relationships.

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The service provider and service consumer can be different organizations, or they can both be part of the same organization.

One simple example of provider-consumer model is where the service provider can be the IT department of an organization and other departments or units can be regarded as consumers. In reality, different comprehensive provider-consumer models exist. For example, a service provider can sell services on the open market to individual consumers or other organizations, or they can be part of a **service alliance**.

service alliance

Service alliance is a collaboration between two or more organizations providing services to consumers. For example, in the US Abbott Laboratories warehouses and delivers the 3M's medical and surgical products to hospitals. So, here US Abbott and 3M are working in service alliance to provide (products and) services to hospitals.

The Axle Car Hire Story

Service Providers

"**Henri:** Axle Car Hire acts as a service provider. We provide cars for hire. At the same time, other organizations, such as mechanics and the companies that we buy our cars from, act as service providers for Axle."

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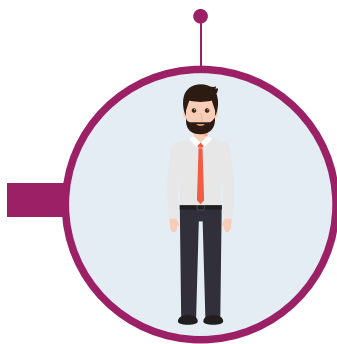
Service Consumers

Service Consumers

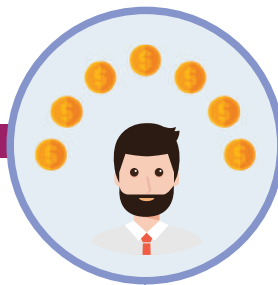
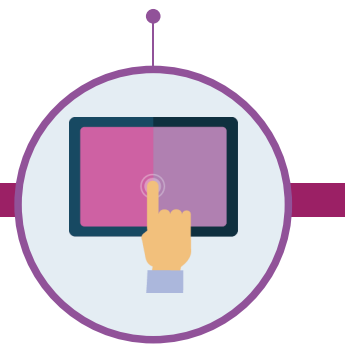
“When receiving services, an organization takes on the role of the service consumer”.

Service consumer is a generic role; in practice, service consumption includes more specific roles: customer, user, and sponsor.

“**Customer** is a role that defines the requirements for a service and takes responsibility for the outcomes of service consumption.”



“**User** is the role who uses services.”



“**Sponsor** is a role that authorizes budget for service consumption.”

EXAMPLE

If an organization wishes to purchase cab services for its employees from a car rental service provider, the three consumer roles may be distributed as follows:

- The Administration Officer and key communications team members fill the role of customer, who analyze the cab requirements of the company's employees and negotiate the contract with the car rental service provider and monitor the service provider's performance against the contracted requirements.
- The Finance Manager fills the role of the sponsor, who reviews the proposed service arrangement and approves the cost of the contract as negotiated.
- The employees (including the Administration Officer, Finance Manager, and communications team members) fill the role of users when they order, receive, and use the cab services.

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Service consumer is a generic role that is used to simplify the relationship between service provider and service consumer in a service relationship. In practice, the service consumption involves more specific roles such as **customer, users and sponsors**. Each of these roles may have different definitions of value and sometimes even conflicting expectations from services.

The Axle Car Hire Story

Axle's Service Consumers

“**Su**: Our most obvious service consumers are the people and organizations who hire our cars, visit our offices, and use our website and booking app. For example, Yoshi and Faruq are service consumers, and so is Food for Fuel. They are also our customers.

Radhika: Users are the people who make use of our services. Our car-hire users are the drivers and passengers in our vehicles.

The Axle Car Hire Story

Axle's Service Consumers (Contd.)

Marco: Sponsors are the people who authorize budgets. For Axle Car Hire, our sponsors include Amelia from Food for Fuel, who approves the travel budget for her organization even if she doesn't travel herself.

Henri: Individual service consumers such as Yoshi and Faruq approve their own budgets, define their requirements for car hire, and drive the cars. Therefore, Yoshi and Faruq act as sponsors, customers, and users. Sometimes, though, they may share the trip with fellow drivers (friends or family members). In this case, their contracts will include other users."

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Activity Case Study Discussion: Value from the Perspective of Different Stakeholders

Activity Time: 15 minutes

Focus

Value is subject to the perception of different stakeholders. Here is a generic example of different stakeholders and definition of value for these stakeholders.

Stakeholder	Value (Example)
Service consumers	Benefits achieved, costs and risks optimized
Service provider	Funding from the consumer; business development; image improvement
Partners	Financial and non-financial incentives, business development; image improvement
Shareholders	Financial benefits, such as dividends; sense of assurance and stability

Task:

In consideration to the Axle Car Hire case study, identify some key stakeholders. What is the definition or expectation of value for each of these stakeholders?

The Axle Car Hire Story

Value

Marco: We're planning to release a generous new offering, giving an extra day of car hire with every booking.

Henri: However, we must remember that value means different things for different people. Axle has a broad range of customers, and each of them has their own requirements for car hire. We need to make sure that any changes to our services are actually providing some type of value to our customers.

The Axle Car Hire Story

Value (Contd.)

Yoshi: To me, 'value' means freedom of movement. I want my travel to be easy, hassle-free, and flexible. I opt in to mailing lists and subscriptions when it suits me. I take frequent short trips and rarely visit the same location twice. An extra day of car hire won't always suit my plans.

Faruq: I don't travel often, so I don't have my own car. The value of a car-hire service for me is the on-demand availability of a car that suits my needs. I spend less money on car hire each year than it would cost me to maintain and run my own car. Value means it meets my budget. Being retired means I'm flexible, with very few commitments or deadlines. When I'm on holiday, I only plan a few days ahead. An extra day of car hire offers real value to me.

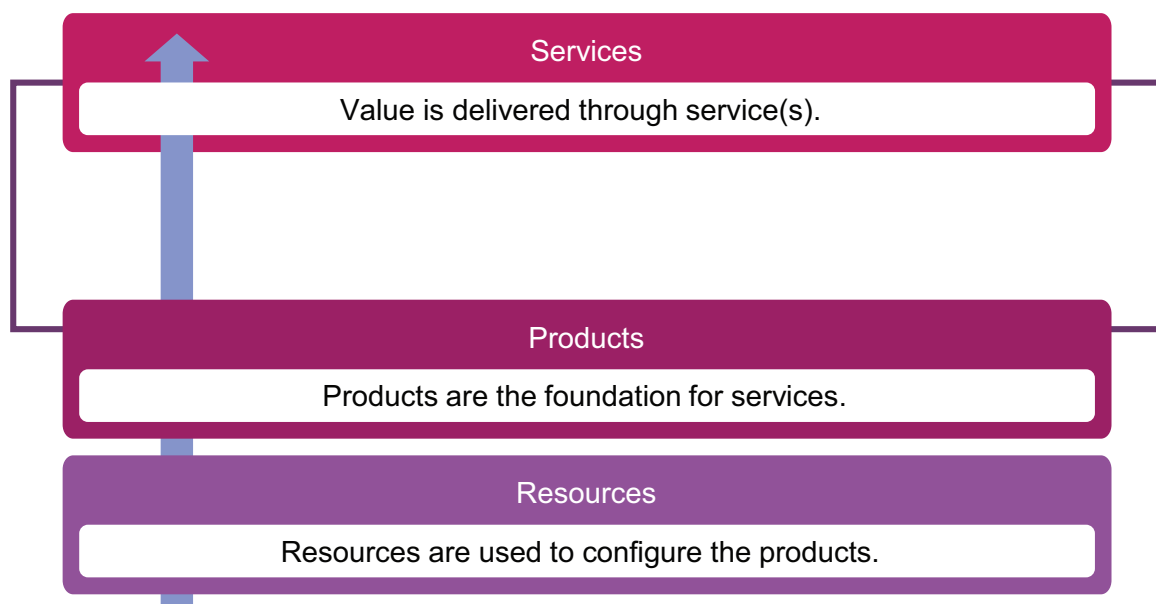
Amelia: The value of car hire for my organization, Food for Fuel, is two-fold. First, we need the ability to reach our customers. Second, we're keen to lower our costs and risks by hiring cars instead of running our own fleet. As a regular customer who books car hire on behalf of my sales reps and staff, I value a consistent and reliable standard of service. Travel and car hire at Food for Fuel is preplanned and typically only requires daily hire. There's not much value in an extra day of car hire for my organization.

Henri: We also have to think about how value is created for Axle. The most obvious value we receive when we hire out our cars is revenue. For our service consumers, value includes easy access to a vehicle when they need it, without the overall expense of car ownership. In both cases, we need a combination of the two for the value to be realized. In that way, we co-create value through our service relationships."

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VALUE: SERVICES, PRODUCTS, AND RESOURCES

Products, Services, and Resources



The central component of service management is service. The service provider delivers value through service. The services that an organization provide are based on products. Products are configuration of an organization's resources designed to offer value for a consumer.

Services

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."

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All services have a service cost when they become operational and this cost must be managed. To avoid taking risks, consumers look to service providers to satisfy their need for those services. The service provider, on the other hand, provides those services according to the requirements of the customers.

Products

Product

"A configuration of an organization's resources designed to offer value for a consumer."

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The services that an organization provides are based on one or more of its products. Organizations own or have access to multiple resources, such as people, information and technology, value streams and processes, and suppliers and partners. Products are configurations of these resources, created by the organization, that will potentially offer value for their customers.

Each product that is offered by an organization is created in consideration to the requirements of number of target consumer groups. A product is not exclusive to one consumer group and can be used to address the requirements of numerous different groups. **The products are tailored to meet the requirements of the different consumer groups and to appeal to them.**

Products are usually complex and are not completely visible to the consumer. The part of the product that is actually visible to the consumer does not always represent the complete components that are part of the product and that support its delivery.

EXAMPLE

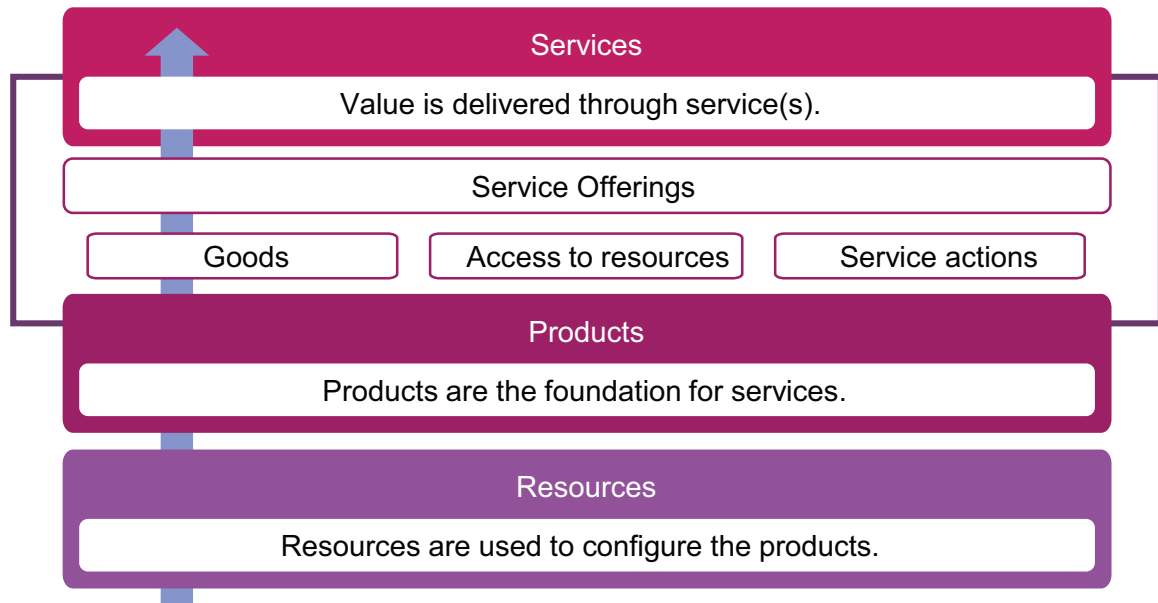
The products are tailored to meet the requirements of the different consumer groups and to appeal to them

A software service can be offered as lite version for individual users; or as premium version, with extra features, for group of corporate users.

Service Offerings

Service Offering

“A formal description of one or more services, designed to address the needs of a target consumer group. A service offering may include goods, access to resources, and service actions.”



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Service providers offer their services to the consumers in the form of service offerings. **Service offerings** describe one or more services based on one or more products. Different offerings can be created based on the same product, which allows the product to be used in multiple ways to address the needs of different consumer groups. Service offerings are designed in consideration to specific target consumer groups.

EXAMPLE

Service Offering

An organization may offer two levels of Desktop Support to its customers. One level is the Standard offering of upgrades and virus protection. The second level is the Executive offering with the standard goods and actions plus some type of availability guarantee, such as 98% availability on six days of the week.

Components of Service Offerings

The table provides the description and example for the typical components of a service offering.

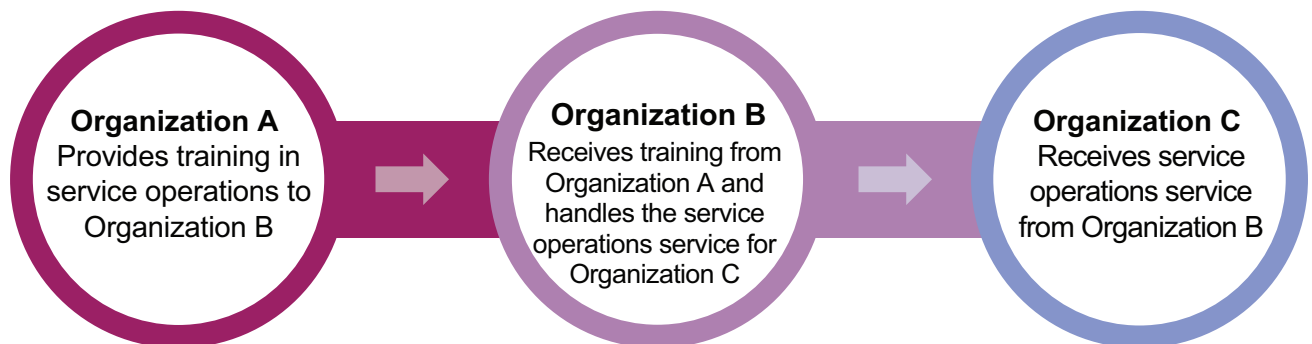
Component	Description	Example
Goods	<ul style="list-style-type: none"> Supplied to the consumer Ownership is transferred to the consumer Consumer takes responsibility for future use 	Mobile, laptop
Access to resources	<ul style="list-style-type: none"> Ownership is not transferred to the consumer Access is granted or licensed to the consumer under agreed terms and conditions Consumer can access the resources during the agreed consumption period and according agreed service terms 	Internet network, license for operating system
Service actions	<ul style="list-style-type: none"> Performed by the service provider to address a consumer need Performed according to agreement with the consumer 	User support

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SERVICE RELATIONSHIPS

What are Service Relationships?

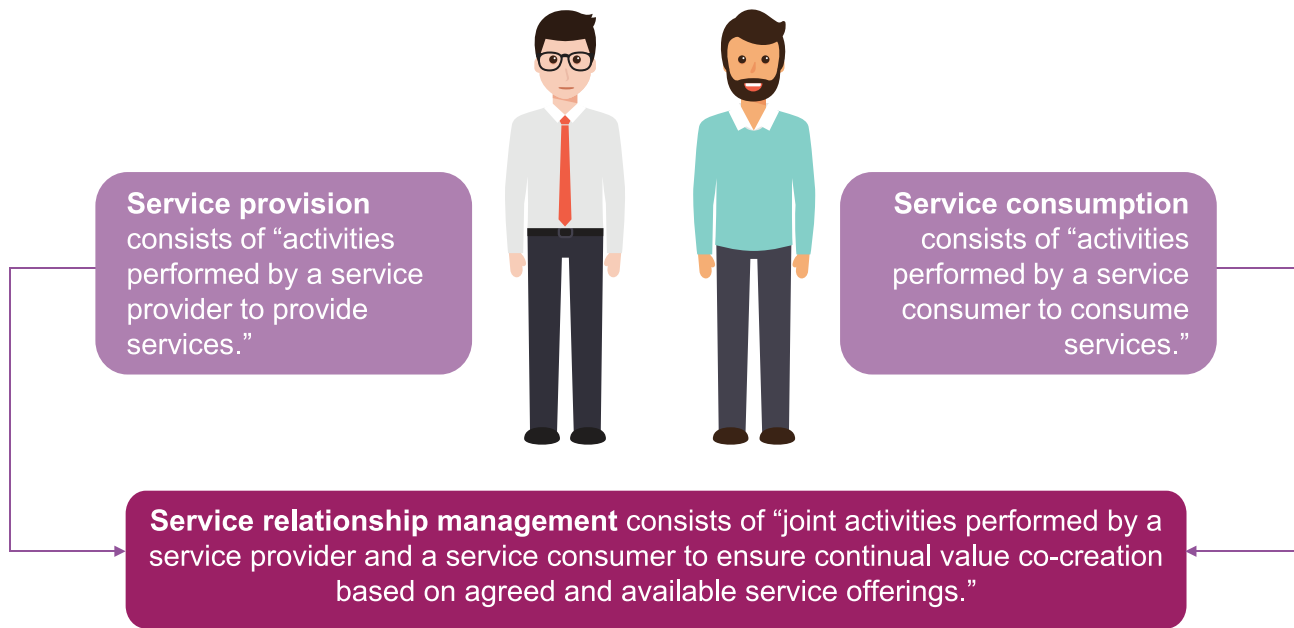
Service relationships are established between two or more organizations to co-create value. In a service relationship, organizations will take on the roles of service providers or service consumers. The two roles are not mutually exclusive, and organizations typically both provide and consume a number of services at any given time.



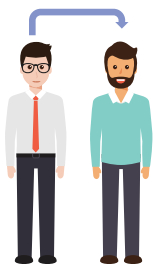
Organization B is service consumer for **Organization A** and service provider for **Organization C**.

Service Relationship Management

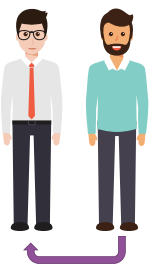
Service relationships include service relationship management, service provision, and service consumption.



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Service provisioning may also include the supplying of goods.



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

Service Provisioning

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.

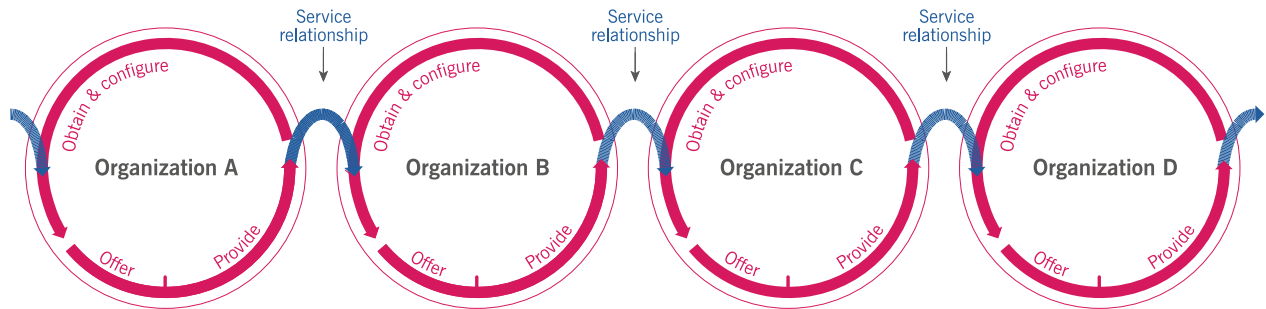
Service Consumption

Service consumption includes:

- Management of the consumer's resources needed to use the service
- Service use actions
- Utilization of the provider's resources
- Request of service actions to fulfill

Service Relationship Model

When service provider deliver services, they either create new resources for service consumers or modify their existing resources. The service consumers can use their new or modified resources to create their own products to fulfill the needs of another target consumer group, and become a service provider. These service relationships and interactions are depicted through the service relationship model.

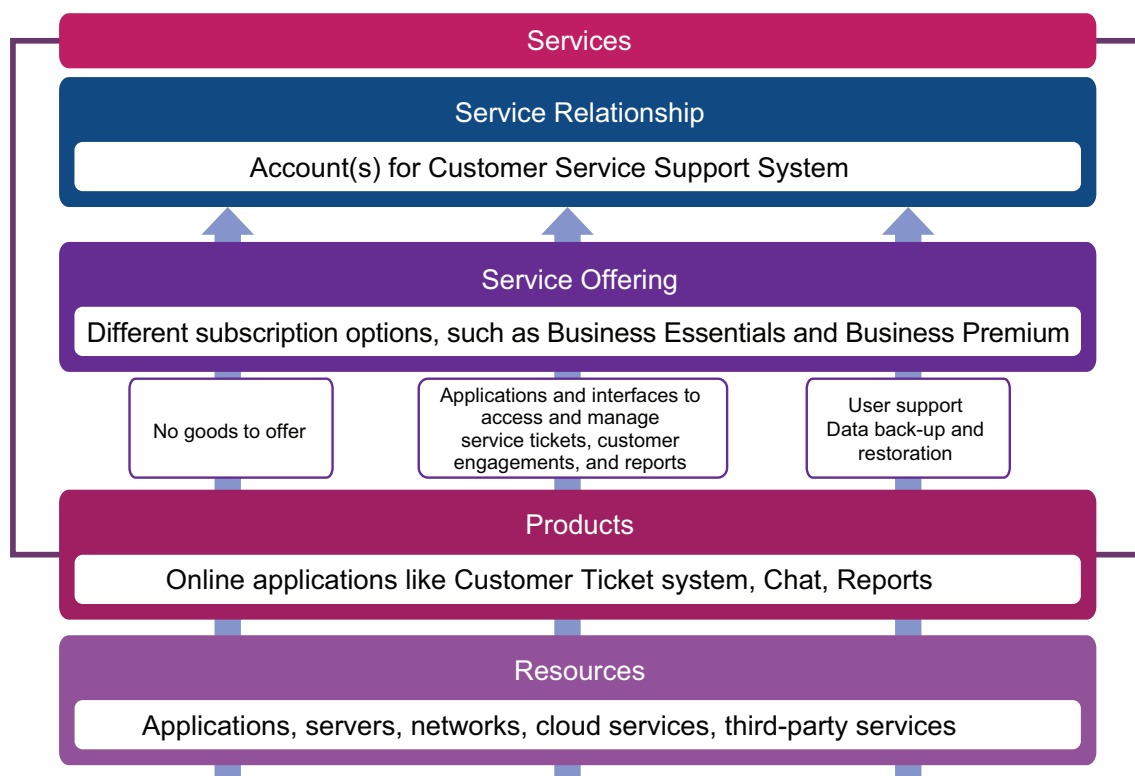


The Service Relationship Model

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Example: Service Relationship, Service Offering, and Products

The purpose of this example is to show what service relationships and service offerings are and outline the relationship between resources, products, and services.



Activity Case Study Discussion: Service Relationship, Service Offering, and Products

Activity Time: 15 minutes

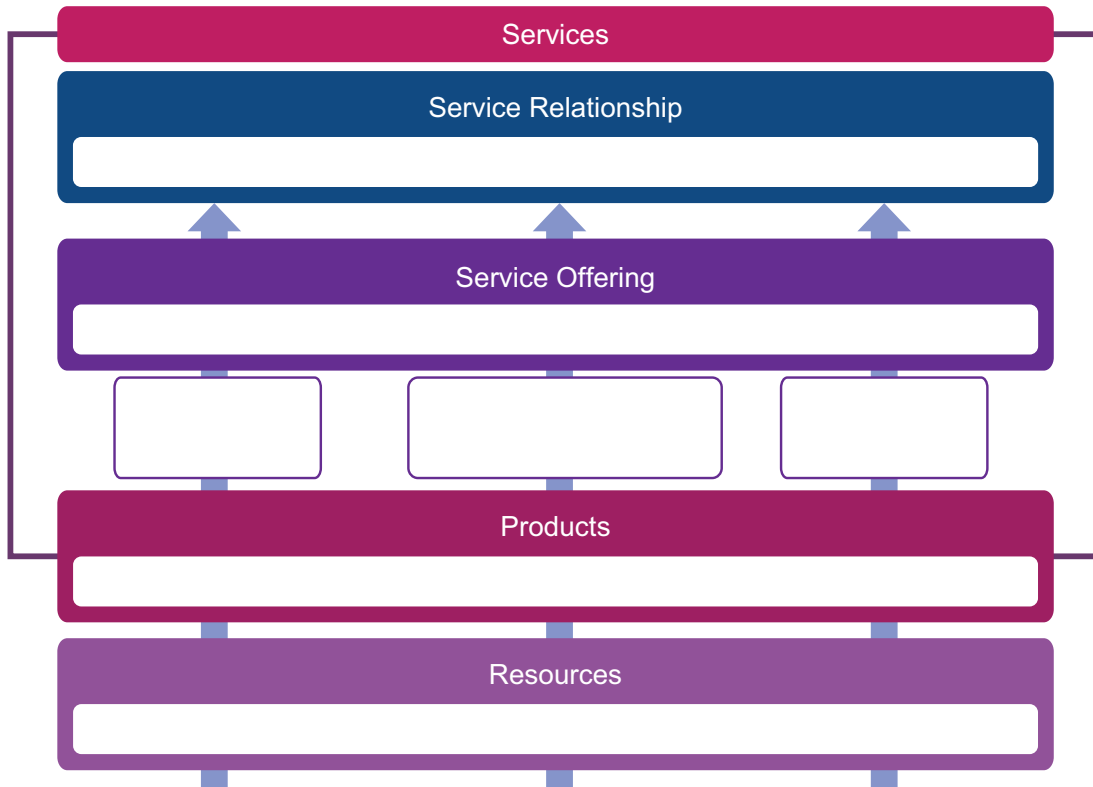
Focus

Service relationships include provisioning and consumption of services. Service offerings represent one or more services designed to fulfill the needs of a target consumer group. The services are based on products. Products are configuration of an organization's resources.

Activity Case Study Discussion: Service Relationship, Service Offering, and Products

Task

Based on the Axle Car Hire organization, identify examples of service relationship, service offerings (goods, access to resources, service actions), products, and resources. Fill in your entries in the template provided in the Course Book.



The Axle Car Hire Story

Axle's Service Offerings

Su: Axle's service offerings include car hire and the various options we provide to address different travel needs. These offerings include discounted insurance, a loyalty programme, and complimentary travel products which include bottled water, tissues, badge holders for parking permits, and baby seats.

Our consumers are a diverse group and expect different travel experiences. For example, our corporate consumers don't usually need baby seats or weekend rates. At the same time, some individual customers aren't interested in free airport car collection if they're only travelling locally.

All our service offerings include access to our website and booking app.

Axle's Service Relationships

Henri: Axle has service relationships with many service providers and consumers both internal and external. Some services provided to Axle create new resources for the business, such as car manufacturers selling cars to us. Other services, such as the work done for us by our internal car cleaning team, and mechanics outside of Axle, change our existing resources by ensuring that our cars are clean and functional.

The Axle Car Hire Story

Axle's Service Offerings (Contd.)

Axle can use these resources in other relationships to provide its own services, in the form of car hire, to consumers, i.e. our customers.

These are just a few examples of the service relationships that Axle has. The organization as a whole has many more.

VALUE: OUTCOMES, COSTS, AND RISKS

Services Facilitate Outcomes

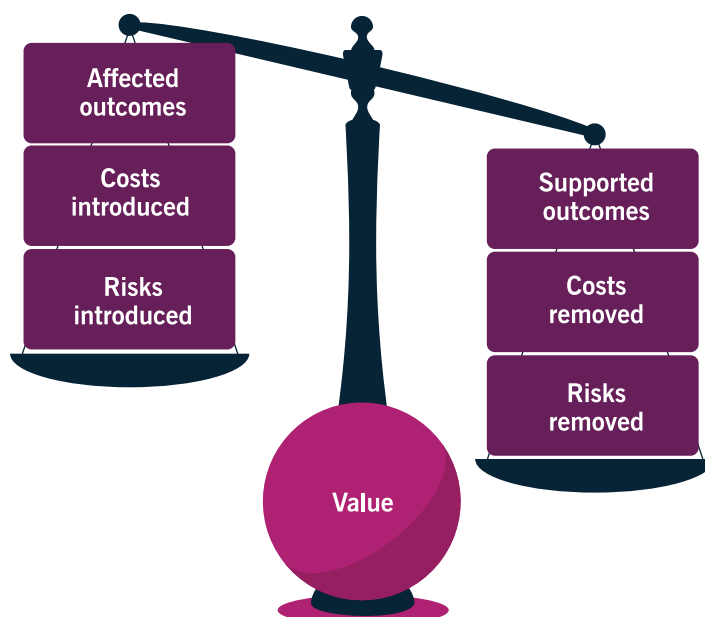
“A service is a means of enabling value co-creation by facilitating **outcomes** that customers want to achieve without the customer having to manage specific **costs** and **risks**.”

As specified in the definition of service, service providers help the service consumers to achieve outcomes, and in doing so, take on some of the associated risks and costs.

Outcomes, Costs, and Risks

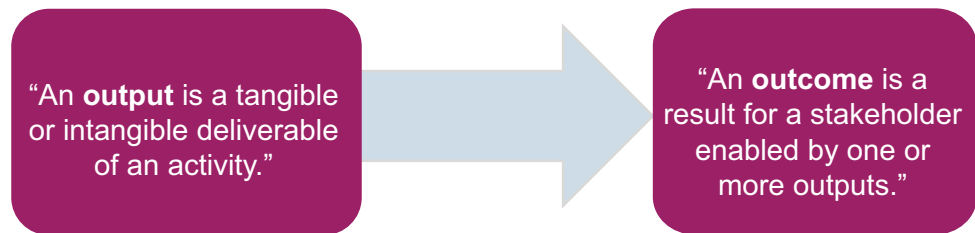
Achieving desired outcomes requires resources (and therefore costs) and are often related to risks.

Also service relationships can introduce new risks and costs, or they can negatively affect some of the anticipated outcomes, while supporting others. Service relationships are perceived as valuable only when they have more positive effects than negative.



Outputs and Outcomes

A service provider produces **outputs** that help its consumers to achieve certain **outcomes**.



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It is important to understand the difference between outputs and outcomes. For example, an output of a training service is a Course Presentation, which the trainers can use to deliver the training. The outcome of the service is the ability of the participants to pass the related certification exam, after attending the training.

It is important for the service provider to understand the outcomes that the consumer wants to achieve. In some cases, the service provider and consumer work together to define the desired outcomes. For example, the Development Manager in a training development department may regularly connect with customers to understand the needs for a training product. In other cases, the consumers communicate their expectations clearly, such as when standardized services are offered to a wide consumer group. This is how mobile operators, broadband service providers and transport companies usually operate. In some other cases, service providers can predict or create demand for certain outcomes. For example, in social networks, the service provider introduces some innovative services addressing needs that consumers were not aware of earlier.

The Axle Car Hire Story

Outputs and outcomes

Henri: At Axle, our key output is a car that is clean, roadworthy, and well maintained.

Su: For our service consumers, outcomes include travel that is convenient and affordable, and meets a range of needs. This includes self-drive holidays, client site visits, and travel to see family and friends.”

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Activity Case Study Discussion: Outputs and Outcomes

Activity Time: 5 minutes

Focus

The difference between outputs and outcomes can be understood from their definition:

“An output is a tangible or intangible deliverable; outcome is a result enabled by one or more outputs”.

Task

For each of the following, identify if it represents an output or an outcome.

1. Car arrives to pick the passenger for the ride.
2. Passengers receive complimentary travel products, including bottled water, tissues, badge holders for parking permits, and baby seats.
3. Passengers and driver enjoy a safe and secure journey through Axle Aware system.
4. The booking app enables the passenger to use the GPS.
5. The vehicle return is self service and easy to use.

Costs

Cost

“The amount of money spent on a specific activity or resource.”

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



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

The costs removed from the consumer by the service may include costs of service provider's staff, technology and other resources.

The costs imposed on the consumer by the service is basically 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 costs of network utilization, cost of procurement, or cost of training to service provider's employees. This cost is sometimes described as what the consumers have to 'invest' to consume the service.

From the consumer's perspective, both types of cost should be considered to assess the value that the service will create. It is important to understand both types of costs to ensure that the correct decisions are made about the service relationship.

From the provider's perspective, a complete understanding of the cost of service provision is required. Service providers need to ensure that services are delivered within budget constraints and meet the financial expectations of the organization.

Risks

Risk

"A possible event that could cause harm or loss, or make it more difficult to achieve objectives." "Can also be defined as uncertainty of outcome, and can be used in the context of measuring the probability of positive outcomes as well as negative outcomes."

From the service consumer's perspective, there are two types of risks:



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The risks removed from a consumer by the service may include failure of the consumer's server or unavailability of workforce. 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.

Examples of the risks imposed on a consumer by the service can be a service provider experiencing a security breach.

The service provider should manage the detailed level of risk on behalf of the consumer based on a balance of what matters most to the consumer and to the provider.

The service consumer contributes to the reduction of risk through:

- Actively participating in the definition of the requirements of the service and the clarification of its required outcomes.
- Clearly communicating the critical success factors and constraints that apply to the service.
- Ensuring the provider has access to the necessary resources of the consumer throughout the service relationship.



Risk can also be defined as uncertainty of outcome, and can be used in the context of measuring the probability of positive outcomes as well as negative outcomes.

Utility and Warranty

The assessment of overall utility and warranty is important to evaluate whether or not a service or service offering will facilitate the desired outcomes for the consumers and create value for them.

Utility

Utility is the functionality offered by a product or service to meet a particular need.

- Represents what the service does
- Determines whether a service is 'fit for purpose'
- Requires that a service must either support the performance of the consumer or remove constraints from the consumer

Warranty

Warranty is the assurance that a product or service will meet agreed requirements.

- Represents how the service performs
- Determines whether a service is 'fit for use'
- Requires that a service has defined and agreed conditions that are met
- Ensures the appropriate level of availability, capacity, continuity, and security

Both utility and warranty are important for a service to facilitate its desired outcomes and enable value creation.

A telecom provider designs its mobile (and internet) phone service to enable its consumers to make phone calls, from wherever they are and whenever they want to (utility). The service provider also needs to make



Warranty typically represents areas such as availability, capacity, service levels and continuity.

sure that this service works under different kind of situations, ensuring the right level of availability, capacity, continuity and security (warranty). If the consumer frequently experiences disruption in services, such as network failure, the consumer gets dissatisfied and considers to move to another provider. Also, if the service is available constantly (warranty), but the service provider fails to offer generic features, such as free roaming or reasonable data download, the utility of the service is not sufficient. This means that both utility and warranty are equally important to give the consumer a good experience and help create value.

In an organization, generally the development team focuses on creating new functionalities (utility) and the operations team focuses on availability and stability of service (warranty). It is important that both teams should collaborate and communicate to a right level for providing high quality services.

EXERCISE: MULTIPLE-CHOICE QUESTIONS

Q1. Which of these stakeholders are involved in the co-creation of value for an organization?

- Service consumer
- Service suppliers
- Service provider

- a) 1 and 3 only
- b) 2 and 3 only
- c) None of the above
- d) All of the above

Q2. '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.' This is the definition of which term?

- a) Product
- b) Output
- c) Service
- d) Organization

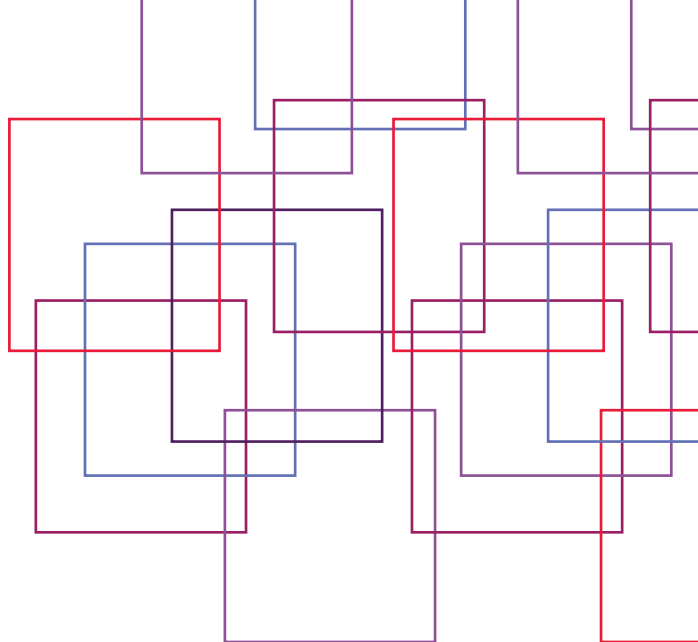
- Q3. A mobile device that is supplied to a consumer who takes ownership of future use is an example of which service offering component?**
- a) Service
 - b) Service Actions
 - c) Goods
 - d) Access to Resources
- Q4. Acting as a service provider, an organization produces outputs that help its consumers to achieve certain outcomes. An outcome is defined as:**
- a) A result for a stakeholder
 - b) A tangible deliverable of an activity
 - c) An intangible delivery of an activity
 - d) Activities performed by the service consumer

MODULE SUMMARY

- In the context of service management, an organization can act as a service provider or as a service consumer; in reality, an organization can play both roles at any given moment.
- The purpose of an organization is to create value for stakeholders. Value is subject to the perception of different stakeholders, whether they are the service consumer or part of the service provider organization(s).
- The products are tailored to meet the requirements of the different consumer groups and to appeal to them.
- Different service offerings can be created based on the same product, which allows the product to be used in multiple ways to address the needs of different consumer groups.
- Service relationships are established between two or more organizations to co-create value. In a service relationship, organizations will take on the roles of service providers or service consumers.
- Services facilitate one or more outcomes for a customer. Achieving desired outcomes requires resources (and therefore costs) and are often related to risks.
- Both utility and warranty are important for a service to facilitate its desired outcomes and enable value creation. Utility determines whether a service is 'fit for purpose'; Warranty determines whether a service is 'fit for use'.



3



THE GUIDING PRINCIPLES

Intent and Context

This module introduces you to the seven guiding principles in the context of ITIL and service management. The ITIL guiding principles are a universal standard for organizations these days for many reasons. Some of these reasons are:

1. These principles are not specific to ITIL or even to ITSM.
2. These principles can be applied to almost every initiative and to relationships with all stakeholder groups.
3. These principles can help service providers to be successful in leveraging the specific practices adopted in any philosophy, framework or methodology, be it ITIL, Lean, or DevOps.
4. The use of these principles enable the organization to ensure a single approach, and therefore rid of silos and inconsistency across the organization.

Before moving on to the concepts, let us hear what our experts say about the guiding principles.



<https://player.vimeo.com/video/302761014>

Transcript for Video

Time to discuss the seven guiding principles that represent the core messages within ITIL 4.

Firstly, let us understand what a guiding principle is:

A guiding principle is a philosophy or an established idea that guides an organization in all circumstances. They apply to all organization initiatives and all stakeholder relationships supporting a sharing and collaborative culture. So the guiding principles are there always, and everywhere.

Secondly, the guiding principles support the different actions and decisions taken by an organization including their continual improvement initiatives. It's all about adopting a service management approach and adapting ITIL guidance to what is needed.

These principles are also reflected in other frameworks, methods, standards, philosophies and ideas. In this way an organization can select their unique service management approach.

Let's have a closer look at the principles.

Learning Objectives

At the end of this module, you will be able to:

- List the ITIL guiding principles.
- Discuss the nature of the guiding principles.
- Apply the guiding principles in the context of service management.

Key Terms Covered in the Module

Iteration	"Iteration is the process of repeating the process and generating the sequence of outcomes to accomplish the desired goal. The outcome that an iteration produces becomes the input of the next iteration of the improvement initiative."
Feedback Loop	"A feedback loop occurs when the outcome (or a part of it) of an iteration becomes the input of the same iteration based on the collected feedback."
Customer Experience	"The sum of functional and emotional interactions with a service and service provider as perceived by a service customer."
User Experience	"The sum of the functional and emotional interactions with a service and service provider as perceived by a user."

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Identifying Guiding Principles

1. Focus on Value
2. Start Where You Are

3. Progress Iteratively with Feedback
4. Collaborate and Promote Visibility
5. Think and Work Holistically
6. Keep it Simple and Practical
7. Optimize and Automate

The guiding principles represent the core messages of ITIL and of service management in general. These principles provide guidance to the organizations as they adopt a service management approach and adapt ITIL guidance to their own specific needs and situations.

Note: In this module, the guiding principles are identified using specific icons, as depicted in the given figure. The numbers do not carry any significance in the context of guiding principles.

Topics Covered

- 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

FOCUS ON VALUE

The Principle

The principle “Focus on Value” aims at creating value for service consumers. To achieve this value, organizations need to tie back the different activities (directly or indirectly) that they do in a logical way.

In other words, an organization can create value for service consumers only by **creating value** for itself, its customers, and stakeholders.

As a direct example of this principle, it may require to re-think on services from the customer perspective, including new customers. An indirect example can be to improve the process of managing changes to standardize the types of changes with less disruption on service improvements visible by the customer.



creating value

The value can be in various forms, such as revenue, customer loyalty, lower cost, increased productivity, reduced negative impact, reduced costs, the ability to pursue new markets, or growth opportunities.

The Axle Car Hire Story

Focus on Value

“Radhika: When Axle expanded to the Asia-Pacific region, we undertook research focused on customers travelling outside their native countries. The results found that American and European customers travelling to these areas had concerns around unfamiliar road rules and safety.

Marco: Axle is introducing a certified, third-party driver assistance system called Axle Aware. The system checks external surroundings and internal conditions in the car. It includes cameras to monitor the area around the car, and an artificial intelligence program with local road rules. It can even let the driver know when fatigue is starting to set in. The system will alert the driver to approaching dangers and potential road rule breaches. For example, in Australia, local road rules dictate that drivers are required to give a minimum of 1 metre when passing cyclists at a speed of 60 km/h or less, or 1.5 metres when the speed is more than 60 km/h.

Su: Many visiting tourists will be mostly focused on driving on the right side of the road and won't know about this rule, but the Axle Aware system does!

Marco: Studies have shown that systems such as this significantly decrease accident rates and serious injuries.

Su: This means that the value to our consumers is a safer travel experience. It will be cheaper too, as they will have fewer penalties for breaking rules they are not familiar with!

Henri: The value for Axle Car Hire is improved customer satisfaction, reduced repair costs and lower insurance premiums.

Marco: This type of innovation will also provide additional value for some of our partners and suppliers.

Radhika: For example, we've updated our contract with our fleet maintenance partner. Maintenance will now include Axle Aware. The value to our maintenance partner is the additional revenue.”

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TIPS

In consideration to these aspects, an organization may consider following tasks:

- Identify the customers or market spaces for each of service that they provide.
- Create and maintain a service sheet with all the information of the service and of course including the customers.
- Collect customer feedback through customer surveys.
- Maintain a register of improvements on services or components including processes, organization, and external parties that benefits the customer.

Aspects to Consider

The following points discuss the aspects in detail:

- **Understanding who is a service consumer:** Service providers can create the desired value only if they know who will receive value from what is being delivered or improved. Therefore, it is essential for them to identify who the service consumer is and who are the key stakeholders involved.
- **Knowing the consumer's perspectives about value:** To deliver the services that provides the desired value to the consumers, the service providers should clearly understand what does value mean for service consumers. In this direction, service providers can help themselves by having the answers to the following questions:
 - Why do consumers use the services?
 - What will the services do for them?
 - How the services enable them to accomplish their goals?

- What role do the services play for them considering the cost/financial consequences?
- What are possible risks for them?

Value for the service consumer is defined by their own needs and is achieved through the support of intended outcomes and optimization of the service consumer's costs and risks. It is important to understand that the value changes over time and in different circumstances.

- **Improving the customer experience:** The success of any product or service depends on the consumers' or customers' experience with the service and the providers. The experience is usually known as **customer experience**. It can be **objective and subjective** depending on the defined criteria to measure it.

Applying the Principle

The following checklist can be used to apply the principle "Focus on Value" successfully in real life.

Questions	Yes/No	Description (if yes) / Required Action (if no)
Do the organization have the clear picture of how consumers will use their services?		
Is the staff aware of their customers and the expected customer experience?		
Have you considered the principle "Focus on Value" during operational activities and improvement initiatives?		
Is the organization considering the principle "Focus on Value" in every step of the improvement initiative?		

The following points explain why it is necessary to answer the various questions that the checklist includes:

- **Know how service consumers use each service:** It is all about gathering the required information on the value that the service will deliver to its consumers, such as:
 - What outcomes do the consumers expect from the service(s)?
 - How will the service help the consumers to achieve what they want?
 - How will the consumers perceive the provider?

It also includes collecting feedback on a continual basis to make continual improvement and maintain healthy service relationships.

Customer Experience

It is the interaction of customers with an organization and the products/services that it provides.

Customer experience can be defined as the sum of functional and emotional interactions with a service and service provider as perceived by a service customer.

INFO

objective and subjective

CX is objective when an organization can measure it against defined criteria, such as price, delivery time. It is subjective when they cannot measure it, such as the style or layout of the website.

- **Encourage a focus on value among all staff:** It is about advocating the staff about the value that is expected from the service and encouraging them to have a clear picture of their customers. The knowledge is essential for them to understand for whom they are creating the service or developing the product. Having the clear picture of customers and the expected value results in developing and delivering the desired value and the customer experience.
- **Focus on value during normal operational activity as well as during improvement initiatives:** Every individual in an organization contributes to creating and maximizing the customer's value. It is, therefore, necessary for them to be involved in the creation of value. The involvement should not be limited to those who are working on exciting and new projects.
- **Include focus on value in every step of any improvement initiative:** The people working on an initiative should be aware of what it should facilitate and how to measure the value that it creates. Therefore, it becomes necessary for them to be involved in every step that the organization takes for the initiative to succeed. The knowledge is essential for them to know their contribution in creating the value.

START WHERE YOU ARE

The Principle

The principle “Start Where You Are” focuses on considering what is already available instead of starting from scratch (or reusability). To achieve this, analyzing the existing state is essential to identify what can be helpful in creating the new value.

This approach can help to avoid waste that is done by removing what has been done in the past and building something completely new. Organizations often make decisions to remove the old or unsuccessful methods or services to be better and be up-to-date. However, it is not an intelligent decision as it can lead to:

- Removing the existing services, processes, people, and tools that could play a significant role in delivering the new value
- Developing a completely different value compared to the past
- Wasting efforts

It is important not to start over without first considering what is already available to be leveraged. For example, consider an organization that need to revise its service management processes due to the fact that cloud services become operational, in parallel to traditional services.

It would be a waste to start from scratch, when different tools and portals with regard to traditional computing are in place. It is optimal to just use what you have and adjust it for cloud services.

The Axle Car Hire Story

Axle's Booking App

“Marco: The Axle booking app was first developed two years ago. The app is no longer meeting business requirements. It can't cater for the advances in technology we're using now, such as the biometric system and the driver assistance system.

For example, we need our app to have the capability to scan and validate our customers' fingerprints and facial images. The current coding simply can't support that. We need a new app!”

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Aspects to Consider

When an organization decides to remove the existing services, processes, people, and tools, they should consider the following aspects:

- **Assessing where you are:** This aspect is about assessing and measuring the existing services and methods to understand their current state and what can be re-used from them. Before start assessing the services and methods, organizations should get the data from the source to avoid any assumptions and make decisions based on accurate information. Usually, the reports that an organization generates are different from reality due to the following two reasons:
 - Inaccurate measurement of some data
 - Unintentional bias or distortion of data in reports

Once the required data is in place, start with the assessment to:

- Know the current state of services and methods.
- Identify the amount of reusability that can contribute to creating the new value.
- Avoid assumptions related to timelines, budgets, and quality.
- **Measuring the importance of each element:** You can assess anything only if you can measure it. Therefore, measurement is a crucial part of this principle. It helps to analyze the data that you get from the source and understand the required impact that each one is playing in the current state. Please be aware that measurement can also lead to inaccuracy. People usually find creative ways to meet the metrics that are defined to measure



TIPS

When getting data from the source, do not hesitate to ask as many questions as you can even the stupid ones as well. The audience might include the member(s) having no prior knowledge about the service. They can help identify the areas that the people who are working on the service might ignore.

INFO

ways to meet the metrics

When getting data from the source, do not hesitate to ask as many questions as you can even the stupid ones as well. The audience might include the member(s) having no prior knowledge about the service. They can help identify the areas that the people who are working on the service might ignore.

their performance. Therefore, organizations need to be creative in defining these. They should focus on defining the metrics that directly relate to the outcome.

The Axle Car Hire Story

Assessing the Current State

Henri: Everyone likes the idea of a new app, and IT is keen to start gathering user requirements so that we can start development. However, before we develop an entirely new app, let's assess the current state of the app we have to see if there's any functionality we can re-use. The current process for booking a car meets basic requirements, and doesn't need to change. We just need additional functionality. For example, the process for recording, storing, and calculating points for our loyalty programme won't change. We should also consider the limits of the technology that our customers use. If we want to introduce biometric data recognition, users will need to have modern devices. I am not sure they all do, so we should investigate constraints and opportunities here.

Marco: Our current booking app is working well. Incident data indicates that customers make very few calls to the service desk. This indicates that the current functionality is fit for use and meets customer requirements.

Henri: However, our focus groups indicate that customers avoid using the app because it's slow and difficult to use. Previously, upgrades focused on technology, not the requirements of our customers. We didn't have the flexibility to easily configure functionality to match new and changing service offerings. So the reliability and usability of the booking app can't be assessed solely using the data from incidents logged. We need to confirm these findings with other research."

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Applying the Principle

The following checklist can be used to apply the principle "Start Where You Are."

Questions	Yes/No	Description (if yes) / Required Action (if no)
Did you get the required data from the authentic source?		
Have you identified what exists as objectively as possible?		
Have you identified the services, practices, and processes that can be reused to create the new value?		
Do you know the risks associated with reusing the existing services, practices, and processes?		
Do you need to start from scratch to create the new value?		

The following points explain why it is necessary to answer the various questions that the checklist includes:

- **Look at what exists as objectively as possible, using the customer, or the desired outcome, as the starting point:** This is about gathering the required data from the source to study the current state of services. It is the starting point to understand the level of reusability. It is about identifying which elements of the current state have measures against the set criteria. In other words, it helps analyze whether the elements of the current state are fit for purpose and use.
- **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:** It is about identifying the services, practices, and processes that can contribute to creating the new value. Reusing what is already available reduces the efforts required to move 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 often **risks associated with reusing** existing elements and practices or with using something new. These risks should be considered to make the best decisions at each step towards creating the new value.
- **Recognize that sometimes nothing from the current state can be reused:** If **reusability** does not carry any benefits, organizations need to develop the new service from the very beginning. Though it is rare to have such a situation, however, at times the only way to create the new value is to start from scratch.

EXAMPLE

risks associated with reusing

- Negative impacts on the new service due to the old features of the system.
- Unexpected functioning of the new procedures.

EXAMPLE

reusability

Reusing is not just limited to duplication and expansion, it is about learning how to improve.

PROGRESS ITERATIVELY WITH FEEDBACK

The Principle

The principle “Progress Iteratively With Feedback” focuses on avoiding doing everything in a go and gathering the timely feedback. To achieve this, breaking down the work into smaller, manageable components is essential to iteratively accomplish the initiative.

To accomplish the initiatives, do not even try to do everything in a go rather work in iterations. Always break down the work into smaller, manageable, logical units. In other words, divide the improvement initiative into smallest possible significant initiatives that require minimal improvement efforts. Organizing the work in such a way helps in timely delivery, having a sharper focus on each effort and easy maintenance. However, keep on re-evaluating the overall initiative



TIPS

A popular example of this principle is the use of sprints in agile methodology.

**TIPS**

Consider the quote “Eating an elephant can only be done one way; one bite at a time”. Trying to gulp it down in one sitting is asking for severe indigestion”. The quote explains the idea of the principle, “Progress Iteratively With Feedback”.

**TIPS**

During re-evaluation, use a wide variety of feedback channels and methods to understand the status of the initiative and its progress.

with the progress to ensure the focus on value and reflecting the changes in circumstances, if any.

The Axle Car Hire Story

Marco: It’s now been three months since Axle released the first iteration of its new app. We began by making it available solely to trusted VIP customers. We worked with their feedback to refine the booking process.

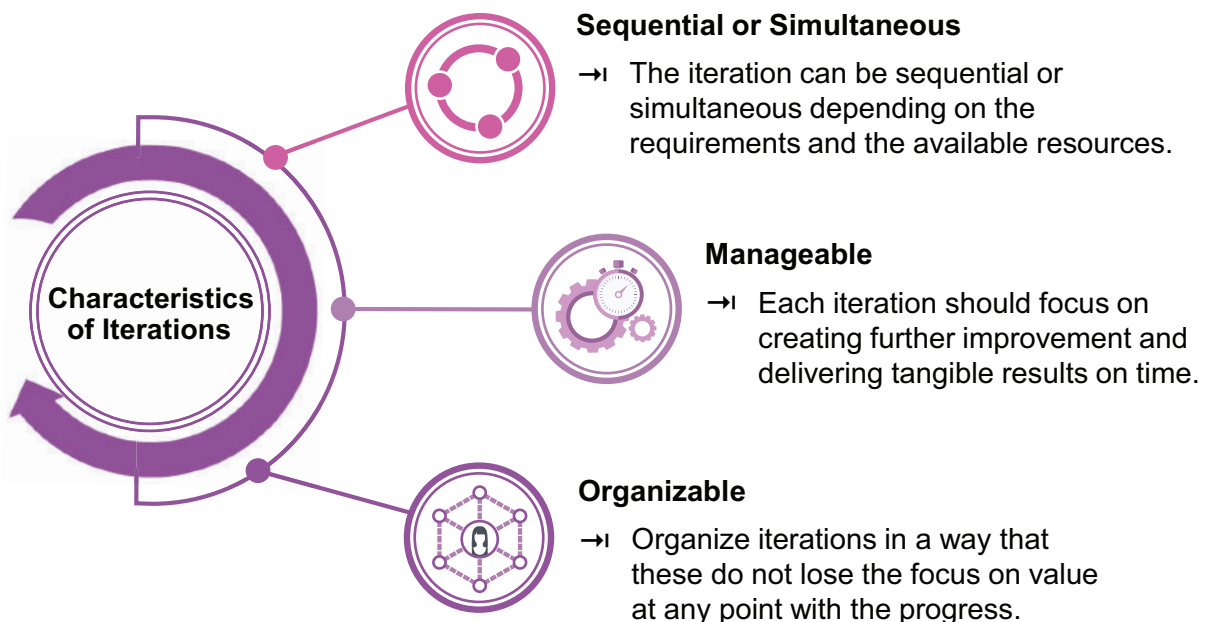
Radhika: We learned that the app needed to be flexible so we could make changes easily based on rapidly evolving customer requirements. For example, our business customers wanted the app to automatically record distance travelled. Working with our product team, we were easily able to add this functionality.

Su: The app is now easily configurable, allowing Axle to quickly add new functions and features based on customer feedback.”

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Gathering the Feedback in Iterations

Iterations also help in gathering early feedback. Getting the feedback before, throughout, and after each iteration ensures everything is progressing as per the expectations, and the focus is on value.



Aspects to Consider

Organizations when planning to work on an improvement initiative should consider the following aspects for its success:

- **Knowing the role of feedback:** When working on an improvement initiative, no improvement iteration can progress in isolation due to changing requirements, such as changes

in circumstances and new priorities. These requirements can lead to several modifications and can even eliminate the need of having that iteration. To avoid such situations, always seek feedback before, throughout, and after each iteration and incorporate it to ensure focus on value. Organizations use **feedback loops** to cope with the changing requirements that help them identify improvement opportunities, risks, and issues.

feedback loop

A feedback loop is a term 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. A good feedback mechanism facilitate understanding of:

- “End user and customer perception of the value created
- Efficiency and effectiveness of value chain activities
- Effectiveness of service governance and management controls
- Interfaces between the organization and its partners and suppliers
- Demand for products and services”

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- **Working with iterations and feedback together:** Working in an iterative manner with feedback loops enables greater flexibility and faster responses to customer and business needs. A continuous cycle of monitoring and improving with each iteration through feedback loops help organizations to:
 - **Improve Quality:** Working iteratively with feedback loops provides greater flexibility of failing fast and discovering the next steps to success. It helps in responding to the customer and business needs effectively and before time.
 - **Make Effective Decisions:** Getting feedback at each step helps in the clear understanding of what is the need of doing a given task, who is the customer, how their action can affect the expected results and many more. Such information enables organizations to make effective decisions, meet the customers’ needs, and improve the customer experience.

Applying the Principle

The following checklist can be used to apply the principle “Progress Iteratively With Feedback.”

Questions	Yes/No	Description (if yes) / Required Action (if no)
Are you progressing iteratively?		
Is the feedback an ongoing process?		
Does each iteration meet the minimum viable requirements?		

Analysis Paralysis

A situation wherein people spend too much time analyzing the big picture and do nothing in the direction of making progress.

Minimal Viable Product

“An MVP is a version of the final product which allows the maximum amount of validated learning with the least effort.”

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The following points explain why it is necessary to answer the various questions that the checklist includes:

- **Comprehend the whole, but do something:** Understanding the big picture and being accountable is good. However, overdoing it sometimes can lead to “**analysis paralysis**” that stops you from making progress. Remember understanding everything is essential, but take some actions to make the significant process as well.
- **The ecosystem is constantly changing, so feedback is essential:** Seeking feedback at each step of all levels is essential to meet the varying requirements of the constantly changing circumstances of the ecosystem.
- **Fast does not mean incomplete:** Breaking the work into iterations is beneficial to succeed. However, it is illogical to have small iterations that are incomplete to be fast. Each iteration should meet the essential requirements to deliver a **Minimal Viable Product (MVP)** for its success. An MVP reflects the end-product in a minimal functional form. It is used to test whether the hypothesis is correct.

COLLABORATE AND PROMOTE VISIBILITY

The Principle

The principle “Collaborate and Promote Visibility” focuses on removing silos and building trust. To achieve this, the people of an organization need to work together and share information to the greatest degree possible.

Removing Silos

Silos can occur through the behavior of individuals and teams and also through structural causes. In an organization, silos are usually due to the inability of different business units to collaborate. For example, the processes, systems, documentation, and communications might be designed to cater to the needs of a specific part of an organization only.

Silos occur when people work in isolation, and information sharing is limited to only a few people. When people do not know the details, assumptions and rumors are most likely to occur. As a result, it creates a **wall of confusion** among individuals or teams. Under such circumstances, resistance to change becomes a major challenge as people start wondering what is changing and how it might impact them.

Remember no work is done in isolation. Including everyone in the initiatives is always a better policy to succeed without any confusion.



TIPS

A good example of the “Collaborate and Promote Visibility” principle is the DevOps teams. In a DevOps team, people work closely together and make the work visible through some tool or a method, such as Kanban boards.



INFO

wall of confusion

Dissolving the wall of confusion requires tackling a variety of underlying problems, such as organizational silos, different mindsets, different implementations, loss of work, blame game, disintegrated processes, and no feedback loop.

Enthusiastic contributions help bring creativity and different perspectives. That is why organizations encourage cooperation and **collaboration** and discourage “silo activity.”

Building Trust

Working together on initiatives in a collaborative way provides more relevance and better understanding that makes everything visible. The visibility helps in making effective decisions, which in turn, increases the chances of long-term success. However, collaborative working is not an easy task as it requires building trust.

Trust within the teams helps them to stay committed and manage things (even the unknown) with confidence. Only if people have trust, they will share information that will help them to learn, grow, and do great work together.

Sharing information helps people to have a better understanding and clear visibility, such as what are the hidden agendas and what is happening and why. The more people know about the initiatives and the associated information, the more they will be willing to support.



collaboration

“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.”

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The Axle Car Hire Story

“**Henri:** As well as being iterative, our work on the new Axle booking app is also collaborative. We include many of our teams, such as developers, testers, and support staff, and of course, our customers and users. This approach enables us to improve our services in a more responsive and targeted manner, based on feedback.”

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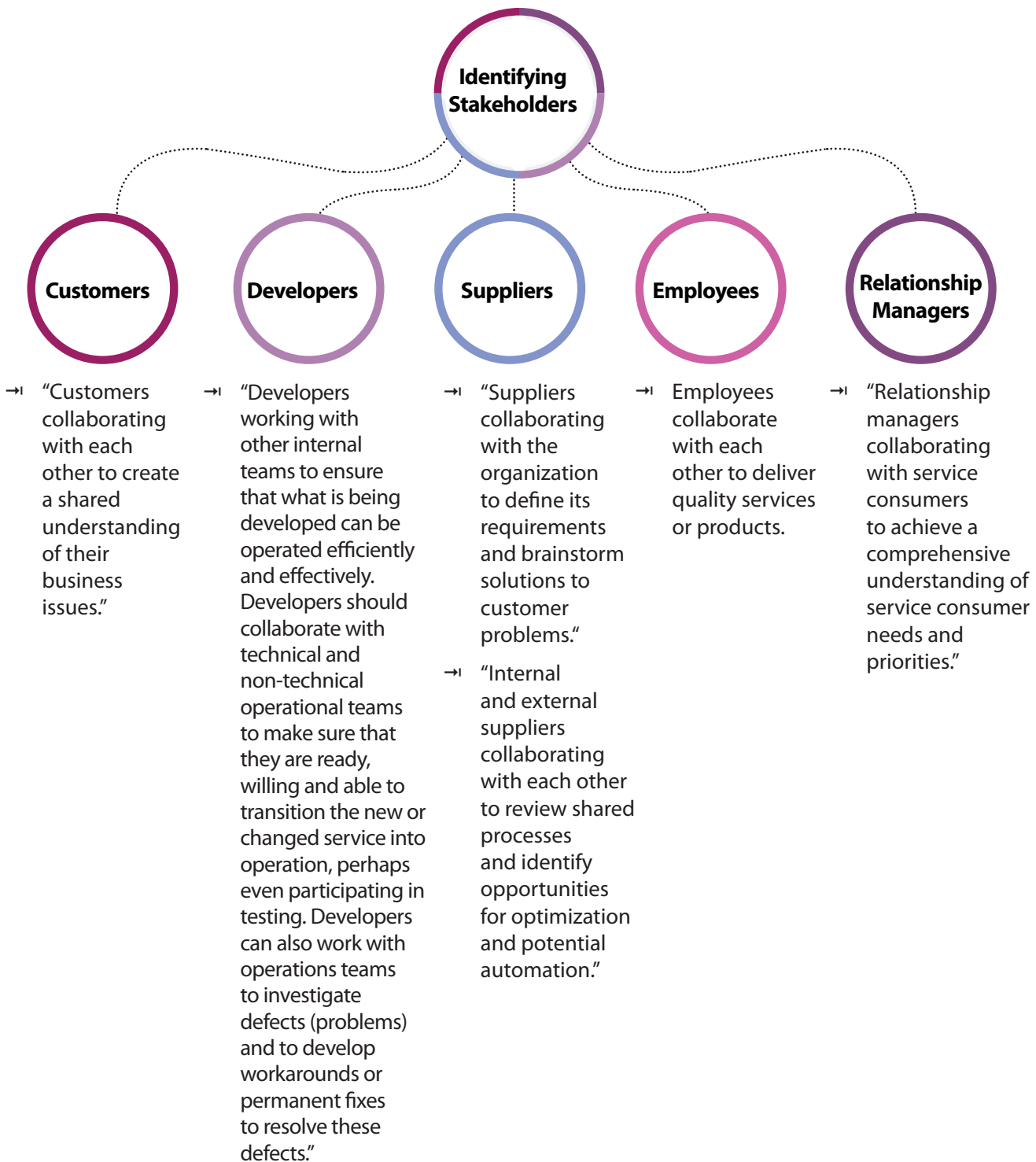
Aspects to Consider

Organizations should consider the following aspects when they are planning to work in a collaborative mode:

- **Identifying whom to collaborate with:** Understanding for whom you are working and what are their perspectives and expectations is essential for successful collaboration.
- **Communicating and improving:** Service providers should know the extent to which each stakeholder contribute to improving the service at each level.
- **Increasing urgency through visibility:** Creating the urgency of work is essential to let everyone know about its priority.

Let us discuss the aspects in detail.

Identifying Whom to Collaborate With



Stakeholders

A stakeholder can be a person, group, or organization who has a stake in the organization. They can affect the business including the organization, its customers and others. In the same way, the business can affect them.

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Working effectively in collaboration requires identifying, managing, and understanding all the **stakeholders** involved in the initiative. Therefore, understanding for whom you are working and what are their perspectives and expectations is essential for successful collaboration.

An organization has different stakeholders. However, the first most important stakeholder is the customer due to their large stake. They are critical for service providers as they (customers) can question their (service providers') ability to manage services effectively.

Effective interaction with the customers, considering their importance, is essential for organizations to deliver the expected results. Ineffective interaction with customers can lead to the following situations.



Customers do not feel the need of interacting with service providers after defining the requirements. They do not have any interests in knowing the practices that service providers are following to meet their requirements.

Service providers start feeling that it is difficult to get feedback from the customers. Therefore, delays are just a waste of time.

To avoid the preceding situations and have the expected results in hand, the right level of collaboration is essential between customers, service providers, and **other stakeholders**.

Communicating and Improving

When working on improvement initiatives, service providers should know the extent to which each stakeholder contribute to improving the service at each level.

For example, service providers might need to involve some stakeholders at a detailed level, and some as reviewers or approvers.

Knowing the expectations about the level of contribution requires effective communication with the stakeholders. The type of collaboration to communicate with the stakeholders depends on the service and the relationship between the service provider and the service consumer. Therefore, service providers should define **effective ways** to engage with them.

EXAMPLE

effective ways

- “The contribution to improvement from customers of a public cloud service may be through a survey or checklist of options for different functionality.
- For the contribution to improvement may come from feedback solicited through a workshop or a collaboration tool on the organization’s intranet.”

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EXAMPLE

poor visibility

The organization shares the improvement initiative only once with the different departments, teams, or other organizations. When people do not hear about the initiative again and do not know its urgency, they give priority to their daily urgent tasks.

EXAMPLE

difficult to work

Organizations can avoid such situations from occurring by performing critical analysis activities, such as:

- Understanding work in progress and tracking the items in progress
- Identifying road blocks and excess capacity (Excess Capacity is a situation that occurs when the actual production of an organization does not meet the achievable set criteria for producing results (demand).)
- Identifying waste.



TIPS

Visibility is an essential part of any agile methodology. It ensures that initiatives will be visible, and therefore will be easily adopted and supported by people.

Increasing Urgency Through Visibility

Creating the urgency of work is essential to let everyone know about its priority.

For example, when the stakeholders do not know about what the workload is and how the work is progressing, they think that the work is not a priority. In the same way, if employees have poor visibility about the improvement initiative, they consider it as a low-priority activity.

Poor visibility to work leads to ineffective decision making that impacts the organization's ability to improve internal capabilities. Under such circumstances where no one knows about the positive impact of the improvement initiative, it becomes **difficult to work** on it. It is, therefore, essential for the management to support the improvement initiative in every way and make its importance visible to everyone.

The management can perform the following tasks to reinforce what is being done, why it is being done, and how it relates to the stated vision, mission, goals, and objectives of the organization:

- Involving the stakeholders at all levels and addressing their needs
- Providing the appropriate information related to the improvement initiative to employees

“Determining the type, method and frequency of such messaging is one of the central activities related to communication.”

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Applying the Principle

The following checklist can be used to apply the principle “Collaborate and Promote Visibility.”

Questions	Yes/No	Description (if yes) / Required Action (if no)
Are you collaborating for consensus?		
Are you using the correct mode of communication?		
Are the decisions based on the visible data?		

The following points explain why it is necessary to answer the various questions that the checklist includes:

- **Collaboration does not mean consensus:** Collaborating to get the consensus from everyone involved in the improvement initiative even before starting the work is not at all essential.

Some organizations focus too much on getting consensus that they try to make everyone happy. As a result, they produce an outcome that does not meet anyone's expectations. Sometimes, they end up with doing nothing.

- **Communicate in a way the audience can hear:** Choose the **right mode to communicate** with the stakeholders is essential to hear them. When organizations bring the different groups of stakeholders together, they usually make the mistake of using either the traditional ways of communication or the same way to communicate with everyone. It leads to a kiosk.
- **Decisions can only be made on visible data:** Organizations should not take the risk of making decisions in the absence of data. When making decisions, always **collect the required data** to have clear visibility on the work to be done.

INFO

right mode to communicate

Communication is a two-way channel, and it should meet the needs of both the parties involved.

INFO

collect the required data

Collecting data can cost so organizations should first measure it against the benefits that it will provide.

THINK AND WORK HOLISTICALLY

The Principle

The principle "Think and Work Holistically" focuses on working in an integrated way. To achieve this, the various activities of an organization should focus on the delivery of value.

No work is done in isolation. Likewise, no service, practice, process, department, or supplier can stand alone. Working as a separate entity cannot help them to produce the required outcome. They have to **work together in an integrated way** to deliver the expected results. Handling the activities as a whole that focus on the delivery of value can only help organizations to produce the required results for its customers, and internal and external stakeholders.

The Axle Car Hire Story

Su: Currently, Axle is working on many initiatives. We have a schedule of iterative releases of our new booking app, as well as our Axle Aware advanced driver assistance system, and the new biometric scanning for collection and return of vehicles.

Henri: With so much activity, we need to understand the impacts both upstream and downstream. For example, a decision to expand our booking app with a new functionality would need to consider any resource constraints for our support teams."

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INFO

work together in an integrated way

In the context of service management, organizations should take the following actions to work in an integrated way:

- Establish an understanding of how the different parts of an organization work together.
- Develop end-to-end visibility of how demand is captured and translated into outcomes.
- Identify and analyze the impact of making changes to an element of the system on others, and creating a plan accordingly.
- Use the four dimensions of service management.

Applying the Principle

The following checklist can be used to apply the principle “Think and Work Holistically.”

Questions	Yes/No	Description (if yes) / Required Action (if no)
Have you identified the complexity of the system?		
Are you collaborating to facilitate thinking and working holistically?		
Have you identified the patterns in the given requirements and interactions between system elements?		

The following points explain why it is necessary to answer the various questions that the checklist includes:

Complex System

A complex system contains complicated components that change more frequently.

- **Recognize the complexity of the systems:** Different levels of complexity require different levels of decision making. You cannot use the methods and rules of a simple system with the **complex system**. It leads to ineffective decision making. Therefore, identifying the complexity level of the system is essential.
- **Collaboration is key to thinking and working holistically:** Using the appropriate mechanisms that enable everyone to collaborate in a timely manner is a key to think and work holistically. It provides a holistic view that enables organizations to identify and address any issues without any delay.
- **Where possible, look for patterns in the needs of and interactions between system elements:** Analyzing the given requirements and relationship between various elements of the system helps identify:
 - What is essential in each area to succeed?
 - Which relationships among elements can influence the outcomes?

Such knowledge provides a holistic view to organizations and enables them to foresee the unexpected requirements and set the standards.

- **Automation can facilitate working holistically:** Organizations should focus on automation wherever possible considering the sufficient availability of resources. Automation supports end-to-end visibility and provides an efficient means of integrated management. However, they should consider automation as a holistic strategy rather than as a solution.

KEEP IT SIMPLE AND PRACTICAL

The Principle

The principle “Keep it Simple and Practical” focuses on simplifying the complex work methods. To achieve this, identify and eliminate processes, services, actions, or metrics that do not add any value to the outcome.

Organizations can simplify their complex system by reducing the necessary steps to accomplish the objective(s). Always use **outcome-based thinking** to produce practical solutions that deliver results.

Organizations usually try to provide a solution for every exception. In doing so, they ignore the principle “Keep it Simple and Practical” and end up in developing complex work methods that neither maximize outcomes nor minimize cost.

The Axle Car Hire Story

“Su: Axle’s marketing department has indicated they would like to launch a new end-of-year promotion. The promotion would include a free upgrade to a luxury vehicle during February and the chance to win an overseas holiday. To enter, customers will submit an article titled ‘My Best Driving Holiday Adventure’. The marketing team will then collect and analyse the customer data and create an app that targets their travel preferences.

Henri: Our developers are already busy with an implementation schedule for biometric services. We need speed to market for this functionality. We must prioritize our work based on the expected value.”

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Aspects to Consider

Organizations should consider the following aspects when they are planning to bring simplicity to the system.

- **Judging what to keep:** Asking **what contributes to value creation** is the key to analyzing any improvement initiative. It helps to understand how a practice, service, procedure, or process contributes to creating value. One of the ways to achieve this is to start designing the improvement initiative with a simple (uncomplicated) approach and adding the controls, activities, or metrics based on their need.

outcome-based thinking

It is about producing practical solutions that deliver valuable outcomes. The thinking focuses on eliminating process (es), service(s), action(s), or metric(s) that do not contribute to adding any value to the outcome.



TIPS

Do not focus on providing the solution for every exception. Designers do need to consider these during the development process, but they cannot handle every exception. Defining the appropriate rules can help designers handle exceptions in a general way.

INFO

what contributes to value creation

“A step in a process may be perceived by the operational staff involved as a waste of time. However, from a corporate perspective, the same step may be important for regulatory compliance and therefore valuable in an indirect, but nevertheless important way. It is necessary to establish and communicate a holistic view of the organization’s work so that individual teams or groups can think holistically about how their work is being influenced by, and in turn influences others.”

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Conflicting Objectives

Conflicting objectives occur when organizations try to achieve one objective, and they end up in sacrificing another one.

- **Avoiding conflicting objectives:** “When designing, managing, or operating practices, be mindful of **conflicting objectives**. For example, the management of an organization may want to collect a large amount of data to make decisions, whereas the people who must do the record-keeping may want a simpler process that does not require as much data entry. Through the application of this, and the other guiding principles, the organization should agree on a balance between its competing objectives. In this example, this could mean that services should only generate data that will truly provide value to the decision-making process, and record keeping should be simplified and automated where possible to maximize value and reduce non-value-adding work.”

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The Axle Car Hire Story

Judging What to Keep

“**Marco:** Our original booking app captured a lot of data, such as how long it took a customer to complete each form in the booking app. But we discovered that the data provided little value for decision-making. The true value lay in how long the overall booking process took. We refined the booking app fields and improved its overall speed by removing this data capture function.”

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Applying the Principle

The following checklist can be used to apply the principle “Keep it Simple and Practical.”

Questions	Yes/No	Description (if yes) / Required Action (if no)
Does every activity contribute to the creation of value?		
Have you simplified the process to achieve the desired outcome?		
Do you have a minimum number of steps to achieve the objective?		
Are you effectively utilizing everyone's time involved in the process?		
Do you have practices that are easier to follow?		
Are you focusing on quick wins?		

The following points explain why it is necessary to answer the various questions that the checklist includes:

- **Ensure value:** Doing a proper analysis to ensure every activity contribute to the creation of value is essential to have an uncomplicated and outcome-based product or service.
- **Simplicity is the ultimate sophistication:** Simplifying the process to the possible is essential to achieve **simplicity**. It is quite hard to simplify everything but is the most effective way to develop the desired outcome.
- **Do fewer things, but do them better:** Minimizing activities to include only the necessary steps or actions that create value for stakeholders is essential to enhance quality. Always focus on doing or delivering quality work instead of huge numbers.
- **Respect the time of the people involved:** Time is the crucial factor to the success of any initiative. Therefore, do not ever go with having a too complicated process that is bureaucratic. Such a process always lead to poor time management of everyone involved in the process.
- **Easier to understand, more likely to adopt:** Whenever you want people to adopt a practice, ensure it is easy to understand so that they can follow it without any difficulty.
- **Simplicity is the best route to achieving quick wins:** Quick wins are essential whether working on a project, any improvement initiative, or daily operational activities to deliver value at regular intervals. The best way to achieve quick wins is through simplicity.

EXAMPLE

simplicity

Working iteratively with feedback loops helps deliver incremental value at regular intervals.

INFO

Quick Wins

Quick wins allow organizations to demonstrate progress and manage stakeholder expectations.

OPTIMIZE AND AUTOMATE

The principle “Optimize and Automate” focuses on optimizing the work carried out by its human and technical resources. To achieve this, organizations should automate work to the possible extent that requires minimal human intervention.

Optimization helps organizations to maximize the value of work. It helps them to eliminate wasteful and repetitive actions using the right technology. However, having a holistic view of how the various parts of an organization work is essential. The four dimensions to service management can help them in providing the holistic view considering the various constraints, resource types, and other areas.

Technology enables organizations to scale up and use their human resources for complex decision-making. Please note that you cannot rely on technology without the required capability of human intervention. Automating everything just for the sake of automation without any underlying reason can lead to huge costs and reduced organizational robustness and resilience.

Optimization

“Optimization means to make something as effective and useful as it needs to be. Before an activity can be effectively automated, it should be optimized to whatever degree is possible and reasonable. It is essential that limits are set on the optimization of services and practices, as they exist within a set of constraints which may include financial limitations, compliance requirements, time constraints and resource availability.”

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The Axle Car Hire Story

Optimize and Automate

Marco: Axle has started to trial the new biometric technology, and the tests are going well. We're keen to implement this technology in all our depots.

Radhika: Before Axle introduced biometrics, there were many manual, paper-based processes. Axle staff used paper checklists to carry out vehicle damage checks. Their notes then had to be entered in a database, which was only available on desktop computers. It was not real time or accessible across other systems.

Su: This work was usually put aside until the end of the day, and details were often lost. We had to improve the process of data capture before automating.

Radhika: We can automate almost anything. But let's get the business rules and processes right first."

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TIPS

You may want to automate everything, but it is important to compare efforts for automation and outcome from it.

Aspects to Consider

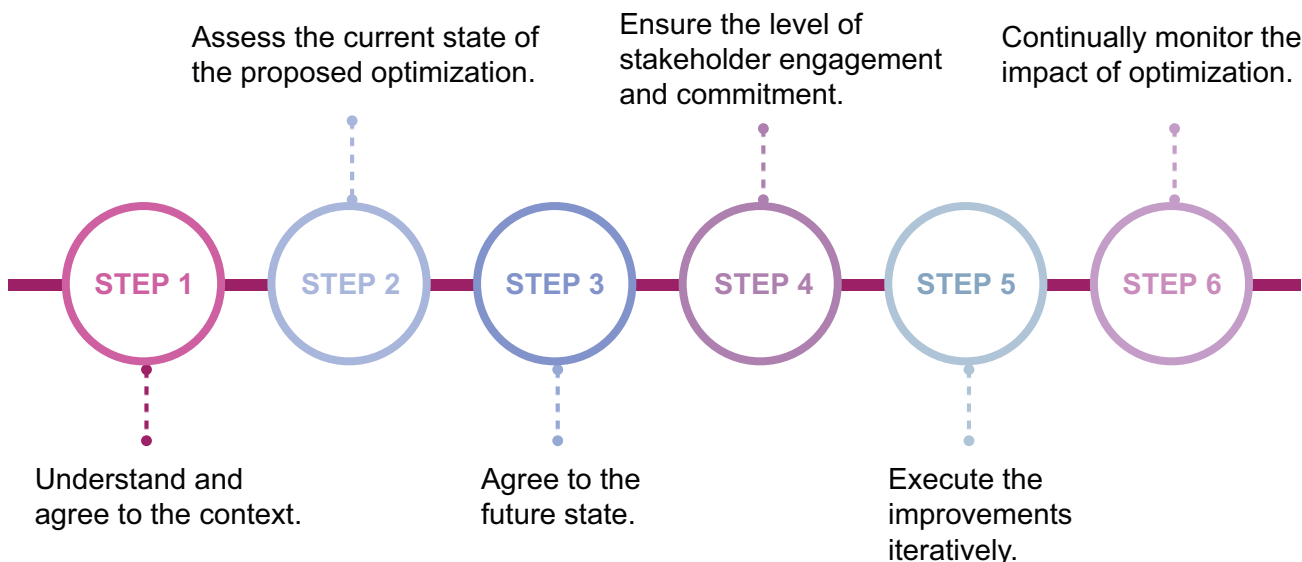
Organizations should consider the following aspects when they are planning optimize the value of work through automation.

- **Finding the right path to optimization:** No matter whatever practices an organization follow. The path to optimization is same.
- **Using automation:** Automation helps organizations to save costs, reduce human errors, and enhance employee experience.

Let us discuss the aspects in detail.

Finding the Right Path to Optimization

No matter whatever practices an organization follow, the path to optimization consists of the following steps:



Organizations can optimize practices and services in many ways. However, it requires the effective use of the **concepts and practices** described in ITIL. The practices that organizations follow to optimize work to enhance performance can be specific to ITIL, Lean, DevOps, Kanban and other sources.

The following points discuss the various steps in detail:

1. “Understanding and agreeing the context in which the proposed optimization exists. This includes agreeing the overall vision and objectives of the organization.
2. Assessing the current state of the proposed optimization to understand where it can be improved and which improvement opportunities are likely to produce the biggest positive impact.
3. Agreeing 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.
4. Ensuring the optimization has the appropriate level of stakeholder engagement and commitment.
5. Executing the improvements in an iterative way, using metrics and other feedback to check progress, stay on track and adjust the approach to the optimization as needed.
6. Continually monitoring the impact of optimization to identify opportunities to improve methods of working.”

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Using Automation

Automation is the process of using technology to maximize the value of work with minimal human intervention.

EXAMPLE

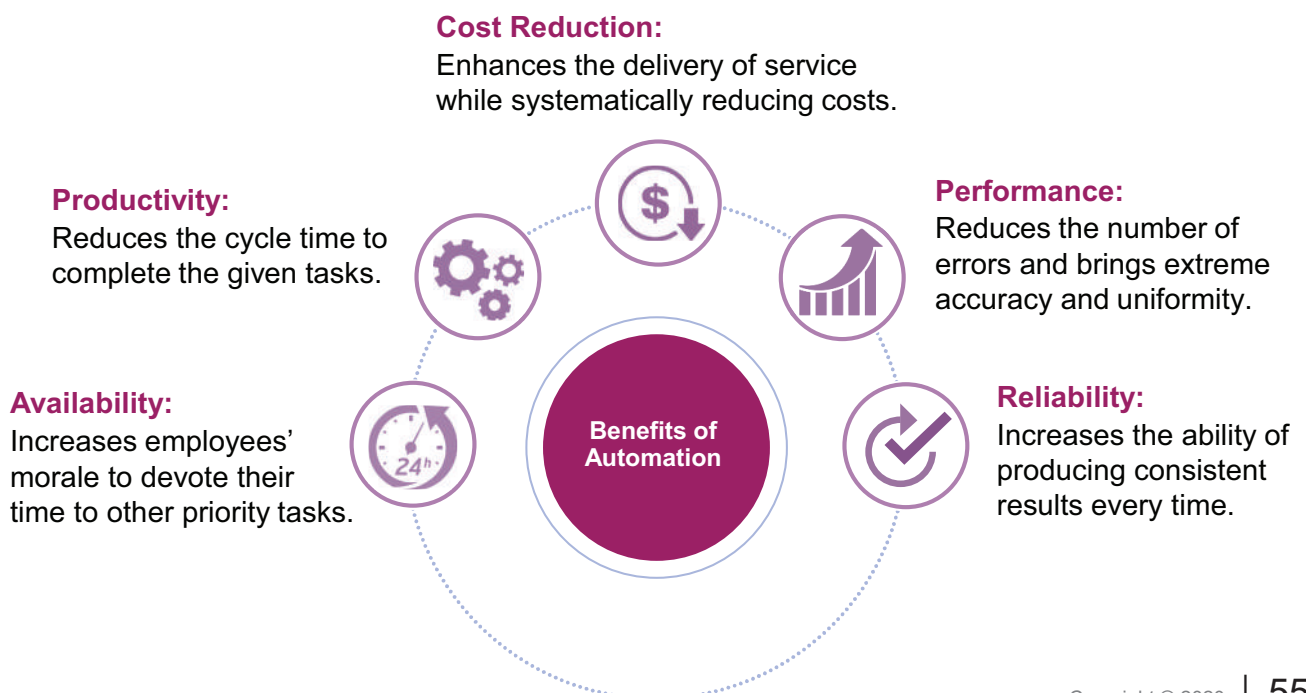
concepts and practices

- Practices of continual improvement
- Measurement and reporting

EXAMPLE

Automation

In the context of continuous deployment, automation can be the process of automatically and continuously releasing the code and testing it in different environments, such as development and live.



EXAMPLE

opportunities for automation

Automating standards and repeating tasks

EXAMPLE

manual actions

Defining the rules of part of a process to enable automatic decision making.

Organizations can find many **opportunities for automation** that can help them to save costs, reduce human errors, and enhance employee experience. In simple words, automation is the process of standardizing and streamlining **manual actions**. As a result, the minimum need for human involvement to stop and evaluate each part of a process leads to greater efficiency.

Optimize and Automate

The following checklist can be used to apply the principle “Optimize and Automate.”

Questions	Yes/No	Description (if yes) / Required Action (if no)
Have you simplified and/or optimized the tasks before trying to automate these?		
Have you defined the metrics?		
Are you using the other guiding principles as well?		

The following points explain why it is necessary to answer the various questions that the checklist includes:

- **Simplify and/or optimize before automating:** Always spend some time to analyze the standards and repeating processes. The analysis helps you to streamline and identify the **starting point of automation**.
- **Define your metrics:** Defining a set of outcome-based metrics that focuses on value is essential to evaluate the results of optimization, define the baseline, and measure achievement.
- **Use the other guiding principles when applying this one:** The **guiding principles are linked to each other**. Therefore, always consider the other guiding principles during optimization and automation. For example:
 - **“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.
 - **Focusing on value:** Selecting what to optimize and automate and how to do so should be based on what will enable 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. Make use of what is already there to implement opportunities for optimization and automation quickly and economically.”



TIPS

Do not attempt to automate complex or suboptimal parts of a process. You will not achieve the desired outcome through such automation.

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Interaction Among Principles

Guiding principles interact with each other. Therefore, always remember to recognize how they depend on each other.

“For example, if an organization is committed to progressing iteratively with feedback, it should also think and work holistically to ensure that each iteration of an improvement includes all the elements necessary to deliver real results.”

“Similarly, making use of appropriate feedback is key to collaboration, and focusing on what will truly be valuable to the customer makes it easier to keep things simple and practical.”

“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.”

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Activity **Recap of Guiding Principles**

Activity Time: 15 minutes

Focus

The seven guiding principles are universal principles that can be applied to different situations and can be used to guide an organization throughout its lifecycle.

Task

Identify which guiding principles is applied or required in following scenarios.

1. The Change Advisory Board (CAB) is only meeting once a month. Within this month, there are over 20 items reported that have to be on hold until the CAB approves them. Due to the low frequency of meeting, the issues are piled up. Having shorter bi-weekly meetings keeps the flow going.
2. Increase the level of communication and cooperation between the development teams and the operation teams to deliver the right level of utility (functional requirements) and warranty (non-functional requirements) and create a positive customer and user experience.
3. Organizations are adopting the idea of the DevOps teams. In such a team people are working closely together and make the work visible through Kanban boards, for example. Also the customer is represented in the Product Owner role in these environments.

Activity *Recap of Guiding Principles (Contd.)*

4. When a new service is designed, built, and deployed a new service into production, it is essential to take all four dimensions (Organizations and People, Information and Technology, Partners and Suppliers, and Value Streams) into consideration. If any one of them is ignored, it will have a significant negative influence on the overall quality of the service.
5. What has been builded, need to be tested. For multiple reasons, testing can be automated; but before automating the test-routines, you need to optimize the routines first.
6. The department is moving to the new SharePoint version. With the previous upgrade, lots of data was lost and people could not access the intranet for days. The lessons learned from this project should be taken into consideration when doing the upgrade. In addition, the team should align the planning of the update with any other projects that are running to reduce disturbance. It might also be that another team is already working on the new version of SharePoint.
7. When building a new eHealth program, the team needed to gather information on the conceptualization of the website integration, the structure and tailoring of content, and expectations about the functionality of the integration. With initial wireframe of the website interface, they executed five iterations to optimize the visual design of the website, such as color, layout of the homepage and sub Web pages, as well as formatting of content and tabs/message boxes/crosslinks throughout the website.
8. An airline organization plan to speed up the check-in procedure by providing on-line checkin functionalities, combined with printing baggage labels at home. This will give the consumer (passenger) a more smooth travel experience.

EXERCISE: MULTIPLE-CHOICE QUESTIONS

Q1. The guiding principle 'Start Where You Are' suggests use of which of these activities?

- a) Observe directly
- b) Iterative action
- c) Project management
- d) Improvement implementation

Q2. Which of the following recommendation is correct with regard to the 'Optimize and Automate' guiding principle?

- a) Optimize every work carried out by human and technical resources in the organization.
- b) No matter whatever practices an organization follow, the path to optimization is same.
- c) Automation increases the cost of production.
- d) It is a good idea to always automate complex or suboptimal parts of a process.

Q3. Understanding customer experience and user experience should actively be managed. This is an element of which guiding principle?

- a) Focus on value
- b) Start where you are
- c) Think and work holistically
- d) Collaborate and promote visibility

Q4. Understanding the minimum viable product of each iteration when doing agile development is an application of which guiding principle?

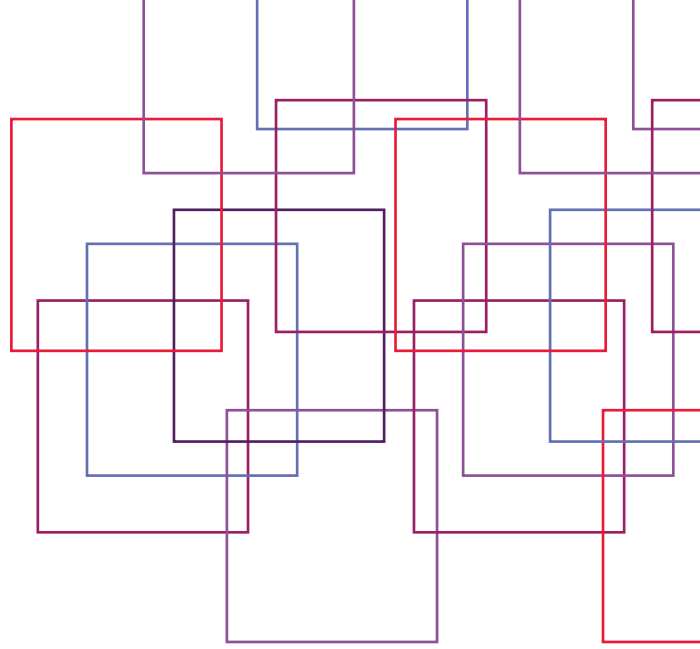
- a) Promote visibility
- b) Think and work holistically
- c) Progress iteratively with feedback
- d) Keep it simple and practical

MODULE SUMMARY

- The seven guiding principles are:
 - Focus on Value: Aims at creating value for service consumers.
 - Start Where You Are: Focuses on considering what is already available instead of starting from scratch (or Reusability).
 - Progress Iteratively with Feedback: Focuses on avoiding everything in a go and gathering the timely feedback.
 - Collaborate and Promote Visibility: Focuses on removing silos and building trust.
 - Think and Work Holistically: Focuses on working in an integrated way.
 - Keep it Simple and Practical: Focuses on simplifying the complex work methods.
 - Optimize and Automate: Focuses on optimizing the work carried out by its human and technical resources.
- The following guidelines you should be considered for each guiding principle:
 - Focus on Value:
 - Know how service consumers use each service
 - Encourage a focus on value among all staff
 - Focus on value during normal operational activity as well as during improvement initiatives

- **Start Where You Are:**
 - Look at what exists as objectively as possible, using the customer, or the desired outcome, as the starting point
 - 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
 - Apply your risk management skills
 - Recognize that sometimes nothing from the current state can be reused
- **Progress Iteratively With Feedback:**
 - Comprehend the whole, but do something
 - The ecosystem is constantly changing, so feedback is essential
 - Fast does not mean incomplete
- **Collaborate and Promote Visibility:**
 - Collaboration does not mean consensus
 - Communicate in a way the audience can hear
 - Decisions can only be made on visible data
- **Think and Work Holistically:**
 - Recognize the complexity of the systems
 - Collaboration is key to thinking and working holistically
 - Where possible, look for patterns in the needs of and interactions between system elements
- **Keep it Simple and Practical:**
 - Ensure value
 - Simplicity is the ultimate sophistication
 - Do fewer things, but do them better
 - Respect the time of the people involved
 - Easier to understand, more likely to adopt
 - Simplicity is the best route to achieving quick wins
- **Optimize and Automate:**
 - Simplify and/or optimize before automating
 - Define your metrics
 - Use the other guiding principles when applying this one

4



THE FOUR DIMENSIONS OF SERVICE MANAGEMENT

Intent and Context

The goal of any organization is to create value for its customers, stakeholders, and partners. You can achieve this goal using the ITIL Service Value System (SVS). The SVS describes the ways the various segments and activities of an organization are tied together. The four dimensions defined by ITIL relates to and impacts upon all the elements of the SVS. Therefore, before discussing the SVS, you should know about the four dimensions.

Let us see what our experts say about the four dimensions of service management.



<https://player.vimeo.com/video/294524511>

Transcript for Video

This module discusses the four dimensions within ITIL. They are important to the stability and improvement of the organization's Service Value System which we discuss in another module.

The ITIL 4 Glossary says, 'The four perspectives that are critical to the effective and efficient facilitation of value for customers and other stakeholders in the form of products and services.'

Imagine the four dimensions as the four critical pillars of an organization. When any one pillar is missing or unstable, it leads to higher risks, undeliverable services and unmet expectations.

No different to constructing a house, the four dimensions are the solid foundation on which the whole SVS is built. Nothing is done in ITSM in isolation.

The four dimensions do not have sharp boundaries and may overlap. They sometimes interact in unpredictable ways, depending on the level of complexity and uncertainty in which an organization operates.

Time to look at things from a holistic view.

Learning Objectives

At the end of this module, you will be able to:

- Discuss the four dimensions of the service management.
- Explain how each dimension relates to the Service Value System (SVS).
- Explain the external factors that can impact the four dimensions.

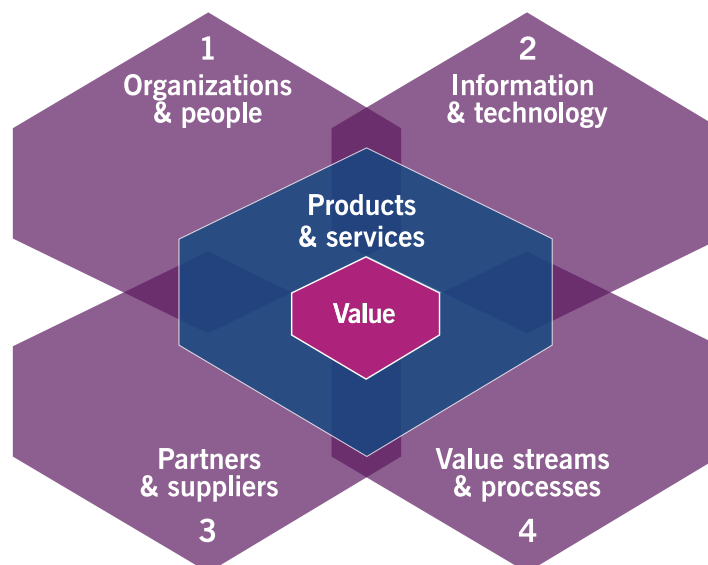
Key Terms Covered in the Module

Value stream	"A series of steps an organization undertakes to create and deliver products and services to consumers. A value stream is a combination of the organization's value chain activities."
Processes	"A set of interrelated or interacting activities that transform inputs into outputs. A process takes one or more defined inputs and turns them into defined outputs. Processes define the sequence of actions and their dependencies."

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The Four Dimensions

To support a holistic approach to service management, ITIL defines four dimensions that collectively are important for the effective and efficient facilitation of value. The four dimensions are depicted in the figure.



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While working on initiatives, organizations often start focusing on only one area, ignoring the others. This may lead to expected results and loss of work and delays. Therefore, it is essential for organizations to consider all dimensions of service management to work effectively.

These dimensions do not have sharp boundaries. Therefore, there is a probability of having overlapping dimensions. For example, if members of the service desk team (organizations and people) are being supplied by the third-party service provider, a special consideration must be given to information security and the application of policies and procedures (information and technology).

In addition, you might find these dimensions interacting in unusual ways based on the level of complexity and uncertainty in which an organization operates. If you **fail to address any of the dimensions**, it can lead to undeliverable services and unmet expectations concerning quality or efficiency.

The Axle Car Hire Story

Four Dimensions of Service Management

“Henri: As an IT team, we are responsible for the information and technology at Axle Car Hire. However, effective IT management is much more than just managing technology. We must also consider the wider organization and people involved in Axle’s car-hire service, our relationships with partners and suppliers, and the value streams, processes, and technologies that we use.”

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The Four Dimensions and Service Value System

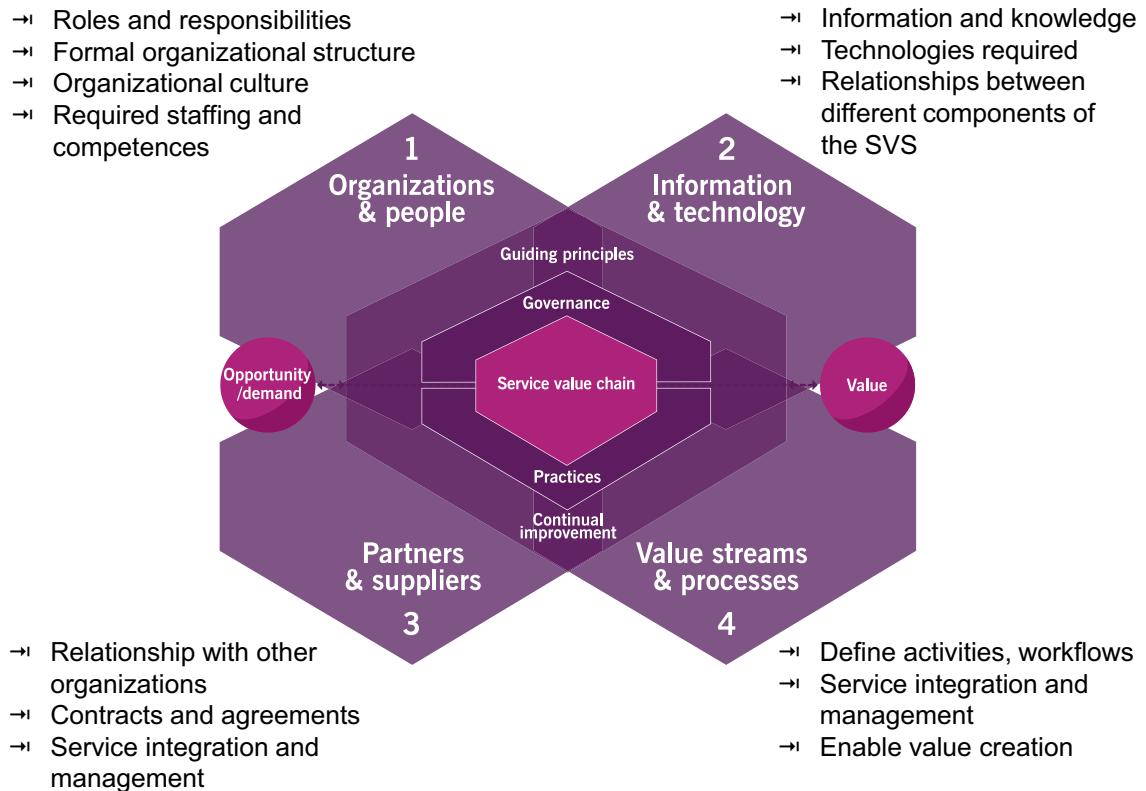
All four dimensions should be considered for the efficient working of the entire SVS. These four dimensions represent perspectives which are relevant to the whole SVS, including the service value chain and all ITIL practices.

EXAMPLE

fail to address any of the dimensions

If you fail to consider any of the dimensions, it can result in worse situations, such as:

- Organizations and people: Startups failure, reduced productivity, organizational ineffectiveness, and loss of reputation
- Information and technology: High risk of human errors, reduced productivity, less availability and reliability, insecure exchange of data, and unclear and misleading communication
- Partners and suppliers: Misalignment between the outsourced services and needs of the organization
- Value streams and processes: Conflicts, wasteful work, and duplication of efforts



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The organizations and people dimension relates to the roles and responsibilities, organizational structure and culture, and required staffing and competences. These aspects relate to creating, improving, and delivering a service. Therefore, when comparing this dimension with the SVS, you need to consider the same aspects, but in the context of the organization acting as a service provider.

The information and technology dimension relate to information and knowledge, technologies required, and relationships between different components of the SVS, such as inputs and outputs of the service value chain. For a specific service, the specific information and technologies depend on the nature of the service. An organization should consider the information created, managed, and used for provisioning and consumption of services and the technology that support and enable that specific service. Service management benefits from technology development at all levels. Service management is supported by technologies related to **workflow management systems**, knowledge bases, inventory systems, communication systems, and analytical tools.

workflow management system

A workflow management system provides an infrastructure for the arrangement, performance and monitoring of a workflow (defined sequence of tasks).

phases of services

Different phases of service include design, development, deployment, delivery, support, and/or continual improvement.

The partners and suppliers dimension encompasses an organization's relationships with other organizations that are involved in different **phases of services**. This dimension also includes contracts and other agreements between the organization and its partners or suppliers. The relationships with other organizations may involve different levels of integration and formality; ranging from formal contracts with clear separation of responsibilities to flexible partnerships where partners share common goals and risks, and work together to achieve desired outcomes.

Like the other three dimensions, the value streams and processes dimension is applicable to both the SVS in general and to specific products and services. In both contexts, it defines the activities, workflows, controls, and procedures required to achieve defined objectives. When the value streams and processes dimension is applied to the organization and its SVS, it considers how the various elements of the organization work in an integrated and coordinated way to enable value creation through products and services. The dimension focuses on what activities an organization undertakes, how these activities are organized, and how value can be created for all stakeholders efficiently and effectively.



The four dimensions are constrained or influenced by several external factors, which are often beyond the control of the SVS.

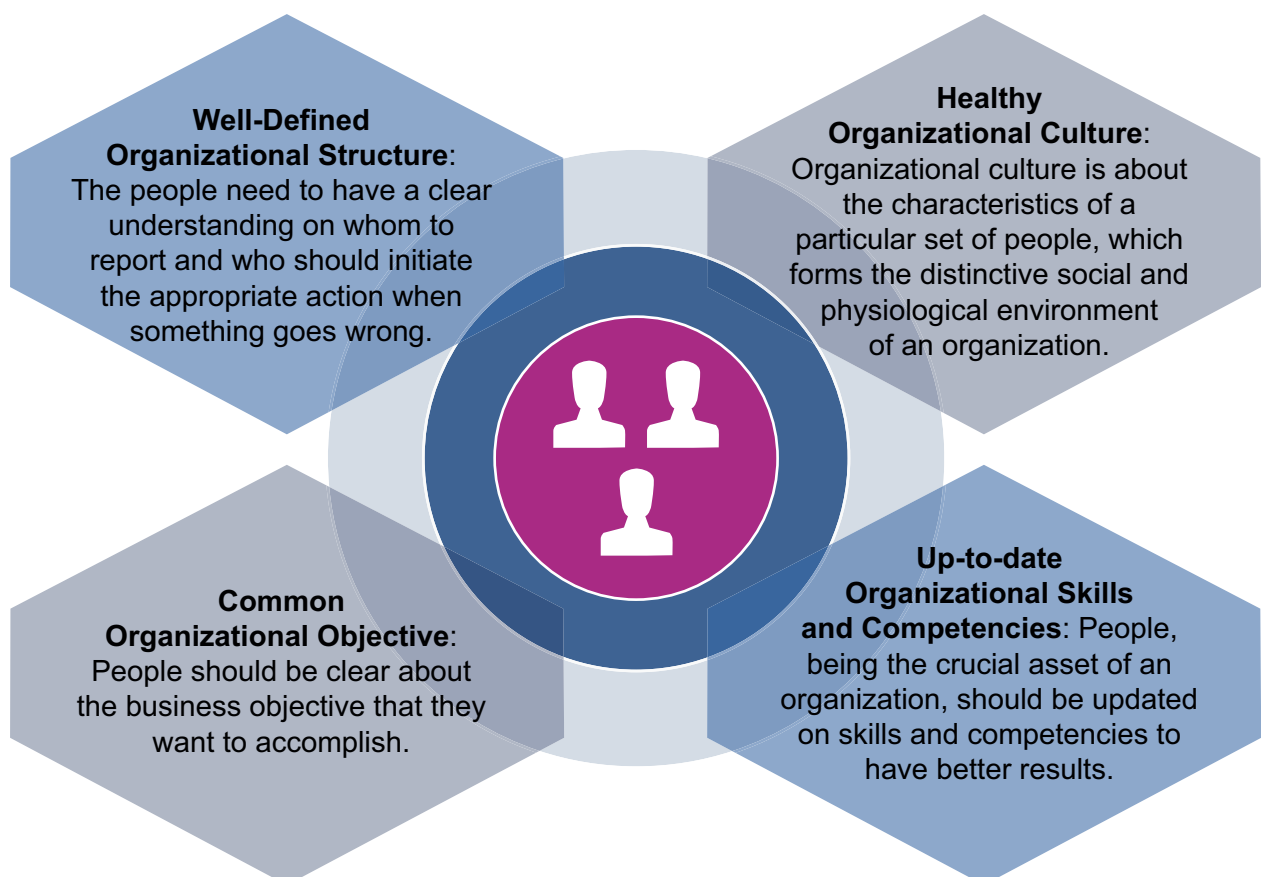
Topics Covered

- Organizations and People
- Information and Technology
- Partners and Suppliers
- Value Streams and Processes
- External Factors and the Pestle Model

ORGANIZATIONS AND PEOPLE

Organizations and People

The following figure depicts the key characteristics of the organizations and **people** dimension.



The Axle Car Hire Story

Axle's Organization and People

“Henri: The organizations and people dimension of Axle's car-hire services includes my IT team and other teams within the organization, such as procurement, HR, and facilities.”

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Well-Defined Organizational Structure

Organizations need a well-defined structure to align their people with the overall organizational strategy and operating model. To support the strategy and operating model, people need to have a clear understanding of:



INFO

clear roles and responsibilities

Benefits:

- Everyone knows what to do, such as expectations, behavior, and objective(s) to accomplish.
 - Less probability of missing out things when everyone is clear about their tasks to accomplish.
 - People work together better when they understand their roles.
 - People waste less energy in dealing with the things that do not matter.
- **Reporting Lines:** An organization should clearly define both the solid and dotted lines of responsibility. The solid lines indicate the responsibility for employee activities, including administering discipline. The dotted lines indicate a more limited level of responsibility and authority over others.
 - **Roles and Responsibilities:** When an organization defines **clear roles and responsibilities**, it allows people to know about expectations, such as how to behave, what to accomplish, and how to reach the goal. A clear understanding also enables them to work together with fewer arguments and more creativity.

- **Systems of Authority:** Depending on different types of responsibilities, people in an organization can have three types of authority:
 - **Line Authority:** It is the most basic authority in an organization that allows managers to direct the work of employees. The managers can make some decisions even without consulting anyone. Line authority primarily includes managers who are responsible for achieving the organizational objectives.
 - **Staff Authority:** Staff managers support line managers and other staff personnel by assisting and advising them on improving their effectiveness to perform the required tasks.
 - **Functional Authority:** An organization provides **functional authority** to an employee or a department to perform a particular job for a period of time. This type of rights deals with processes, practices, policies, or matters related to activities of other departments.
- **Communication Model:** Communication is the catalyst for a clear understanding of anything as it is all about sharing information from one person to the other. The process that organizations follow for effective communication is known as the communication model. Therefore, effective communication is essential to have a clear understanding of reporting lines, roles and responsibilities, systems of authority, and for other matters.

Healthy Organizational Culture

Culture is the way in which an organization carries out its work that creates shared values and attitudes, which over time becomes the organizational culture.

- Culture also includes the organization's vision, values, norms, systems, symbols, language, assumptions, beliefs, and habits

You cannot assure the effectiveness of an organization just by having a well-defined structure or system of authority. The organization also needs a supporting **culture** that is competent enough to meet the organizational objectives. Having such a culture is crucial for any organization and requires leaders to educate and support values that encourage the people to work in desirable ways. You can establish a healthy organizational culture by adopting the ITIL guiding principles.

People and Organizational Skills and Competencies

People are a key resource of the organizations and people dimension. It is important to pay attention not only to the skills and competencies of teams or individual members, but also to management and leadership styles and communication and collaboration skills.

EXAMPLE

functional authority

- The sales production manager can demand the methods of presenting new products within a defined timeline.
- A production planning manager can pass orders related to subordinates' problems, production planning, use of safety devices, and quality control.
- A finance executive might get permission to access budgetary reports of other departments.

EXAMPLE

culture

For example, promoting a culture of trust and transparency in an organization encourages its people to raise and escalate issues. Such a culture helps take corrective actions and prevents the customers from getting impacted.



EXAMPLE

people to understand not only their role and specialization but those of others as well

The Development and the Operations teams of software development should have the general idea about each other's style of working. It helps avoid silos, different implementations, different tools, different environments, blame game, disintegrated process, loss of work and many more.

EXAMPLE

accomplishing the objective of creating value

Organizations can promote their objective of creating value by breaking down the walls of confusion (silos) between the different business processes.

People need to work on updating their skills and competencies not only for the organization but also for their own growth.

The effectiveness of an organization is positively and directly related to their people's motivation. Therefore, it is essential for organizations to have updated management and leadership styles to keep them motivated to be successful in their business.

It is essential for **people to understand not only their role and specialization but those of others as well**. Therefore, organizations need to keep updating the communication and collaboration skills to ensure clear transparency among individuals and between the different business processes.

Common Objective

The business objective is the outcome that a business wants to accomplish. Therefore, organizations should ensure whether their people clearly understand it or not.

People are the crucial resource of an organization, and it is essential for them to be on the same stage. If they are not, the organizational effectiveness will suffer. Therefore, they should be clear about their contribution to **accomplishing the objective of creating value** for the customers, partners, and stakeholders.

INFORMATION AND TECHNOLOGY

Information and Technology

Every business deals with data, which is nothing but the information. In modern times, organizations use technology to manage the vast amount of data. Therefore, this dimensions focuses on two elements, information and technology.

The Axle Car Hire Story

Axle's Information and Technology

“**Henri:** The information and technology dimension of Axle Car Hire represents the information created and managed by teams. It also includes the technologies that support and enable our services. Applications and databases such as our booking app and financial system are part of the information and technology dimension as well.”

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Information

When dealing with the information part of the information and technology dimension, an organization should answer the following questions:



Let us discuss the questions or aspects in detail.

- **Information Management:** Effectively managing the information is the primary way of delivering value to the customers. It is the key output of almost every IT service consumed by business customers. Let us consider the example of one of the services of Human Resources (HR) to understand how they create value for its customers by **managing information**. They create value by:

EXAMPLE

managing information

Network Management creates value for its customers by allowing them to adjust the capacity of their network bandwidth. They do this by maintaining and providing accurate information about their organization's active network connections and utilization.

- Enabling the organization to access and maintain accurate information about its employees, their employment, and their benefits
- Keeping employees' data confidential by limiting the access to unauthorized parties
- **Information Exchange:** One of the aspects of the information and technology dimension is how to exchange the information between different services and their components. Today, it has become essential to keep optimizing the services considering the several factors, such as availability, reliability, accessibility, timeliness, information accuracy, and information exchange between services. As a result, clearly understanding the information architecture that the services use is crucial.
- **Challenges of Information Management:** The information and technology dimension also focuses on the challenges of managing information. Many regulations exist that restrict industries or countries from managing data using their standards, such as security and regulatory compliance requirements. These requirements greatly influence the policies and practices that organizations follow to manage information.

Technology

Almost every service today is based on information technology, and an organization can choose to use technology anytime for its services or products. Therefore, they come up with many questions when they choose to use technology.

- Is the technology compatible with the existing architecture of the organization and its customer(s)? Will the technology products used by the organization and its stakeholders work together? How do the emerging technologies influence the service and the organization?
- How do the emerging technologies influence the service and the organization? Are there any regulatory or other compliance issues with the organization's policies and information security controls, or those of its customers?
- Will the technology continue to be viable in the foreseeable future?
- Is the organization willing to accept the risk of using aging technology, or of embracing emerging or unproven technology?
- Does the technology align with the strategy of the service provider or its service consumers?
- Does the organization have the required skills to support and maintain the technology?
- Does the technology have sufficient automation capabilities to ensure its efficient development, deployment, and operations?
- Does the technology offer additional capabilities that might leverage other products or services?

- Does the technology introduce new risks or constraints to the organization?

Factors Affecting Technology

An organization should consider many factors to choose the right technologies, such as Organizational Culture and Nature of Business.

Organizational Culture	Nature of Business
Some organizations always want to be on the cutting edge of technology, and some like to go with the traditional style of working. For example, an organization might be excited to take advantage of artificial intelligence technologies, while another may barely be ready for advanced data analysis tools.	Organizations dealing with sensitive data, such as government clients, finance, and life sciences, usually have restrictions in using some technologies. Due to high security concerns, they cannot use open source and public services.

Activity *Case Study Discussion: Organizations and People/Information and Technology*

Activity Time: 10 minutes

Focus

The organizations and people dimension suggests that the organization needs a culture that supports its objectives and the right level of skills and competence among its workforce.

The information and technology dimension focuses on the creation and exchange of information used for service provisioning and consumption and the technologies that support and enable that service.

Task

Consider the introduction of a third-party system, Axle Aware, which will alert the drivers to approaching dangers and potential road rule breaches. As a service provider of this system to Axle, what factors would you consider from the perspective of the following dimensions?

- Organizations and people
- Information and technology

PARTNERS AND SUPPLIERS

Partners and Suppliers

The partners and suppliers dimension includes an organization's relationships with other organizations.

- Almost every organization and every service depends to some extent on services provided by other organizations. Therefore, they work with partners and suppliers to achieve the organizational objective.
- Partners and suppliers can be involved in every phase of product development or service management, such as design, development, deployment, delivery, support, and continual improvement.
- Maintaining healthy relationships with partners and suppliers is, therefore, essential for organizations to deliver the required value to the customers.

The Axle Car Hire Story

Axle's Partners and Suppliers

“**Henri:** The partners and suppliers dimension for Axle includes suppliers such as Go Go Gas and Craig's Cleaning, as well as internet service providers and developers.”

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Organizational Relationships with Partners and Suppliers

Organizations work with partners or suppliers through contracts and other agreements. This process includes various levels of integration and formality. Let us look at some of the 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 of 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)

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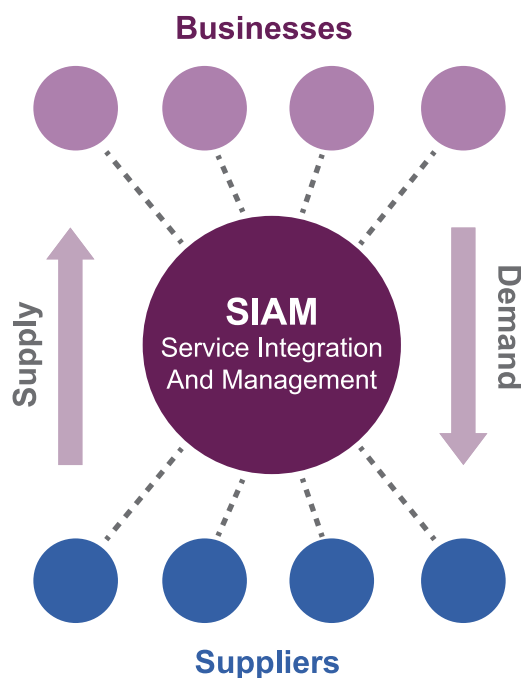
The forms of cooperation mentioned in the preceding table exists as a scale. These are not fixed. When it comes to using partners and suppliers, an organization's strategy should be based on its goals, culture, and business environment. For example, some organizations may believe that they will be best 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.

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.

Addressing Partners and Suppliers

- One of the methods to address partners and suppliers is Service Integration and Management (SIAM).
- It ensures proper coordination of service relationships using a specially established integrator.
- An organization can choose to delegate service integration and management to a trusted partner.



Source: https://www.cisco.com/c/dam/en/us/products/collateral/analytics-automation-software/servicegrid/IDCVS01W_collabsupport_ciscoservicegrid.pdf

Suppliers and Impact on Organizational Strategy

When dealing with suppliers, many factors can impact the overall strategy of the organization. Some of these factors are depicted in the figure.



- **Strategic Focus:** Some organizations prefer to focus on their core competencies and outsource non-core supporting functions to third parties. Others want to be self-sufficient as possible and prefer to have full control over all important functions.
- **Corporate Culture:** Changing the long-standing cultural bias is difficult due to a historical preference for one approach over another.
- **Resource Scarcity:** The lack of resources or required skill sets is a big problem for service providers. It stops them from acquiring anything even without engaging with the partners.
- **Cost Concerns:** The prime factor that affects decision-making is cost. Therefore, service providers can go with sourcing a particular requirement from suppliers if they find it to be a more economical deal.
- **Subject Matter Expertise:** Service providers prefer to go with the supplier who is having the expertise in the required field. Therefore, they do not try creating in-house subject matter expertise.
- **External Constraints:** Government regulations or policies, industry codes-of-conduct, and social, political, or legal constraints also impact the supplier strategy.
- **Demand Patterns:** The demand for services is seasonal and different in different situations. It has a high degree of variability and the tendency to impact the external service providers that organizations use to deal with the variable demand.

VALUE STREAMS AND PROCESSES

Value Streams and Processes

- The value streams and processes dimension focuses on the integration and coordination of both the SVS in general and to specific products and services. It defines the activities, workflows, controls and procedures needed to achieve agreed objectives.
- In other words, the dimension focuses on the efficient organization of the various activities to deliver value to stakeholders. Therefore, there is a need for an operating model that effectively organizes the key activities to manage products and services.
- ITIL provides service providers with such a model known as the ITIL service value chain. This model can follow different patterns, and the patterns within the value chain operation are called value streams.

The Axle Car Hire Story

Axle's Value Streams and Processes

Radhika: The value streams and processes dimension represents the series of activities that are carried out within Axle. Value streams help Axle to identify wasteful activity and remove obstacles that hinder its productivity.

Value Streams

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

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Characteristics of Value Streams

The following figure depicts some salient characteristics of value streams:



The following pieces of information briefly explain the preceding characteristics:

- **Improved Performance:** Value streams help improve the overall performance of an organization. Therefore, it is essential to identify and understand the various value streams of the organization.
- **Better Understanding:** Organizations should structure their service and product portfolios based on value streams as it provides two primary benefits. First, it allows having a clear understanding of what value does an organization deliver and how. Second, it helps to make continual service improvements.
- **Increased Productivity:** Value streams help organizations to analyze how they perform their work. The analysis enables them to find waste in their current workflow, such as any obstacles and non-value adding activities, and increase value-adding activities.
- **Continual Improvement:** In consideration to varying demands, value streams should be continually improved or refined to meet the organizational strategy and the objective in an optimal way.

Processes

A process is a set of interrelated or interacting activities that transform inputs into outputs. Processes define the sequence of activities and their dependencies. A process takes one or more defined inputs and turns them into defined outputs. Processes are usually detailed in procedures, which outline who is involved in the process, and work instructions, which explain how they are carried out.

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Processes describe what should be done to accomplish the organizational objective, and improve productivity within and across organizations. These processes indicate the detailed procedure, including the work instructions and the people who will be involved.

Structure of Services

Generally, the same structure of the value chain, value streams, processes, procedures, and work instructions applies to the services. Therefore, organizations should consider the following questions when creating, delivering, and improving a service.

- 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?

The answers to the preceding question will vary depending on the nature and architecture of the service.

Activity Case Study Discussion: The Four Dimensions

Activity Time: 10 minutes

Which dimension is the focus for the following situations Axle Car Hire?

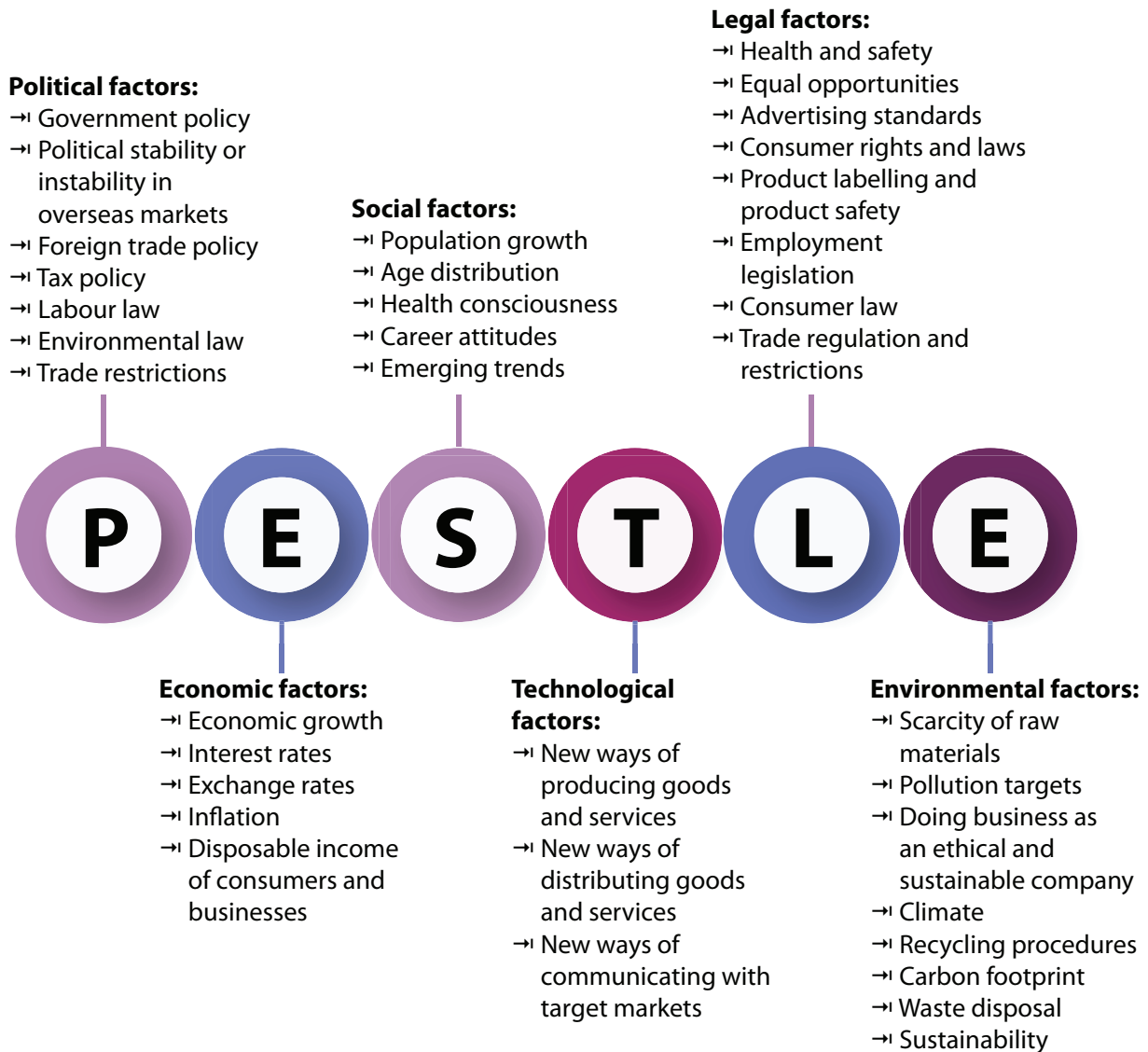
1. Axle is considering improvements for its booking app because the booking app is out of date and can't cater for the advances in technology that Axle is using now.
2. Axle has an objective to increase collaboration across its enterprise to reduce the silo behavior between its departments and partners.
3. Axle is considering changes in the contract with Craig's Cleaning to reflect the new service promise that Craig's Cleaning will clean the cars each time they're returned to the lot.
4. The Incident Management Team at Axle encourages its members to escalate incidents and facilitate corrective actions before any incidents have an impact on customers.
5. Axle is analyzing its workflow for existing services to identify barriers to workflow and increase productivity.

EXTERNAL FACTORS AND THE PESTLE MODEL

Note: This topic is not included in the exam specifications for the ITIL Foundation certification. The certification exam does not include questions from this topic.

External Factors and the PESTLE Model

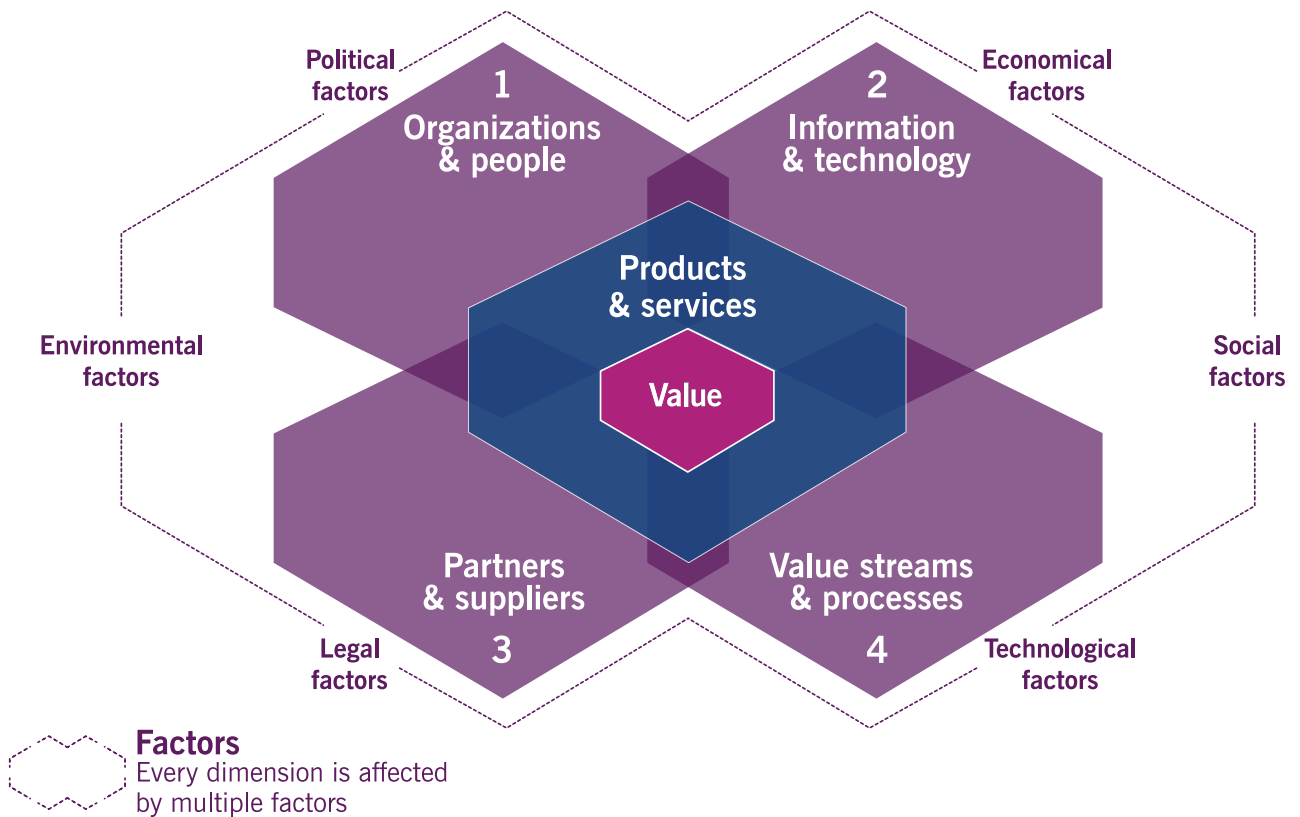
Service providers do not work in isolation. Therefore, external factors can influence the way they work. The PESTLE model helps analyze these factors.



- **Political** factors are about how the government can impact an organization and the way they work.
- **Economic** factors impact the way an organization does business and profitability.
- **Social** factors impact the customers' needs due to changes in the social environment.
- **Technological** factors impact the development, distribution, manufacturing, and logistics due to changes in digital or mobile technology, automation, and research and development.
- **Legal** factors focus on how organizations are allowed to operate within territories.
- **Environmental** factors are becoming important these days due to the rise of Corporate Sustainability Responsibility (CSR) and ecological aspects.

PESTLE Model and the Four Dimensions

The PESTLE factors greatly impact the way organizations configure their resources and address the four dimensions. The SVS is often unable to control these factors.



Relationship Between Dimensions and the PESTLE Model

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Consider the following examples:

- 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.

EXERCISE: MULTIPLE-CHOICE QUESTIONS

Q1. Failure to address ALL FOUR dimensions may lead to what adverse impact to the business?

- a) Suppliers not delivering the appropriate value for money.
- b) Consumers and service providers unable to work together.
- c) Services not being delivered within expectations of quality or efficiency.
- d) Technology not supporting the consumers requirements.

Q2. Considering the information and technology dimension, which of these questions should be asked when implementing new technologies?

- 1. Does this technology raise any regulatory or other compliance issues?
 - 2. Does this technology align with the strategy of the service provider?
 - 3. Does the organization have the right skills across its staff and suppliers to support and maintain the technology?
-
- a) 1, 2 and 3
 - b) 1 and 3 only
 - c) 2 and 3 only
 - d) 1 only

Q3. Which of the following examples can be considered factors that may influence an organization's strategy when using suppliers?

1. A decision to be as self-sufficient as possible.
2. A decision to lower cost to company.
3. A decision that the skills required to build an initiative is needed immediately.
4. A decision that a service or a product will demonstrate high degrees of variability.

- a) 2 and 3 only
- b) 3 and 4 only
- c) 1, 2 and 3 only
- d) 1, 2, 3, and 4

Q4. Which of the following factors could be considered as external factors that should be analyzed as they influence how a service provider operates?

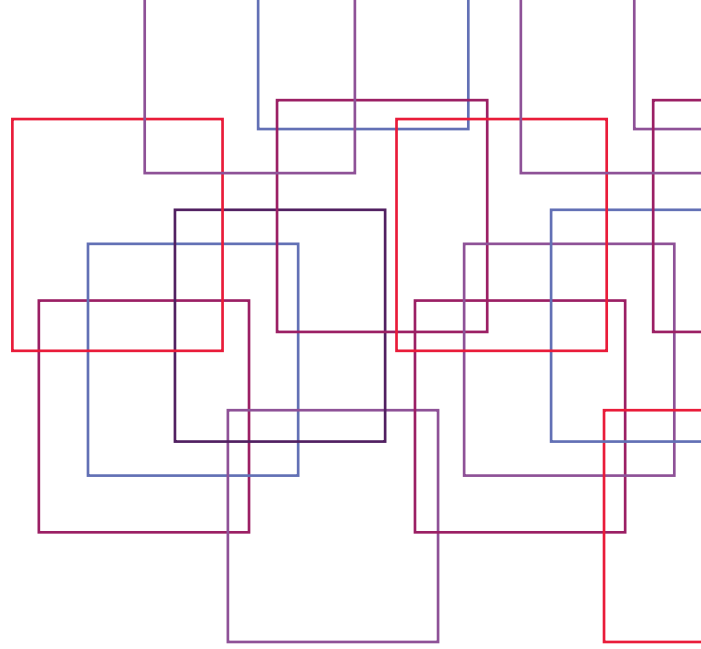
1. Government legislation to keep all data internal to country borders.
2. Social influences to involve the entire family unit.
3. Economic factors that increase a cost saving culture.

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2, and 3

MODULE SUMMARY

- The four dimensions defined by ITIL for service management are organizations and people, information and technology, partners and suppliers, and value streams and processes.
- The organizations and people dimension focuses on having a well-defined organizational structure, healthy culture, updated skills and competencies, and common objective.
- When dealing with the information part of the information and technology dimension, an organization should answer the following questions:
 - What information will the services manage?
 - What supporting information and knowledge do you require to deliver and manage the services?
 - How will you protect, manage, archive, and dispose of the information and knowledge assets?
- Service providers should be ready with the answers to the questions that an organization can raise when they choose to use technology for its services or products.
- Organizations work with partners and suppliers to achieve the organizational objective. Therefore, maintaining healthy relationships with partners and suppliers is, therefore, essential for organizations to deliver the required value to the customers.
- One of the methods to address partners and suppliers is SIAM.
- A value stream is a combination of the organization's value chain activities and helps to have improved performance, better understanding, increased productivity, and continual Improvement.
- A process is a set of interrelated or interacting activities that transform inputs into outputs.
- Organizations should consider the following questions when creating, delivering, and improving a service:
 - 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?

5



THE ITIL SERVICE VALUE SYSTEM

Intent and Context

This module introduces you to the service value system and service value chain.

Before moving ahead, let us see what our experts say about service value system and service value chain.



<https://player.vimeo.com/video/302763299>

Transcript for Video

The service value system is a flexible value-oriented operating model allowing the organization to create a variety of combinations of activities and components to suit their particular situation.

The key inputs to the service value system are opportunity and demand.

Opportunities represent the different prospects to add value for stakeholders or the options to improve the organization. Demand represents the need or desire for products and services among consumers.

The service value system includes the following core components:

- The ITIL service value chain, which represents the key activities for creating and delivering services
- ITIL practices, which are the sets of resources

- The ITIL guiding principles
- Governance and
- Continual improvement

With the integrated and coordinated use of these components, the ITIL SVS supports many work approaches, such as Agile, DevOps and Lean, as well as traditional process and project management.

The key output of the SVS is the delivery of value to consumers and customers.

Let's have a deeper look into the service value system.

Learning Objectives

At the end of this module, you will be able to:

- Explain service value system.
- Describe service value chain and the purpose of its activities.

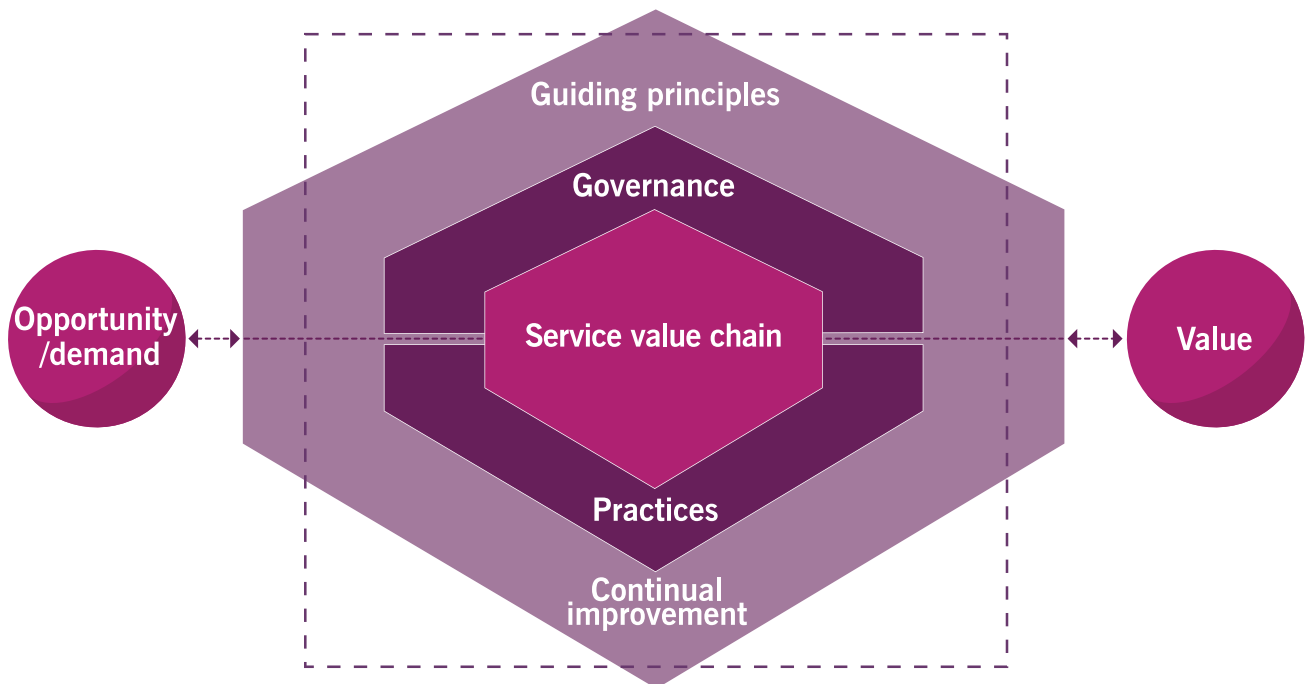
Key Terms Covered in the Module

Opportunity	"Options or possibilities that add value for stakeholders or otherwise improve the organization."
Demand	"The need or desire for products and services among internal and external consumers."

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Service Value System and Service Value Chain

A key component of the ITIL 4 framework is the ITIL service value system (SVS). There are five core components of SVS and service value chain is one of these components.



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Topics Covered

- Overview of Service Value System
- Overview of the Service Value Chain

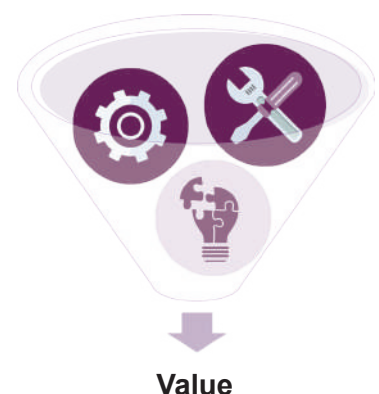
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OVERVIEW OF SERVICE VALUE SYSTEM

Purpose of Service Value System

The ITIL Service Value System (SVS) explains how the components and activities of the organization work together as a system to enable value creation.

- Each organization's SVS interfaces with other organizations, forming an ecosystem that can in turn facilitate value for those organizations, their customers, and other stakeholders.
- The purpose of the SVS is to ensure that the organization constantly co-creates value with all stakeholders through the use and management of products and services.
- In order to function properly, a service management needs to work as a system. The ITIL SVS describes the inputs to this system, the elements of this system, and the outputs (achievement of organizational objectives and value for the organization).

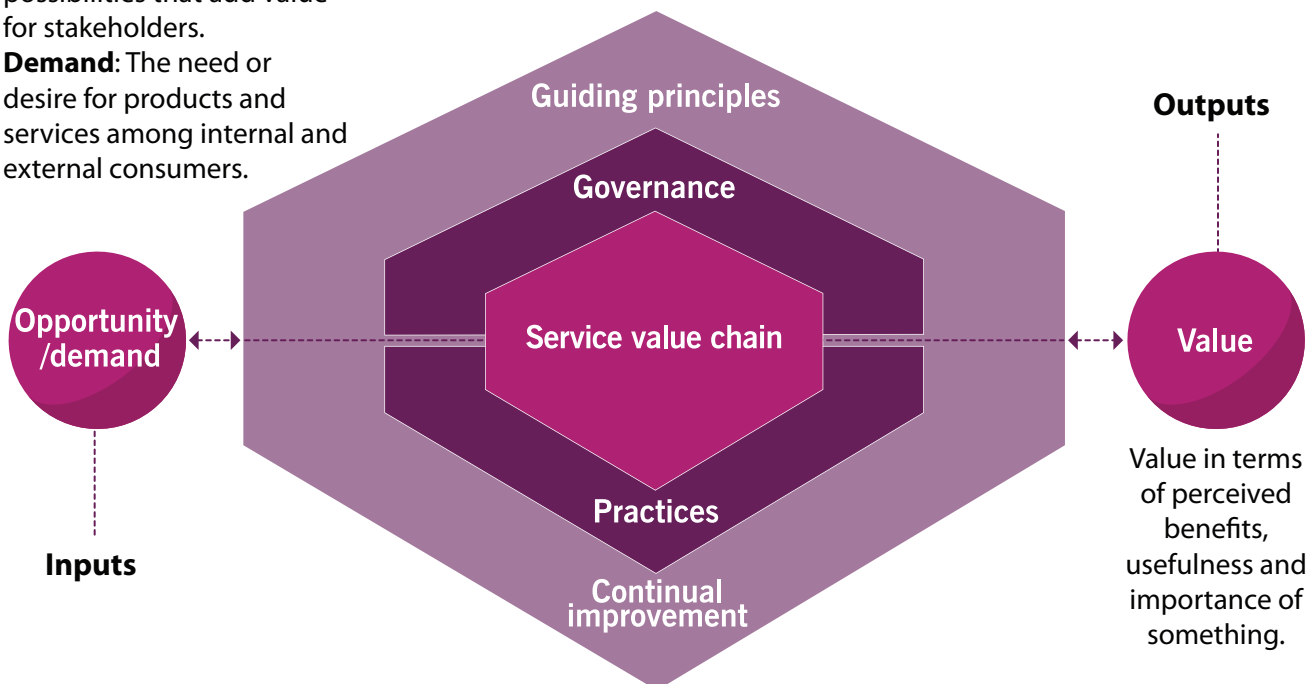


Organizational agility

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

Opportunity: Options or possibilities that add value for stakeholders.

Demand: The need or desire for products and services among internal and external consumers.

**Organizational resilience**

Organizational resilience is the ability of an organization to anticipate, prepare for, respond to, and adapt to both incremental changes and disruptions from an external perspective.

The ITIL SVS provides the means to achieve organizational agility and resilience. **Organizational agility** is required to support internal changes, and **organizational resilience** is required to thrive in changing external circumstances.

Components of Service Value System

The given figure shows the structure of the SVS.

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The left side of the figure shows inputs (opportunity/demand) feeding into the SVS and the right side of the figure shows output created for the organization, its customers, and other stakeholders. The middle part of the figure shows the components of the ITIL SVS.

The main inputs to the SVS are opportunity and demand. Opportunities refer to options or possibilities that can add value for customers and stakeholders or otherwise help the organization to improve. Demand refers to the need for products and services among consumers.

Opportunity and demand generate activities within the ITIL SVS, which lead to the creation of value. This value is the output/outcome of ITIL SVS. The value represents the perceived benefits, usefulness, and importance of something. The ITIL SVS enables the creation of many different types of value for a wide group of stakeholders.

The ITIL SVS includes the following components:

- **Guiding principles:** Refer to recommendations that guide organizations in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure.

- **Governance:** Refers to the means by which an organization is directed and controlled.
- **Service value chain:** Refers to a set of activities performed by an organization to deliver a valuable product or services its consumers.
- **Practices:** Refer to a set of organizational resources designed to perform work or accomplish an objective.
- **Continual improvement:** Refers to a recurring activity performed at all levels to ensure that an organization's performance continually meets stakeholders' expectations.

Overcoming Organizational Silos

The biggest challenge for organizations today is the presence of organizational silos.

Organizational silos:

- Prevents easy access to information & expertise
- Reduces efficiency
- Increases costs
- Makes communication and collaboration difficult
- Makes organizations unable to quickly take advantage of opportunities
- Makes decision making ineffective due to limited visibility and hidden agendas

AVOID practices as silos.

The ITIL SVS has been specifically designed to enable flexibility and discourage siloed working.

The ITIL SVS specifies how the components and activities of the organization work together as a system to enable value creation. These components and activities can be configured and reconfigured in multiple combinations in a flexible way as circumstances change. However, this configuration and reconfiguration requires the integration and coordination of activities, practices, teams, authorities, and responsibilities and all parties to be truly effective.

When trying to work effectively and efficiently with a shared vision, or to become more agile and resilient, the biggest challenge that an organization faces is the presence of organizational silos.

Silos are resistant to change and prevent easy access to the information and specialized expertise that exists across the organization. This in turn reduces efficiency and increases cost and risk. Silos 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 optimize the use of resources across the organization. It is generally not able to make effective decisions about changes, due to limited visibility and hidden agendas.

In some organizations, practices can also become silos. Various organizations implement practices like organizational change management or incident management without clear interfaces with other practices which leads to inefficiencies. 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.

The ITIL SVS has been specifically designed to enable flexibility and discourage siloed working. “The service value chain activities and the practices in the SVS do not form a fixed, rigid structure. Rather, they can be combined in multiple value streams to address the needs of the organization in a variety of scenarios.” Organizations should be able to define and redefine their value streams in a flexible, yet safe and efficient manner with ongoing improvement built in. With these components, the ITIL SVS supports many work approaches, such as Agile, DevOps, and Lean, as well as traditional process and project management, with a flexible value-oriented operating model.

Furthermore the scope of the SVS can be a whole organization or a smaller subset of that organization. To achieve the maximum value from the SVS and to properly address the issue of organizational silos, it is preferable to include in the scope the whole organization rather than a subset.

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Activity: Case Study Discussion: Service Value System

Activity Time: 15 minutes

Focus

The ITIL SVS describes how all the components and activities of the organization work together forming an ecosystem that facilitates value creation for the organizations.

Task

Axle is considering to offer a new service in the form of “**Axle Aware**” system, which is basically a third-party driver assistance system. In consideration to this service:

- Identify the related principles (can be more than one).
- What governance would you expect on this service?
- Identify three practices that support this new/improvement service.
- Is introduction of this system a part of the continual improvement by Axle?
- Identify the consumer value received.

OVERVIEW OF THE SERVICE VALUE CHAIN

Service Value Chain in an Organization

This video is based on the Axle Car Hire case study, sourced from the ITIL® Foundation (ITIL® 4 edition) manuscript by AXELOS.



<https://player.vimeo.com/video/302778257>

The video presents an introduction to the service value chain and how it can be used in an organization, such as Axle Car Hire.

The service value chain is the central element of the SVS and defines the key activities required to respond to demand and facilitate value realization. To understand the relevance of service value chain, let us see how an organization, such as Axle Car Hire, can make use of it.

Transcript for Video

Radhika (IT Business Analyst) to Henri (CIO):

I have heard that Axle Car Hire is taking some strong steps forward by updating its service management approach through the adoption of ITIL 4. How is this new way of working with an ITIL 4 focus going to impact the day-to-day work for me and for my team?

Henri:

Good question... Radhika. Let's chat about this.

As you know in Axle Car Hire we always want to stay ahead of the competition and we want to release new products and services before other car rental companies do so.

The service value chain supports a more modern way of working that's needed for us to get ahead of our competition. This value chain is a set of logical activities which provide multiple streams to follow for transforming our opportunity and demand into valuable results for our customers and passengers and make our customers a lot happier.

To transform demand into value, the ITIL practices define the required resources. The practices are basically a set of resources, such as processes, skills, and capabilities.

Radhika:

Ok... That's interesting! So, we will make use of this service value chain and ITIL practices to design the flow for development or customization of our services and products.

Henri:

Yes Radhika, you have got that right!

The service value chain includes six activities: Plan, Engage, Improve, Design and Transition, Obtain/Build and Deliver and Support. Depending on what has to be done, the different streams can be

designed by combining the activities of service value chain and one or more practices. We will use our common sense to find the most optimal flow or value stream for the product or service we are going to deliver and support to our customers.

Radhika:

Thank you Henri. I'm even more curious to find out more about the service value chain.

Henri:

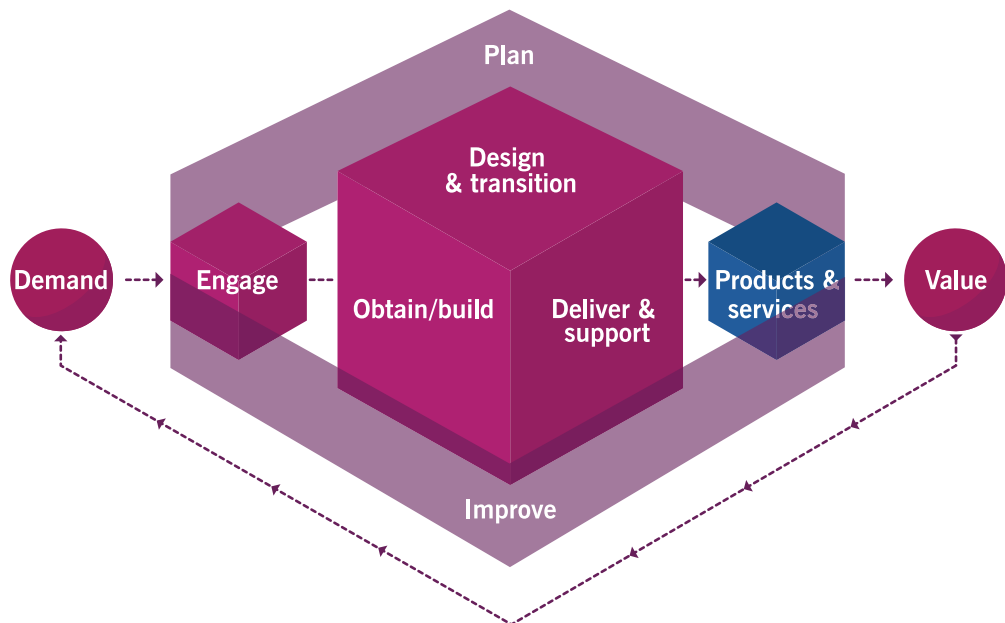
I look forward to working with you.

Radhika:

Thank You!

The Service Value Chain

The service value chain is the central element of SVS.



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The service value chain is an operating model that defines the key activities required to respond to demand and enable value creation through the formation and management of products and services.

The Service Value Chain and ITIL Practices

The ITIL service value chain includes six value chain activities that lead to the creation of products and services and, in turn, value.

The six value chain activities are:

- Plan
- Improve

- Engage
- Design and transition
- Obtain/build
- Deliver and support

The value chain activities represent the steps an organization takes to create value. Each activity contributes to the value chain by converting specific inputs into outputs. The inputs may be demands from outside the value chain or may be the outputs of other activities. In this way, activities interact with each other wherein each activity receives and provides triggers for further actions to be taken.

To convert inputs into outputs, the value chain activities take different combinations of ITIL practices. Each activity may use internal or third party resources, skills, and competencies from one or more practices. “For example, the engage value chain activity might draw upon a number of practices including supplier management, service desk management, relationship management and service request management to respond to new demands for products and services, decisions, or information from various stakeholders.”

Value Streams

Value Stream

“A value stream is a series of steps that an organization takes to create and deliver products and services to a consumer. A value stream is a combination of the organization’s value chain activities.”

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The Axle Car Hire Story

Value Chain and Value Streams

“**Henri:** At Axle Car Hire, the value chain is the way that our company is built and operates. It has multiple value streams. Each value stream adopts and adapts the activities of the value chain for carrying out particular tasks. For example, there is one value stream for innovation, and another for providing standard services to existing customers. The value stream for providing standard services to existing customers represents the activities that are carried out when a customer hires a car. This starts with engagement, when a customer contacts Axle, and then proceeds to delivery, when they receive a car (although engagement can still happen at this stage).

Some value chain activities may be ongoing throughout a particular value stream, or may not be involved at all. In this stream, planning activity is continuous, but design and procurement activities will typically not be involved. The stream ends with more engagement activities, when cars are returned by customers, feedback is given, and orders are closed.

The Axle Car Hire Story

Value Chain and Value Streams (Contd.)

Marco: Value chain activities do not have to happen in a particular order. Axle's innovation value stream is triggered by opportunity, and then goes to planning, designing, building or obtaining, transitioning, and finally to delivering. This stream often includes procurement activities. For example, we procure software and hardware for our biometric solutions.

Henri: We manage value streams for different objectives, combining the value chain activities and supporting them with practices. Every value stream should be effective and efficient, and subject to continual improvement."

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Service value streams are specific combinations of activities and practices where each value stream is designed for a particular scenario. Once designed, value streams should be subjected to continual improvement.

For example, a value stream might be created for a situation where a user of a service needs an incident to be resolved. The value stream created for this scenario will provide a complete guide of the activities, practices, and roles involved in resolving the issue.

Example: Value Chain, Practices, and Value Streams

A mobile application development company has a value chain, enabling the full cycle of application development and management, from business analysis to development, release, and support. The company has developed a number of practices, supported with specialised resources and techniques:

- Business analysis
- Development
- Testing
- Release and deployment
- Support

Although the high-level steps are universal, different products and clients need different streams of work. For example:

- The development of a new application for a new client starts with initial engagement (pre-sale), proceeds to prototyping, agreements, development, and eventually to release and support.
- Changing an existing app to meet new requirements of existing clients does not include pre-sale and involves development, testing, and support in a different way.

- Fixing an error in a live application may be initiated in support, proceed with rolling back to a previous stable version (release), then to development, testing, and release of a fix.
- Experiments with new or existing apps to expand the target audience may start with innovation planning and prototyping, then proceed to development, and eventually to a pilot release for a limited group of users to test their perception of the changes made.

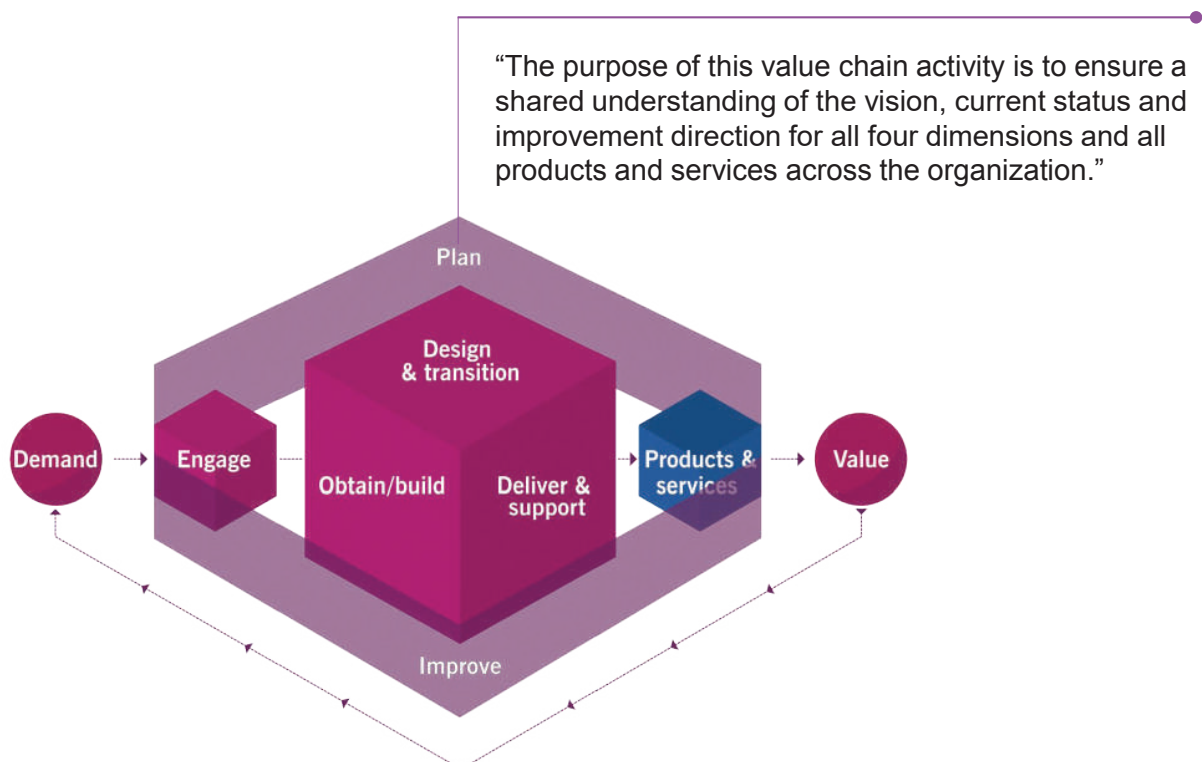
These are examples of value streams: they combine practices and value chain activities in various ways to improve products and services and increase potential value for the consumers and the organization.”

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Let us now discuss the value chain activities and define the purpose, inputs, outputs, and value for each activity.

Note: The outputs of the activities of service value chain are not part of the ITIL (4) Foundation syllabus. These are included with each activity to help you better understand the purpose the activity.

The Plan Activity



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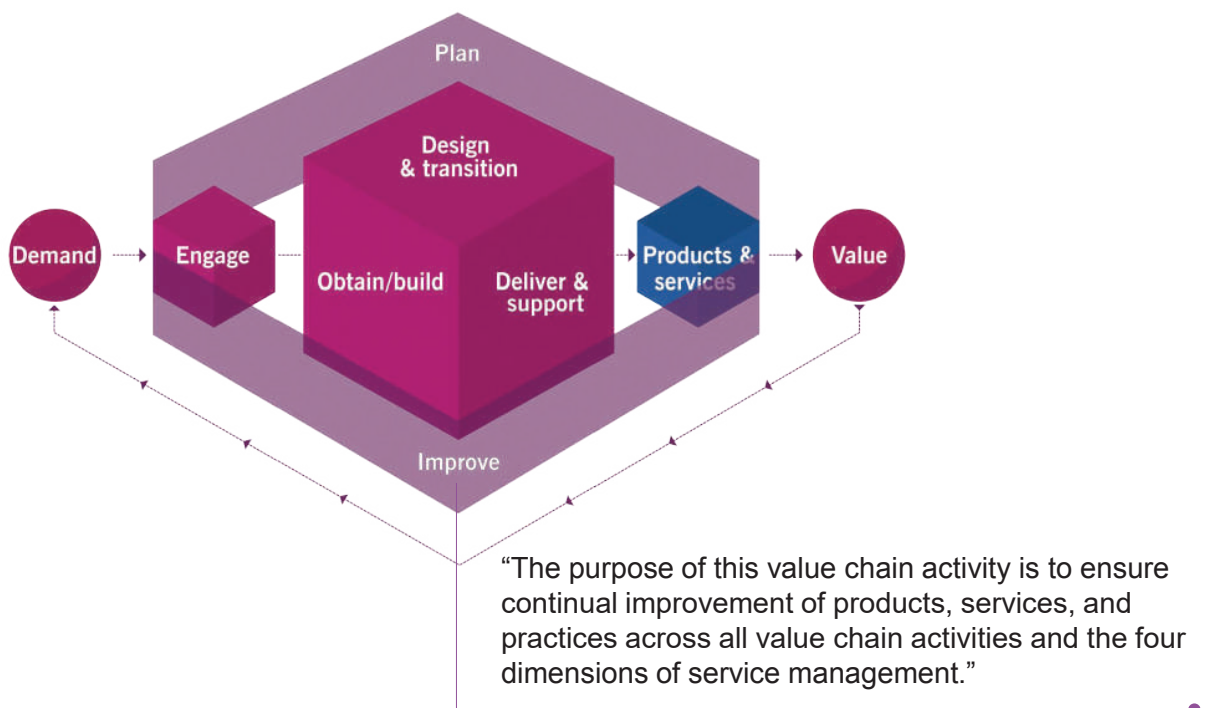
Outputs of the Plan Activity

To better understand the purpose or what is done in the activity, it is important to know the outputs that are produced as the result of this activity. The given table shows the outputs of the plan activity as well as to whom this activity provides these outputs.

Output	To
Strategic, tactical, and operational plans	All
<ul style="list-style-type: none"> Portfolio decisions Architectures and policies 	Design and transition
Improvement opportunities	Improve
<ul style="list-style-type: none"> Product and service portfolio Contract and agreement requirements 	Engage

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The Improve Activity



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Outputs of the Improve Activity

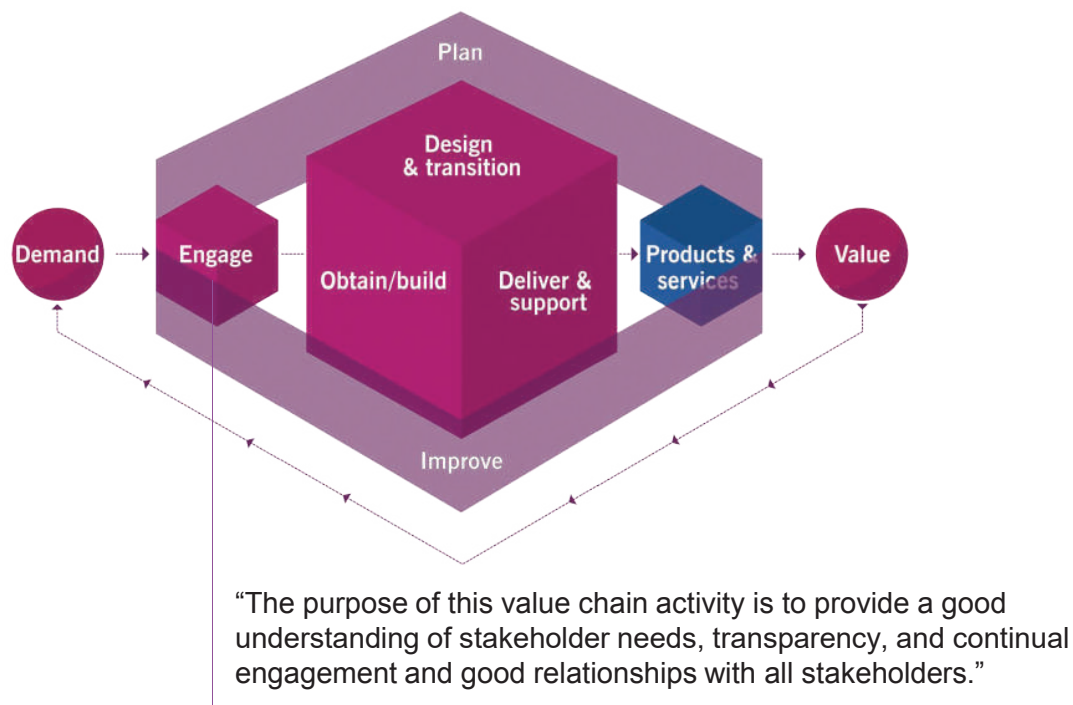
To better understand the purpose or what is done in the activity, it is important to know the outputs that are produced as the result of this

activity. The given table shows the outputs of the improve activity as well as to whom this activity provides these outputs.

Output	To
Improvement initiatives and plans	All
Improvement status reports	All value chain activities
Value chain performance information	Plan and the governing body
Contract and agreement requirements	Engage
Service performance information	Design and transition

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The Engage Activity



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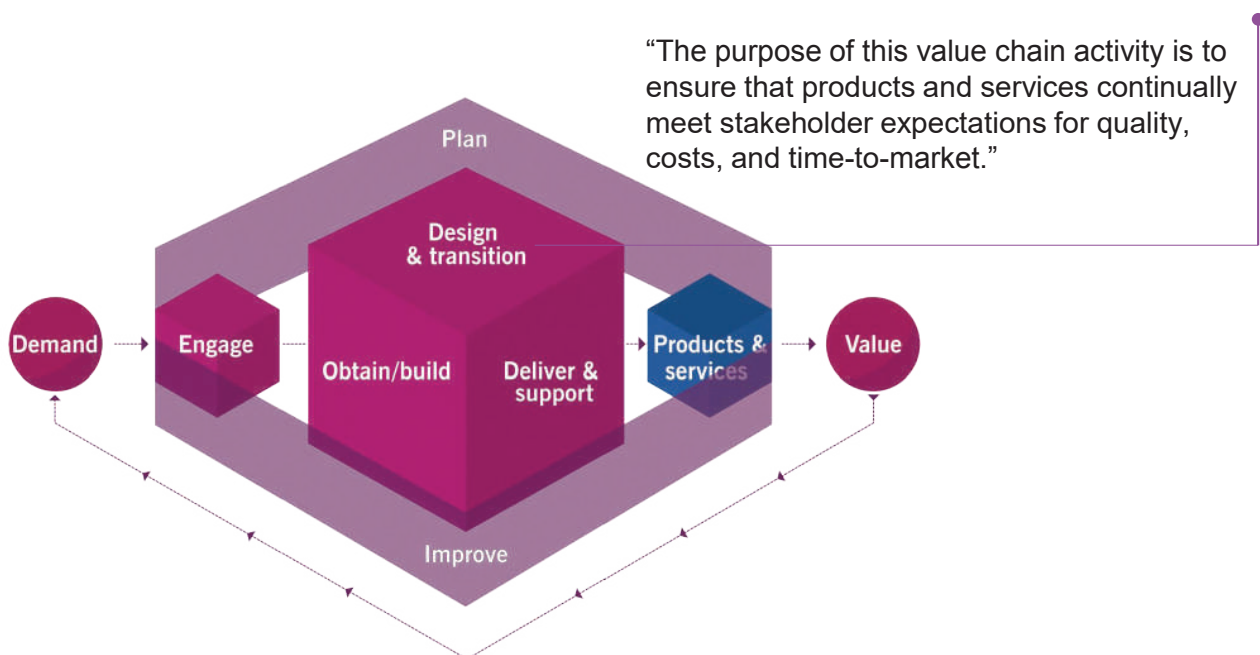
Outputs of the Engage Activity

To better understand the purpose or what is done in the activity, it is important to know the outputs that are produced as the result of this activity. The given table shows the outputs of the engage activity as well as to whom this activity provides these outputs.

Output	To
Service performance reports	Customers
Consolidated demands and opportunities	Plan
Improvement opportunities and stakeholders' feedback	Design and transition
User support tasks	Deliver and support
Change or project initiation requests	Obtain/build
Contracts and agreements with external and internal suppliers and partners	Obtain/build, Design and transition
Improvement opportunities and stakeholders' feedback	Improve
Knowledge and information about third party service components	All value chain activities

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The Design and Transition Activity



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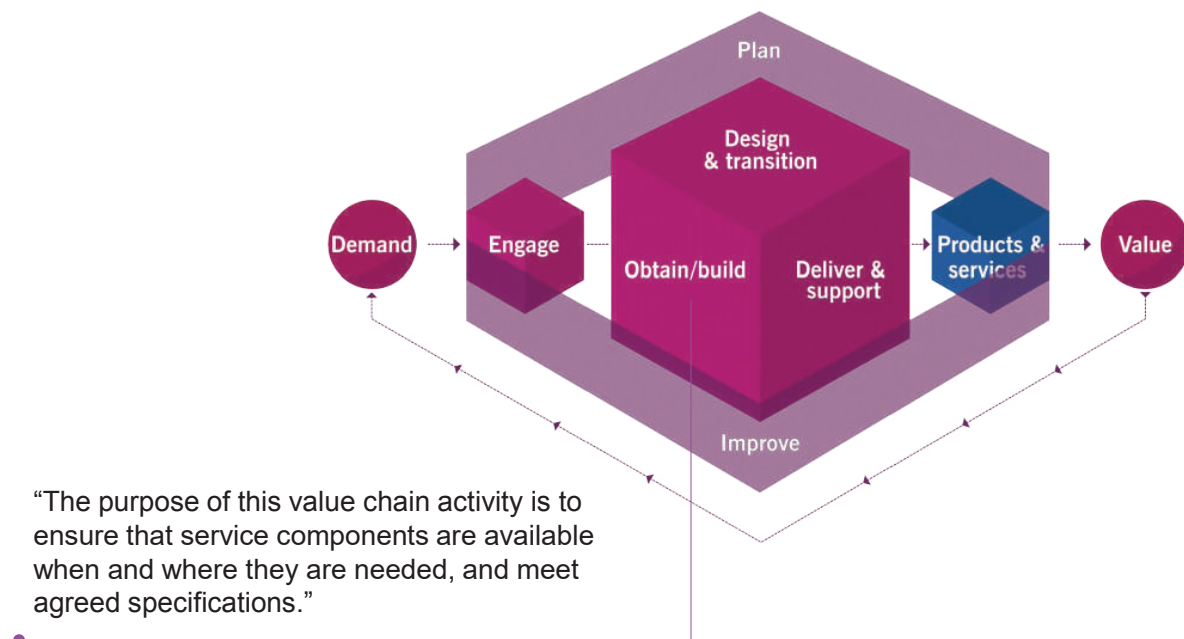
Outputs of the Design and Transition Activity

To better understand the purpose or what is done in the activity, it is important to know the outputs that are produced as the result of this activity. The given table shows the outputs of the design and transition activity as well as to whom this activity provides these outputs.

Output	To
Contract and agreement	Engage
Requirements and specifications	Obtain/build
New and changed products and services	Deliver and support
Performance information and improvement opportunities	Improve
Knowledge and Information about new and changed products and services	All value chain activities

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The Obtain/Build Activity



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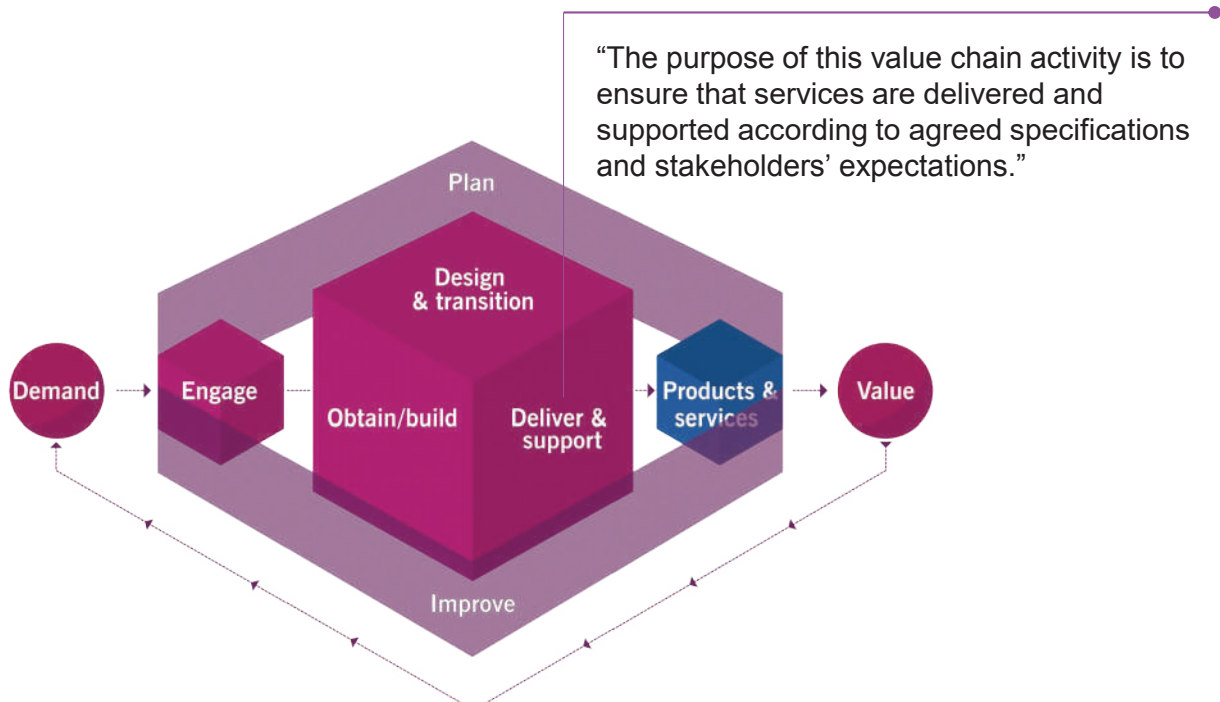
Outputs of the Obtain/Build Activity

To better understand the purpose or what is done in the activity, it is important to know the outputs that are produced as the result of this activity. The given table shows the outputs of the obtain/build activity as well as to whom this activity provides these outputs.

Output	To
Service components	<ul style="list-style-type: none"> ■ Deliver and support ■ Design and transition
Contract and agreement requirements	Engage
Performance information and improvement opportunities	Improve
Information about new and changed service components	All value chain activities

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The Deliver and Support Activity



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Outputs of the Deliver and Support Activity

To better understand the purpose or what is done in the activity, it is important to know the outputs that are produced as the result of this activity. The given table shows the outputs of the deliver and support activity as well as to whom this activity provides these outputs.

Output	To
Services delivered	Customers and users
<ul style="list-style-type: none"> Information on the completion of user support tasks Contract and agreement requirements 	Engage
Product and service performance information	Engage, Improve
Improvement opportunities	Improve
Change requests	Obtain/build
Service performance information	Design and transition

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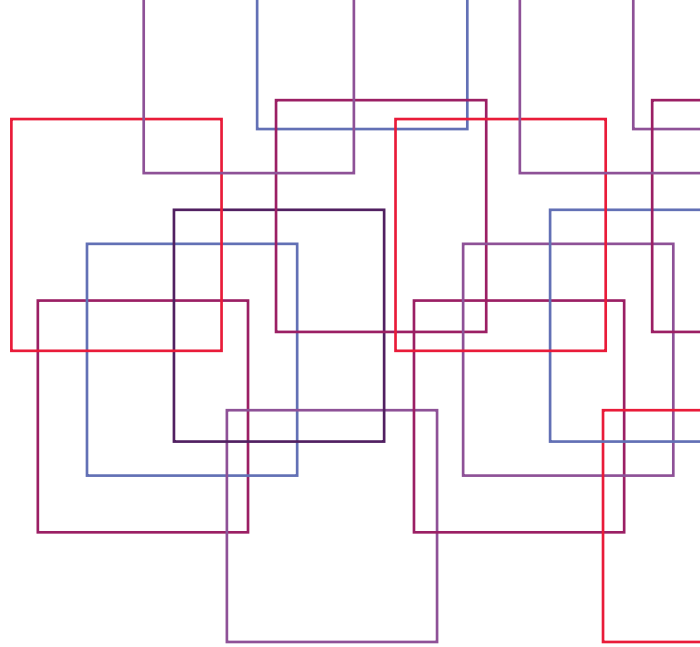
EXERCISE: MULTIPLE-CHOICE QUESTIONS

- Q1. Which of the following options correctly defines the BEST definition of the ITIL service value chain?**
- a) A set of activities that cover the end-to-end value of a service
 - b) A complete set of services that are managed by the organization
 - c) A set of specialized organizational capabilities for enabling value for customers
 - d) A set of rules ensuring consistency in adoption and adoption of value
- Q2. Providing a good understanding of stakeholder needs, transparency, and good relationships, is an example of which value chain activity?**
- a) Obtain/build
 - b) Design and transition
 - c) Improve
 - d) Engage
- Q3. Which is the BEST description of the relationship between the service value system and the service value chain?**
- a) A series of steps that an organization uses to create and deliver products and services to a service consumer.
 - b) The central element of the SVS, an operating model which outlines the key activities required to respond to demand and facilitate value creation.
 - c) A recommendation that guides an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure.
 - d) How all the components and activities of the organization work together as a system to enable value creation.
- Q4. Which service value chain activity ensure that service components are available when and where they are needed?**
- a) Engage
 - b) Design and Transition
 - c) Obtain/Build
 - d) Improve

MODULE SUMMARY

- The ITIL Service Value System (SVS) explains how the components and activities of the organization work together as a system to enable value creation.
- The main inputs to the SVS are opportunity and demand.
- The value represents the perceived benefits, usefulness and importance of something.
- The ITIL SVS includes the following components:
 - Guiding principles
 - Governance
 - Service value chain
 - Practices
 - Continual improvement
- The biggest challenge for organizations today is the presence of organizational silos. The ITIL SVS discourages working in silos.
- The service value chain - a central element of SVS - is an operating model that defines the key activities required to respond to demand and enable value creation through the formation and management of products and services.
- The ITIL service value chain includes six value chain activities that lead to the creation of products and services and, in turn, value. The six value chain activities are:
 - Plan
 - Improve
 - Engage
 - Design and transition
 - Obtain/build
 - Deliver and support
- A value stream is a series of steps that an organization takes to create and deliver products and services to a consumer.

6



CONTINUAL IMPROVEMENT

Intent and Context



<https://player.vimeo.com/video/302763629>

The goal of any organization is to create value for its customers, stakeholders, and partners. To achieve this goal, every organization takes part in continual improvement.

Continual improvement is a recurring activity that is performed at all levels to make sure that the organization's performance continually meets stakeholders' expectations.

Before moving ahead, let us see what the experts say about continual improvement.

Transcript for Video

From strategic to operational levels, continual improvement is necessary if an organization is to evolve and stay relevant in the market.

In service management, it is important that continual improvement is part of the day-to-day culture as we're all responsible and able to contribute to continual improvement. These three things are crucial to help organizations move forward. Not only does the continual improvement model apply to products, services, service components and relationships but also to the whole service value system.

The model provides a structured approach to implementing improvements supporting the organization to be agile and resilient. For continual improvement to succeed, it must be a part of the service value chain activities and must link back to the organization's vision.

Let's get started!

Learning Objectives

At the end of this module, you will be able to:

- Describe continual improvement.
- Describe the continual improvement model.
- Discuss the relationship between the continual improvement and guiding principles.

Key Terms Covered in the Module

Continual improvement	“A continual improvement process, also often called a continuous improvement process, is an ongoing effort to improve products, services, or processes.”
Configuration item	<p>“Any component that needs to be managed in order to deliver an IT service.”</p> <p>They typically include IT services, hardware, software, buildings, people, and formal documentation such as process documentation and service level agreements.”</p>
Critical Success Factor (CSF)	“A necessary precondition for the achievement of intended results.”
Gap Analysis	“A method of assessing the differences in performance between a business’ information systems to determine whether business requirements are being met and, if not, what steps should be taken to ensure they are met successfully.”
Key Performance Indicator (KPI)	“An important metric used to evaluate the success in meeting an objective.”
Knowledge Management Practice	“The practice of maintaining and improving the effective, efficient, and convenient use of information and knowledge across an organization.”

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Topics Covered

- Introduction to Continual Improvement
- The Continual Improvement Model
- Relationship between Continual Improvement and Guiding Principles

INTRODUCTION TO CONTINUAL IMPROVEMENT

Continual Improvement



Continual improvement takes place in all areas and at all levels of the organization - from strategic to operational. Continual improvement is important for an organization for various reasons:

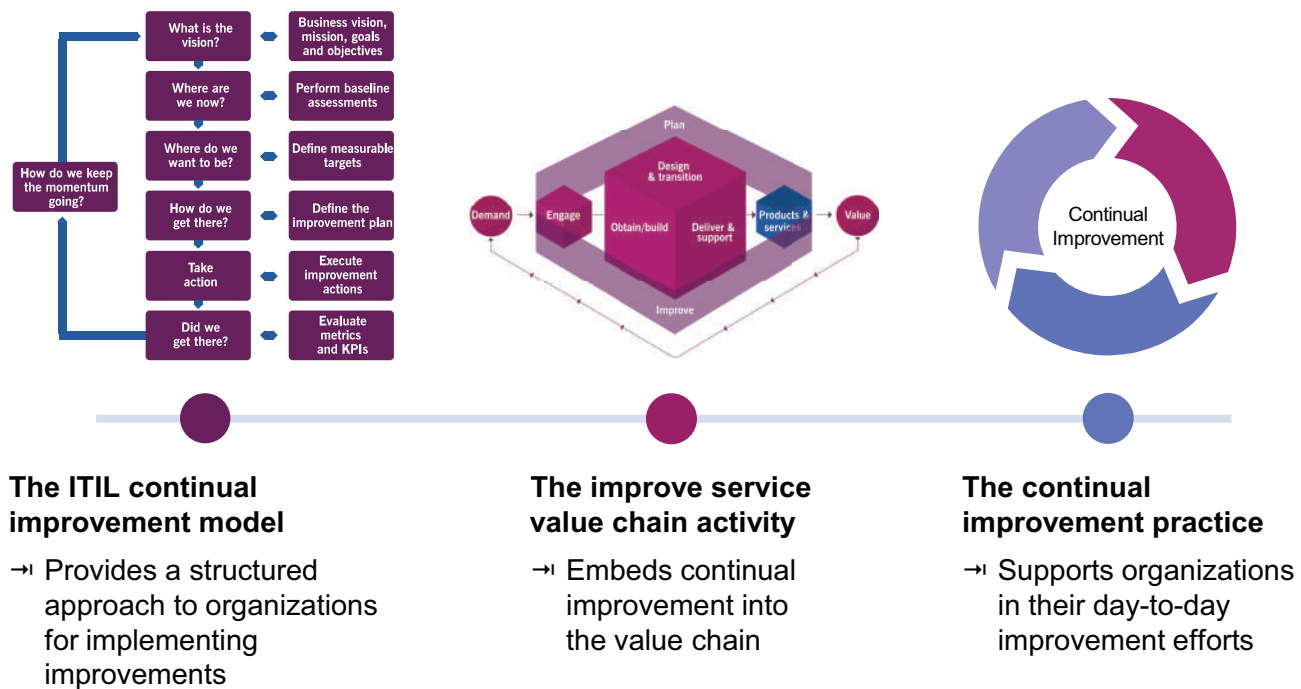
- The business environment and customer preferences for services change, and the service provider must stay aligned with changing business requirements.
- The technology landscape continues to change, and if an organization is not taking advantage of evolving technology, their services will soon become obsolete.
- Services provided by the organization must continually be reviewed and updated for improvement opportunities, otherwise they fall out of alignment and have little value.

To maximize the effectiveness of services, each person who contributes to a service should keep continual improvement in mind and should always look for opportunities to improve.



Continual improvement is required and takes place in all areas and domains. For example, continually improving and optimizing is required for the staffing and scheduling in the support center so that performance to customer calls is optimized; continual improvement is required for a process to review and fine tune the steps, the inputs and outputs, the metrics and reporting, and other attributes; continual improvement of a functional team, for example the service desk, involves reviewing performance or improving some aspect of the team such as skill level.

To support continual improvement at all levels, the ITIL SVS includes:



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THE CONTINUAL IMPROVEMENT MODEL

The Continual Improvement Model



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The continual improvement model is part of the ITIL service value system and can be applied to any type of improvement, from high level organizational changes to individual services and configuration items. The continual improvement model applies to the service value system (SVS) as a whole, as well as to all of the organization's products, services, service components, and relationships.

The continual improvement model provides a structured approach to implement improvements through its seven steps. The scope and details of each step of the model will vary significantly based on the subject and the type of improvement. However, this model should be recognized as a workflow which can be used as a high-level reminder of a sound thought process to ensure that improvements are properly managed. The flow seeks to ensure that improvements are linked to the organization's goals, properly prioritized, and improvement actions produce sustainable results.

You should always apply logic and common sense when using the continual improvement model. The steps do not need to be carried out in a linear fashion, and it may be necessary to re-evaluate and return to a previous step at some point.



The continual improvement model can be considered for improvement of a service, system, functional team, practice, or process.

The Axle Car Hire Story

“Henri would like Axle to become a greener company and introduce more environmentally friendly practices into its work. Over the following sections the Axle team uses the steps of the continual improvement model to implement changes to the organization.

Henri: At Axle we strive for continual improvement at all levels. One of our objectives is to be a greener business and incorporate sustainable principles into every business decision. My team is committed to this initiative. As part of our service relationship model, our partners and suppliers are also involved in this.”

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Step 1: What is the vision?

- This step focuses on two key areas:
 - The organization's vision and objectives need to be translated for the specific business unit, department, team, or individual, so that the context, objectives, and boundaries for any improvement initiative are understood.
 - A high-level vision for the planned improvement needs to be created.
- If this step is skipped, improvements might not be optimized for the whole organization.



In general, the step 1 of continual improvement model includes setting the vision, mission, and goals and objectives to the initiative.

The first step of the continual improvement model is to define the vision of the initiative. It provides context for all subsequent decisions and links individual actions to the organization's vision.

- The work within this step should ensure the following:
- The high-level direction has been properly understood.
- The planned improvement initiative in this context is described and understood.
- The stakeholders and their roles have been understood.
- The expected value to be realized is understood and agreed.
- The role of the person or team responsible for carrying out the planned improvement initiative is clear in relation to achieving the organization's vision.

If this step is skipped, improvements might only be optimized for the people or teams involved rather than the whole organization or non-value-add activities might become the sole focus of improvements.

The Axle Car Hire Story

What is the vision?

Henri: Axle's vision is for the business to become one of the top three green car-hire companies globally. A continual improvement initiative called Axle Green was created for this purpose.

Craig: As a supplier of cleaning services to Axle, I'll support them in this improvement initiative."

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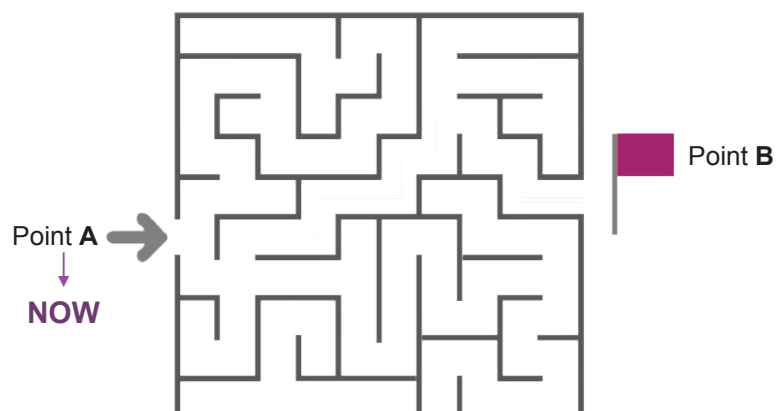
INFO

Current state assessments

Current state assessments should be done through objective measurement, whenever possible. This will allow for an accurate understanding of the issues associated with current state and once the initiative is implemented, enable proper measurement of the level of improvement achieved, by comparison to the initial state.

Step 2: Where are we now?

- A key element of this step is a **current state assessment**.
- Current state assessment includes:
 - Assessment of Existing Services
 - Understanding of Organizational Culture
- If this step is skipped, the current state will not be understood and there will not be an objective baseline measurement.



The success of an improvement initiative depends on a clear and accurate understanding of the starting point and the impact of the initiative. An improvement can be thought of as a journey from Point A to Point B, and this step defines what Point A looks like.

A key element of this step is a current state assessment. The current state assessment includes the assessment of existing services, such as the users' perception of value received, the processes and procedures involved, and/or the capabilities of the available technological solutions. It also includes the understanding of the organization's culture to decide what level of organizational change management is required.

If you skip this step, you will not be able to understand the current state and locate the objective baseline measurement. Therefore, it will be difficult to track and measure the effectiveness of the improvement activities.

The Axle Car Hire Story

Where are we now?

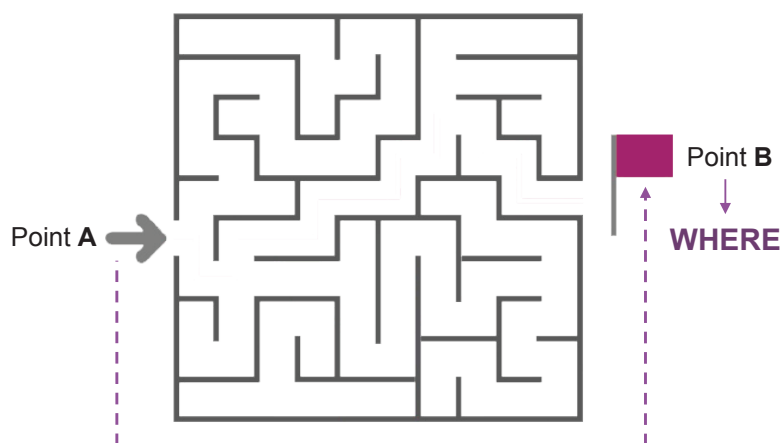
“Su: We need to understand the baseline. How do we know if we've improved, if we don't know where we started? Currently, only 5 per cent of the vehicles in our fleet are electric.

Craig: Only 20 per cent of my cleaning products are biodegradable.”

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Step 3: Where do we want to be?

- This step outlines what Point B, the target state for the next step of the journey, should look like.
- A journey can't be mapped out if the destination is not clear.
- If this step is skipped, the target state will remain unclear.



Similar to Step 2 that describes Point A on the improvement journey, this step outlines what Point B should look like. Based on the result

of the first two steps, a gap analysis is performed that evaluates the scope and nature of the distance to be travelled from the starting point to the achievement of the initiative's vision.

This step should define one or more prioritized actions to complete the vision for the improvement, based on what is known at the starting point. Improvement opportunities can be identified and prioritized based on the gap analysis, and improvement objectives can be set, along with Critical Success Factors (CSFs) and Key Performance Indicators (KPIs).

If this step is skipped, the target state will remain unclear. This implies that it will be difficult to prepare a satisfactory explanation of what key stakeholders stand to gain from the improvement initiative, which may result in low support or even pushback.

The Axle Car Hire Story

Where do we want to be?

“Su: Within five years, we want 50 per cent of our fleet to consist of electric vehicles. The other half should comply with the strictest ecological requirements for petrol and diesel cars.

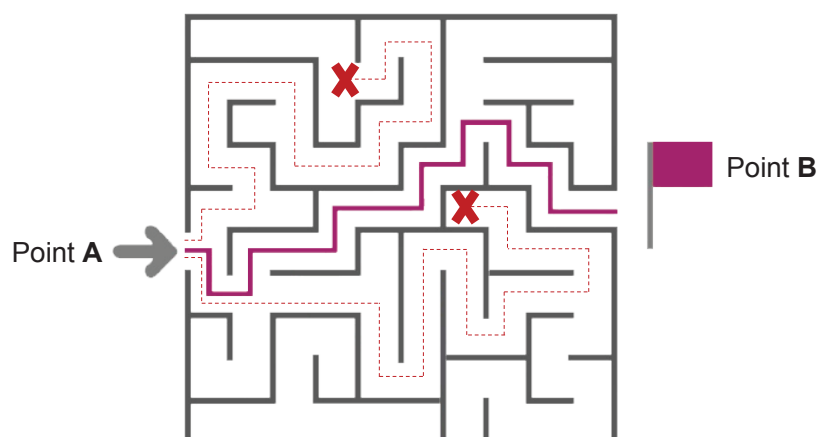
Craig: One of my KPIs is that 90 per cent of my cleaning products will be biodegradable within the next two years.

Radhika: This is a great initiative. In our IT team, we want to use biodegradable cups. We would also like Axle to use environmentally friendly light bulbs in all our offices.”

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Step 4: How do we get there?

- In this step, a plan for addressing the challenges is created as the start and end points of the improvement journey are identified in the previous two steps.



- The best route may not be clear, sometimes it is necessary to design experiments and test options.
- If this step is skipped, the execution of the improvement is likely to flounder, and fail to achieve what is required of it.

Based on the previous two steps, the start and end points of the improvement journey have been defined. This implies that a specific route can be agreed upon. Depending on the current and target states and combining the knowledge with subject matter expertise, a plan for addressing the challenges is created in this step.

In this step, the most effective approach to execute the improvement may not be clear, but it will enable you to design experiments that will test which options have the most potential.

Even if the approach or path for improvement is clear, it will be beneficial to carry out the work in a series of iterations. Each iteration will move the improvement forward and enable you to check the progress, re-evaluate the approach, and change the direction if required.

The Axle Car Hire Story

How do we get there?

Craig: My plan is to replace our current stocks of cleaning products with biodegradable options as we run out. Meanwhile, we'll test new products to find the optimal balance of price and quality.

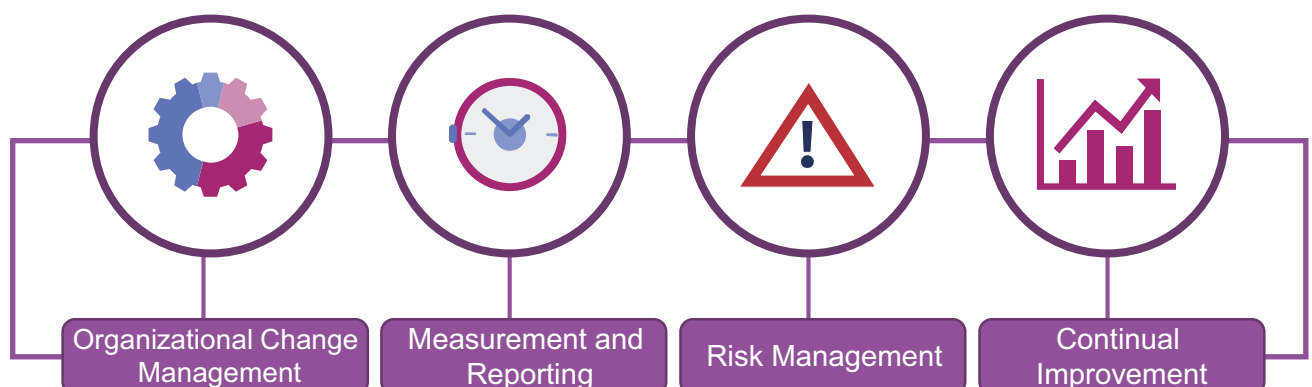
Su: Sometimes knowing how you get there is easy, but replacing half of our fleet with electric cars is a bigger challenge. We don't want excess cars in our car lots if they're not being used. We must also consider specifics and infrastructure in different countries, as well as local regulations.

Radhika: We're encouraging the use of ceramic cups over plastic ones. We're discontinuing the purchase of plastic cups, and we are buying ceramic cups for all our offices."

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Step 5: Take Action

- In this step, the plan for the improvement is acted upon.
- ITIL practices that are important to achieve success in this step are:



In this step, the plan for taking the action for the improvement is created. It may involve a traditional waterfall-style approach, but it will be more appropriate to follow the Agile approach.

Improvements may take place as part of a big initiative that makes a lot of change or as part of small but significant initiatives. Even if the path to complete the improvement seemed clear when it was planned, it is important to remain open to change throughout the approach. Achieving the desired results is the objective, not rigid adherence to one view of how to proceed.

During the improvement journey, there needs to be continual focus on measuring progress towards the vision and managing risks, as well as ensuring visibility and overall awareness of the initiative.

After this step is complete, the work will be at the end point of the journey, resulting in a new current state.

The Axle Car Hire Story

Take action

Craig: We have started to replace our stocks of cleaning products with biodegradable options. We've found some great new products to use, and even managed to save money by using cheaper alternatives that don't compromise on quality.

Su: We have started to phase out some of our older petrol and diesel cars and replace them with new electric models. We have carried out a thorough check of the petrol and diesel cars we are keeping to ensure they meet ecological requirements, and will take action to fix this where they are not.

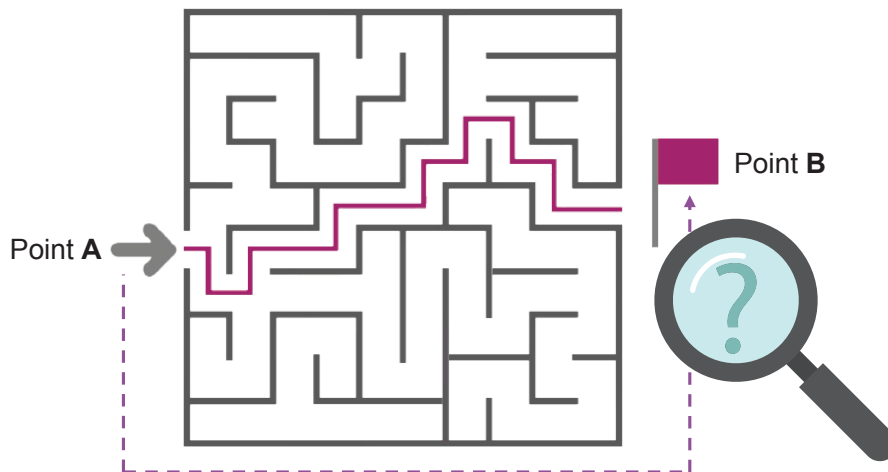
Radhika: We have brought the new biodegradable cups and environmentally friendly light bulbs into our offices and started to remove the plastic cups."

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Step 6: Did we get there?

This step involves checking the destination of the improvement journey to ensure that the desired point has been reached.

- To validate success:
 - Check and confirm the progress and the value for each iteration
 - Take additional actions, such as triggering a new iteration if desired point is not met
- If this step is skipped, it is difficult to ensure whether the desired or promised outcomes were actually achieved.



The path to the improvement journey is filled with various obstacles, so success must be validated. For each iteration of the improvement initiative, both the **progress** and the **value** need to be verified and confirmed. If the desired result is not achieved, additional actions are taken.

If this step is skipped, it is difficult to ensure whether the desired or promised outcomes were actually achieved, and any lessons from this iteration, which would support a course correction if needed, will be lost.

Progress

Have the original objectives been achieved

Value

Are those objectives still relevant

The Axle Car Hire Story

Did we get there?

Craig: After a few months we managed to hit our target of having 90 per cent of our products being biodegradable.

Su: The electric cars are being introduced, but for logistical reasons it is proving more difficult to replace the petrol and diesel cars than we had anticipated. We will need to do this at a faster pace if we want to hit our five-year target. We may now have to reconsider our target, and decide whether we should do more to support it, or if it needs to be revised.

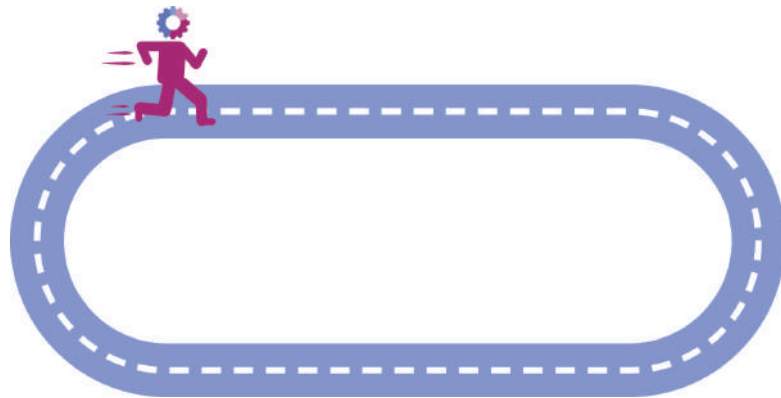
Radhika: Our offices now have biodegradable cups and environmentally friendly light bulbs. Some of the old plastic cups are still being used, but we have stopped purchasing more, so once they run out they'll be gone."

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Step 7: How do we keep the momentum going?

- The focus of this step is to market the successes and reinforce the newly introduced methods.
- This ensures that the progress made will not be lost and to build support and momentum for the next improvements.

- If this step is skipped, then it is likely that improvements will remain isolated, independent initiatives and any progress made may be lost again over time.



To embed the changes in the organization and ensure the improvements and changed behaviours are not at risk of reversion, the organizational change management and knowledge management practices should be used.

Leaders and managers should help the teams to integrate new work methods into their daily work and institutionalize new behaviours.

If the expected results of the improvement were not achieved, stakeholders need to be informed of the reasons for the failure of the initiative.

The Axle Car Hire Story

Craig: Now that we have hit our target we will monitor any new products we buy to ensure that they meet our standards of being biodegradable. We will also be on the lookout for any opportunities to replace our remaining non-biodegradable products with more environmentally friendly alternatives.

Su: We've made a great start on adding new electric vehicles to the Axle fleet, but haven't hit our targets yet. Now we need to analyze what has prevented us from reaching our objectives, record what lessons we have learned, and decide what can be done differently in the future to make the introduction of electric cars more effective.

Radhika: We will continue to buy ceramic cups and environmentally friendly light bulbs for our offices. We will also consider further ways to make our offices greener, and run campaigns with staff members to encourage them to become more environmentally aware."

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RELATIONSHIP BETWEEN CONTINUAL IMPROVEMENT AND GUIDING PRINCIPLES

ITIL Guiding Principles

The following table outlines which steps of the continual improvement model are **particularly relevant** (PR) to which of the guiding principles; although all principles are applicable to all steps at some level.

	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
What is the vision?	PR			PR	PR		
Where are we now?		PR		PR			
Where do we want to be?			PR		PR	PR	PR
How do we get there?			PR	PR	PR	PR	
Take action	PR		PR	PR			
Did we get there?	PR			PR	PR		
How do we keep the momentum going?	PR			PR	PR		PR

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An organization may significantly benefit from applying the ITIL guiding principles by following the continual improvement model. These principles are applicable to each step of continual improvement initiative. However, some of the ITIL guiding principles are particularly applicable to specific steps of the continual improvement model. By following these principles at each step of a continual improvement, organizations will increase the chances for success of the steps. This in turn leads to the success of the overall improvement initiative.



Continual improvement is not only an important part of Lean, but also Agile (retrospectives), DevOps (continual experimentation and learning, and mastery), and other frameworks. It is one of the key components of the ITIL SVS, along with the guiding principles, a solid platform for successful service management.

EXERCISE: MULTIPLE-CHOICE QUESTIONS

Q1. Who is responsible for continual improvement in an organization?

- a) The service owner only
- b) The stakeholders of the service value chain
- c) Project managers responsible for improvement initiatives
- d) Everyone in the organization

Q2. Which is the correct overview of the steps of the ITIL continual improvement model?

- a) What is the vision?, Where are we now? Where do we want to be? How do we get there? Did we get there?
- b) Where do we want to be? What is the vision? How do we get there? Did we get there? How do we keep the momentum going?
- c) What is the vision?, Where are we now? Where do we want to be? How do we get there? Did we get there? How do we keep the momentum going
- d) What is the vision?, Where are we now? Where do we want to be? How do we get there? Take action. Did we get there? How do we keep the momentum going?

Q3. What is the main activity of the “where are we now?” step of the continual improvement model?

- a) Checking the progress
- b) Current state assessment
- c) Gap analysis
- d) Plan for addressing the issues

Q4. Activities such as measuring progress towards the vision, managing risks, and ensuring overall awareness of the initiatives are key to which of the steps within the CSI model?

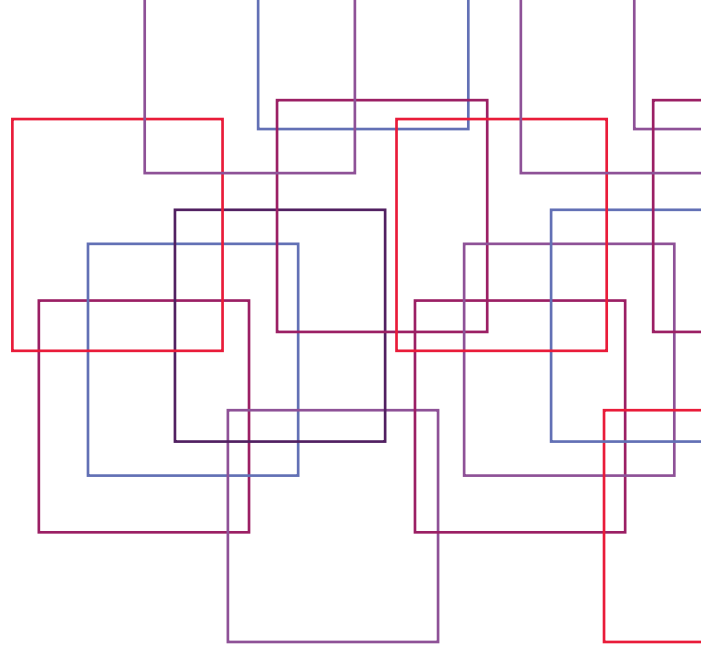
- a) What is the vision?
- b) How do we get there?
- c) Take action.
- d) How do we keep the momentum going?

MODULE SUMMARY

- The practice of identifying and improving services, service components, or any other element involved in the efficient and effective management of products and services to align the organization's practices and services with changing business needs.
- Several key activities that make special contributes to the continual improvement.

- The continual improvement model, which can be applied to any type of improvement, from high level organizational changes to individual services and configuration items.
- The steps involved in the continual improvement model are:
 - What is the vision?
 - Where are we now?
 - Where do we want to be?
 - How do we get there?
 - Take action
 - Did we get there?
 - How do we keep the momentum going?
- An organization may significantly benefit from applying the ITIL guiding principles by following the continual improvement model.





THE ITIL PRACTICES

Intent and Context

This video presents the introduction of ITIL practices from an expert.



<https://player.vimeo.com/video/356861396>

Transcript for Video

The ITIL practices are one of the five components of the ITIL Service Value System (SVS) and support the activities of the service value chain to provide a comprehensive and adaptable toolset for service management.

An ITIL practice is a set of organizational resources designed for performing certain types of work.

The ITIL SVS includes 34 practices, which are divided into three categories:

- Firstly, general management practices have been adapted for service management from general business management domains;
- Secondly, service management practices have been developed in service management industries; and
- Thirdly, technical management practices have been adapted from technology management domains for service management purposes.

The scope of the ITIL Foundation syllabus is limited to the 15 most commonly used practices. It is important for you to understand the purpose of these 15 practices but the following 7 practices are covered in detail:

- Continual improvement
- Change enablement
- Incident management
- Problem management

- Service request management
- Service desk
- Service level management

Not only do you need to be able to describe these seven practices but also how they contribute to the service value chain activities.

Let's go!

Learning Objectives

At the end of this module, you will be able to:

- Explain the purpose of various ITIL practices.
- Describe the following ITIL practices:
 - Continual improvement
 - Change enablement
 - Incident management
 - Problem management
 - Service request management
 - Service desk
 - Service level management

ITIL Management Practices

General management Practices	Service management practices	Technical management practices
<ul style="list-style-type: none"> ■ Architecture management ■ Continual improvement ■ Information security Management ■ Knowledge management ■ Measurement and reporting ■ Organizational change management ■ Portfolio management ■ Project management ■ Relationship management ■ Risk management ■ Service financial management ■ Strategy management ■ Supplier management ■ Workforce and talent management 	<ul style="list-style-type: none"> ■ Availability management ■ Business analysis ■ Capacity and performance management ■ Change enablement ■ Incident management ■ IT asset management ■ Monitoring and event management ■ Problem management ■ Release management ■ Service catalogue management ■ Service configuration management ■ Service continuity management ■ Service design ■ Service desk ■ Service level management ■ Service request management ■ Service validation and testing 	<ul style="list-style-type: none"> ■ Deployment management ■ Infrastructure and platform management ■ Software development and management

In ITIL, a management practice is a set of organizational resources designed for performing work or accomplishing an objective. ITIL 4 includes 14 general management practices, 17 service management practices, and 3 technical management practices.

The scope of the ITIL Foundation syllabus is limited to understanding the purpose of 15 most commonly used practices and comprehend the following 7 practices in detail:

- Continual improvement
- Change enablement
- Incident management
- Problem management
- Service request management
- Service desk
- Service level management

Key Terms Covered in the Module

Change	“The addition, modification, or removal of anything that could have a direct or indirect effect on services.”
Incident	“An unplanned interruption to a service, or reduction in the quality of a service.”
Problem	“A cause, or potential cause, of one or more incidents.”
Known error	“A problem that has been analyzed and has not been resolved.”
Workaround	“A solution that reduces or eliminates the impact of an incident or problem for which a full resolution is not yet available. Some workarounds reduce the likelihood of incidents.”
Service request	“Request from a user or user’s authorized representative that initiates a service action which has been agreed as a normal part of service delivery.”
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.”
Service Level Agreement	“A documented agreement between a service provider and a customer that identifies both services required and the expected level of service.”
IT asset	“Any financially valuable component that can contribute to delivery of an IT product or service.”

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Topics Covered

- The Continual Improvement Practice
- The Change Enablement Practice
- The Incident Management Practice
- The Problem Management Practice
- The Service Request Management Practice
- The Service Desk Practice
- The Service Level Management Practice
- Purpose of ITIL Practices
- Activity: An incident needs to be resolved

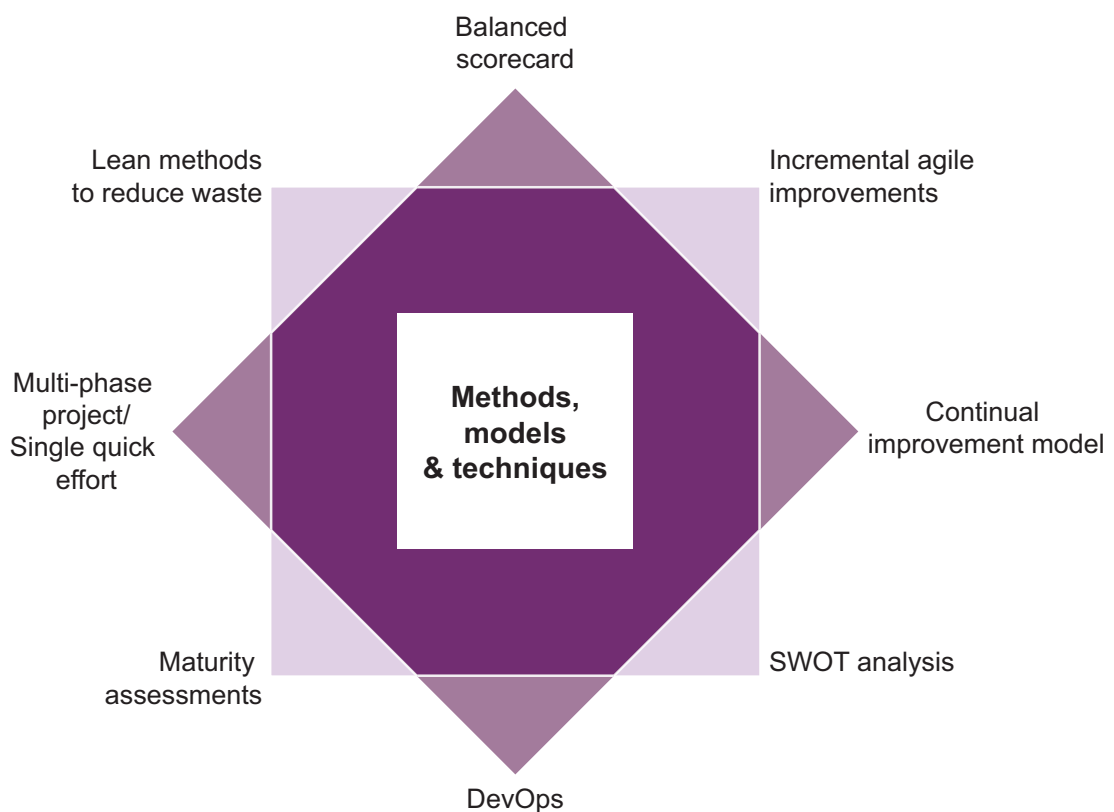
THE CONTINUAL IMPROVEMENT PRACTICE

Purpose of 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.”

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Methods and Techniques for Continual Improvement



The scope of the continual improvement practice includes the development of improvement-related methods and techniques and the propagation of a continual improvement culture across the organization in alignment with the organization's overall strategy. Different types of improvements may require consideration for different improvement methods. For example, some improvement initiatives may be best implemented as a multi-phase project, while others may be more appropriate as a single quick effort.

The continual improvement model, a component of ITIL SVS, can be applied to any type of improvement, from high level organizational changes to individual services and configuration items. When assessing the current state, there are many techniques that can be used, such as a strength, weakness, opportunity and threat (SWOT) analysis, balanced scorecard reviews, internal and external assessments and audits, or a combination of a number of techniques.

Approaches to continual improvement can be found in many methods and techniques. Lean methods provide perspectives on the elimination of waste. Agile methods focus on making improvement incrementally. DevOps methods look at working holistically and ensuring improvements are not only designed well, but applied effectively.

Although there are a number of methods available, it is a good idea to select a few key methods that are appropriate to the types of improvements the organization considers and to promote those methods. In this way, teams can have a shared understanding of how to work together on improvements and a greater amount of change can be made at a quicker rate. However, the organization should also try new approaches or encourage innovation. Those in the organization with skills in alternative methods should be encouraged to apply them when it makes sense, and if this effort is successful, older methods can be retired in favor of new ones.

Key Activities of Continual Improvement

The continual improvement practice includes the following 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”

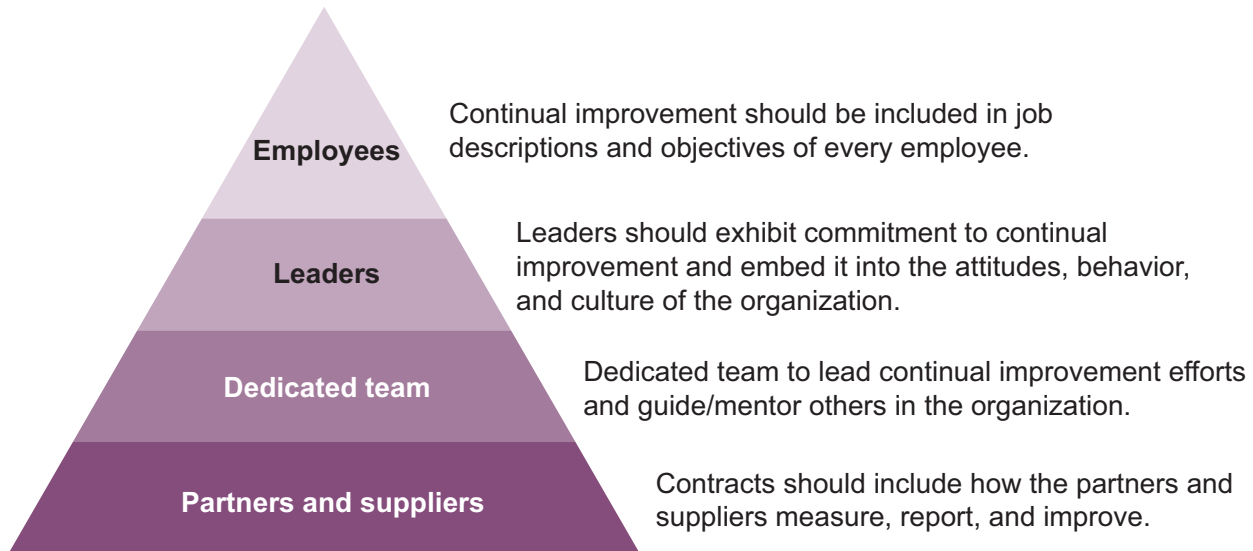


“Coordinating improvement activities across the organization”

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Continual Improvement: Everyone's Responsibility

Continual improvement is the responsibility of everyone. Everyone in the organization should understand the need for active participation in continual improvement activities as core part of their job.



Continual improvement should be included in the job descriptions and objectives of every employee as well as in contracts with external suppliers and contractors. In an organization, the employees should be provided training and assistance to help them feel prepared to contribute to continual improvement.

The highest levels of the organization need to take responsibility for embedding continual improvement into the way that people think and work. The leaders in the organization should exhibit commitment to continual improvement and support attitudes, behavior, and culture to a point where improvements are considered in everything that is done, at all levels.

Although everyone should contribute in some way, there should be a team dedicated full-time to lead continual improvement efforts. This team should guide others in the organization to develop the skills they need and navigating any difficulties that may be encountered. This team can serve as coordinators and mentors to help others in developing the skills they need and navigate any difficulties that may be encountered.

When parties and third-party suppliers form part of the service landscape, they should be included in the improvement effort. A contract for a supplier's service should include details of how they will measure, report on, and improve their services over the life of the contract. Any data required from suppliers to operate internal improvements should be specified in the contract. Accurate and carefully analyzed data is the foundation of fact-based decision-making for improvement. The continual improvement practice should be supported by relevant data sources and data analysis to ensure that each potential improvement is understood and prioritized.

Continual Improvement Register

Organizations use a structured document or database called Continual Improvement Register (CIR) to track and manage improvement ideas.

- Through CIR, the improvement ideas are captured, documented, assessed, prioritized, and appropriately acted upon to ensure that the organization and its services are always being improved.

The given table shows an example of CIR.

Date	Initiative	Size	Priority	Due Date	Team	Comments
Nov '18	Improve NW speed	M	H	Jan'19	Infrastructure	Waiting supplier
April '18	Improve SD self help	M	M	Dec '18	Service Desk	On Track
Jan '18	Communication on security	L	H	Dec '18	GRC	Well received

The continual improvement practice should be supported by relevant data sources and data analysis to ensure that each potential improvement is sufficiently understood and prioritized. The CIR is used as the basis for re-prioritizing improvement ideas as and when new ideas are documented.

There can be more than one CIR in an organization, as multiple registers can be maintained on individual, team, departmental, business unit, and organizational levels. Or there can be a single CIR, which is segmented at a more granular level.

The structure of the information captured in a CIR is unimportant. What is important, is that each improvement idea is captured, documented, assessed, prioritized, and appropriately acted upon to ensure that the organization and its services are always being improved.



Even though there can be more than one CIR in an organization, it is important to understand improvement holistically from an organization's perspective. It may become dangerous if each team has its own CIR.

THE CHANGE ENABLEMENT PRACTICE

Purpose of Change Enablement

Change

"Change refers to the addition, modification, or removal of anything that could have effect on services."

"The purpose of the change enablement practice is to maximize the number of successful IT changes by:

- Ensuring that risks have been properly measured
- Authorizing changes to proceed
- Managing the change schedule"

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Each organization defines the scope of change. The scope typically includes all IT infrastructure, applications, documentation, processes, supplier relationships, and anything that might directly or indirectly impact a product or service.

Distinguish Change Enablement from Organizational Change Management



Change enablement must balance the need to make beneficial changes that will deliver additional value with the need to protect customers and users from the adverse effect of changes.

Organizational Change Management	Change Enablement
<ul style="list-style-type: none"> ■ Manages the people aspects of changes ■ Ensures that improvements and organizational transformation initiatives are implemented successfully 	<ul style="list-style-type: none"> ■ Focusses on changes in products and services ■ Balances the need to make beneficial changes that deliver additional value with the need to protect customers and users from the adverse effect of changes

Change Authority

- All changes are assessed and authorized by the people who understand the risks and expected benefits before the changes are deployed.
- The person or group who authorizes a change is known as a **change authority**.

The authorized people are known as change authority. It is important to assign each type of change to the correct change authority to ensure that change enablement is both efficient and effective. In high velocity organizations, it is a common practice to decentralize change approval, making the peer review a top predictor of high performance.

Types of Changes

Standard Changes	Normal Changes	Emergency Changes
<p>Low-risk, pre-authorized changes that are well-understood and fully-documented.</p> <p>Can be implemented without the need of additional authorization.</p> <p>Standard changes can be service requests or operational changes.</p>	<p>Should be scheduled and assessed following a standard process that usually includes authorization.</p> <p>Can be low-risk changes or major changes.</p>	<p>Must be implemented as soon as possible usually to resolve an Incident. The process for assessment and authorization is expedited to ensure they can be implemented quickly.</p> <p>May be a separate change authority is required which includes senior managers who understand business risk.</p>

Standard changes do not require any additional authorization and may be implemented as long as it follows pre-defined workflow or structure. The risks around standard changes are usually evaluated upfront and the work-flow and procedure around the change is agreed. Examples of a standard change may be updating of a virus software or adding or removing server memory.



Different changes deal with authorization differently.

Normal changes can pose a low risk or a high risk to organizations. For low-risk changes, the change authority is usually someone who can make rapid decisions, often using automation to speed up the change. For major changes, the change authority could be as high as the board of management (or equivalent). Although this type of authorization may take slightly longer, it is important to understand the impact and the risk to the organization to ensure that the change is well planned and the risk is understood at the correct levels.

Emergency changes are often high risk, so even though the authorization may be expedited it is critical to ensure that all role players understand the risk to the organization.

Communicating Changes

Change Schedule



Helps to plan changes



Assists in communication



Avoids conflicts



Assigns resources

After the identified changes have been deployed, the change schedule can also be used to provide information needed for incident management, problem management, and improvement planning.

The change schedule can be used to communicate the change across the organization; regardless of who the change authority is or what type of change it is. The communication about change is important for the risk assessment activity, where it is important to understand what other changes are planned and who is involved. It is also important to communicate information about the change to ensure people in IT and the business are fully prepared before it is deployed.

The Axle Car Hire Story

Change Enablement

“Henri: The car hire market is developing faster than ever. To make sure that Axle meets customer demands and capitalizes on opportunities, we need to have speed-to-market. Plus, we need the space to experiment with new ideas. Our new service offerings at Axle will see a lot of change in our organization. Some teams will need to double in size to meet demand. Other teams could see reductions. We need to bring everyone in the company along on this journey.

Radhika: The change enablement practice at Axle makes sure that our services achieve the right balance of flexibility and reliability.

Marco: Some of our processes are highly automated and designed for the fast deployment of changes. These are perfect for changes to our booking app and some of our IT systems.

Su: In other cases, such as when we update our vehicles, we use a mix of manual and automated testing. For example, the Axle Aware road monitoring and safety system requires consultation and approval before we can update it.

Marco: Systems such as Axle Aware can’t be altered like the booking app. The priority for those changes is that we act safely and comply with appropriate regulations. That’s more important than time to market.”

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THE INCIDENT MANAGEMENT PRACTICE

Purpose of Incident Management

Incident

“Incident refers to an unplanned interruption to a service, or reduction in the quality of a service.”

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

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Incident management can have a massive impact on customer and user satisfaction, and on how customer and users recognize the service provider. Managing incidents is an important practice for the service provider to ultimately meet the expectations of the users and customers.

Key Activities of Incident Management

Following activities are important for resolving incidents efficiently and effectively:



Log and manage the incidents



Agree, document, and communicate the target resolution times



Prioritize the incidents

To ensure that every incident is resolved in a time that meets the customer's expectations, it should be logged and managed. To make the expectations realistic, target resolution times are agreed, documented, and communicated. Incidents are prioritized based on an agreed classification to ensure that incidents with the highest business impact are resolved first.

Designing the Incident Management Practice

Organizations should design their incident management practice:

Design the incident management practice for appropriate management and resource allocation to different types of incidents



Store information about incidents in incident records



Provide good-quality updates on incidents



- Design the incident management practice for appropriate management and resource allocation to different types of incidents: Low impact incidents 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.

- Store information about incidents in incident records: A suitable tool should be used to store and provide links to configuration items, changes, problems, known errors, and other knowledge to enable quick and efficient diagnosis and recovery.
- Provide good-quality updates on incidents: People working on an incident should provide good quality updates about symptoms, business impact, configuration items affected, actions completed, and actions planned. The updates should have a timestamp and information about the people involved, so that the people involved or interested can be kept informed.

Incident Diagnosis and Resolution

Incidents diagnosis and resolution involves people in different groups/ teams.



Incidents may be diagnosed and resolved by people in many different groups, depending on the complexity of the issue or the incident type. Incidents may be escalated to a support team for resolution. The routing is typically based on the incident category. Anyone working on an incident should provide quality, timely updates. Incident management requires a high level of collaboration within and between teams. It is important that all of these groups understand the incident management process, and how their contribution to this

helps to manage the value, outcomes, costs, and risks of the services provided:

1. Some incidents will be resolved by the users themselves, using self-help.
2. Some incidents will be resolved by the service desk.
3. Complex incidents will usually be escalated to a support team for resolution. Generally, the routing is based on the incident category, which should help to identify the correct team.
4. Incidents can be escalated to suppliers or partners, who offer support for the products and services they supply.
5. Complex incidents and all major incidents often require a temporary team to work together to identify the resolution. This may include representatives of many stakeholders, including the service provider, suppliers, and users.
6. In some extreme cases, **disaster recovery plans** may be invoked to resolve an incident.

Disaster Recover Plans

A set of clearly defined plans related to how an organization will recover from a disaster as well as return to a predisaster condition, considering the four dimensions of service management.



Some organizations use a technique called swarming to help manage incidents. This involves many different stakeholders working together initially, until it becomes clear which of them is best placed to continue and which can move on to other tasks.

The Axle Car Hire Story

Axle's Incident Management

“Radhika: Axle faces many potential IT and non-IT incidents. Cars can break down, road accidents might occur, or our customers might face challenges with unfamiliar road rules.

Marco: A car booking can be affected by an error in our app, or by a user getting lost due to a navigation error with our software. When incidents occur, we have to be ready to restore normal services as soon as possible. We also have to make sure our team knows how and when to switch from pre-defined recovery procedures to swarming and collective analysis.

Radhika: We also make sure that such cases are followed by investigation and improvements.

Henri: Axle has developed clear processes for all types of incidents, with workarounds available for cases that happen frequently, such as a tyre puncture or loss of internet connectivity.

Radhika: Our teams work together with our suppliers and partners to ensure fast and effective incident response. We develop and test recovery procedures together with the partners involved in any incidents we experience.”

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THE PROBLEM MANAGEMENT PRACTICE

Purpose of Problem Management

Problem: “Problem refers to a cause, or potential cause, of one or more incidents.”

“The purpose of problem management is to:

- Reduce the likelihood and impacts of incidents by identifying actual and potential causes of incidents
- Managing workarounds and known errors”

Known error: “A problem that has been analyzed and has not been resolved.”

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No service is without errors, flaws, or vulnerabilities, and these lead to incidents. Errors can occur in any of the four dimensions of service management. Although many of the errors are identified and resolved before the service is live, some remain unidentified or unresolved. It is these errors that can, and will, pose a risk to live services. In ITIL, these errors are referred to as problems and they are managed by the problem management practice.

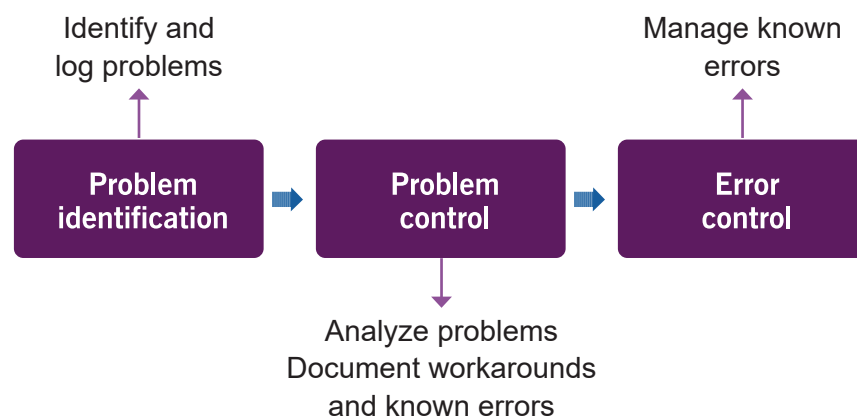
How problem is different from incident?

Problems and incidents are related to each other, but should be distinguished as they are managed in different ways.

Problems	Incidents
Are the causes of incidents	Have an impact on users or business processes
Require investigation and analysis to identify the causes, develop workarounds, and recommend longer term resolution	Must be resolved so that the normal business activity can continue to work

Phases of Problem Management

Problem management involves three distinct phases:



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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.”

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Problem management involves three phases: problem identification, problem control, and error control.

Problem Identification

Problem identification activities identify and log problems. This includes:

- Performing trend analysis of incident records
- Detecting duplicate and recurring issues by users, service desk, and technical support staff
- Identifying a risk that an incident could recur
- Analyzing information received from suppliers and partners
- Analyzing information received from internal software developers, quality teams, and project teams

Problem Control

Problem control activities include analyzing problems and documenting workarounds and known errors.

Problems are prioritized for analysis based on the risk that they pose, and are managed as risks based on their potential impact and probability. It is not necessary to analyze every problem, rather it is more valuable to make significant progress on the highest priority problems.

Incidents have many interrelated causes. Problem control should consider all contributory causes, such as the causes that contribute to duration and impact of incidents. It is necessary to analyze problems from the perspective of all four dimensions of service management - people, technology, partners, processes.

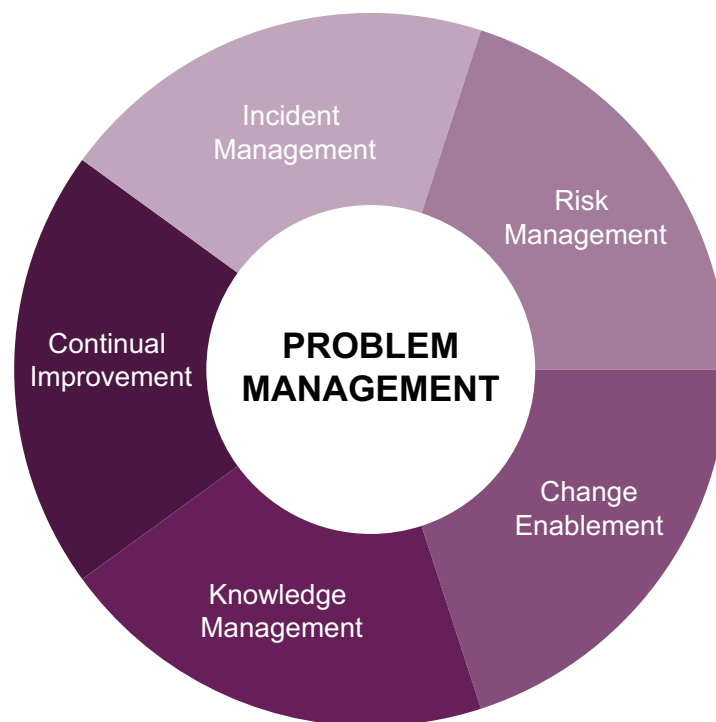
When a problem cannot be resolved quickly, it is useful to find and document a workaround for future incidents, based on understanding of the problem. Workarounds are documented in problem records. This can be done at any stage, it doesn't need to wait for analysis to be completed. An effective incident workaround can be considered a permanent way of dealing with a problem when resolving the problem is not feasible or cost-effective. In this case, the problem remains in the known error status, and the documented workaround is applied if and when the related incidents occur. The documented workarounds should include a clear definition of the symptoms to which it applies.

Error Control

Error control activities manage known errors. A known error refers to a problem where initial analysis is complete; it usually means that faulty components have been identified. Error control involves identifying potential permanent solutions. Often these permanent solutions will involve a change request for implementation of the solution, but only if this can be justified in terms of cost, risks, and benefits.

Error control regularly re-assesses the status of known errors that have not been resolved, including overall impact on customers, availability and cost of permanent resolutions, and effectiveness of workarounds. The effectiveness of workarounds should also be evaluated each time a workaround is used. Workarounds may be improved based on the assessment.

Relationship of Problem Management with Other Practices



Problem management is related to the following other practices:

- **Incident management:** Problem management activities are very closely related to incident management. The practices need to be designed to work together within the value chain. Activities from these two practices may complement each other (for example, identifying the causes of an incident is a problem management activity that may lead to incident resolution), but they may also conflict (for example, investigating the cause of an incident may delay actions needed to restore service).
- **Risk management:** Problem management activities can be organized as a specific case of risk management. These activities 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.

- **Change enablement:** Problem management initiates resolution through change enablement and participates in the post implementation review; however, approving and implementing changes is out of scope for the problem management practice.
- **Knowledge management:** “Problem management may utilize information in a knowledge management system to investigate, diagnose, and resolve problems.”
- **Continual improvement:** Problem management activities can identify improvement opportunities in all four dimensions of service management. In some cases, solutions can be treated as improvement opportunities, so they are included in a continual improvement techniques.

Relation of Problem Management with People, Skills, and Competences

- Problem management activities are highly reliant on the knowledge and experience of staff, rather than on detailed procedures.
- For diagnosing problems, it is required to understand complex systems and to think about how different failures might have occurred. The development of the combination of the required analytic and creative ability requires mentoring and time, as well as suitable training.

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The Axle Car Hire Story

Axle's Problem Management

“Henri: Axle participates in feedback programmes with all our car manufacturers. We share maintenance and repair data with them to help them to continually improve their services. In return, they alert us to any potential problems in our vehicles.

Radhika: Recently, we were alerted to a potential problem in our fleet. A car manufacturer had recalled a popular model in our fleet to fix an error found in the airbag activation system.

Su: Fortunately it was found before Axle experienced any incidents, but there was still the potential for issues to occur, which meant it was a problem we had to deal with.

Marco: We follow a similar practice for our other systems and services, including all of the IT components we use.

Radhika: Axle's incident management practice is one of our most important sources of information on errors in our systems. Any major incident we experience is followed by an investigation into the possible causes. Sometimes this will lead us to find and fix errors in the systems, and we often identify ways to decrease the number of incidents Axle will have in the future.”

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Activity: Identifying a Practice

Activity Time: 10 minutes

Which of the following activities would typically be something the incident management practice would take care of, and which would more likely be a Problem Management practice activity?

- Rebooting a server to re-establish connectivity
- Analyzing the event logs after a server crash
- Selecting a supplier to supply a replacement part
- Asking the user to do a specific function in another way to get the same result
- Accessing a user's laptop and resolving the issue remotely
- Brainstorming with a team of engineers to understand why no-one can print a specific report
- Directing a user to an FAQ site where they will find a guide to set up their mail
- Performing trend analysis on past incidents

THE SERVICE REQUEST MANAGEMENT PRACTICE

Purpose of Service Request Management

Service Request

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



TIPS

The fulfilment of service requests may include changes to services or their components. These changes usually fall under category of standard changes.

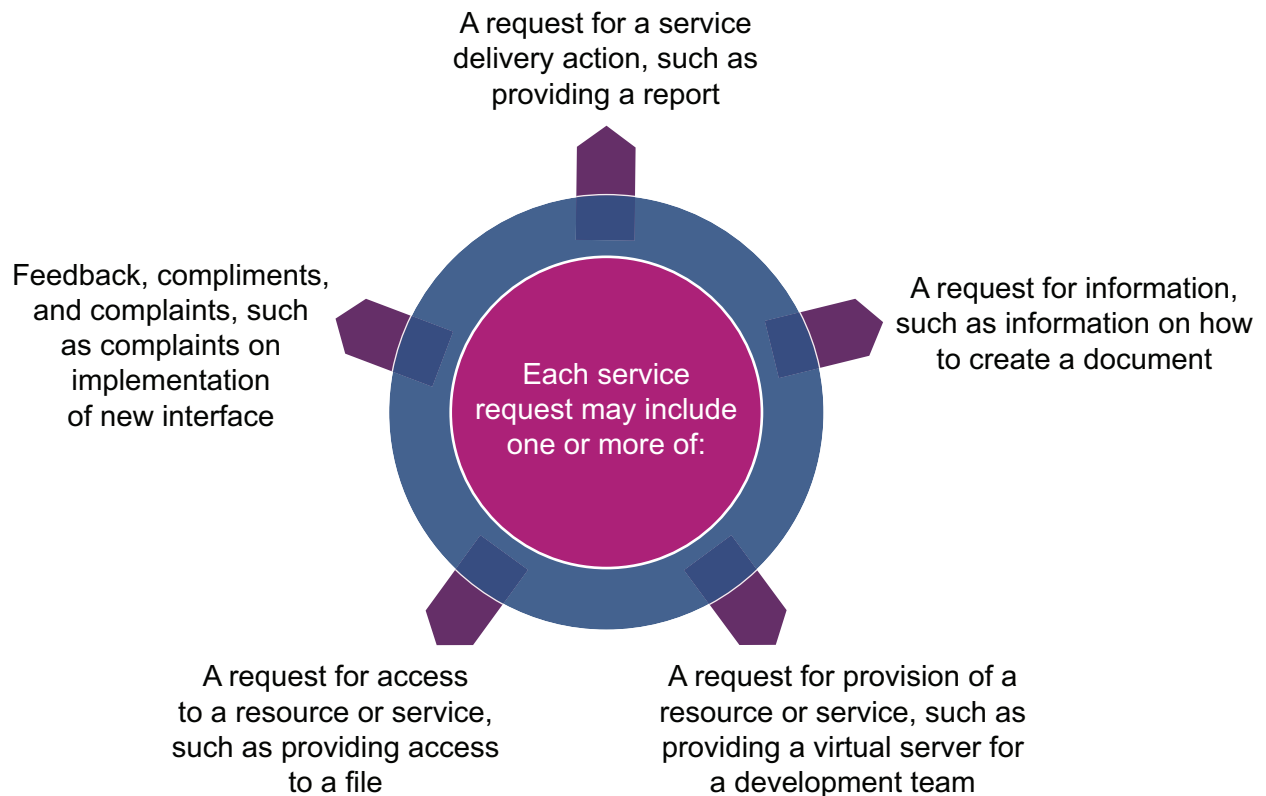
The purpose of the service request management practice is:

To provide the promised quality of a service by handling all pre-defined, user-initiated service requests in an effective and comprehensible manner.

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Incidents refer to a failure or degradation to a service, and service requests form a normal part of service delivery. As these requests are pre-defined and pre-agreed, they should be formalized with a clear, standard procedure for initiation, approval, fulfilment, and management.

Examples of Service Request

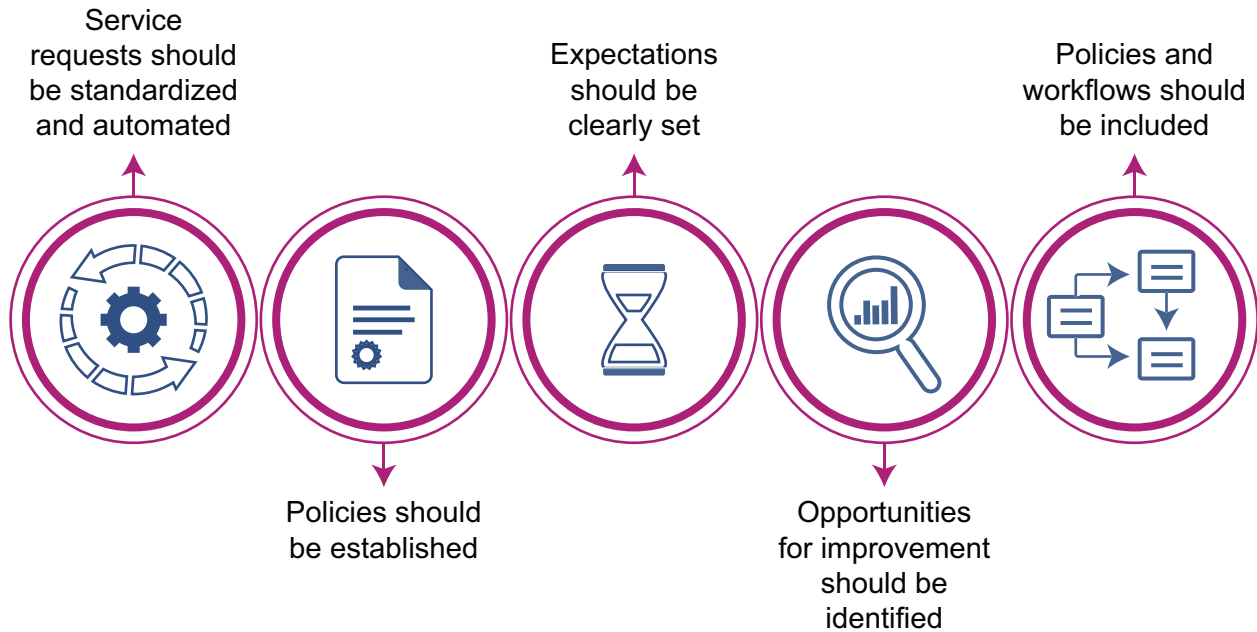


Delivery of Service Requests

- Service requests form a normal part of service delivery and not a failure/degradation of service.
- As requests are pre-defined and agreed, they can usually be formalized with a clear, standard procedure for:
 - Initiation
 - Approval
 - Fulfilment
 - Management
- Some requests are very simple (such as request for information).
- Some requests are complex (such as the setup of a new employee) and require involvement from other teams.
- Regardless of the complexity, the steps to fulfil the request should be well-known and proven. This enables the service provider to agree timelines for fulfilment and provide clear communication of the status of the request to users.

Service Request Management Guidelines

To be handled successfully, service request management should follow these guidelines:



“To be handled successfully, service request management should follow these guidelines:

- 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 additional advantage of automation.
- Policies and workflows should be included for documenting and redirecting of any requests that are submitted as service requests.



Some service requests require authorization based on financial, information security, or other policies, while others may not need any authorization.

Some service requests can completely (from submission to closure) be fulfilled with automation, allowing for a complete self-service experience. Examples of such service requests are client software installation or provision of virtual servers. 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.”

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THE SERVICE DESK PRACTICE

Service Desk

The purpose of the service desk practice is to:

- Understand demand for incident resolution and service requests
- Act as the point of contact for the service provider along with its users
- Provide a clear path for users to report issues, queries, and requests, and acknowledge, classify, own, and take action on them

A service desk acts as the entry point/single point of contact for the IT or service organization. Although the physical appearance of the service desk and how it is staffed may vary considerably from organization to organization, the function and value of the service desk remains the same. Service desks are used to get matters arranged, explained, and coordinated, rather than just to get broken technology fixed. Service desk has become a vital part of any service operation.

Key Aspects of Service Desk



Due to shift of technology to automation, artificial intelligence, robotic process automation, and chatbots, service desks are providing more self-service logging and resolution directly through online portals and

mobile applications. The impact of this shift on service desk is less phone contact, less low-level work, and a greater ability to focus on excellent customer experience when personal contact is needed.

Channels of Service Desk

Service desks are increasingly under pressure to provide a variety of channels for the users to contact them, however it is very dependent on each organization and what they are trying to accomplish.

Phone call	Include specialized technology, such as IVR, conference calls, voice recognition
Service portals and mobile applications	Supported by service and request catalogues, and knowledge bases
Chat	Live chats and chatbots
Email	Used for logging and updating, and for follow up surveys and confirmations
Walk-in service desks	Becoming more prevalent in sectors where there are high peaks of activity that demand physical presence, such as higher education
Text and social media messaging	Useful for sending notifications in case of major incidents, contacting specific stakeholder groups, and allowing users to request support
Public and corporate social media and discussion forums	Contacting the service provider and peer-to-peer support

Structures of Service Desk

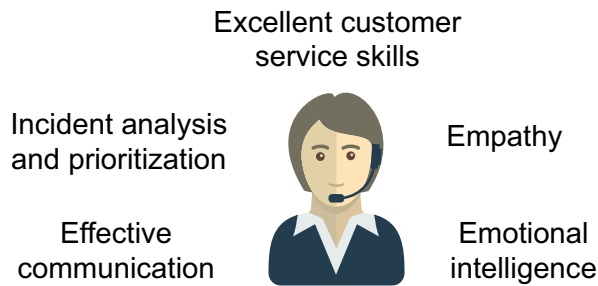
A service desk may work at a single or centralized location, which requires various supporting technologies, such as:

- Intelligent telephony systems
- Workflow systems for routing and escalation
- Workforce management and resource planning systems
- knowledge base
- Call recording and quality control
- Remote access tools
- Dashboard and monitoring tools
- Configuration management systems

In some cases, a service desk may act as a virtual desk that enables agents to work from different geographical locations. A virtual service desk requires more sophisticated supporting technology and more complex routing and escalation. These solutions are often cloud-based.

Service Desk Staff

Service desk staff require training and competency across a number of broad technical and business areas.



The service desk staff demonstrates the excellent customer service skills. In particular, they need skills and knowledge to understand and analyze a specific incident in terms of business priority and to take appropriate action to get this resolved. Other key skills that they require are empathy, emotional intelligence, and effective communication.

The service desk may not need to be highly technical, although some are. Even if the service desk is fairly simple, it still plays a vital role in the delivery of services, and must be actively supported by its peer groups. It is also essential to understand that the service desk has a major influence on user experience and how the service provider is perceived by the users.

THE SERVICE LEVEL MANAGEMENT PRACTICE

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.”

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In order to achieve this purpose, the service level management practice defines, documents, and actively manages levels of service.

Key Activities of Service Level Management

- The service level management practice involves the definition, documentation, and active management of service levels.
- It provides end to end visibility of the organization’s services. For this, the service level management practice:
 - Establishes a shared view of the services and target service levels with customers
 - Ensures the organization meets the defined service levels
 - Performs service reviews
 - 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.

Service Level Agreements

Service Level Agreement: “A documented agreement between a service provider and a customer that identifies both services required and the expected level of service.”

- Service Level Agreements (SLAs) have long been used as a tool to measure the performance of services from the customer’s point of view.

Using SLAs may present many challenges, and often they do not fully reflect wider service performance and the user experience.

Some key requirements of SLAs include:

- They must relate to a defined service in the service catalogue. Otherwise, they are individual metrics that do not provide any purpose and do not reflect the service perspective.
- They should relate to defined outcomes. To achieve this, service level management needs to use balanced bundle of metrics, such as customer satisfaction.
- They should replicate an agreement of engagement and discussion between the service provider and the consumer.
- They must be written in simple form, should be easy to understand, and be useful for all parties.

The Watermelon SLA Effect

“In many cases, using single system-based metrics as targets can result in misalignment and a disconnect between service partners as to the success of the service delivery and the user experience. For example, if an SLA is only based on the percentage of uptime of a service, it can be deemed to be successful by the provider, yet still miss out on important business functionality and outcomes which are important to the consumer. This is referred to as the ‘Watermelon SLA’ effect.”

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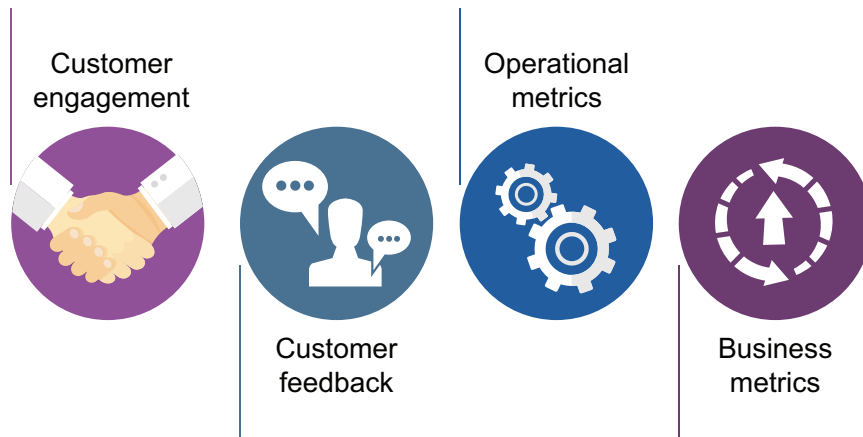
Requirements of Service Level Management

The service level management practice requires:

- Focus and effort to engage and listen to the requirements, issues, concerns, and daily needs of customers.
- Engagement to understand and confirm the needs and requirements from customers.
- Listening to build relationship and trust to show customers that they are valued and understood.

Sources for Collating and Analyzing Information

The service level management involves collating and analyzing information from various sources. These include:



Customer engagement

It involves listening, discovery, and information on which the metrics is based. In addition, it involves measurement and ongoing progress discussions. In customer engagement, you can ask simple questions, such as:

- What does your work involve?
- How does technology help you?
- What are your key business times, areas, people, and activities?
- Which of these activities is most important to you?
- What are your goals, objectives, and measurements for this year?
- How can we help you more?

Customer feedback

It involves gathering feedback from a number of sources, such as:

- **Surveys:** It include immediate feedback, such as follow up questions and the feedback on the overall service experience.
- **Key business-related measures:** It include measures agreed between the service provider and their customers based on what the customer values are important.

Operational metrics

These are the low-level indicators of operational activities. They include system availability, incident response and fix times, change and request processing times, and system response times.

Business metrics

Any business activity that is thought to be useful or valuable by the customer and used as a means of gauging the success of the service. This can vary from some simple transactional binary measures such as ATM or POS terminal availability during business hours (09:00 – 17:00 daily) or successful completion of business activities, for instance, passenger check-in.

The Axle Car Hire Story

Axle's Service Level Management

Su: We regularly gather feedback from our customers to analyse their requirements and needs, and update our service offerings to match their expectations.

Radhika: We can't put every single customer expectation into our rental agreements, but we care about all of them and do our best to meet them.

Su: We also monitor the quality of the services provided by our partners and suppliers, such as the work done for us by Craig's Cleaning. When doing this, we need to be sure that the quality of every part of our services meets or exceeds the expectations of our users."

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PURPOSE OF ITIL PRACTICES

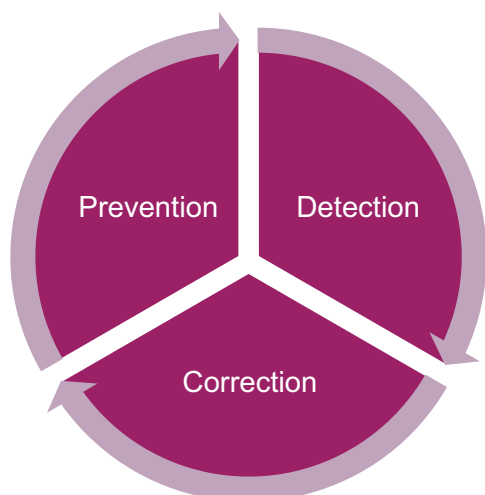
Information Security Management

The purpose of the information security management practice is to:

- "Protect the information used by organizations to run their business
- Understand and manage risks to the confidentiality, integrity and availability of information
- Maintain information security for **authentication** and **non-repudiation**"

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Security is established by means of policies, processes, behaviours, risk management, and controls, which must maintain a balance between:



Prevention: Ensures security risks do not occur



Detection: Detecting risks that cannot be prevented



Correction: Recovering from risks after they are detected

Relationship Management

The purpose of the relationship management practice is to:

- “Establish and foster the links between the organization and its stakeholders at strategic and tactical levels
- Identify, analyze, monitor, continually improve the relationships with and between stakeholders”

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The relationship management practice ensures that the:

- Needs of stakeholders are understood, and products and services are prioritized
- Constructive relationship is established relationship between the organization and stakeholders
- Priorities for new or changed products/services for customers are established and maintained
- Complaints and escalations from stakeholders are managed well
- Products and services facilitate value creation for the service consumers and organizations
- Organizations facilitate value creation for all stakeholders

Supplier Management

The purpose of the supplier management practice is to:

- “Ensure that the supplier and their performance are managed appropriately to support the seamless provision of quality products and services.
- Create more collaborative relationships with key supplier to uncover and realize new value and reduce risk of failure.”

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Key activities of supplier management are:

- Creating a single point of visibility and control to ensure consistency
- Maintaining a supplier strategy, policy, and contract management information
- Negotiating and agreeing contracts and arrangements
- Managing relationships and contracts with internal and external suppliers
- Managing supplier performance

IT Asset Management

“IT asset refers to any financially valuable component that can contribute to delivery of an IT product or service.”

- “The purpose of the IT asset management practice is to plan and manage the lifecycle of all IT assets. This in turn helps the organization to:
 - Maximize value for customers
 - Control costs and budgets
 - Manage risks
 - Make decisions in terms of purchase and reuse
 - Meet regulatory and contractual requirements”

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The IT asset management practice includes management of software, hardware, networking, and cloud services and devices. It may also include non-IT assets, such as infrastructure and information, operational technology, such as devices that are part of Internet of Things.

Monitoring and Event Management

“An event can be defined as 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 purpose of the monitoring and event management practice is to:
 - “Analyze service components
 - Record and report changes of state identified as events
 - Identify and prioritize infrastructure, services, business processes, and information security events
 - Establish the appropriate response to those events, including responding to conditions that could lead to potential faults or incidents.”

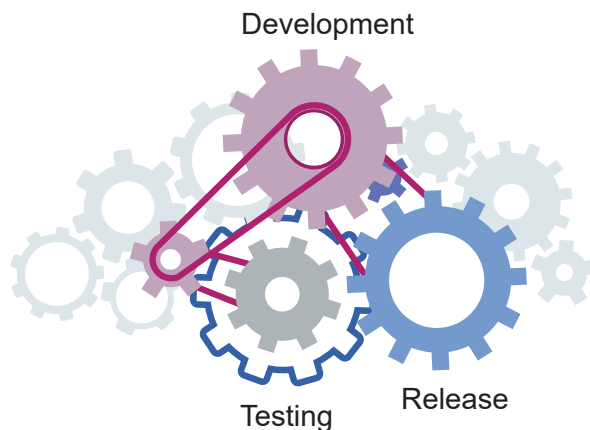
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The monitoring part focuses on the observation of services and CIs. It can be done actively or passively, but should be performed in a highly automated manner.

The event management part focuses on recording and managing monitored changes that are defined as events, analyzing the significance of events, and taking the correct control action for managing them.

Release Management

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



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

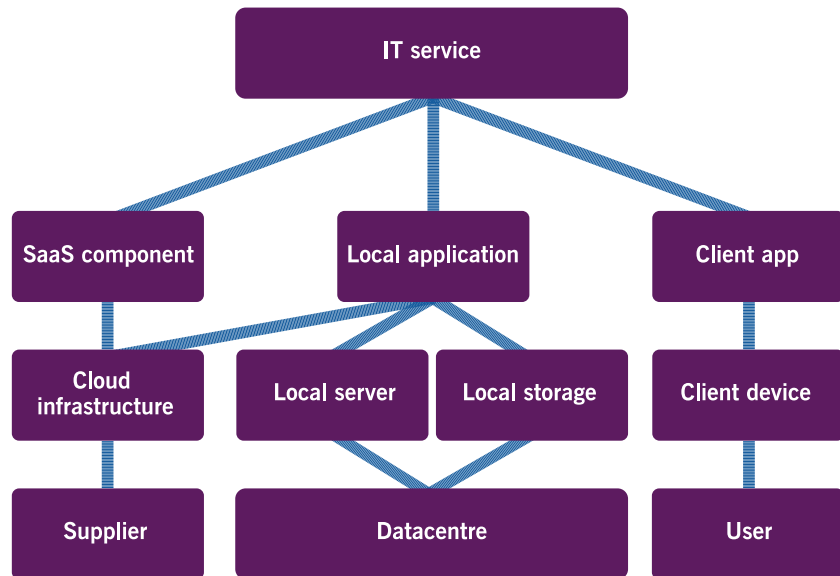
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A release includes various infrastructure and application components to deliver new or modified service. It may also comprise documentation, updated processes, or tools. Each element of a service may be developed by the service provider or procured from a third party and integrated by the service provider.

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.”

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



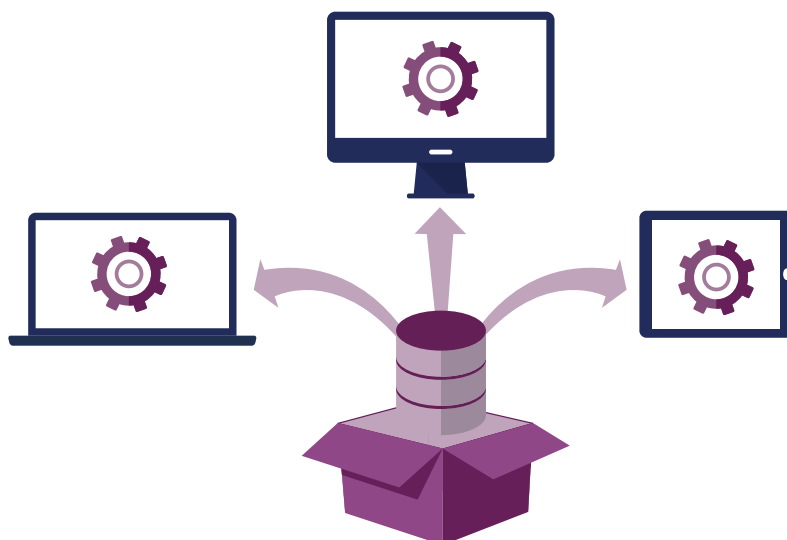
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It is important to note that services are also treated as CIs, and configuration management helps the organization to understand how the CIs that contribute to each service work together. The given figure is a simplified diagram showing how multiple CIs contribute to an IT service.

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.”

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Deployment management is a separate practice even though it works closely with release management and change enablement. Deployment management may also be referred to as 'provisioning'. The term provisioning however is often used to describe the deployment of infrastructure, while "deployment" refers to software deployment.

Within ITIL, the practice of deployment management refers to both the "provisioning" of infrastructure and the "deployment" of software.

Case Study: Let's Recapitulate the Practices



<https://player.vimeo.com/video/302778814>

This video is based on the Axle Car Hire case study, sourced from the ITIL® Foundation (ITIL® 4 edition) manuscript by AXELOS.

The "Change Control" Practice spoken in video should be considered to be the "Change Enablement" practice.

This module is focused on the key seven practices of ITIL. This video helps you to understand how an organization, such as Axle Car Hire, can or should consider implementing these practices.

Transcript for Video

Radhika (IT Business Analyst) to Henri (CIO):

I just wanted to talk to you about our transformation by adopting ITIL 4. Do you have few minutes to spare.

Henri:

Sure, do come in, sit down and tell me what do you want to discuss.

Radhika:

I know Axle is transforming to a more efficient and effective service management organization. I understand each company is different, but which practices are important for us in Axle Car Hire to understand and focus on?

Henri:

Good question. Let me show you which practices we should be focusing on.

First of all we have continual improvement, which should be in the DNA of our organization and in all our staff. For everything we do, we need to look into the mirror and see how we are doing compared to how we should be doing. It also needs to be within every job description.

Secondly we need to prevent things from going seriously wrong when we change something. For that purpose we have change enablement. Last year when we implemented changes to the reservation system, the whole system went down due to some flaws.

Radhika:

Yes... I know that. And this year we are planning some changes to our booking app and some of our IT systems. So, it is important that we have the Change Enablement in place. Right?

Henri:

Absolutely Radhika. But you know there are instances when our customers face difficulty in car booking because of error in our app or they got lost due to a navigation error in our system. For such instances, it is important that we are able to get things up and running as fast as possible, and for this we have the incident management.

Radhika:

True... an important but re-active practice. But we should also have something for finding the root cause, structural solutions to the problems, and improving the overall service.

Henri:

Yes indeed, for that we have problem management. This practice is really important, particularly when things have been going wrong more regularly than we can bear, we need to find the underlying cause. When you know the root-cause, it is easier to find the best solution to be implemented under change enablement.

Next, we have service request management which makes it easier for our customers and users to get what they want.

Radhika:

But in case a user has a question, whom should they contact?

Henri:

For that purpose within Axle car hire it is important that we have a single point of contact for our customers and users in case there is something wrong like car breaks down or in case when customers have a question. For that purpose we have the Service desk.

And finally, we have service level management, which is a practice that ensures we have clear agreements with our customers about what we deliver against what quality criteria.

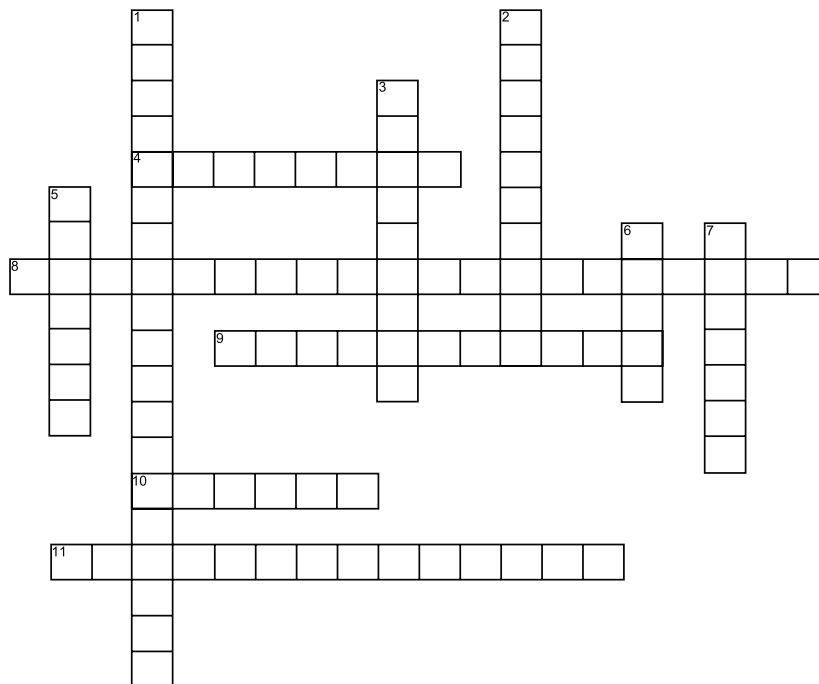
So overall 7 practices are on our list at Axle car hire. Which practice to implement or start first is highly dependent on our current and desired situation. <<Henri is shown>> Some organizations start with the service desk and Incident management. Other organizations start with change enablement, while others choose to start with service level management.

There is no standard approach which practice to start with. Tell me, what do you think when you look at Axle car hire?

Radhika:

Well, listening to you and looking at our current and desired state, we should start with Continual improvement, since, if I have understood you well, that practice can be applied with all other practices.

Exercise: Crossword Puzzle



Across

4. A management practice is regarded as an organization _____. (9)
8. Progressing iteratively is a guiding principle that matches the practice of _____. (9, 11)
9. We need to promote visibility if we work together and _____. (11)
10. What is referred to as the addition, deletion, and modification of anything that could have effect on services? (6)
11. _____ refers to a request from a user or user's authorized representative that initiates a service action which has been agreed as a normal part of service delivery."? (7, 7)

Down

1. The practice of _____ management relates to using the General Data Protection Regulations. (11, 8)
2. A problem that has been analyzed and has not been resolved is called a _____. (5, 5).
3. There are three types of practices: General, Service, and _____. (9)
5. _____ is a configuration of an organization's resources designed to offer value for a consumer.
6. End to end visibility of the organization's services is provided by the practice of Service _____ Management. (5)
7. Relationship Management is what type of practice. (7)

ACTIVITY: AN INCIDENT NEEDS TO BE RESOLVED

Activity: An Incident Needs to be Resolved

Focus

The ITIL service value chain operating model and ITIL practices are generic. However, in practice, different patterns can be formed by combining different value chain activities with relevant practices, based on the needs in a variety of scenarios. These patterns within the value chain operation are called value streams. To carry out a certain task, or respond to a particular situation, organizations create service value streams.

Task

Read the given scenario and design the value stream based on the requirements to resolve the incident. Fill the tables given in the Course Book to identify what roles and activities are relevant for the value chain activities.

“The WiFi in a warehouse is not working properly because a wireless access point has failed. This has a significant impact on the business because the forklift driver cannot receive instructions quickly enough, and as such there is a risk that a business deadline will be missed. This may seem like a relatively straightforward incident, however, it can't be resolved by simply mechanically following the steps of a predetermined incident management procedure. ”

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Hint: Read the reference to understand what is required and how this incident should be resolved.

Reference

“In this example value stream, first, someone must notice that there is an incident and know how to report it, and it must be possible for that person to communicate the urgency of the situation accurately so that it can be prioritized correctly. The person receiving the report must have the authority to escalate the incident, and procedures both for doing so, and for monitoring the progress of the incident. There need to be resources in place to allow for a sufficiently rapid escalation, someone must have the skills, knowledge and tools required to investigate the incident, and there have to be procedures in place that allow standard changes to be implemented without a requirement to obtain additional approval. It must be possible for someone to access accurate configuration information and to log the repair once it has been completed. It must also be possible to log that a spare part has been consumed and to reorder it against future need. If the repair is to be of any value however, the warehouse needs to be told what has happened, and that normal working can be resumed. It is also

important to check how well the incident was resolved, to see if there are any lessons to be learned.”

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Solution: An Incident Needs to be Resolved

SVS component	Demand
Roles	Warehouse manager, forklift driver
Activities	It is discovered that there is no WiFi coverage in one area of the warehouse. This means that the forklift driver needs to drive across the warehouse to pick up their instructions, causing delays and risking missed business deadlines.

Value Chain Activity	Engage
Practices	Service desk, incident management
Roles	Warehouse manager, service desk agent
Activities	<p>The warehouse manager phones the service desk and describes the issue. It is agreed that this is a priority 2 incident, and the manager is notified of the expected resolution time.</p> <p>Information about this incident is logged by the service desk agent.</p>

Value Chain Activity	Deliver and support
Practices	Service desk, incident management
Roles	Service desk agent, network support engineer
Activities	The incident is rapidly escalated to the network support team.

Value Chain Activity	Deliver and support, improve
Practices	Incident management, change enablement, service configuration management, IT asset management, continual improvement
Roles	Network support engineer
Activities	<ul style="list-style-type: none"> ■ The network support engineer identifies that the wireless access point has failed and replaces it with a spare from the store. ■ This is a standard change, so the engineer needs no additional approval. Information required to configure the new access point is obtained from the CMS. IT asset information is updated to show that this spare part has been consumed. ■ The network engineer updates the incident management system and marks the case as resolved. ■ The network engineer thinks about what happened and whether they could have predicted this issue or resolved it more quickly.

Value Chain Activity	Engage
Practices	Service desk, incident management
Roles	Service desk agent, warehouse manager
Activities	The service desk agent contacts the warehouse manager to check that everything is now working properly, then closes the incident.

SVS component	Value
Roles	Warehouse manager, forklift driver
Activities	WiFi coverage is restored and the forklift driver can now work efficiently.

Value Chain Activity	Engage, improve
Practices	Service desk, incident management, continual improvement
Roles	Warehouse manager, service desk manager
Activities	A brief satisfaction survey is emailed to the warehouse manager, which they complete and return. The scores are used to identify trends, and the comments are passed to the service desk manager for consideration.

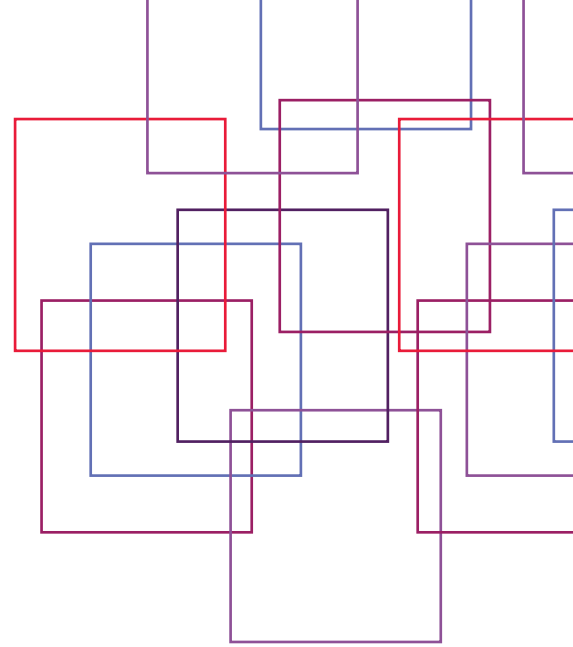
MODULE SUMMARY

- A management practice is a set of organizational resources designed for performing work or accomplishing an objective.
- Continual improvement refers to the practice of identifying and improving services, service components, or any other element involved in the efficient and effective management of products and services to align the organization's practices and services with changing business needs.
- The purpose of the change enablement practice is to maximize the number of successful IT changes by confirming that risks have been properly measured. 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.
- The incident management reduces the undesirable impact of incidents by refurbishing normal service operations as soon as possible. The key activities that are important for resolving incidents efficiently and effectively include:
 - Logging and managing incidents
 - Agreeing, documenting, and communicating the target resolution times
 - Prioritizing the incidents based on an agreed classification

- The purpose of problem management is to minimize the probability and impact of incidents by analyzing actual and possible causes of incidents. Problem management involves three phases: problem identification, problem control, and error control.
- The purpose of the service request management practice is to provide the promised quality of a service by handling all pre-defined, user-initiated service requests in an effective and comprehensible manner.
- The purpose of the service desk practice is to understand demand for incident resolution and service requests. A service desk acts as the entry point/single point of contact for the IT or service organization.
- 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.



Case Study: Axle Car Hire



Driven by Difference...



To show how the concepts of ITIL can be practically applied to an organization, this course follows the exploits of a fictional company on its ITIL journey. This company, Axle Car Hire, is undergoing a transformation to modernize its services and improve its customer satisfaction and retention levels, and is using ITIL to do this.

INTRODUCTION

Axle Car Hire is a global company, with its headquarters based in Seattle. Axle was formed 10 years ago, and currently employs approximately 400 staff across Europe, the US, and Asia-Pacific.

Initially, the company experienced strong growth and consistently high customer satisfaction ratings. For the first six years, repeat business accounted for around 30 per cent of all bookings. Shareholders could expect handsome quarterly dividends. However, over the past four years, the company has experienced a downturn. Customer satisfaction ratings have consistently declined and repeat bookings are rare. Competitors are offering new and innovative options to traditional vehicle hire. Car-pooling, ride-share, and driverless cars are big draws. Customers have also come to expect online and app interfaces as standard for the company's services.

In this evolving market, Axle Car Hire faces an uncertain future. The board is keen to improve customer satisfaction levels. They want to attract and retain customers, and improve the company's bottom line. They've appointed a new CIO, Henri Durand. Henri was chosen for his experience in digitalized services and his track record in successful,

large-scale IT transformations. He understands the impact of digital service offerings, not only for customer satisfaction levels, but also for employee retention rates.

Henri's strong background in ITIL and ITSM means that he values ITIL certification, and his hiring policy reflects this. Having worked with Design Thinking, DevOps, and Agile methodologies, he believes sustainable business requires a blended approach to ITSM. Henri is keen to see how his team can redefine the car-hire experience and ensure that Axle Car Hire is the first choice for new and existing customers.

MEET THE AXLE EMPLOYEES

Here are four key employees of Axle Car Hire:

- **Henri** Is the new CIO of Axle Car Hire. He is a successful business executive who's prepared to shake things up. He believes in an integrated approach to ITSM.
- **Su** Is the Axle Car Hire product manager for travel experience, and has worked for Axle for the past five years. Su is smart, meticulous, and passionate about the environment.
- **Radhika** Is the Axle Car Hire IT business analyst, and it is her job to understand the user requirements of Axle Car Hire staff and consumers. She is inquisitive and energetic, and strives to maintain a positive relationship with all her customers, both internal and external. Radhika works mostly on discovery and planning activities, rather than in IT operations. She asks a lot of questions and is great at spotting patterns and trends.
- **Marco** Is the Axle Car Hire IT delivery manager. He is process-driven and continually references the ITIL framework to help him manage positive service relationships. However, Marco has had little exposure to a blended or collaborative approach to service management.

AXLE'S CUSTOMERS

Here are three of Axle Car Hire's frequent customers, whom you will meet during this ITIL story:

- **Yoshi** Is a university student on holiday with no fixed plans. She hopes to visit music festivals as part of her travel experience. Apart from that, her travel is flexible. She is tech-savvy and quickly adapts to new applications and solutions. She is interested in trying new and exciting digital services.
- **Faruq** Is recently retired and typically holidays alone. He is thoughtful and enjoys learning about and adopting new technology. Faruq often makes his travel plans on the go, as his needs can change, based on personal or health considerations.

- **Amelia** Is the facilities manager at an organic food distribution company called Food for Fuel. Their head office is in central London, but many Food for Fuel consumers are in regional areas. This means access by public transport is typically infrequent, unreliable, and expensive. Consequently, Food for Fuel provides its sales staff with vehicles to enable them to conveniently and reliably visit existing and potential customers.

AXLE'S PARTNERS AND SUPPLIERS

The partners and suppliers dimension for Axle includes suppliers such as Go Go Gas and Craig's Cleaning, as well as internet service providers and developers.

A New Supplier (Craig's Cleaning)

Su: Axle's recent customer satisfaction surveys consistently revealed low ratings for car cleanliness. This hampered our customers' travel experience and was a contributing factor for low repeat bookings.

Henri: Axle Car Hire made the decision to outsource the cleaning of all vehicles to a service provider. Previously, cleaning of our vehicle fleet was performed by an internal department. The cost and effort to maintain equipment, update rosters, and manage an inflexible workforce were unsustainable. It is important to understand that the risk of outsourcing any task or service is that an organization loses skills and capabilities. However, car cleaning is a service requiring specialized equipment as well as a flexible and motivated workforce. Continual investment in this service is something that is not beneficial for Axle.

At face value, outsourcing may appear to cost an organization more than using internal resources. Initially this may be true; however, over time and correctly managed, outsourcing services should be beneficial to both the organization and supplier. The benefit for Axle is that we can concentrate on our core business. After all, we're not a cleaning company.

Marco: There are always pros and cons to outsourcing. Let's have a look at the outcomes, costs, and risks that are introduced and removed.

Pros	Cons
Users will be happy with our cars' cleanliness	Axle will lose an opportunity to offer car cleaning as a service
Axle will no longer need to maintain its own cleaning facilities	Axle will need to pay the cleaning company
The risk of cars being damaged during cleaning will be removed from Axle. This risk will now be with the supplier and their insurance company	Axle will lose an opportunity to offer car cleaning as a service
Users will be happy with our cars' cleanliness	Axle will have a heavy dependency on the external cleaning company, and their staff will have wide access to our premises

Su: By partnering with a specialist cleaning organization, Axle can focus its resources on providing a better service for our users. It will also help to optimize our costs, increasing value for the organization.

Craig is the owner of Craig's Cleaning. Craig is methodical, reliable, and well respected by his staff. With his team, Craig is keen to contribute to the Axle vision of offering a high-standard travel experience.

Craig: Axle Car Hire decided to outsource its car cleaning service, and Craig's Cleaning was chosen to take this on. My organization is now responsible for the cleanliness of the entire Axle vehicle fleet.

Henri: The service Craig's Cleaning is providing is only one component of the Axle customer experience. Clean cars are one output of our overall service, and they contribute directly to the customers' travel experience. This helps Axle's clients to achieve their outcomes.

Su: Craig's Cleaning is doing a great job! The cars have never been cleaner, and our customer satisfaction ratings for car cleanliness are steadily on the increase.

Axle and Craig's Cleaning have worked on a cleaning schedule together, with focus on car cleaning turnaround times during peak hours. Axle is responsible for providing Craig and his team with timely notice of any changes that can impact this schedule. For example, Axle may need to expand its cleaning requirements in the light of new service offerings, such as the one Marco is developing.

Marco: Axle has a goal to become a greener company and help the environment. We would like Craig's Cleaning to support us in this goal and aim for the same sustainable growth as us.

AXLE'S NEW TECHNOLOGY

Axle is considering introducing several pieces of new technology into their cars. The Axle team looks at what new technology could be introduced and uses the ITIL guiding principles to help decide on the best course of action.

Su: One aspect of our service we are considering is the collection and return of vehicles. This process remains very manual. Some of our regional depots continue to use paper-based forms to register customers. Customers don't want to waste time completing forms for identification when this information has already been provided during the online booking process. To improve the customer identification process, Axle could use biometric technology to identify our customers.

Marco: Biometric technology uses scanned graphical data for personal identification. It's fast and reliable, and widely used in other industries. For example, the airline industry is using it for security screening, check-in, and even for aircraft boarding. We could use fingerprint or facial recognition scans to quickly identify our customers, and automate the car collection and return process.

Radhika: We need to be mindful of regulations such as GDPR and the possible risks to data security this technology could bring.

Marco: Axle also wants to trial automated identification of damage to returned vehicles, including scratches, dents, and broken lights. Potentially the technology could even identify fuel levels. This would automate the calculation of any fuel charges incurred by our customers, which is also a manual process.

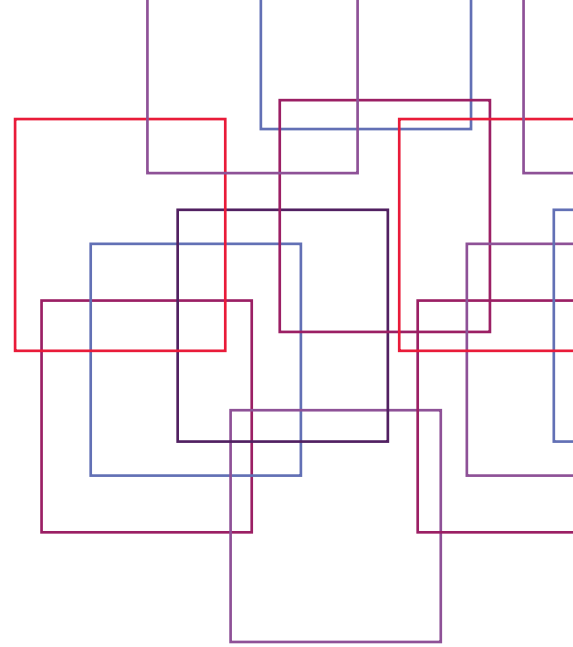
Su: Our customers want simplicity and speed while maintaining comfort and safety on the road. Biometric technology and car scanning would be a source of opportunity to meet evolving customer demands.

Marco: Our services already rely on technology, and the intelligence of smartphones and personal devices to meet customer needs and expectations. The adoption of biometric technology is a natural progression. Anyone who can access their phone with a thumbprint or facial recognition will be comfortable and confident using the same technology to collect or return a car.

Henri: We can't make the mistake of trying to implement every innovation at once, even if they all sound like the ideal solution for Axle Car Hire. We need a framework in place to make sure value is realized, and to govern our decisions. It's also important that none of our existing customers are disadvantaged, even as we venture into new surroundings. For example, not all our customers are tech-savvy. This is especially true for our elderly customers who represent a large percentage of our customer base for leisure travel. We also need to balance innovation with existing operational demands.



Exam Preparation Guide



Module Learning Objectives

- Identify the structure of the exam.
- Indicate the key components of the exam.
- Practice the exam.

Topics Covered in this Module

1. Qualification Learning Objectives
2. Learning Level of the Syllabus
3. Certification
4. Exam Instructions
 - Exam Format
 - Types of Questions
 - Scoring System
5. Tips for Taking Exam

1. QUALIFICATION LEARNING OBJECTIVES

When you have acquired the required knowledge from this course, you will be able to:

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

- Understand the key concepts of continual improvement.
- Learn the various ITIL practices and how they contribute to value chain activities.

2. LEARNING LEVEL OF THE SYLLABUS

The modern version of Bloom's taxonomy of learning is a widely used classification framework for course syllabi and assessments for certification. The taxonomy classifies learning into six ascending levels.

- **Level 1 (knowledge):** Exhibit memory of previously learned materials by recalling facts, terms, basic concepts, and answers.
- **Level 2 (Comprehension):** Demonstrate an understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.
- **Level 3 (Application):** Use new knowledge. Solve problems to new situations by applying acquired knowledge, facts, techniques, and rules.
- **Level 4 (Analysis):** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.
- **Level 5 (Evaluation):** Present and defend opinions by making judgments about information, the validity of ideas, or quality of work based on a set of criteria.
- **Level 6 (Creation):** Compile information together by combining elements in a new pattern or proposing alternative solutions.

The examination questions for the ITIL® Foundation course are based on blooms levels 1 and 2.

The ITIL® Foundation course is expected to provide a foundation level of proficiency for a candidate. The examinations test this level. The examination format offers/will offer Multiple Choice Questions (MCQs) with a series of corresponding possible answers. Only one answer will be correct.

3. CERTIFICATION

The purpose of the the ITIL® Foundation certification is to assess whether the candidate can demonstrate sufficient recall and understanding of the ITIL 4 service management framework, as described in the syllabus.

4. EXAM INSTRUCTIONS

4.1 Exam Format

Prerequisites	It is recommended that the participant has completed the ITIL 4 Foundation training.
Supervised	Live or Web Proctored
Exam Type	Online and Paper-based
Exam Duration	The exam duration will be of 60 minutes (Additional 15 minutes for non-native English speaker).
Pass Score	To pass the exam, an individual must attain a score of 65% or higher.
Open/Closed Book	Closed Book
Number of Questions	40 Multiple Choice Questions (MCQs)

4.2 Types of Questions

The exam consists of MCQs.

4.3 Scoring System

For all questions, the score is based on the correct answer. There is no negative marking.

5. TIPS FOR TAKING EXAM

In order to successfully take the exam, you are advised to keep the following points in mind:

- Before you start the exam, take a deep breath and relax into your “exam mode”.
- Read each question very carefully. Most of the mistakes are caused by not having read the question fully and completely.
- Go through all answer options before making your selection.
- When you know which of the four answer options, is the most correct one, go for that answer. Most of the time the first impression is the correct answer.
- In case you are not sure which answer is the correct one, go through all answer options and identify candidate correct answers.
- Eliminate obvious incorrect answers.
- From the two leftovers, select the best answer.
- In case you don’t know which one is the best answer, then look for an answer that is talking about business, value, customer etc.

- Still, no idea which one to choose, look for the answer that has most of the official basic terms in it.
- Still, no clue, guess - there is no negative marking.
- Only change an answer into another answer when you are 100% sure. Most of the time, candidates change a correct answer into an incorrect answer.
- Options with words like 'always', 'never', 'must', 'have to' 'only' etc. are generally not correct. Frameworks are there to provide guidelines and will not have mandatory requirements. Answers with these 'ABSOLUTE' words are likely to be incorrect.
- Don't get stuck on a question. Should the answer not immediately be evident, skip that question and continue with the next questions? (Your online exam will allow you to 'flag' the question so you can remember to go back.)
- It is absolutely normal that the first couple of questions are perceived as more difficult. These first questions are not more complex, but it is because of the level of concentration at the beginning is not that high yet. It takes time to build up a good level of concentration.
- The real exam questions are often perceived as more complex compared to the mock exam questions. The mock exam questions are also old exam questions, so they have the same level of difficulty. The real exam questions are perceived as more difficult because there is more stress involved in a real exam.
- It is a multiple choice exam, so the correct answer is there, you just need to find it.

Sample Paper 1



The ITIL® 4 Foundation Examination

Sample Paper 1

Question Booklet

Multiple Choice

Examination Duration: 1 Hour

Instructions

1. You should attempt all 40 questions. Each question is worth one mark.
2. There is only one correct answer per question.
3. You need to answer 26 questions correctly to pass the exam.
4. Mark your answers on the answer sheet provided. Use a pencil (NOT pen).
5. You have 60 minutes to complete this exam.
6. This is a 'closed book' exam. No material other than the exam paper is allowed.

The ITIL® 4 Foundation Examination

- 1) Which practice is responsible for moving components to live environments?
 - A. Change enablement
 - B. Release management
 - C. IT asset management
 - D. Deployment management

- 2) Which practice includes the classification and ownership of queries and requests from users?
 - A. Service desk
 - B. Incident management
 - C. Change enablement
 - D. Service level management

- 3) Which practice identifies metrics that reflect the customer's experience of a service?
 - A. Continual improvement
 - B. Service desk
 - C. Service level management
 - D. Problem management

- 4) What is the PRIMARY use of a change schedule?
 - A. To support 'incident management' and improvement planning
 - B. To manage emergency changes
 - C. To plan changes and help avoid conflicts
 - D. To manage standard changes

- 5) Which service management dimension is focused on activities and how these are coordinated?
 - A. Organizations and people
 - B. Information and technology
 - C. Partners and suppliers
 - D. Value streams and processes

The ITIL® 4 Foundation Examination

6) How does categorization of incidents assist the 'incident management' practice?

- A. It helps direct the incident to the correct support area
- B. It determines the priority assigned to the incident
- C. It ensures that incidents are resolved in timescales agreed with the customer
- D. It determines how the service provider is perceived

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

A service is a means of enabling value co-creation by facilitating [?] that customers want to achieve.

- A. the warranty
- B. outcomes
- C. the utility
- D. outputs

8) Which is a recommendation of the 'continual improvement' practice?

- A. There should at least be a small team dedicated to leading 'continual improvement' efforts
- B. All improvements should be managed as multi-phase projects
- C. 'Continual improvement' should be isolated from other practices
- D. External suppliers should be excluded from improvement initiatives

9) Which is a potential benefit of using an IT service management tool to support the 'incident management' practice?

- A. It may ensure that the cause of incidents is identified within agreed times
- B. It may provide automated matching of incidents to problems or known errors
- C. It may ensure that supplier contracts are aligned with the needs of the service provider
- D. It may provide automated resolution and closure of complex incidents

The ITIL® 4 Foundation Examination

- 10) Which role submits service requests?
- A. The user, or their authorized representative
 - B. The customer, or their authorized representative
 - C. The sponsor, or their authorized representative
 - D. The supplier, or their authorized representative
- 11) Which practice provides a single point of contact for users?
- A. Incident management
 - B. Change enablement
 - C. Service desk
 - D. Service request management
- 12) Which guiding principle recommends that the four dimensions of service management are considered?
- A. Think and work holistically
 - B. Progress iteratively with feedback
 - C. Focus on value
 - D. Keep it simple and practical
- 13) Which would be supported by the 'service request management' practice?
- A. A request to authorize a change that could have an effect on a service
 - B. A request from a user for something which is a normal part of service delivery
 - C. A request to restore service after a service interruption
 - D. A request to investigate the cause of multiple related incidents
- 14) Which practice is the responsibility of everyone in the organization?
- A. Service level management
 - B. Change enablement
 - C. Problem management
 - D. Continual improvement

The ITIL® 4 Foundation Examination

15) Identify the missing word in the following sentence.

The purpose of the 'information security management' practice is to [?] the organization's information.

- A. store
- B. provide
- C. audit
- D. protect

16) Which guiding principle recommends collecting data before deciding what can be re-used?

- A. Focus on value
- B. Start where you are
- C. Keep it simple and practical
- D. Progress iteratively with feedback

17) Which is NOT usually included as part of incident management?

- A. Scripts for collecting initial information about incidents
- B. Formalized procedures for logging incidents
- C. Detailed procedures for the diagnosis of incidents
- D. The use of specialized knowledge for complicated incidents

18) Which describes the nature of the guiding principles?

- A. Guiding principles can guide an organization in all circumstances
- B. Each guiding principle mandates specific actions and decisions
- C. An organization will select and adopt only one of the seven guiding principles
- D. Guiding principles describe the processes that all organizations must adopt

The ITIL® 4 Foundation Examination

- 19) Which statement about a change authority is CORRECT?
- A. A single change authority should be assigned to authorize all types of change and change models
 - B. A change authority should be assigned for each type of change and change model
 - C. Normal changes are pre-authorized and do not need a change authority
 - D. Emergency changes can be implemented without authorization from a change authority
- 20) Which practice has the purpose of making new and changed services and features available for use?
- A. Change enablement
 - B. Service request management
 - C. Release management
 - D. Deployment management
- 21) Which value chain activity ensures people understand the organization's vision?
- A. Improve
 - B. Plan
 - C. Deliver and support
 - D. Obtain/build
- 22) Which statement about the value chain activities is CORRECT?
- A. Every practice belongs to a specific value chain activity
 - B. A specific combination of value chain activities and practices forms a service relationship
 - C. Service value chain activities form a single workflow that enables value creation
 - D. Each value chain activity contributes to the value chain by transforming specific inputs into outputs

The ITIL® 4 Foundation Examination

- 23) What is the purpose of the 'supplier management' practice?
- A. To ensure that the organization's suppliers and their performance are managed appropriately to support the seamless provision of quality products and services
 - B. To align the organization's practices and services with changing business needs through the ongoing identification and improvement of services
 - C. To ensure that the organization's suppliers and their performance are managed appropriately at strategic and tactical levels through coordinated marketing, selling, and delivery activities
 - D. To ensure that accurate and reliable information about the configuration of suppliers' services is available when and where it is needed
- 24) What are the two types of cost that a service consumer should evaluate?
- A. The price of the service, and the cost of creating the service
 - B. The costs removed by the service, and the costs imposed by the service
 - C. The cost of provisioning the service, and the cost of improving the service
 - D. The cost of software, and the cost of hardware
- 25) Which is a purpose of the 'service desk' practice?
- A. To reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents
 - B. To maximize the number of successful IT changes by ensuring risks are properly assessed
 - C. To capture demand for incident resolution and service requests
 - D. To set clear business-based targets for service performance
- 26) How should an organization adopt continual improvement methods?
- A. Use a new method for each improvement the organization handles
 - B. Select a few key methods for the types of improvement that the organization handles
 - C. Build the capability to use as many improvement methods as possible
 - D. Select a single method for all improvements that the organization handles

The ITIL® 4 Foundation Examination

- 27) Which ITIL concept describes governance?
- A. The seven guiding principles
 - B. The four dimensions of service management
 - C. The service value chain
 - D. The service value system
- 28) Which is a recommendation of the 'service desk' practice?
- A. Service desks should avoid the use of automation
 - B. Service desks should be highly technical
 - C. Service desks should understand the wider organization
 - D. Service desks should be a physical team in a single fixed location
- 29) Which guiding principle recommends organizing work into smaller, manageable sections that can be executed and completed in a timely manner?
- A. Focus on value
 - B. Start where you are
 - C. Progress iteratively with feedback
 - D. Collaborate and promote visibility
- 30) What is a standard change?
- A. A change that is well understood, fully documented and pre-authorized
 - B. A change that needs to be assessed, authorized, and scheduled by a change authority
 - C. A change that doesn't need a risk assessment because it is required to resolve an incident
 - D. A change that is assessed, authorized, and scheduled as part of 'continual improvement'

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- 31) What happens if a workaround becomes the permanent way of dealing with a problem that cannot be resolved cost-effectively?
- A. A change request is submitted to change enablement
 - B. Problem management restores the service as soon as possible
 - C. The problem remains in the known error status
 - D. The problem record is deleted
- 32) What is the definition of change?
- A. To add, modify or remove anything that could have a direct or indirect effect on services
 - B. To ensure that accurate and reliable information about the configuration of services is available
 - C. To make new and changed services and features available for use
 - D. To move new or changed hardware, software, or any other component to live environments
- 33) What is the definition of an event?
- A. Any change of state that has significance for the management of a service or other configuration item
 - B. Any component that needs to be managed in order to deliver an IT service
 - C. An unplanned interruption to a service or reduction in the quality of a service
 - D. Any financially valuable component that can contribute to the delivery of an IT product or service
- 34) Which describes outcomes?
- A. Tangible or intangible deliverables
 - B. Functionality offered by a product or service
 - C. Results desired by a stakeholder
 - D. Configuration of an organization's resources

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- 35) Which is NOT a key focus of the 'information and technology' dimension?
- A. Security and compliance
 - B. Communication systems and knowledge bases
 - C. Workflow management and inventory systems
 - D. Roles and responsibilities
- 36) Which practices are typically involved in the implementation of a problem resolution?
- 1. Continual improvement
 - 2. Service request management
 - 3. Service level management
 - 4. Change enablement
- A. 1 and 2
 - B. 2 and 3
 - C. 3 and 4
 - D. 1 and 4
- 37) Which is a key consideration for the guiding principle 'keep it simple and practical'?
- A. Try to create a solution for every exception
 - B. Understand how each element contributes to value creation
 - C. Ignore the conflicting objectives of different stakeholders
 - D. Start with a complex solution, then simplify
- 38) What should be done first when applying the 'focus on value' guiding principle?
- A. Identify the outcomes that the service facilitates
 - B. Identify all suppliers and partners involved in the service
 - C. Determine who the service consumer is in each situation
 - D. Determine the cost of providing the service

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- 39) A service provider describes a package that includes a laptop with software, licenses, and support. What is this package an example of?
- A. Value
 - B. An outcome
 - C. Warranty
 - D. A service offering
- 40) What is the definition of warranty?
- A. A tangible or intangible deliverable that is produced by carrying out an activity
 - B. The assurance that a product or service will meet agreed requirements
 - C. A possible event that could cause harm or loss, or make it more difficult to achieve objectives
 - D. The functionality offered by a product or service to meet a particular need





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Sample Paper 1

Answers and Rationales

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For exam paper: EN_ITIL4_FND_2019_SamplePaper1_QuestionBk_v1.4

Q	A	Syllabus Ref	Rationale
1	D	6.1.h	<p>A. Incorrect. "The purpose of the change enablement practice is to maximize the number of successful service and product changes by ensuring that risks have been properly assessed, authorizing changes to proceed, and managing the change schedule". Ref 5.2.4</p> <p>B. Incorrect. "The purpose of the release management practice is to make new and changed services and features available for use." Ref 5.2.9</p> <p>C. Incorrect. "The purpose of the IT asset management practice is to plan and manage the full lifecycle of all IT assets". Ref 5.2.6</p> <p>D. Correct. "The purpose of the deployment management practice is to move new or changed hardware, software, documentation, processes, or any other component to live environments." Ref 5.3.1</p>
2	A	7.1.f	<p>A. Correct. "Service desks provide a clear path for users to report issues, queries, and requests, and have them acknowledged, classified, owned, and actioned". Ref 5.2.14</p> <p>B. Incorrect. The 'incident management' practice deals only with incidents, not queries and requests. "The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible". Ref 5.2.5</p> <p>C. Incorrect. The 'change enablement' practice deals only with change requests, not other queries and requests. "The purpose of the change enablement practice is to maximize the number of successful service and product changes by ensuring that risks have been properly assessed, authorizing changes to proceed, and managing the change schedule". Ref 5.2.4</p> <p>D. Incorrect. The 'service level management' practice ensures service targets are met. It does not manage queries and requests from users. "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". Ref 5.2.15</p>

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Q	A	Syllabus Ref	Rationale
3	C	7.1.g	<p>A. Incorrect. "The purpose of the continual improvement practice is to align the organization's practices and services with changing business needs through the ongoing improvement of products, services, and practices, or any element involved in the management of products and services." Ref 5.1.2</p> <p>B. Incorrect. "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." Ref 5.2.14</p> <p>C. Correct. "Service level management identifies metrics and measures that are a truthful reflection of the customer's actual experience and level of satisfaction with the whole service," and "Engagement is needed to understand and confirm the actual ongoing needs and requirements of customers, not simply what is interpreted by the service provider or has been agreed several years before." Ref 5.2.15.1</p> <p>D. Incorrect. "The purpose of the problem management practice is to reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors". Ref 5.2.8</p>
4	C	7.1.b	<p>A. Incorrect. While it can be used after deploying a change, this is not the main use of the 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." Ref 5.2.4</p> <p>B. Incorrect. "Emergency changes: These are changes that must be implemented as soon as possible; for example, to resolve an incident or implement a security patch. Emergency changes are not typically included in a change schedule, and the process for assessment and authorization is expedited to ensure they can be implemented quickly." Ref 5.2.4</p> <p>C. Correct. "The change schedule is used to help plan changes, assist in communication, avoid conflicts, and assign resources." Ref 5.2.4</p> <p>D. Incorrect. Standard changes are already pre-authorized and do not need to be included on a change schedule. "These are low-risk, pre-authorized changes that are well understood and fully documented, and can be implemented without needing additional authorization." Ref 5.2.4</p>

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Q	A	Syllabus Ref	Rationale
5	D	3.1.d	<p>A. Incorrect. The 'organizations and people' dimension describes "roles and responsibilities, formal organizational structures, culture, and required staffing and competencies." Ref 3.1</p> <p>B. Incorrect. The 'information and technology' dimension includes "the information and knowledge necessary for the management of services, as well as the technologies required" and "the information created, managed, and used in the course of service provision and consumption, and the technologies that support and enable that service." Ref 3.2</p> <p>C. Incorrect. "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". Ref 3.3</p> <p>D. Correct. The 'value streams and processes' 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." Ref 3.4</p>
6	A	7.1.c	<p>A. Correct. "More complex incidents will usually be escalated to a support team for resolution. Typically, the routing is based on the incident category, which should help to identify the correct team." Ref 5.2.5</p> <p>B. Incorrect. The category is concerned with the type of incident whereas priority is determined by business impact. "Incidents are prioritized based on agreed classification to ensure that incidents with the highest business impact are resolved first." Ref 5.2.5</p> <p>C. Incorrect. "Every incident should be logged and managed to ensure that it is resolved in a time that meets the expectations of the customer and user." Categorization by itself will not ensure this. Ref 5.2.5</p> <p>D. Incorrect. Customer and user satisfaction determines how the service provider is perceived. "Incident management can have an enormous impact on customer and user satisfaction, and on how customers and users perceive the service provider." Ref 5.2.5</p>

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Q	A	Syllabus Ref	Rationale
7	B	1.1.a	<p>A. Incorrect. Warranty is “assurance that a product or service will meet agreed requirements.” Warranty of a service is necessary, but not sufficient to enable value co-creation. Ref 2.5.4</p> <p>B. Correct. A service is “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”. Ref 2.3.1</p> <p>C. Incorrect. Utility is “the functionality offered by a product or service”. Utility of a service is necessary, but not sufficient to enable value co-creation. Ref 2.5.4</p> <p>D. Incorrect. An output is “a tangible or intangible deliverable of an activity.” The output of a service is necessary, but not sufficient to enable value co-creation. Ref 2.5.1</p>
8	A	7.1.a	<p>A. Correct. “Although everyone should contribute in some way, there should at least be a small team dedicated full-time to leading continual improvement efforts and advocating the practice across the organization.” Ref 5.1.2</p> <p>B. Incorrect. “Different types of improvements may call for different improvement methods. For example, some improvements may be best organized into a multi-phase project, while others may be more appropriate as a single quick effort.” Ref 5.1.2</p> <p>C. Incorrect. “The continual improvement practice is integral to the development and maintenance of every other practice.” Ref 5.1.2</p> <p>D. Incorrect. “When third-party suppliers form part of the service landscape, they should also be part of the improvement effort.” Ref 5.1.2</p>
9	B	7.1.c	<p>A. Incorrect. “Target resolution times are agreed, documented, and communicated to ensure that expectations are realistic.” A good IT service management tool may help the organization to meet these times, but the tool cannot ensure that this happens. Furthermore, identifying the causes of incidents is a ‘problem management’ activity Ref 5.2.5</p> <p>B. Correct. “Modern IT service management tools can provide automated matching of incidents to other incidents, problems or known errors”. Ref 5.2.5</p> <p>C. Incorrect. ‘Incident management’ requires supplier contracts to be correctly aligned, but ensuring that the contracts are aligned is a purpose of the ‘supplier management’ practice. Ref 5.1.13</p> <p>D. Incorrect. “The most complex incidents, and all major incidents, often require a temporary team to work together to identify the resolution”. “Investigation of more complicated incidents often requires knowledge and expertise, rather than procedural steps.” Ref 5.2.5</p>

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Q	A	Syllabus Ref	Rationale
10	A	7.1.e	<p>A. Correct. "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..." and a service request is defined as "a request from a user or a user's authorized representative that initiates a service action". Ref 5.2.16</p> <p>B. Incorrect. A customer is "the role that defines the requirements for a service and takes responsibility for the outcomes of service consumption". A customer could also be a user, and in that role they may submit a service request. Ref 2.2.2</p> <p>C. Incorrect. A sponsor is "the role that authorizes budget for service consumption." A sponsor could also be a user, and in that role they may submit a service request. Ref 2.2.2</p> <p>D. Incorrect. "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.". This does not include consumption of services, and "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." Ref 3.3, 5.2.16</p>
11	C	7.1.f	<p>A. Incorrect. "The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible." The 'incident management' practice does not provide a single point of contact for service users. Ref 5.2.5</p> <p>B. Incorrect. "The purpose of the change enablement practice is to maximize the number of successful service and product changes by ensuring that risks have been properly assessed, authorizing changes to proceed, and managing the change schedule." The 'change enablement' practice does not provide a single point of contact for service users. Ref 5.2.4</p> <p>C. Correct. "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." Ref 5.2.14</p> <p>D. Incorrect. "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." The 'service request management' practice does not provide a single point of contact for service users. Ref 5.2.16</p>

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Q	A	Syllabus Ref	Rationale
12	A	2.2.e	<p>A. Correct. The 'think and work holistically' guiding principle advises that all aspects of an organization are considered when providing value in the form of services. This includes all four dimensions of service management (organizations and people; information and technology; partners and suppliers; value streams and processes). "Services are delivered to internal and external service consumers through the coordination and integration of the four dimensions of service management." Ref 4.3.5</p> <p>B. Incorrect. The 'progress iteratively with feedback' guiding principle is concerned with breaking initiatives into manageable sections that can be executed more easily. It is not primarily concerned with addressing the four dimensions of service management. Ref 4.3.3</p> <p>C. Incorrect. The 'focus on value' guiding principle ensures that everything that the organization does links back to providing value to service consumers. It is not primarily concerned with addressing the four dimensions of service management. Ref 4.3.1</p> <p>D. Incorrect. The 'keep it simple and practical' guiding principle focuses on keeping things simple by reducing complexity and eliminating unnecessary activities and steps. It is not primarily concerned with addressing the four dimensions of service management. Ref 4.3.6</p>
13	B	7.1.e	<p>A. Incorrect. This would be supported by the 'change enablement' practice. A change is "the addition, modification, or removal of anything that could have a direct or indirect effect on services." Normal changes "need to be scheduled, assessed, and authorized". Ref 5.2.4</p> <p>B. Correct. A service request is "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." Ref 5.2.16</p> <p>C. Incorrect. This would be supported by the 'incident management' practice. An incident is "an unplanned interruption to a service or reduction in the quality of a service." Ref 5.2.5</p> <p>D. Incorrect. This would be supported by the 'problem management' practice. A problem is "a cause, or potential cause, of one or more incidents". Ref 5.2.8</p>

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Q	A	Syllabus Ref	Rationale
14	D	7.1.a	<p>A. Incorrect. The 'service level management' practice is not the responsibility of everyone in the organization. A number of roles are required but there is no fixed structure. It is recommended that there is an independent and non-aligned role where possible. Ref 5.2.15</p> <p>B. Incorrect. The 'change enablement' practice is not the responsibility of everyone in the organization. Many roles can be assigned to change enablement such as change authority. It also requires input from people with specialist knowledge. Ref 5.2.4</p> <p>C. Incorrect. The 'problem management' practice is not the responsibility of everyone in the organization. Most problem management activity relies on the knowledge and experience of staff. Ref 5.2.8</p> <p>D. Correct. "continual improvement is everyone's responsibility" and "The commitment to and practice of continual improvement must be embedded into every fibre of the organization". Ref 5.1.2</p>
15	D	6.1.a	<p>A. Incorrect. "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)." Ref 5.1.3</p> <p>B. Incorrect. "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)." Ref 5.1.3</p> <p>C. Incorrect. "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)." Ref 5.1.3</p> <p>D. Correct. "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)." Ref 5.1.3</p>

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Q	A	Syllabus Ref	Rationale
16	B	2.2.b	<p>A. Incorrect. The 'focus on value' guiding principle states that "All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders." Ref 4.3.1</p> <p>B. Correct. The 'start where you are' guiding principle recommends that "Services and methods already in place should be measured and/or observed directly to properly understand their current state and what can be reused from them... 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." Ref 4.3.2</p> <p>C. Incorrect. The 'keep it simple and practical' guiding principle states that an organization should "Always use the minimum number of steps needed to accomplish an objective." Ref 4.3.6</p> <p>D. Incorrect. The 'progress iteratively with feedback principle states that "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." Ref 4.3.3</p>
17	C	7.1.c	<p>A. Incorrect. "There may be scripts for collecting information from users during initial contact". Ref 5.2.5</p> <p>B. Incorrect. "There should be a formal process for logging and managing incidents." Ref 5.2.5</p> <p>C. Correct. "This process does NOT usually include detailed procedures for how to diagnose, investigate, and resolve incidents." Ref 5.2.5</p> <p>D. Incorrect. "Investigation of more complicated incidents often requires knowledge and expertise, rather than procedural steps." Ref 5.2.5</p>
18	A	2.1	<p>A. Correct. A guiding principle is defined as a recommendation that can guide an organization in all circumstances and will guide organizations when adopting service management. They are not described as prescriptive or mandatory. Ref 4.3</p> <p>B. Incorrect. The guiding principles will be reviewed and adopted by organizations. The guiding principles guide organizations to make decisions and adopt actions. They do not mandate specific actions and decisions. Ref 4.3.8</p> <p>C. Incorrect. Organizations will use the principles relevant to them and are not mandated to use a given number. Ref 4.3</p> <p>D. Incorrect. The guiding principles guide organizations to make decisions and adopt actions. They are not mandatory. Ref 4.3</p>

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Q	A	Syllabus Ref	Rationale
19	B	7.1.b	<p>A. Incorrect. "It is essential that the correct change authority is assigned to each type of change to ensure that change enablement is both efficient and effective." For normal changes, "change models based on the type of change determine the roles for assessment and authorization". A single change authority is inadequate. Ref 5.2.4</p> <p>B. Correct. "It is essential that the correct change authority is assigned to each type of change to ensure that change enablement is both efficient and effective." For normal changes, "change models based on the type of change determine the roles for assessment and authorization". Ref 5.2.4</p> <p>C. Incorrect. Normal changes are "changes that need to be scheduled, assessed, and authorized following a process." Thus, all normal changes will be authorized by a change authority. Standard changes can be pre-authorized: "These are low-risk, pre-authorized changes that are well understood and fully documented, and can be implemented without needing additional authorization". Ref 5.2.4</p> <p>D. Incorrect. "Emergency changes are not typically included in a change schedule, and the process for assessment and authorization is expedited to ensure they can be implemented quickly." Therefore, all emergency changes will be authorized by a change authority. Ref 5.2.4</p>
20	C	6.1.f	<p>A. Incorrect. "The purpose of the change enablement practice is to maximize the number of successful service and product changes by ensuring that risks have been properly assessed, authorizing changes to proceed, and managing the change schedule." Ref 5.2.4</p> <p>B. Incorrect. "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". Ref 5.2.16</p> <p>C. Correct. "The purpose of the release management practice is to make new and changed services and features available for use". Ref 5.2.9</p> <p>D. Incorrect. "The purpose of the deployment management practice is to move new or changed hardware, software, documentation, processes, or any other component to live environments." Ref 5.3.1</p>

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Q	A	Syllabus Ref	Rationale
21	B	5.2.a	<p>A. Incorrect. 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." Ref 4.5.2</p> <p>B. Correct. 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." Ref 4.5.1</p> <p>C. Incorrect. 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." Ref 4.5.6</p> <p>D. Incorrect. 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." Ref 4.5.5</p>
22	D	5.1	<p>A. Incorrect. "Value chain activities use different combinations of ITIL practices". No practice belongs to a single value chain activity. Ref 4.5</p> <p>B. Incorrect. Service value streams are "specific combinations of activities and practices, and each one is designed for a particular scenario" and "Service relationships include service provision, service consumption, and service relationship management." Ref 4.5, 2.4.1</p> <p>C. Incorrect. Service value streams are "specific combinations of activities and practices, and each one is designed for a particular scenario." There can be multiple service value streams within one service value chain. Ref 4.5</p> <p>D. Correct. "These activities represent the steps an organization takes in the creation of value. Each activity transforms inputs into outputs. These inputs can be demand from outside the value chain or outputs of other activities. All the activities are interconnected, with each activity receiving and providing triggers for further action." Ref 4.5</p>

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Q	A	Syllabus Ref	Rationale
23	A	6.1.c	<p>A. Correct. "The purpose of the supplier management practice is to ensure that the organization's suppliers and their performance are managed appropriately to support the seamless provision of quality products and services". Ref 5.1.13</p> <p>B. Incorrect. "The purpose of the continual improvement practice is to align the organization's practices and services with changing business needs through the ongoing improvement of products, services, and practices, or any element involved in the management of products and services." This is not the purpose of the 'supplier management' practice. An organization is unlikely to change its practices to suit a supplier's needs. Ref 5.1.2</p> <p>C. Incorrect. "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". This is not the purpose of the 'supplier management' practice. Ref 5.1.9</p> <p>D. Incorrect. "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 is not the purpose of the 'supplier management' practice. Ref 5.2.11</p>
24	B	1.2.a	<p>A. Incorrect. The price of the service is only part of the costs imposed on the consumer. The cost of creating the service is a concern of the service provider, not the service consumer. The service consumer should also evaluate the costs removed from the consumer. Ref 2.5.2</p> <p>B. Correct. From the service consumer's perspective, there are two types of costs involved in service relationships:</p> <ol style="list-style-type: none"> 1. Costs removed from the service consumer by the service (a part of the value proposition). This may include costs of staff, technology, and other resources which are not needed by the consumer. 2. 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 any), plus other costs such as staff training, costs of network utilization, procurement, etc. Ref 2.5.2 <p>C. Incorrect. The cost of provisioning the service, and the cost of improving the service are concerns of the service provider, not the service consumer. The service consumer should evaluate the costs removed from the consumer and the costs imposed on the consumer. Ref 2.5.2</p> <p>D. Incorrect. The two types of cost that a service consumer should evaluate are costs removed from the consumer and costs imposed on consumers. The cost of hardware and software may be included in either of these, but will only be part of that cost. Ref 2.5.2</p>

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Q	A	Syllabus Ref	Rationale
25	C	6.1.n	<p>A. Incorrect. "The purpose of the problem management practice is to reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors." Ref 5.2.8</p> <p>B. Incorrect. "The purpose of the change enablement practice is to maximize the number of successful service and product changes by ensuring that risks have been properly assessed, authorizing changes to proceed, and managing the change schedule." Ref 5.2.4</p> <p>C. Correct. "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." Ref 5.2.14</p> <p>D. Incorrect. "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." Ref 5.2.15</p>
26	B	7.1.a	<p>A. Incorrect. The guidance describes how there are many methods that can be used for improvement initiatives and warns against using too many. It further states that "Different types of improvement may call for different improvement methods". Therefore, using a new method each time is inappropriate. Ref 5.1.2</p> <p>B. Correct. The guidance describes how there are many methods that can be used for improvement initiatives and warns against using too many. The guidance states "It is a good idea to select a few key methods that are appropriate to the types of improvement the organization typically handles and to cultivate those methods". Ref 5.1.2</p> <p>C. Incorrect. The guidance describes how there are many methods that can be used for improvement initiatives and warns against using too many. Ref 5.1.2</p> <p>D. Incorrect. The guidance describes how there are many methods that can be used for improvement initiatives and warns against using too many. It further states that "Different types of improvements may call for different improvement methods". Therefore, selecting a single method is inappropriate. Ref 5.1.2</p>

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Q	A	Syllabus Ref	Rationale
27	D	4.1	<p>A. Incorrect. The seven guiding principles are 'focus on value', 'start where you are', 'progress iteratively with feedback', 'collaborate and promote visibility', 'think and work holistically', 'keep it simple and practical' and 'optimize and automate'. Ref 4.3</p> <p>B. Incorrect. The four dimensions of service management are 'organizations and people', 'information and technology', 'partners and suppliers', and 'value streams and processes'. Ref 3.1-3.4</p> <p>C. Incorrect. The activities of the service value chain are 'plan', 'improve', 'engage', 'design and transition', 'obtain/build', and 'deliver and support'. Ref 4.5</p> <p>D. Correct. The components of the service value system are 'guiding principles', 'governance', 'service value chain', 'practices', and 'continual improvement'. Ref 4.1</p>
28	C	7.1.f	<p>A. Incorrect. "With increased automation, AI, robotic process automation (RPA), and chatbots, service desks are moving to provide more self-service logging and resolution directly via online portals and mobile applications." Ref 5.2.14</p> <p>B. Incorrect. "The service desk may not need to be highly technical, although some are." Ref 5.2.14</p> <p>C. Correct. "Another key aspect of a good service desk is its practical understanding of the wider organization, the business processes, and the users." Ref 5.2.14</p> <p>D. Incorrect. "In some cases, the service desk is a tangible team, working in a single location... In other cases, a virtual service desk allows agents to work from multiple locations, geographically dispersed." Ref 5.2.14</p>
29	C	2.2.c	<p>A. Incorrect. The 'Focus on value' guiding principle helps to ensure that you consider all aspects of value for the service consumer, as well as the service provider and other stakeholders. It does not specifically describe organizing work into smaller, manageable sections that can be executed and completed in a timely manner. Ref 4.3.1</p> <p>B. Incorrect. The 'Start where you are' guiding principle helps to avoid waste and leverage existing services, processes, people, tools, etc. It does not specifically describe organizing work into smaller, manageable sections that can be executed and completed in a timely manner. Ref 4.3.2</p> <p>C. Correct. The description of the 'progress iteratively with feedback' guiding principle says "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." Ref 4.3.3</p> <p>D. Incorrect. The 'collaborate and promote visibility' guiding principle helps to involve the right people and provide better decision-making and greater likelihood of success. It does not specifically describe organizing work into smaller, manageable sections that can be executed and completed in a timely manner. Ref 4.3.4</p>

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Q	A	Syllabus Ref	Rationale
30	A	7.1.b	<p>A. Correct. "These are low-risk, pre-authorized changes that are well understood and fully documented, and can be implemented without needing additional authorization. They are often initiated as service requests, but may also be operational changes. When the procedure for a standard change is created or modified, there should be a full risk assessment and authorization as for any other change. This risk assessment does not need to be repeated each time the standard change is implemented; it only needs to be done if there is a modification to the way it is carried out." Ref 5.2.4</p> <p>B. Incorrect. Normal changes are "changes that need to be scheduled, assessed, and authorized." Ref 5.2.4</p> <p>C. Incorrect. An emergency change that is needed to resolve an incident should still be assessed and authorized. "As far as possible, emergency changes should be subject to the same testing, assessment, and authorization as normal changes". Ref 5.2.4</p> <p>D. Incorrect. This is a description of a normal change: "changes that need to be scheduled, assessed, and authorized". Ref 5.2.4</p>
31	C	7.1.d	<p>A. Incorrect. A change request is only raised if it is justified. "Error control also includes identification of potential permanent solutions which may result in a change request for implementation of a solution, but only if this can be justified in terms of cost, risks, and benefits". Ref 5.2.8</p> <p>B. Incorrect. The 'incident management' practice restores service not the 'problem management' practice. "The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible.". Ref 5.2.5</p> <p>C. Correct. "An effective incident workaround can become a permanent way of dealing with some problems when resolving the problem is not viable or cost-effective. In this case, the problem remains in the known error status, and the documented workaround is applied should related incidents occur". Ref 5.2.8</p> <p>D. Incorrect. The problem record is not deleted. "Workarounds are documented in problem records". "... the problem remains in the known error status, and the documented workaround is applied should related incidents occur". Ref 5.2.8</p>

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Q	A	Syllabus Ref	Rationale
32	A	6.2.d	<p>A. Correct. A change is the “addition, modification, or removal of anything that could have a direct or indirect effect on services”. Ref 5.2.4</p> <p>B. Incorrect. “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.” Ref 5.2.11</p> <p>C. Incorrect. “The purpose of the release management practice is to make new and changed services and features available for use”. Ref 5.2.9</p> <p>D. Incorrect. “The purpose of the deployment management practice is to move new or changed hardware, software, documentation, processes, or any other component to live environments.” Ref 5.3.1</p>
33	A	6.2.b	<p>A. Correct. “An event can be defined as any change of state that has significance for the management of a service or other configuration item (CI)”. Ref 5.2.7</p> <p>B. Incorrect. The definition of a configuration item is “any component that needs to be managed in order to deliver an IT service.” Ref 5.2.11</p> <p>C. Incorrect. An incident is “An unplanned interruption to a service or reduction in the quality of a service.” Ref 5.2.5</p> <p>D. Incorrect. An IT asset is “Any financially valuable component that can contribute to the delivery of an IT product or service.” Ref 5.2.11</p>
34	C	1.2.d	<p>A. Incorrect. “A tangible or intangible deliverable of an activity” is the definition of an output, not an outcome. Ref 2.5.1</p> <p>B. Incorrect. “The functionality offered by a product or service to meet a particular need” is the definition of utility, not an outcome. The utility of the service may facilitate outcomes. Ref 2.5.4</p> <p>C. Correct. An outcome is “a result for a stakeholder enabled by one or more outputs”. The definition of a service describes how the value of a service enables value co-creation by facilitating outcomes that customers want to achieve. Ref 2.5.1</p> <p>D. Incorrect. A product is “a configuration of an organization’s resources designed to offer value for a consumer.” Ref 2.3.1</p>

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Q	A	Syllabus Ref	Rationale
35	D	3.1.b	<p>A. Incorrect. "The challenges of information management, such as those presented by security and regulatory compliance requirements, are also a focus of [the 'information and technology'] dimension". Ref 3.2</p> <p>B. Incorrect. "The technologies that support service management include, but are not limited to, workflow management systems, knowledge bases, inventory systems, communication systems, and analytical tools". Ref 3.2</p> <p>C. Incorrect. "The technologies that support service management include, but are not limited to, workflow management systems, knowledge bases, inventory systems, communication systems, and analytical tools." Ref 3.2</p> <p>D. Correct. "The organizations and people dimension of a service covers roles and responsibilities, formal organizational structures, culture, and required staffing and competencies, all of which are related to the creation, delivery, and improvement of a service." Ref 3.1</p>
36	D	7.1.d	<p>D. Correct.</p> <p>(1) "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."</p> <p>(4) "Error control also includes identification of potential permanent solutions which may result in a change request for implementation of a solution." Ref 5.2.8</p> <p>A, B C. Incorrect.</p> <p>(2) "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." Ref 5.2.16</p> <p>(3) "The purpose of the service level management practice is to set clear business-based targets for service levels, and to ensure that delivery of services is properly assessed, monitored, and managed against these targets." Ref 5.2.15</p>

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Q	A	Syllabus Ref	Rationale
37	B	2.2.f	<p>A. Incorrect. "Trying to provide a solution for every exception will often lead to over-complication. When creating a process or a service, designers need to think about exceptions, but they cannot cover them all. Instead, rules should be designed that can be used to handle exceptions generally." Ref 4.3.6</p> <p>B. Correct. The 'keep it simple and practical' guiding principle states: "When analyzing a practice, process, service, metric, or other improvement target, always ask whether it contributes to value creation." Ref 4.3.6.1</p> <p>C. Incorrect. "When designing, managing, or operating practices, be mindful of conflicting objectives ... the organization should agree on a balance between its competing objectives." Ref 4.3.6.2</p> <p>D. Incorrect. "It is better to start with an uncomplicated approach and then carefully add controls, activities, or metrics when it is seen that they are truly needed." Ref 4.3.6.1</p>
38	C	2.2.a	<p>A. Incorrect. It is essential to determine who the service consumer is, and what they value. The outcomes should be based on this understanding, rather than determining them. "The first step in focusing on value is knowing who is being served. In each situation the service provider must, therefore, determine who the service consumer is". Ref 4.3.1.1</p> <p>B. Incorrect. Suppliers and partners are possible stakeholders, but it is important to identify the service consumer first. "The first step in focusing on value is knowing who is being served. In each situation the service provider must, therefore, determine who the service consumer is". Ref 4.3.1.1</p> <p>C. Correct. "The first step in focusing on value is knowing who is being served. In each situation the service provider must, therefore, determine who the service consumer is". Ref 4.3.1.1</p> <p>D. Incorrect. The cost of providing the service may have some impact on the value from the perspective of the service provider. But "The first step in focusing on value is knowing who is being served. In each situation the service provider must, therefore, determine who the service consumer is". Ref 4.3.1.1</p>

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Q	A	Syllabus Ref	Rationale
39	D	1.3.a	<p>A. Incorrect. The combination of things described in this option may help to create value, but it is not an example of value. Value is “the perceived benefits, usefulness and importance of something.” Ref 2.1</p> <p>B. Incorrect. The combination of things described in this option may help to create an outcome, but it is not an example of an outcome. Outcome is “a result for a stakeholder enabled by one or more outputs.” Ref 2.5.1</p> <p>C. Incorrect. Warranty is “assurance that a product or service will meet agreed requirements.” New functionality may or may not affect warranty. Ref 2.5.4</p> <p>D. Correct. Service providers define combinations of goods, access to resources and service actions, to address the needs of different consumer groups. These combinations are called service offerings. Ref 2.3.2</p>
40	B	1.1.c	<p>A. Incorrect. An output is “A tangible or intangible deliverable of an activity”. Ref 2.5.1</p> <p>B. Correct. Warranty is “assurance that a product or service will meet agreed requirements.” Ref 2.5.4</p> <p>C. Incorrect. A risk is “a possible event that could cause harm or loss, or make it more difficult to achieve objectives”. Ref 2.5.3</p> <p>D. Incorrect. Utility is “the functionality offered by a product or service to meet a particular need”. Ref 2.5.4</p>

Sample Paper 2



The ITIL® 4 Foundation Examination

Sample Paper 2

Question Booklet

Multiple Choice

Examination Duration: 1 hour

Instructions

1. You should attempt all 40 questions. Each question is worth one mark.
2. There is only one correct answer per question.
3. You need to answer 26 questions correctly to pass the exam.
4. Mark your answers on the answer sheet provided. Use a pencil (NOT pen).
5. You have 1 hour to complete this exam.
6. This is a 'closed book' exam. No material other than the exam paper is allowed.

The ITIL® 4 Foundation Examination

- 1) What is the effect of increased automation on the 'service desk' practice?
 - A. Greater ability to focus on customer experience when personal contact is needed
 - B. Decrease in self-service incident logging and resolution
 - C. Increased ability to focus on fixing technology instead of supporting people
 - D. Elimination of the need to escalate incidents to support teams

- 2) Which term describes the functionality offered by a service?
 - A. Cost
 - B. Utility
 - C. Warranty
 - D. Risk

- 3) Which is the purpose of the 'monitoring and event management' practice?
 - A. To ensure that accurate and reliable information about the configuration of services is available when and where it is needed
 - B. To systematically observe services and service components, and record and report selected changes of state
 - C. To protect the information needed by the organization to conduct its business
 - D. To minimize the negative impact of incidents by restoring normal service operation as quickly as possible

- 4) What should all 'continual improvement' decisions be based on?
 - A. Details of how services are measured
 - B. Accurate and carefully analyzed data
 - C. An up-to-date balanced scorecard
 - D. A recent maturity assessment

The ITIL® 4 Foundation Examination

- 5) How do all value chain activities transform inputs to outputs?
- A. By determining service demand
 - B. By using a combination of practices
 - C. By using a single functional team
 - D. By implementing process automation
- 6) How does customer engagement contribute to the 'service level management' practice?
- 1. It captures information that metrics can be based on
 - 2. It ensures the organization meets defined service levels
 - 3. It defines the workflows for service requests
 - 4. It supports progress discussions
- A. 1 and 2
 - B. 2 and 3
 - C. 3 and 4
 - D. 1 and 4
- 7) What is the starting point for optimization?
- A. Securing stakeholder engagement
 - B. Understanding the vision and objectives of the organization
 - C. Determining where the most positive impact would be
 - D. Standardizing practices and services
- 8) Identify the missing words in the following sentence.

The purpose of the [?] is to ensure that the organization continually co-creates value with all stakeholders in line with the organization's objectives.

- A. 'focus on value' guiding principle
- B. four dimensions of service management
- C. service value system
- D. 'service request management' practice

The ITIL® 4 Foundation Examination

- 9) Which practice provides support for managing feedback, compliments and complaints from users?
- A. Change enablement
 - B. Service request management
 - C. Problem management
 - D. Incident management
- 10) Which joint activity performed by a service provider and service consumer ensures continual value co-creation?
- A. Service provision
 - B. Service consumption
 - C. Service offering
 - D. Service relationship management
- 11) Which practice may involve the initiation of disaster recovery?
- A. Incident management
 - B. Service request management
 - C. Service level management
 - D. IT asset management
- 12) What type of change is MOST likely to be managed by the 'service request management' practice?
- A. A normal change
 - B. An emergency change
 - C. A standard change
 - D. An application change

The ITIL® 4 Foundation Examination

- 13) Which guiding principle emphasizes the need to understand the flow of work in progress, identify bottlenecks, and uncover waste?
- A. Focus on value
 - B. Collaborate and promote visibility
 - C. Think and work holistically
 - D. Keep it simple and practical
- 14) What is a means of enabling value co-creation by facilitating outcomes that customers want to achieve?
- A. A service
 - B. An output
 - C. A practice
 - D. Continual improvement
- 15) Which statement about change authorization is CORRECT?
- A. A change authority should be assigned to each type of change and change model
 - B. Centralizing change authorization to a single person is the most effective means of authorization
 - C. The authorization of normal changes should be expedited to ensure they can be implemented quickly
 - D. Standard changes are high risk and should be authorized by the highest level of change authority
- 16) Which dimension of service management considers governance, management, and communication?
- A. Organizations and people
 - B. Information and technology
 - C. Partners and suppliers
 - D. Value streams and processes

The ITIL® 4 Foundation Examination

17) Identify the missing word in the following sentence.

A known error is a problem that has been [?] and has not been resolved.

- A. logged
- B. analyzed
- C. escalated
- D. closed

18) Which statement about known errors and problems is CORRECT?

- A. Known error is the status assigned to a problem after it has been analyzed
- B. A known error is the cause of one or more problems
- C. Known errors cause vulnerabilities, problems cause incidents
- D. Known errors are managed by technical staff, problems are managed by service management staff

19) What does the 'service request management' practice depend on for maximum efficiency?

- A. Compliments and complaints
- B. Self-service tools
- C. Processes and procedures
- D. Incident management

20) Which statement about the 'service desk' practice is CORRECT?

- A. It provides a link with stakeholders at strategic and tactical levels
- B. It carries out change assessment and authorization
- C. It investigates the cause of incidents
- D. It needs a practical understanding of the business processes

The ITIL® 4 Foundation Examination

- 21) Which practice ensures that accurate and reliable information is available about configuration items and the relationships between them?
- A. Service configuration management
 - B. Service desk
 - C. IT asset management
 - D. Monitoring and event management
- 22) Which practice has a purpose that includes restoring normal service operation as quickly as possible?
- A. Supplier management
 - B. Deployment management
 - C. Problem management
 - D. Incident management
- 23) Identify the missing word in the following sentence.
- A customer is the role that defines the requirements for a service and takes responsibility for the [?] of service consumption.
- A. outputs
 - B. outcomes
 - C. costs
 - D. risks
- 24) Which guiding principle describes the importance of doing something, instead of spending a long time analyzing different options?
- A. Optimize and automate
 - B. Start where you are
 - C. Focus on value
 - D. Progress iteratively with feedback

The ITIL® 4 Foundation Examination

- 25) What should be done for every problem?
- A. It should be diagnosed to identify possible solutions
 - B. It should be prioritized based on its potential impact and probability
 - C. It should be resolved so that it can be closed
 - D. It should have a workaround to reduce the impact
- 26) How should an organization include third-party suppliers in the continual improvement of services?
- A. Ensure suppliers include details of their approach to service improvement in contracts
 - B. Require evidence that the supplier uses agile development methods
 - C. Require evidence that the supplier implements all improvements using project management practices
 - D. Ensure that all supplier problem management activities result in improvements
- 27) What considerations influence the supplier strategy of an organization?
- A. Contracts and agreements
 - B. Type of cooperation with suppliers
 - C. Corporate culture of the organization
 - D. Level of formality
- 28) What is a problem?
- A. An addition or modification that could have an effect on services
 - B. Any change of state that has significance for the management of a configuration item
 - C. A cause or potential cause of one or more incidents
 - D. An unplanned reduction in the quality of a service

The ITIL® 4 Foundation Examination

- 29) What is the purpose of the 'relationship management' practice?
- A. To align the organization's practices and services with changing business needs
 - B. To establish and nurture the links between the organization and its stakeholders at strategic and tactical levels
 - C. To reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors
 - D. To minimize the negative impact of incidents by restoring normal service operation as quickly as possible
- 30) Which is intended to help an organization adopt and adapt ITIL guidance?
- A. The four dimensions of service management
 - B. The guiding principles
 - C. The service value chain
 - D. Practices
- 31) What is an output?
- A. A change of state that has significance for the management of a configuration item
 - B. A possible event that could cause harm or loss
 - C. A result for a stakeholder
 - D. Something created by carrying out an activity
- 32) What is the reason for using a balanced bundle of service metrics?
- A. It reduces the number of metrics that need to be collected
 - B. It reports each service element separately
 - C. It provides an outcome-based view of services
 - D. It facilitates the automatic collection of metrics

The ITIL® 4 Foundation Examination

- 33) Why should incidents be prioritized?
- A. To help automated matching of incidents to problems or known errors
 - B. To identify which support team the incident should be escalated to
 - C. To ensure that incidents with the highest business impact are resolved first
 - D. To encourage a high level of collaboration within and between teams
- 34) Which practice has a purpose that includes helping the organization to maximize value, control costs and manage risks?
- A. Relationship management
 - B. IT asset management
 - C. Release management
 - D. Service desk
- 35) Why should service desk staff detect recurring issues?
- A. To help identify problems
 - B. To escalate incidents to the correct support team
 - C. To ensure effective handling of service requests
 - D. To engage the correct change authority
- 36) Which value chain activity communicates the current status of all four dimensions of service management?
- A. Improve
 - B. Engage
 - C. Obtain/build
 - D. Plan

The ITIL® 4 Foundation Examination

- 37) Which guiding principle is PRIMARILY concerned with consumer's revenue and growth?
- A. Keep it simple and practical
 - B. Optimize and automate
 - C. Progress iteratively with feedback
 - D. Focus on value
- 38) Which practice provides visibility of the organization's services by capturing and reporting on service performance?
- A. Service desk
 - B. Service level management
 - C. Service request management
 - D. Service configuration management
- 39) Which is the BEST example of an emergency change?
- A. The implementation of a planned new release of a software application
 - B. A low-risk computer upgrade implemented as a service request
 - C. The implementation of a security patch to a critical software application
 - D. A scheduled major hardware and software implementation
- 40) Which guiding principle recommends assessing the current state and deciding what can be reused?
- A. Focus on value
 - B. Start where you are
 - C. Collaborate and promote visibility
 - D. Progress iteratively with feedback



The ITIL® 4 Foundation Examination

Sample Paper 2

Answers and Rationales

The ITIL® 4 Foundation Examination

For exam paper: EN_ITIL4_FND_2019_SamplePaper2_QuestionBk_v1.2

Q	A	Syllabus Ref	Rationale
1	A	7.1.f	<p>A. Correct. "With increased automation... The impact on service desks is reduced phone contact, less low-level work, and a greater ability to focus on excellent CX when personal contact is needed". Ref 5.2.14</p> <p>B. Incorrect. The effect of automation is to increase self-service, not to decrease it. "With increased automation, AI, robotic process automation (RPA), and chatbots, service desks are moving to provide more self-service logging and resolution directly via online portals and mobile applications". Ref 5.2.14</p> <p>C. Incorrect. The opposite is true. "With increased automation and the gradual removal of technical debt, the focus of the service desk is to provide support for 'people and business' rather than simply technical issues". Ref 5.2.14</p> <p>D. Incorrect. The use of automation will not eliminate the need to escalate incidents. "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". Ref 5.2.14</p>
2	B	1.2.g	<p>A. Incorrect. Cost is "The amount of money spent on a specific activity or resource." Ref 2.5.2</p> <p>B. Correct. Utility is "The functionality offered by a product or service." Ref 2.5.4</p> <p>C. Incorrect. Warranty is "Assurance that a product or service will meet agreed requirements". Ref 2.5.4</p> <p>D. Incorrect. A risk is "A possible event that could cause harm or loss, or make it more difficult to achieve objectives". Ref 2.5.3</p>
3	B	6.1.e	<p>A. Incorrect. "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". Ref 5.2.11</p> <p>B. Correct. "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". Ref 5.2.7</p> <p>C. Incorrect. "The purpose of the information security management practice is to protect the information needed by the organization to conduct its business". Ref 5.1.3</p> <p>D. Incorrect. "The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible". Ref 5.2.5</p>

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Q	A	Syllabus Ref	Rationale
4	B	7.1.a	<p>A. Incorrect. How services are measured is important, however only accurate data can drive fact-based decisions for improvement. Ref 5.1.2</p> <p>B. Correct. "Accurate data, carefully analyzed and understood, is the foundation of fact-based decision-making for improvement." The 'continual improvement' practice should be supported by relevant data sources and by skilled data analytics to ensure that each potential improvement situation is sufficiently understood. Ref 5.1.2</p> <p>C. Incorrect. A balanced scorecard is one input to making a decision, but on its own it does not serve as the foundation for fact-based decisions. Ref 5.1.2</p> <p>D. Incorrect. Maturity assessments are useful but they provide only one piece of information, as opposed to providing the foundations for decision-making in the continual improvement practice. Ref 5.1.2</p>
5	B	5.1	<p>A. Incorrect. Demand is the input to the service value chain. Value chain 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." Ref 4.5</p> <p>B. Correct. "To convert inputs into outputs, the value chain activities use different combinations of ITIL practices." Ref 4.5</p> <p>C. Incorrect. It uses various resources from different practices when needed. "To convert inputs into outputs, the value chain activities use different combinations of ITIL practices (sets of resources for performing certain types of work), drawing on internal or third-party resources, processes, skills, and competencies as required." Ref 4.5</p> <p>D. Incorrect. The 'optimize and automate' guiding principle recommends that activities should be automated where this is practical but the service value chain does not require automation. "Technology should not always be relied upon without the capability of human intervention, as automation for automation's sake can increase costs and reduce organizational robustness and resilience." Ref 4.3.7</p>

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Q	A	Syllabus Ref	Rationale
6	D	7.1.g	<p>D. Correct.</p> <p>(1) (4) "Customer engagement: This involves initial listening, discovery, and information capture on which to base metrics, measurement, and ongoing progress discussions." Ref 5.2.15</p> <p>A, B, C. Incorrect.</p> <p>(2) Service level management "ensures the organization meets the defined service levels through the collection, analysis, storage, and reporting of the relevant metrics for the identified services," not just through customer engagement. Ref 5.2.15</p> <p>(3) It may define the requirements for service requests but defining the workflow is part of 'service request management'. "When new service requests need to be added to the service catalogue, existing workflow models should be leveraged whenever possible." Ref 5.2.16</p>
7	B	2.2.g	<p>A. Incorrect. This is step 4 of the principle 'optimize and automate': "Ensure the optimization has the appropriate level of stakeholder engagement and commitment." Ref 4.3.7.1</p> <p>B. Correct. The first step of the principle 'optimize and automate' is: "Understand and agree the context in which the proposed optimization exists. This includes agreeing the overall vision and objectives of the organization." Ref 4.3.7.1</p> <p>C. Incorrect. This is step 2 of the principle 'optimize and automate': "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." Ref 4.3.7.1</p> <p>D. Incorrect. This is step 3 of the principle 'optimize and automate': "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." Ref 4.3.7.1</p>

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Q	A	Syllabus Ref	Rationale
8	C	4.1	<p>A. Incorrect. The 'focus on value' guiding principle guides an organization to consider the needs of the service consumer. It cannot ensure that the organization continually co-creates value with all stakeholders. Ref 4.3.1</p> <p>B. Incorrect. The four dimensions "represent perspectives which are relevant to the whole SVS, including the entirety of the service value chain and all ITIL practices." They do not ensure that the organization continually co-creates value with all stakeholders. Ref 3</p> <p>C. Correct. "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." Ref 4.1</p> <p>D. Incorrect. 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." It doesn't ensure that the organization continually co-creates value with all stakeholders. Ref 5.2.16</p>
9	B	7.1.e	<p>A. Incorrect. "The purpose of the change enablement practice is to maximize the number of successful service and product changes by ensuring that risks have been properly assessed, authorizing changes to proceed, and managing the change schedule." Ref 5.2.4</p> <p>B. Correct. "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," and "Each service request may include one or more of the following: ... feedback, compliments, and complaints (for example, complaints about a new interface or compliments to a support team)." Ref 5.2.16</p> <p>C. Incorrect. "The purpose of the problem management practice is to reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors." Ref 5.2.8</p> <p>D. Incorrect. "The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible." Ref 5.2.5</p>

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Q	A	Syllabus Ref	Rationale
10	D	1.3.b	<p>A. Incorrect. Service provision is not a joint activity; it is performed by a service provider. Ref 2.4.1</p> <p>B. Incorrect. Service consumption is not a joint activity; it is performed by a service consumer. Ref 2.4.1</p> <p>C. Incorrect. Service offering is not an activity; it is "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". Ref 2.3.2</p> <p>D. Correct. Service relationship management is "Joint activities performed by a service provider and a service consumer to ensure continual value co-creation based on agreed and available service offerings". Ref 2.4.1</p>
11	A	7.1.c	<p>A. Correct. "In some extreme cases, disaster recovery plans may be invoked to resolve an incident." Ref 5.2.5</p> <p>B. Incorrect. "Service requests are a normal part of service delivery and are not a failure or degradation of service, which are handled as incidents." Ref 5.2.16</p> <p>C. Incorrect. "The purpose of the service level management practice is to set clear business-based targets for service levels, and to ensure that delivery of services is properly assessed, monitored, and managed against these targets." Ref 5.2.15</p> <p>D. Incorrect. "The purpose of the IT asset management practice is to plan and manage the full lifecycle of all IT assets." Asset management "includes the acquisition, operation, care and disposal of organizational assets." Ref 5.2.6</p>
12	C	7.1.e	<p>A. Incorrect. "Normal changes: These are changes that need to be scheduled, assessed, and authorized". This is supported by the 'change enablement' practice, not by 'service request management'. Ref 5.2.4</p> <p>B. Incorrect. "As far as possible, emergency changes should be subject to the same testing, assessment, and authorization as normal changes." This is supported by the 'change enablement' practice, not by 'service request management'. Ref 5.2.4</p> <p>C. Correct. "Fulfilment of service requests may include changes to services or their components; usually these are standard changes." and "Standard changes: These are low-risk, pre-authorized changes that are well understood and fully documented, and can be implemented without needing additional authorization. They are often initiated as service requests". Ref 5.2.16, 5.2.4</p> <p>D. Incorrect. "The scope of change enablement is defined by each organization. It will typically include all IT infrastructure, applications, documentation, processes". Some application changes may be managed as standard changes, but others will be normal or emergency changes and will be supported by the 'change enablement' practice. Ref 5.2.4</p>

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Q	A	Syllabus Ref	Rationale
13	B	2.2.d	<p>A. Incorrect. 'Focus on value' states that all improvement work should deliver measurable value for customers and other stakeholders, but it does not specifically highlight the need to understand the flow of work, identify bottlenecks, and uncover waste. Ref 4.3.1</p> <p>B. Correct. 'Collaborate and promote' visibility states "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; and uncovering waste". Ref 4.3.4.3</p> <p>C. Incorrect. 'Think and work holistically' states that the organization should work in an integrated way on the whole, not just on the parts, but it does not specifically highlight the need to understand the flow of work, identify bottlenecks, and uncover waste. Ref 4.3.5</p> <p>D. Incorrect. 'Keep it simple and practical' states that the organization should use the minimum number of steps, and eliminate steps that produce no useful outcome. This does imply that you should uncover waste, but it does not specifically highlight the need to understand the flow of work and identify bottlenecks. Ref 4.3.6</p>
14	A	1.1.a	<p>A. Correct. A service is "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." Ref 2.3.1</p> <p>B. Incorrect. An output is "A tangible or intangible deliverable of an activity." Ref 2.5.1</p> <p>C. Incorrect. Practices are "Sets of organizational resources designed for performing work or accomplishing an objective." Ref 4.1</p> <p>D. Incorrect. 'Continual improvement' is a practice "to align the organization's practices and services with changing business needs." Ref 5.1.2</p>

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Q	A	Syllabus Ref	Rationale
15	A	7.1.b	<p>A. Correct. "It is essential that the correct change authority is assigned to each type of change to ensure that change enablement is both efficient and effective." Ref 5.2.4</p> <p>B. Incorrect. There is no rule that centralizing change authority is the most effective method. In some cases, decentralizing decision-making is better: "In high-velocity organizations, it is a common practice to decentralize change approval, making the peer review a top predictor of high performance." Ref 5.2.4</p> <p>C. Incorrect. This answer confuses normal changes with emergency changes. "Emergency changes are not typically included in a change schedule, and the process for assessment and authorization is expedited to ensure they can be implemented quickly." Ref 5.2.4</p> <p>D. Incorrect. Standard changes are usually low risk and pre-authorized. "These are low-risk, pre-authorized changes that are well understood and fully documented, and can be implemented without needing additional authorization." Ref 5.2.4</p>
16	A	3.1.a	<p>A. Correct. "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." Ref 3.1</p> <p>B. Incorrect. 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." Ref 3.2</p> <p>C. Incorrect. "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." Ref 3.3</p> <p>D. Incorrect. 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." Ref 3.4</p>

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Q	A	Syllabus Ref	Rationale
17	B	6.2.g	<p>A. Incorrect. A known error is "A problem that has been analyzed but has not been resolved". If a problem has been logged but not analyzed, it would not be considered a known error. Ref 5.2.8</p> <p>B. Correct. A known error is "A problem that has been analyzed but has not been resolved". Ref 5.2.8</p> <p>C. Incorrect. A known error is "A problem that has been analyzed but has not been resolved" – it may or may not be escalated. Ref 5.2.8</p> <p>D. Incorrect. A known error is "A problem that has been analyzed but has not been resolved". If a problem has been closed, it would not be considered a known error. Ref 5.2.8</p>
18	A	7.1.d	<p>A. Correct. Known errors "are problems where initial analysis has been completed; it usually means that faulty components have been identified... the problem remains in the known error status, and the documented workaround is applied". Ref 5.2.8</p> <p>B. Incorrect. A problem is "A cause, or potential cause, of one or more incidents." A known error is "A problem that has been analyzed but has not been resolved." Known errors do not cause problems; they are problems that have been analyzed but not yet resolved. Ref 5.2.8</p> <p>C. Incorrect. Both known errors and problems cause incidents. A problem is "A cause, or potential cause, of one or more incidents." A known error is "A problem that has been analyzed but has not been resolved." Both problems and known errors may be vulnerabilities: "Every service has errors, flaws, or vulnerabilities that may cause incidents." Ref 5.2.8</p> <p>D. Incorrect. "Many problem management activities rely on the knowledge and experience of staff, rather than on following detailed procedures. People responsible for diagnosing problems often need the ability to understand complex systems, and to think about how different failures might have occurred. Developing this combination of analytic and creative ability requires mentoring and time, as well as suitable training." These people might work in a technical role, or in a service management role. Ref 5.2.8</p>
19	C	7.1.e	<p>A. Incorrect. Compliments and complaints are examples of service requests. The efficiency of the practice does not depend on them. Ref 5.2.16</p> <p>B. Incorrect. Many service requests are initiated and fulfilled using self-service tools, but not all are appropriate for this approach. Ref 5.2.16</p> <p>C. Correct. "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." Ref 5.2.16</p> <p>D. Incorrect. "Service requests are a normal part of service delivery and are not a failure or degradation of service, which are handled as incidents." Ref 5.2.16</p>

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Q	A	Syllabus Ref	Rationale
20	D	7.1.f	<p>A. Incorrect. This is a purpose of 'relationship management': "to establish and nurture the links between the organization and its stakeholders at strategic and tactical levels." Ref 5.1.9</p> <p>B. Incorrect. "Service desks provide a clear path for users to report issues, queries, and requests, and have them acknowledged, classified, owned, and actioned." This does not include the assessment and authorization of changes. This will be provided by the 'change enablement' practice. Ref 5.2.14</p> <p>C. Incorrect. Investigating the cause of incidents is a purpose of 'problem management'. "The purpose of the problem management practice is to reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents." Ref 5.2.8</p> <p>D. Correct. "Another key aspect of a good service desk is its practical understanding of the wider organization, the business processes, and the users." Ref 5.2.14</p>
21	A	6.1.g	<p>A. Correct. "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". Ref 5.2.11</p> <p>B. Incorrect. "The purpose of the service desk practice is to capture demand for incident resolution and service requests". Ref 5.2.14</p> <p>C. Incorrect. "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 disposal of assets". Ref 5.2.6</p> <p>D. Incorrect. "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". Ref 5.2.7</p>

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Q	A	Syllabus Ref	Rationale
22	D	6.1.k	<p>A. Incorrect. "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." Ref 5.1.13</p> <p>B. Incorrect. "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." Ref 5.3.1</p> <p>C. Incorrect. "The purpose of the problem management practice is to reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors." Ref 5.2.8</p> <p>D. Correct. "The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible." Ref 5.2.5</p>
23	B	1.1.d	<p>A. Incorrect. "Customer: The role that defines the requirements for a service and takes responsibility for the outcomes of service consumption." Ref 2.2.2</p> <p>B. Correct. "Customer: The role that defines the requirements for a service and takes responsibility for the outcomes of service consumption." Ref 2.2.2</p> <p>C. Incorrect. "Customer: The role that defines the requirements for a service and takes responsibility for the outcomes of service consumption." Ref 2.2.2</p> <p>D. Incorrect. "Customer: The role that defines the requirements for a service and takes responsibility for the outcomes of service consumption." Ref 2.2.2</p>
24	D	2.2.c	<p>A. Incorrect. 'Optimize and automate' says that you should understand and optimize something before you automate it. "Attempting to automate something that is complex or suboptimal is unlikely to achieve the desired outcome." Ref 4.3.7.3</p> <p>B. Incorrect. 'Start where you are' says that you should understand the current situation before making changes. "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." Ref 4.3.2.1</p> <p>C. Incorrect. 'Focus on value' says that each improvement iteration should create value for stakeholders "All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders." Ref 4.3.1</p> <p>D. Correct. 'Progress iteratively with feedback' recommends comprehending "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 has sometimes been called 'analysis paralysis', in which so much time is spent analyzing the situation that nothing ever gets done about it." Ref 4.3.3.3</p>

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Q	A	Syllabus Ref	Rationale
25	B	7.1.d	<p>A. Incorrect. "It is not essential to analyze every problem; it is more valuable to make significant progress on the highest-priority problems than to investigate every minor problem that the organization is aware of." Ref 5.2.8</p> <p>B. Correct. "Problems are prioritized for analysis based on the risk that they pose, and are managed as risks based on their potential impact and probability." Ref 5.2.8</p> <p>C. Incorrect. "Error control also includes identification of potential permanent solutions which may result in a change request for implementation of a solution, but only if this can be justified in terms of cost, risks, and benefits." Ref 5.2.8</p> <p>D. Incorrect. "When a problem cannot be resolved quickly, it is often useful to find and document a workaround for future incidents, based on an understanding of the problem." Ref 5.2.8</p>
26	A	7.1.a	<p>A. Correct "When contracting for a supplier's service, the contract should include details of how they will measure, report on, and improve their services over the life of the contract." Ref 5.1.2</p> <p>B. Incorrect. Agile methods do take an incremental approach, as they "focus on making improvements incrementally at a cadence"; however, this alone would not guarantee a supplier is committed to continual improvement. Ref 5.1.2</p> <p>C. Incorrect. Many improvement initiatives use project management practices, but it may not be practical to do so for some. "Many improvement initiatives will use project management practices to organize and manage their execution", but not all improvement initiatives. Ref 5.1.2</p> <p>D. Incorrect. Many 'problem management' activities will result in improvements, however not all supplier problems will result in improvements, so this is not a sensible approach. "It is not essential to analyze every problem; it is more valuable to make significant progress on the highest-priority problems than to investigate every minor problem that the organization is aware of." Ref 5.2.8</p>

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Q	A	Syllabus Ref	Rationale
27	C	3.1.c	<p>A. Incorrect. "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." These considerations depend on the supplier strategy, rather than influence it. Ref 3.3</p> <p>B. Incorrect. The type of cooperation with suppliers depends on the supplier strategy, rather than influence it. The forms of cooperation "are not fixed but exist as a spectrum. An organization acting as a service provider will have a position on this spectrum, which will vary depending on its strategy and objectives for customer relationships." Ref 3.3</p> <p>C. Correct. "Corporate culture: some organizations have a historical preference for one approach over another. Long-standing cultural bias is difficult to change without compelling reasons." Ref 3.3</p> <p>D. Incorrect. The level of formality depends on the form of cooperation, which in turn depends on the supplier strategy. The forms of cooperation "are not fixed but exist as a spectrum. An organization acting as a service provider will have a position on this spectrum, which will vary depending on its strategy and objectives for customer relationships." Ref 3.3</p>
28	C	6.2.f	<p>A. Incorrect. Change is "The addition, modification, or removal of anything that could have a direct or indirect effect on services." Ref 5.2.4</p> <p>B. Incorrect. An event is "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." Ref 5.2.7</p> <p>C. Correct. A problem is "a cause, or potential cause, of one or more incidents." Ref 5.2.8</p> <p>D. Incorrect. An incident is "An unplanned interruption to a service or reduction in the quality of a service." Ref 5.2.5</p>

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Q	A	Syllabus Ref	Rationale
29	B	6.1.b	<p>A. Incorrect. "The purpose of the continual improvement practice is to align the organization's practices and services with changing business needs through the ongoing improvement of products, services, and practices, or any element involved in the management of products and services." Ref 5.1.2</p> <p>B. Correct. "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." Ref 5.1.9</p> <p>C. Incorrect. "The purpose of the problem management practice is to reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors." Ref 5.2.8</p> <p>D. Incorrect. "The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible." Ref 5.2.5</p>
30	B	2.1	<p>A. Incorrect. "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." Adopting ITIL to address these four dimensions of ITSM helps to facilitate value but does not help the organization to adapt ITIL guidance to its organization. Ref 3</p> <p>B. Correct. The guiding principles can "guide organizations in their work as they adopt a service management approach and adapt ITIL guidance to their own specific needs and circumstances." Ref 4.3</p> <p>C. Incorrect. "Service value chain: A set of interconnected activities that an organization performs to deliver a valuable product or service to its consumers and to facilitate value realization." Adopting a service value chain helps to facilitate value but does not help the organization to adapt ITIL guidance to its organization. Ref 4.1</p> <p>D. Incorrect. Practices are sets of organizational resources designed for performing work or accomplishing an objective. They do not help the organization to adapt ITIL guidance to its organization. Ref 4.1</p>
31	D	1.2.e	<p>A. Incorrect. An event is: "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." Ref 5.2.7</p> <p>B. Incorrect. Risk is "A possible event that could cause harm or loss, or make it more difficult to achieve objectives." Ref 2.5.3</p> <p>C. Incorrect. An outcome is "A result for a stakeholder enabled by one or more outputs." Ref 2.5.1</p> <p>D. Correct. An output is "A tangible or intangible deliverable of an activity". Ref 2.5.1</p>

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Q	A	Syllabus Ref	Rationale
32	C	7.1.g	<p>A. Incorrect. There would not be fewer metrics gathered, although it would combine and aggregate them to provide clearer information. "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." Ref 5.2.15</p> <p>B. Incorrect. The reason is to reduce reporting of the individual system-based metrics which are not meaningful to the customer. "They should relate to defined outcomes and not simply operational metrics. This can be achieved with balanced bundles of metrics." Ref 5.2.15.1</p> <p>C. Correct. "They should relate to defined outcomes and not simply operational metrics. This can be achieved with balanced bundles of metrics." Ref 5.2.15.1</p> <p>D. Incorrect. This does not affect the mechanism for metric collection. "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." Ref 5.2.15</p>
33	C	7.1.c	<p>A. Incorrect. "Modern IT service management tools can provide automated matching of incidents to other incidents, problems or known errors," but this is not dependent on the incident priority, which is used to ensure that incidents with the highest business impact are resolved first. Ref 5.2.5</p> <p>B. Incorrect. "More complex incidents will usually be escalated to a support team for resolution. Typically, the routing is based on the incident category, which should help to identify the correct team." Ref 5.2.5</p> <p>C. Correct. "Incidents are prioritized based on an agreed classification to ensure that incidents with the highest business impact are resolved first." Ref 5.2.5</p> <p>D. Incorrect. "Effective incident management often requires a high level of collaboration within and between teams." However, this is not dependent on the incident priority, which is used to "ensure that incidents with the highest business impact are resolved first". Ref 5.2.5</p>
34	B	6.1.d	<p>A. Incorrect. "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." Ref 5.1.9</p> <p>B. Correct. "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." Ref 5.2.6</p> <p>C. Incorrect. "The purpose of the release management practice is to make new and changed services and features available for use." Ref 5.2.9</p> <p>D. Incorrect. "The purpose of the service desk practice is to capture demand for incident resolution and service requests." Ref 5.2.14</p>

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Q	A	Syllabus Ref	Rationale
35	A	7.1.d	<p>A. Correct. "Problem identification activities identify and log problems. These include:... detection of duplicate and recurring issues by users, service desk, and technical support staff." Ref 5.2.8</p> <p>B. Incorrect. Identifying the correct team for escalating an incident is based on incident category, not recurring incidents. "More complex incidents will usually be escalated to a support team for resolution. Typically, the routing is based on the incident category, which should help to identify the correct team." Ref 5.2.5</p> <p>C. Incorrect. "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." Detection of recurring issues by the service desk is not required to do this. Ref 5.2.16</p> <p>D. Incorrect. "The person or group who authorizes a change is known as a change authority. It is essential that the correct change authority is assigned to each type of change to ensure that change enablement is both efficient and effective." This assignment is based on the type of change, and detection of recurring issues by the service desk is not required to do this. Ref 5.2.4</p>
36	D	5.2.a	<p>A. Incorrect. "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." Ref 4.5.2</p> <p>B. Incorrect. "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." Ref 4.5.3</p> <p>C. Incorrect. "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." Ref 4.5.5</p> <p>D. Correct. "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." Ref 4.5.1</p>

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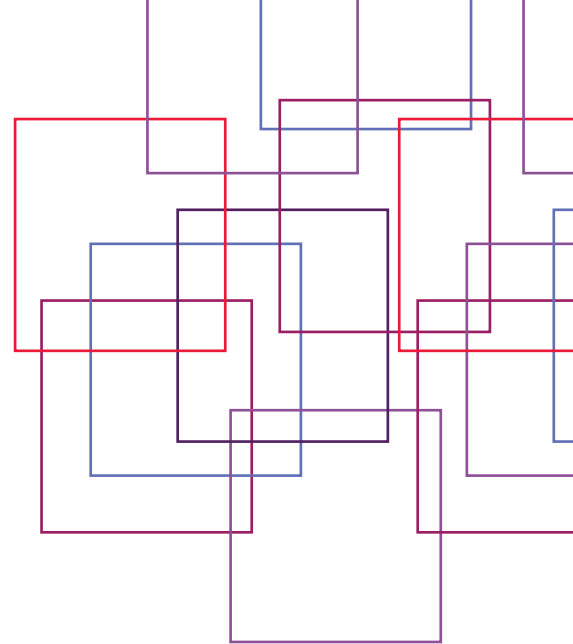
Q	A	Syllabus Ref	Rationale
37	D	2.2.a	<p>A. Incorrect. The emphasis of this principle is on how to approach activities: "Always use the minimum number of steps to accomplish an objective. Outcome-based thinking should be used to produce practical solutions that deliver valuable outcomes." Ref 4.3.6</p> <p>B. Incorrect. This principle is focused on increased effectiveness and efficiency. "Organizations must maximize the value of the work carried out by their human and technical resources." Ref 4.3.7</p> <p>C. Incorrect. This shows how to approach making changes. "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." Ref 4.3.3</p> <p>D. Correct. "This section is mostly focused on the creation of value for service consumers... This value may come in various forms, such as revenue, customer loyalty, lower cost, or growth opportunities." Ref 4.3.1</p>
38	B	7.1.g	<p>A. Incorrect. "Service desks provide a clear path for users to report issues, queries, and requests, and have them acknowledged, classified, owned, and actioned." Ref 5.2.14</p> <p>B. Correct. "Service level management provides the end-to-end visibility of the organization's services. To achieve this, service level management:... captures and reports on service issues, including performance against defined service levels." Ref 5.2.14</p> <p>C. Incorrect. "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." Ref 5.2.15</p> <p>D. Incorrect. "Service configuration management collects and manages information about a wide variety of CIs, typically including hardware, software, networks, buildings, people, suppliers, and documentation." Ref 5.2.11</p>

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Q	A	Syllabus Ref	Rationale
39	C	7.1.b	<p>A. Incorrect. Emergency changes "are changes that must be implemented as soon as possible; for example, to resolve an incident or implement a security patch." The implementation of a planned new release of a software application does not fall into this category and would be planned and implemented as a normal change. Ref 5.2.4</p> <p>B. Incorrect. Emergency changes "are changes that must be implemented as soon as possible; for example, to resolve an incident or implement a security patch." A low-risk computer upgrade implemented as a service request does not fall into this category. Using a service request implies that this is a standard change, as standard changes "are often initiated as service requests." Ref 5.2.4</p> <p>C. Correct. Emergency changes are "Changes that must be implemented as soon as possible; for example, to resolve an incident or implement a security patch." Ref 5.2.4</p> <p>D. Incorrect. Emergency changes "must be implemented as soon as possible; for example, to resolve an incident or implement a security patch. Emergency changes are not typically included in a change schedule, and the process for assessment and authorization is expedited to ensure they can be implemented quickly." A scheduled major hardware and software implementation does not fall into this category and would be planned and implemented as a normal change. Ref 5.2.4</p>
40	B	2.2.b	<p>A. Incorrect. The guiding principle 'focus on value' advises "All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders." This is not the main concern of the guiding principle 'start where you are'. Ref 4.3.1</p> <p>B. Correct. The guiding principle 'start where you are' advises "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." Ref 4.3.2.3</p> <p>C. Incorrect. The focus of the guiding principle 'collaborate and promote visibility' is on involving the right stakeholders and communicating with them. "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". This is not the main concern of the guiding principle 'start where you are'. Ref 4.3.4</p> <p>D. Incorrect. The main concern of the guiding principle 'progress iteratively with feedback' is breaking initiatives into smaller parts. "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." This is not the main concern of the guiding principle 'start where you are'. Ref 4.3.3</p>

Appendix A

ANSWERS TO EXERCISES



Module 2: Service Management: Key Concepts

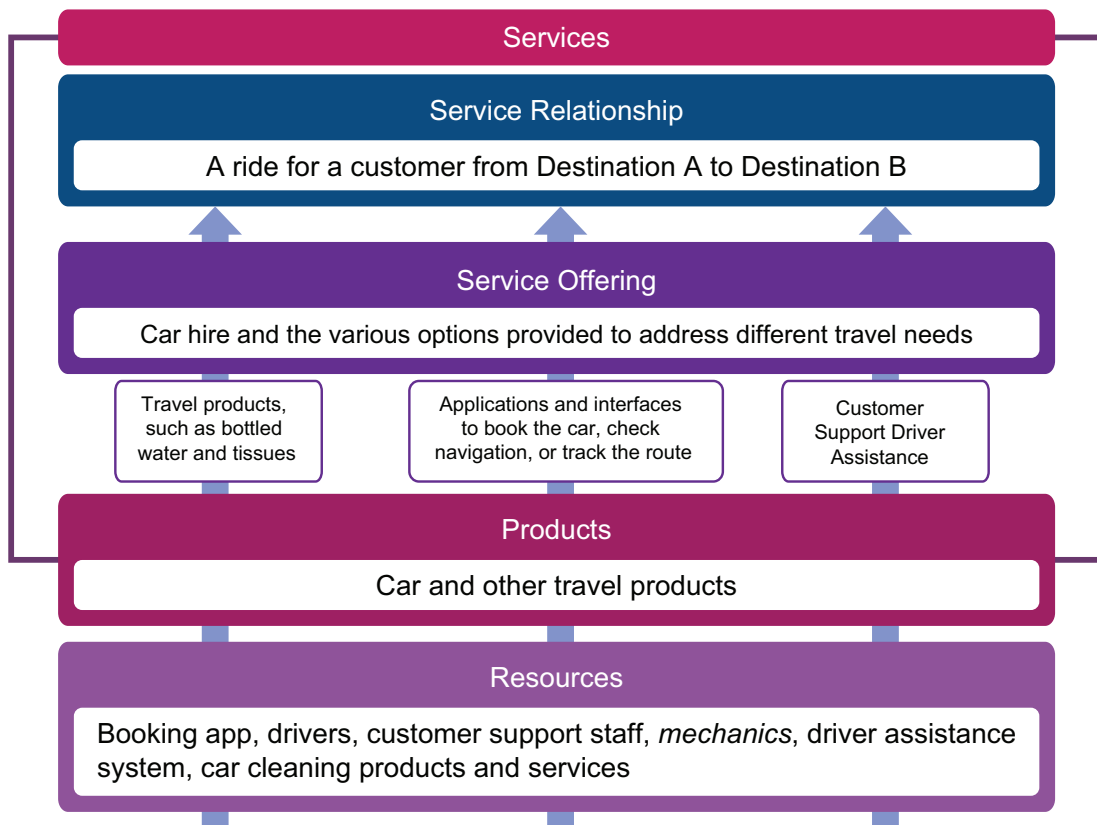
Value from the Perspective of Different Stakeholders

The following table presents a **sample answer** to identify some key stakeholders of Axle Car Hire.

Stakeholder	Stakeholder (Example)	Value (Example)
Service consumers	Easy access to a vehicle when required, without the overall expense of car ownership	
	Users: Passengers (such as Yoshi and Farooq) in the Axle's vehicles	Yoshi: Ease and freedom of movement and flexibility in travel Farooq: On-demand and within budget availability of cars
	Sponsor: Amelia from Food for Fuel	Ability to reach their customers Reduced costs and risks
Service provider	Axle Car Hire	Revenue received by hiring the cars
Partners and Suppliers	Go Go Gas, Craig Cleaning, and Internet service providers and developers	Increase in business Revenue received from Axle Car Hire

Case Study Discussion: Service Relationship, Service Offering, and Products

The following figure presents a sample answer to identify example of service relationship, service offerings, products and resources for Axle Car Hire.



Case Study Discussion: Outputs and Outcomes

In relation to Axle Car Hire, the following deliverable are identified as output and outcome.

1. Car arrives to pick the passenger for the ride. - Output
2. Passengers receive complimentary travel products, including bottled water, tissues, badge holders for parking permits, and baby seats. - Output
3. Passengers and driver enjoy a safe and secure journey through Axle Aware system. - Outcome
4. The booking app enables the passenger to use the GPS. - Output
5. The vehicle return is self service and easy to use. - Outcome

Exercise: Multiple-Choice Questions

- Question 1: D (All of the above)
- Question 2: C (Service)
- Question 3: C (Goods)
- Question 4: A (A result for a stakeholder enabled by one or more outputs)

Module 3: Service Management: Key Concepts

Activity: Recap of Guiding Principles

As multiple principles can apply to a specific characteristic, the activity may have multiple correct answers. The answers given here provides only few examples.

1. Keep it Simple and Practical, Progress Iteratively With Feedback
2. Focus on Value, Collaborate and Promote Visibility
3. Collaborate and Promote Visibility, Optimize and Automate
4. Think and Work Holistically
5. Optimize and Automate, Progress iteratively with feedback
6. Start Where You Are, Focus on Value, Progress Iteratively with Feedback
7. Progress Iteratively With Feedback
8. Focus on Value, Optimize and Automate

Exercise: Multiple-Choice Questions

- Question 1: A (Observe directly)
- Question 2: B (No matter whatever practices an organization follow, the path to optimization is same.)
- Question 3: A (Focus on value)
- Question 4: C (Progress iteratively with feedback)

Module 4: The Four Dimensions of Service Management

Case Study Discussion: Organizations and People/Information and Technology

With regard to the introduction of Axle Aware, some of factors that should be considered from the perspective of “organization and people” and “information and technology” dimension are as follows:

- You need a culture that supports the objective of creating value for the service consumer (Axle) and for you as the service provider.
- You need to collaborate and develop a relationship of trust and transparency with Axle and its partners, such as their booking app team and our fleet maintenance partner.
- You need to ensure that everyone in the organization has clear understanding of their contribution in creation, delivery and improvement of the service to the consumer.

- You need to ensure that their employees have the right competence and skills to create, deliver, and support the required service.
- For this service, you need to share the required information with Axle and its other partners. This requires them to update their information as well as information security to collaborate effectively with Axle.
- You need to improve your support service and systems.

Case Study Discussion: The Four Dimensions

With regard to the given situations in the exercise, the related dimensions are given:

1. Information and technology
2. Organizations and people
3. Partners and suppliers
4. Organizations and people
5. Value streams and processes

Exercise: Multiple-Choice Questions

- Question 1: C
- Question 2: A
- Question 3: D
- Question 4: D

Module 5: The ITIL Service Value System

Case Study Discussion: Service Value System

Axle is considering to offer a new service in the form of “Axle Aware” system, which is basically a third-party driver assistance system. In consideration to this service, consider the following questions and their related answers.

Question 1: Identify the related principles (can be more than one).

Answer: This service improves the safety of the customer and relates to the guiding principles of ‘Focus on Value’; Think and work holistically, and ‘Optimize and Automate’.

Question 2: What governance would you expect on this service?

Answer: The service ensures the governance requirement for securing the safety of passengers and drivers and provides the industry focus on customer safety, trust, satisfaction and experience to increase Axle’s market share in the industry.

Question 3: Identify three practices that support this new/improvement service.

Answer: The Axle Aware system is related to the change enablement practice as it requires consultation and approval before we can update it. It requires release management to ensure that the Axle Aware system could sync with other apps and systems before it is released. The Axle Aware system is a third-party system, so it relates to the supplier management practice to manage relationship and performance of the supplier of Axle Aware system.

Question 4: Is introduction of this system a part of the continual improvement by Axle?

Answer: The continual improvement includes identification and improvement of services, service components, practices, or any element involved in the efficient and effective management of products and services. Axle Aware system is an important step to improve the safety of passengers and drivers.

Question 5: Identify the consumer value received.

Answer: The value to the consumer is a safer travel experience. This will also reduce the cost as they will have fewer penalties for breaking rules they are not familiar with.

Exercise: Multiple-Choice Questions

- Question 1: A (A set of activities that cover the end-to-end value of a service)
- Question 2: D (Engage)
- Question 3: B (The central element of the SVS, an operating model which outlines the key activities required to respond to demand and facilitate value creation)
- Question 4: C (Obtain/Build)

Module 6: Continual Improvement

Exercise: Multiple-Choice Questions

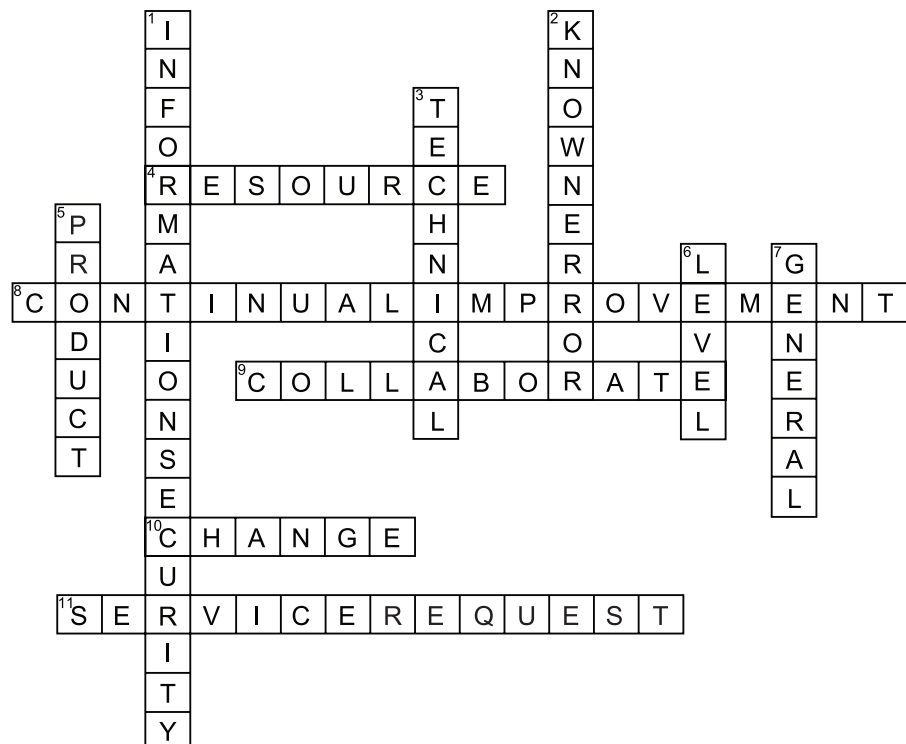
- Question 1: D (Everyone in the organization)
- Question 2: D (What is the vision? Where are we now? Where do we want to be? How do we get there? Take action. Did we get there? How do we keep the momentum going?)
- Question 3: B (Current state assessment)
- Question 4: C (Take action)

Module 7: The ITIL Practices

Activity: Identifying a Practice

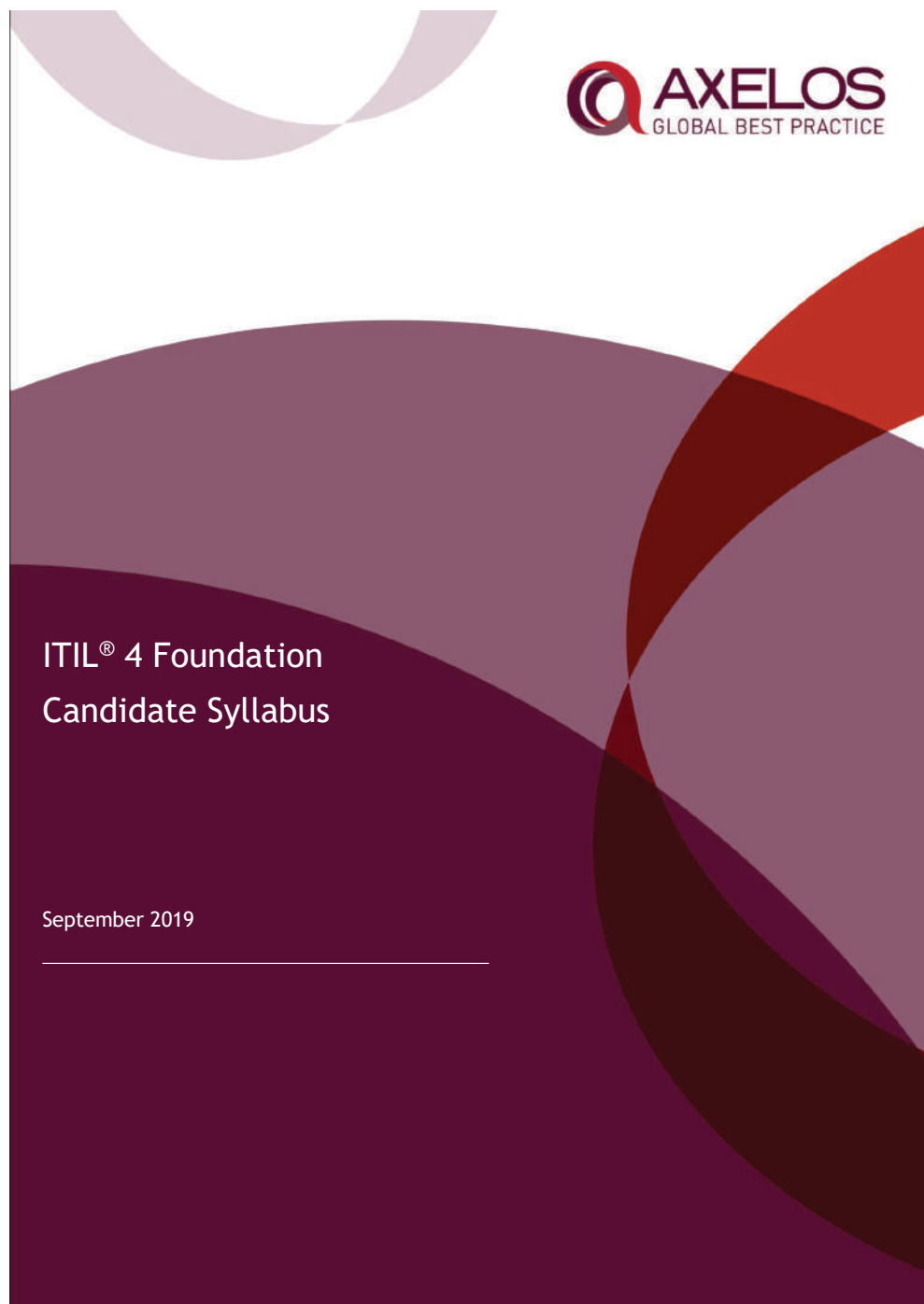
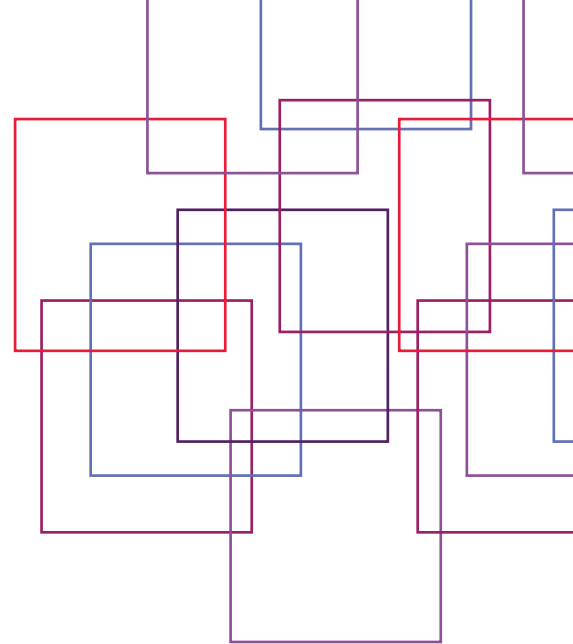
- Rebooting a server to re-establish connectivity: Incident management
- Analyzing the event logs after a server crash: Problem management
- Selecting a supplier to supply a replacement part: Problem management (error control)
- Asking the user to do a specific function in another way to get the same result: Incident management (applying a work around)
- Accessing a user's laptop and resolving the issue remotely: Incident management
- Brainstorming with a team of engineers to understand why no-one can print a specific report: Problem management (problem control)
- Directing a user to an FAQ site where they will find a guide to set up their mail: Incident management (self-help)
- Performing trend analysis on past incidents: Problem management (problem identification)

Crossword Puzzle



Appendix B

SYLLABUS



Introduction

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.

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

Exam Overview

Material allowed	None	This is a 'closed book' exam. The <i>ITIL Foundation</i> 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 <u>recall</u> information about the ITIL 4 service management framework. For Bloom's 2 questions, you need to show <u>understanding</u> of these concepts.
Question types	Classic, Negative, Missing word, & List	The questions are all 'multiple choice'. For the 'standard' questions, you have a question and four answer options. 'Negative' questions are 'standard' question in which the stem is negatively worded. For the 'missing word' questions, there is a sentence with a word missing and you have to select the missing word from four options. For the 'list' questions, there is a list of four statements and you have to select two correct statements from the list.

Question Types

Example 'standard' OTQ:

Which is a source of best practice?

- a) Q
- b) P
- c) R
- d) S

Example 'list' OTQ:

Which statement about service asset and configuration management is CORRECT?

1. It does Q
 2. It does P
 3. It does R
 4. It does S
- a) 1 and 2
 - b) 2 and 3
 - c) 3 and 4
 - d) 1 and 4

NOTE: Two of the list items are correct. List style questions are never negative.

Please see the sample paper for an example of the exam format and content.

Example 'missing word' OTQ

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

A [?] defines requirements for services and takes responsibility for outcomes from service consumption.

- a) Role Q
- b) Role P
- c) Role R
- d) Role S

Example 'negative' standard OTQ:

Which is NOT a defined area of value?

- a) Q
- b) P
- c) R
- d) S

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

Syllabus

The table below gives a summary of the concepts that are tested in the exam, and the main parts of the manual in which these are described. The book references refer to the section stated, but not the subsections within that section, unless stated. The verb for each assessment criterion indicates the Bloom's level (BL): 'Recall'/'Define' indicates Level 1 basic recall and recognition, 'Describe'/'Explain', indicates Level 2 understanding/comprehension.

Learning Outcome	Assessment Criteria	Book References	Bloom's Level	No. marks
1. Understand the key concepts of service management	1.1 Recall the definition of: a) Service b) Utility c) Warranty d) Customer e) User f) Service management g) Sponsor	2.0, 2.2.2, 2.3.1, 2.5.4	BL1	2
	1.2 Describe the key concepts of creating value with services: a) Cost b) Value c) Organization d) Outcome e) Output f) Risk g) Utility h) Warranty	2.1, 2.1.1, 2.2 and all subsections of 2.5	BL2	2
	1.3 Describe the key concepts of service relationships: a) Service offering b) Service relationship management c) Service provision d) Service consumption	2.3.2, 2.4, 2.4.1	BL2	1
2. Understand how the ITIL guiding principles can help an organization adopt and adapt service management	2.1 Describe the nature, use and interaction of the guiding principles	4.3, 4.3.8	BL2	1
	2.2 Explain the use of the guiding principles (4.3): a) Focus on value (4.3.1 - 4.3.1.4) b) Start where you are (4.3.2 - 4.3.2.3) c) Progress iteratively with feedback (4.3.3 - 4.3.3.3) d) Collaborate and promote visibility (4.3.4 - 4.3.4.4) e) Think and work holistically (4.3.5 - 4.3.5.1) f) Keep it simple and practical (4.3.6 - 4.3.6.3) g) Optimize and automate (4.3.7 - 4.3.7.3)	4.3, 4.3.1-4.3.7.3	BL2	5
3. Understand the four dimensions of service management	3.1 Describe the four dimensions of service management (3): a) Organizations and people (3.1) b) Information and technology (3.2) c) Partners and suppliers (3.3) d) Value streams and processes (3.4-3.4.2)	3, 3.1-3.4.2	BL2	2
4. Understand the purpose and components of the ITIL service value system	4.1 Describe the ITIL service value system (4.1)	4.1	BL2	1
5. Understand the activities of the service value chain, and how they interconnect	5.1 Describe the interconnected nature of the service value chain and how this supports value streams (4.5)	4.5	BL2	1

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Learning Outcome	Assessment Criteria	Book References	Bloom's Level	No. marks
	5.2 Describe the purpose of each value chain activity: a) Plan b) Improve c) Engage d) Design & transition e) Obtain/build f) Deliver & support	4.5.1-4.5.6	BL2	1
6. Know the purpose and key terms of 15 ITIL practices	6.1 Recall the purpose of the following ITIL practices: a) Information security management (5.1.3) b) Relationship management (5.1.9) c) Supplier management (5.1.13) d) IT asset management (5.2.6) e) Monitoring and event management (5.2.7) f) Release management (5.2.9) g) Service configuration management (5.2.11) h) Deployment management (5.3.1) i) Continual improvement (5.1.2) j) Change enablement (5.2.4) k) Incident management (5.2.5) l) Problem management (5.2.8) m) Service request management (5.2.16) n) Service desk (5.2.14) o) Service level management (5.2.15)	5.1.2, 5.1.3, 5.1.9, 5.1.13, 5.2.4, 5.2.5, 5.2.6, 5.2.7, 5.2.8, 5.2.9, 5.2.11, 5.2.14, 5.2.15, 5.2.16, 5.3.1,	BL1	5
	6.2 Recall definitions of the following ITIL terms: a) IT asset b) Event c) Configuration item d) Change e) Incident f) Problem g) Known error	5.2.4, 5.2.5, 5.2.6, 5.2.7, 5.2.8, 5.2.11	BL1	2
7. Understand 7 ITIL practices	7.1 Explain the following ITIL practices in detail, excluding how they fit within the service value chain: a) Continual improvement (5.1.2) including: - The continual improvement model (4.6, fig 4.3) b) Change enablement (5.2.4) c) Incident management (5.2.5) d) Problem management (5.2.8) e) Service request management (5.2.16) f) Service desk (5.2.14) g) Service level management (5.2.15 - 5.2.15.1)	4.6, fig 4.3, 5.1.2, 5.2.4, 5.2.5, 5.2.8, 5.2.16, 5.2.14, 5.2.15, 5.2.15.1	BL2	17

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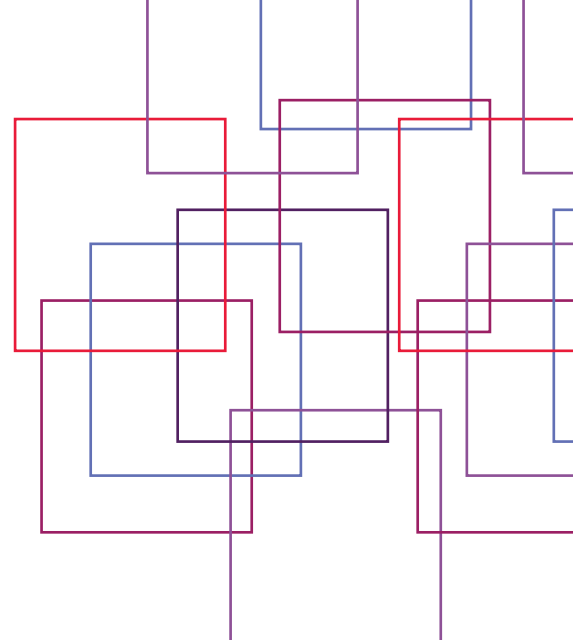
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Appendix C

GLOSSARY



Glossary

acceptance criteria

A list of minimum requirements that a service or service component must meet for it to be acceptable to key stakeholders.

Agile

An umbrella term for a collection of frameworks and techniques that together enable teams and individuals to work in a way that is typified by collaboration, prioritization, iterative and incremental delivery, and timeboxing. There are several specific methods (or frameworks) that are classed as Agile, such as Scrum, Lean, and Kanban.

architecture management practice

The practice of providing an understanding of all the different elements that make up an organization and how those elements relate to one another.

asset register

A database or list of assets, capturing key attributes such as ownership and financial value.

availability

The ability of an IT service or other configuration item to perform its agreed function when required.

availability management practice

The practice of ensuring that services deliver agreed levels of availability to meet the needs of customers and users.

baseline

A report or metric that serves as a starting point against which progress or change can be assessed.

best practice

A way of working that has been proven to be successful by multiple organizations.

big data

The use of very large volumes of structured and unstructured data from a variety of sources to gain new insights.

business analysis practice

The practice of analysing a business or some element of a business, defining its needs and recommending solutions to address these needs and/or solve a business problem, and create value for stakeholders.

business case

A justification for expenditure of organizational resources, providing information about costs, benefits, options, risks, and issues.

business impact analysis (BIA)

A key activity in the practice of service continuity management that identifies vital business functions and their dependencies.

business relationship manager (BRM)

A role responsible for maintaining good relationships with one or more customers.

call

An interaction (e.g. a telephone call) with the service desk. A call could result in an incident or a service request being logged.

call/contact centre

An organization or business unit that handles large numbers of incoming and outgoing calls and other interactions.

capability

The ability of an organization, person, process, application, configuration item, or IT service to carry out an activity.

capacity and performance management practice

The practice of ensuring that services achieve agreed and expected performance levels, satisfying current and future demand in a cost-effective way.

capacity planning

The activity of creating a plan that manages resources to meet demand for services.

change

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

change authority

A person or group responsible for authorizing a change.

change enablement practice

The practice of ensuring that risks are properly assessed, authorizing changes to proceed and managing a change schedule in order to maximize the number of successful service and product changes.

change model

A repeatable approach to the management of a particular type of change.

change schedule

A calendar that shows planned and historical changes.

charging

The activity that assigns a price for services.

cloud computing

A model for enabling on-demand network access to a shared pool of configurable computing resources that can be rapidly provided with minimal management effort or provider interaction.

compliance

The act of ensuring that a standard or set of guidelines is followed, or that proper, consistent accounting or other practices are being employed.

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confidentiality

A security objective that ensures information is not made available or disclosed to unauthorized entities.

configuration

An arrangement of configuration items (CIs) or other resources that work together to deliver a product or service. Can also be used to describe the parameter settings for one or more CIs.

configuration item (CI)

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

configuration management database (CMDB)

A database used to store configuration records throughout their lifecycle. The CMDB also maintains the relationships between configuration records.

configuration management system (CMS)

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

configuration record

A record containing the details of a configuration item (CI). Each configuration record documents the lifecycle of a single CI. Configuration records are stored in a configuration management database.

continual improvement practice

The practice of aligning an organization's practices and services with changing business needs through the ongoing identification and improvement of all elements involved in the effective management of products and services.

continuous deployment

An integrated set of practices and tools used to deploy software changes into the production environment. These software changes have already passed pre-defined automated tests.

continuous integration/continuous delivery

An integrated set of practices and tools used to merge developers' code, build and test the resulting software, and package it so that it is ready for deployment.

control

The means of managing a risk, ensuring that a business objective is achieved, or that a process is followed.

cost

The amount of money spent on a specific activity or resource.

cost centre

A business unit or project to which costs are assigned.

critical success factor (CSF)

A necessary precondition for the achievement of intended results.

culture

A set of values that is shared by a group of people, including expectations about how people should behave, ideas, beliefs, and practices.

customer

The role that defines the requirements for a service and takes responsibility for the outcomes of service consumption.

customer experience (CX)

The sum of functional and emotional interactions with a service and service provider as perceived by a service customer.

dashboard

A real-time graphical representation of data.

deliver and support

The value chain activity that ensures services are delivered and supported according to agreed specifications and stakeholders' expectations.

demand

Input to the service value system based on opportunities and needs from internal and external stakeholders.

deployment

The movement of any service component into any environment.

deployment management practice

The practice of moving new or changed hardware, software, documentation, processes, or any other service component to live environments.

design and transition

The value chain activity that ensures products and services continually meet stakeholder expectations for quality, costs, and time to market.

design thinking

A practical and human-centred approach used by product and service designers to solve complex problems and find practical and creative solutions that meet the needs of an organization and its customers.

development environment

An environment used to create or modify IT services or applications.

DevOps

An organizational culture that aims to improve the flow of value to customers. DevOps focuses on culture, automation, Lean, measurement, and sharing (CALMS).

digital transformation

The evolution of traditional business models to meet the needs of highly empowered customers, with technology playing an enabling role.

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disaster

A sudden unplanned event that causes great damage or serious loss to an organization. A disaster results in an organization failing to provide critical business functions for some predetermined minimum period of time.

disaster recovery plans

A set of clearly defined plans related to how an organization will recover from a disaster as well as return to a pre-disaster condition, considering the four dimensions of service management.

driver

Something that influences strategy, objectives, or requirements.

effectiveness

A measure of whether the objectives of a practice, service or activity have been achieved.

efficiency

A measure of whether the right amount of resources have been used by a practice, service, or activity.

emergency change

A change that must be introduced as soon as possible.

engage

The value chain activity that provides a good understanding of stakeholder needs, transparency, continual engagement, and good relationships with all stakeholders.

environment

A subset of the IT infrastructure that is used for a particular purpose, for example a live environment or test environment. Can also mean the external conditions that influence or affect something.

error

A flaw or vulnerability that may cause incidents.

error control

Problem management activities used to manage known errors.

escalation

The act of sharing awareness or transferring ownership of an issue or work item.

event

Any change of state that has significance for the management of a service or other configuration item.

external customer

A customer who works for an organization other than the service provider.

failure

A loss of ability to operate to specification, or to deliver the required output or outcome.

feedback loop

A technique whereby the outputs of one part of a system are used as inputs to the same part of the system.

four dimensions of service management

The four perspectives that are critical to the effective and efficient facilitation of value for customers and other stakeholders in the form of products and services.

goods

Tangible resources that are transferred or available for transfer from a service provider to a service consumer, together with ownership and associated rights and responsibilities.

governance

The means by which an organization is directed and controlled.

identity

A unique name that is used to identify and grant system access rights to a user, person, or role.

improve

The value chain activity that ensures continual improvement of products, services, and practices across all value chain activities and the four dimensions of service management.

incident

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

incident management

The practice of minimizing the negative impact of incidents by restoring normal service operation as quickly as possible.

information and technology

One of the four dimensions of service management. It includes the information and knowledge used to deliver services, and the information and technologies used to manage all aspects of the service value system.

information security management practice

The practice of protecting an organization by understanding and managing risks to the confidentiality, integrity, and availability of information.

information security policy

The policy that governs an organization's approach to information security management.

infrastructure and platform management practice

The practice of overseeing the infrastructure and platforms used by an organization. This enables the monitoring of technology solutions available, including solutions from third parties.

integrity

A security objective that ensures information is only modified by authorized personnel and activities.

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internal customer

A customer who works for the same organization as the service provider.

Internet of Things

The interconnection of devices via the internet that were not traditionally thought of as IT assets, but now include embedded computing capability and network connectivity.

IT asset

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

IT asset management practice

The practice of planning and managing the full lifecycle of all IT assets.

IT infrastructure

All of the hardware, software, networks, and facilities that are required to develop, test, deliver, monitor, manage, and support IT services.

IT service

A service based on the use of information technology.

ITIL

Best-practice guidance for IT service management.

ITIL guiding principles

Recommendations that can guide an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure.

ITIL service value chain

An operating model for service providers that covers all the key activities required to effectively manage products and services.

ITIL value chain activity

A step of the value chain that an organization takes in the creation of value.

Kanban

A method for visualizing work, identifying potential blockages and resource conflicts, and managing work in progress.

key performance indicator (KPI)

An important metric used to evaluate the success in meeting an objective.

knowledge management practice

The practice of maintaining and improving the effective, efficient, and convenient use of information and knowledge across an organization.

known error

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

Lean

An approach that focuses on improving workflows by maximizing value through the elimination of waste.

lifecycle

The full set of stages, transitions, and associated statuses in the life of a service, product, practice, or other entity.

live

Refers to a service or other configuration item operating in the live environment.

live environment

A controlled environment used in the delivery of IT services to service consumers.

maintainability

The ease with which a service or other entity can be repaired or modified.

major incident

An incident with significant business impact, requiring an immediate coordinated resolution.

management system

Interrelated or interacting elements that establish policy and objectives and enable the achievement of those objectives.

maturity

A measure of the reliability, efficiency and effectiveness of an organization, practice, or process.

mean time between failures (MTBF)

A metric of how frequently a service or other configuration item fails.

mean time to restore service (MTRS)

A metric of how quickly a service is restored after a failure.

measurement and reporting

The practice of supporting good decision-making and continual improvement by decreasing levels of uncertainty.

metric

A measurement or calculation that is monitored or reported for management and improvement.

minimum viable product (MVP)

A product with just enough features to satisfy early customers, and to provide feedback for future product development.

mission

A short but complete description of the overall purpose and intentions of an organization.

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model

A representation of a system, practice, process, service, or other entity that is used to understand and predict its behaviour and relationships.

modelling

The activity of creating, maintaining, and utilizing models.

monitoring

Repeated observation of a system, practice, process, service, or other entity to detect events and to ensure that the current status is known.

monitoring and event management practice

The practice of systematically observing services and service components, and recording and reporting selected changes of state identified as events.

obtain/build

The value chain activity that ensures service components are available when and where they are needed, and that they meet agreed specifications.

operation

The routine running and management of an activity, product, service, or other configuration item.

operational technology

The hardware and software solutions that detect or cause changes in physical processes through direct monitoring and/or control of physical devices such as valves, pumps, etc.

organization

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

organizational change management practice

The practice of ensuring that changes in an organization are smoothly and successfully implemented and that lasting benefits are achieved by managing the human aspects of the changes.

organizational resilience

The ability of an organization to anticipate, prepare for, respond to, and adapt to unplanned external influences.

organizational velocity

The speed, effectiveness, and efficiency with which an organization operates. Organizational velocity influences time to market, quality, safety, costs, and risks.

organizations and people

One of the four dimensions of service management. It ensures 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.

outcome

A result for a stakeholder enabled by one or more outputs.

output

A tangible or intangible deliverable of an activity.

outsourcing

The process of having external suppliers provide products and services that were previously provided internally.

partners and suppliers

One of the four dimensions of service management. It encompasses the relationships an organization has with other organizations that are involved in the design, development, deployment, delivery, support, and/or continual improvement of services.

partnership

A relationship between two organizations that involves working closely together to achieve common goals and objectives.

performance

A measure of what is achieved or delivered by a system, person, team, practice, or service.

pilot

A test implementation of a service with a limited scope in a live environment.

plan

The value chain activity that ensures a shared understanding of the vision, current status, and improvement direction for all four dimensions and all products and services across an organization.

policy

Formally documented management expectations and intentions, used to direct decisions and activities.

portfolio management practice

The practice of ensuring that an organization has the right mix of programmes, projects, products, and services to execute its strategy within its funding and resource constraints.

post-implementation review (PIR)

A review after the implementation of a change, to evaluate success and identify opportunities for improvement.

practice

A set of organizational resources designed for performing work or accomplishing an objective.

problem

A cause, or potential cause, of one or more incidents.

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problem management practice

The practice of reducing the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors.

procedure

A documented way to carry out an activity or a process.

process

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

product

A configuration of an organization's resources designed to offer value for a consumer.

production environment

See live environment.

programme

A set of related projects and activities, and an organization structure created to direct and oversee them.

project

A temporary structure that is created for the purpose of delivering one or more outputs (or products) according to an agreed business case.

project management practice

The practice of ensuring that all an organization's projects are successfully delivered.

quick win

An improvement that is expected to provide a return on investment in a short period of time with relatively small cost and effort.

record

A document stating results achieved and providing evidence of activities performed.

recovery

The activity of returning a configuration item to normal operation after a failure.

recovery point objective (RPO)

The point to which information used by an activity must be restored to enable the activity to operate on resumption.

recovery time objective (RTO)

The maximum acceptable period of time following a service disruption that can elapse before the lack of business functionality severely impacts the organization.

relationship management practice

The practice of establishing and nurturing links between an organization and its stakeholders at strategic and tactical levels.

release

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

release management practice

The practice of making new and changed services and features available for use.

reliability

The ability of a product, service, or other configuration item to perform its intended function for a specified period of time or number of cycles.

request catalogue

A view of the service catalogue, providing details on service requests for existing and new services, which is made available for the user.

request for change (RFC)

A description of a proposed change used to initiate change enablement.

resolution

The action of solving an incident or problem.

resource

Personnel, material, finance, or other entity that is required for the execution of an activity or the achievement of an objective. Resources used by an organization may be owned by the organization or used according to an agreement with the resource owner.

retire

The act of permanently withdrawing a product, service, or other configuration item from use.

risk

A possible event that could cause harm or loss, or make it more difficult to achieve objectives. Can also be defined as uncertainty of outcome, and can be used in the context of measuring the probability of positive outcomes as well as negative outcomes.

risk assessment

An activity to identify, analyse, and evaluate risks.

risk management practice

The practice of ensuring that an organization understands and effectively handles risks.

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service

A means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks.

service action

Any action required to deliver a service output to a user. Service actions may be performed by a service provider resource, by service users, or jointly.

service architecture

A view of all the services provided by an organization. It includes interactions between the services, and service models that describe the structure and dynamics of each service.

service catalogue

Structured information about all the services and service offerings of a service provider, relevant for a specific target audience.

service catalogue management practice

The practice of providing a single source of consistent information on all services and service offerings, and ensuring that it is available to the relevant audience.

service configuration management practice

The practice of ensuring that accurate and reliable information about the configuration of services, and the configuration items that support them, is available when and where needed.

service consumption

Activities performed by an organization to consume services. It includes the management of the consumer's resources needed to use the service, service actions performed by users, and the receiving (acquiring) of goods (if required).

service continuity management practice

The practice of ensuring that service availability and performance are maintained at a sufficient level in case of a disaster.

service design practice

The practice of designing products and services that are fit for purpose, fit for use, and that can be delivered by the organization and its ecosystem.

service desk

The point of communication between the service provider and all its users.

service desk practice

The practice of capturing demand for incident resolution and service requests.

service financial management practice

The practice of supporting an organization's strategies and plans for service management by ensuring that the organization's financial resources and investments are being used effectively.

service level

One or more metrics that define expected or achieved service quality.

service level agreement (SLA)

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

service level management practice

The practice of setting clear business-based targets for service performance so that the delivery of a service can be properly assessed, monitored, and managed against these targets.

service management

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

service offering

A formal description of one or more services, designed to address the needs of a target consumer group. A service offering may include goods, access to resources, and service actions.

service owner

A role that is accountable for the delivery of a specific service.

service portfolio

A complete set of products and services that are managed throughout their lifecycles by an organization.

service provider

A role performed by an organization in a service relationship to provide services to consumers.

service provision

Activities performed by an organization to provide services. It includes management of the provider's resources, configured to deliver the service; ensuring access to these resources for users; fulfilment of the agreed service actions; service level management; and continual improvement. It may also include the supply of goods.

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.

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.

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service request management practice

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

service validation and testing practice

The practice of ensuring that new or changed products and services meet defined requirements.

service value system (SVS)

A model representing how all the components and activities of an organization work together to facilitate value creation.

software development and management practice

The practice of ensuring that applications meet stakeholder needs in terms of functionality, reliability, maintainability, compliance, and auditability.

sourcing

The activity of planning and obtaining resources from a particular source type, which could be internal or external, centralized or distributed, and open or proprietary.

specification

A documented description of the properties of a product, service, or other configuration item.

sponsor

The role that authorizes budget for service consumption. Can also be used to describe an organization or individual that provides financial or other support for an initiative.

stakeholder

A person or organization that has an interest or involvement in an organization, product, service, practice, or other entity.

standard

A document, established by consensus and approved by a recognized body, that provides for common and repeated use, mandatory requirements, guidelines, or characteristics for its subject.

standard change

A low-risk, pre-authorized change that is well understood and fully documented, and which can be implemented without needing additional authorization.

status

A description of the specific states an entity can have at a given time.

strategy management practice

The practice of formulating the goals of an organization and adopting the courses of action and allocation of resources necessary for achieving those goals.

supplier

A stakeholder responsible for providing services that are used by an organization.

supplier management practice

The practice of ensuring that an organization's suppliers and their performance levels are managed appropriately to support the provision of seamless quality products and services.

support team

A team with the responsibility to maintain normal operations, address users' requests, and resolve incidents and problems related to specified products, services, or other configuration items.

system

A combination of interacting elements organized and maintained to achieve one or more stated purposes.

systems thinking

A holistic approach to analysis that focuses on the way that a system's constituent parts work, interrelate, and interact over time, and within the context of other systems.

technical debt

The total rework backlog accumulated by choosing workarounds instead of system solutions that would take longer.

test environment

A controlled environment established to test products, services, and other configuration items.

third party

A stakeholder external to an organization.

throughput

A measure of the amount of work performed by a product, service, or other system over a given period of time.

transaction

A unit of work consisting of an exchange between two or more participants or systems.

use case

A technique using realistic practical scenarios to define functional requirements and to design tests.

user

The role that uses services.

user experience (UX)

The sum of the functional and emotional interactions with a service and service provider as perceived by a user.

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.

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utility requirements

Functional requirements which have been defined by the customer and are unique to a specific product.

validation

Confirmation that the system, product, service, or other entity meets the agreed specification.

value

The perceived benefits, usefulness, and importance of something.

value stream

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

value streams and processes

One of the four dimensions of service management. It defines the activities, workflows, controls, and procedures needed to achieve the agreed objectives.

vision

A defined aspiration of what an organization would like to become in the future.

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.

warranty requirements

Typically non-functional requirements captured as inputs from key stakeholders and other practices.

waterfall method

A development approach that is linear and sequential with distinct objectives for each phase of development.

work instruction

A detailed description to be followed in order to perform an activity.

workaround

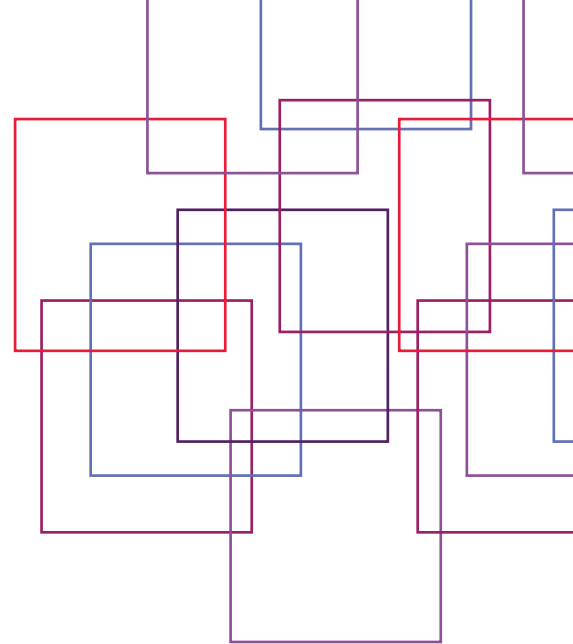
A solution that reduces or eliminates the impact of an incident or problem for which a full resolution is not yet available. Some workarounds reduce the likelihood of incidents.

workforce and talent management practice

The practice of ensuring that an organization has the right people with the appropriate skills and knowledge and in the correct roles to support its business objectives.

Appendix D

RELEASE NOTES



ITIL® Foundation - Pro

Release	Version No.	Date
Previous	1.3.0	Jan, 2020
Current	1.4.0	July, 2020
Next	NA	NA

Course Description	Course Duration: 2 Days Number of Modules: 7 Case Study Based: Yes Associated Certification: ITIL® Foundation
Components Released	Presentations, Course Book, and Instructor Guide
Features	The course is based on the ITIL 4 Foundation Exam Specification v1.4. Following major changes are made in this version: <ul style="list-style-type: none">• Definitions in the 'Key Terms Covered in the Module' sections modified based on the latest manual from AXELOS.• Definitions of few terms modified in Module 2 and Module 7.

Bugs Reported	Action Taken
NA	NA

Known Issues	Expected Fix
NA}	NA

CHANGE LOG

ITIL (4) FOUNDATION PRO R1.4.0

Module #	Description of Change	Components Affected by Change
GLOBAL	Definitions in the 'Key Terms Covered in the Module' sections modified based on the latest manual from AXELOS.	Instructor Guide and Course Book
Module 2	Value: Services, Products, and Resources > Service Offerings Definitions of 'Service Offering' modified to include the word <i>formal</i> .	Presentation, Instructor Guide and Course Book
Module 2	Value: Services, Products, and Resources > Risk The definition of Risk is modified to include the following text - <i>'Can also be defined as uncertainty of outcome, and can be used in the context of measuring the probability of positive outcomes as well as negative outcomes.'</i>	Presentation, Instructor Guide and Course Book
Module 2	Key Terms Covered in the Module Definition of 'Customer', 'User', 'Sponsor' and 'Risk' modified based on the latest AXELOS manual.	Presentation, Instructor Guide and Course Book
Module 4	Key Terms Covered in the Module Definition of 'Value Stream' and 'Process' moved from Module 5 to Module 4	Instructor Guide and Course Book
Module 6	Key Terms Covered in the Module Definition of 'Change Management' removed. Definition of 'Configuration Item', 'Critical Success Factor', 'Key Performance Indicator' and 'Knowledge Management Practice' modified based on the latest AXELOS manual.	Instructor Guide and Course Book
Module 7	The Change Enablement Practice > Purpose of Change Enablement Definition of 'Change' modified based on the latest AXELOS manual.	Presentations, Instructor Guide and Course Book

Module 7	Purpose of ITIL Practices > IT Asset Management Definition of 'IT Asset Management' modified based on the latest AXELOS manual.	Presentations, Instructor Guide and Course Book
Module 7	Purpose of ITIL Practices > Monitoring and Event Management Definition of 'Event' modified based on the latest AXELOS manual.	Presentations, Instructor Guide and Course Book
Module 7	Key Terms Covered in the Module Definition of 'Configuration Item' removed. Definition of 'Change', 'Event' and 'IT Asset' modified based on the latest AXELOS manual.	Instructor Guide and Course Book



Appendix E

PARTICIPANT FEEDBACK FORM

[Click here to complete the online feedback form](#) 

TRAINEE COMPANY

E-MAIL COURSE

DATE INSTRUCTOR

Course Content

The content presented in this course was at the correct level.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The content met the stated objective and expectations.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The content was presented in a clear and concise manner.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Group Exercises

Reinforced how I might use the skills taught in the training.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Directly relate to the content.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Were engaging for the learners.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

About the Instructor

Communicated the content effectively.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Addressed learner questions effectively.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

What did the instructor do well and what can be improved?

Did Well:

.....

.....

.....

Could improve:

.....

.....

.....

Overall

Communicated the content effectively.	Yes	No
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Comments on course effectiveness:

What element of this course can be improved? (This could include any specific module/topic/exercise.)

What are your overall impressions of this course?

Additional Comments:

The stated prerequisite requirements were appropriate and sufficient?	Yes	No
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The course materials were relevant and contributed to the achievement of the learning objectives?	Yes	No
---	-----	----

The time allotted to the course was appropriate for understanding the learning objectives?	Yes	No
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Disclaimer: ITpreneurs may use this information as a reference.	Yes	No
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