



ITIL[®] 4

Foundation

Student Workbook
(ITI4-223 v1.46)





ITIL[®] 4 Foundation

(ITI4-223 v1.46)

ITIL[®] is a registered trade mark of AXELOS Limited, used under permission of AXELOS Limited. All rights reserved.

ED.SO.22.01/45-381662/04592-28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022

This document contains proprietary information, which is protected by copyright. All rights reserved. No part of this document may be photocopied, reproduced or translated to another language without prior consent from Quint, Amstelveen.

©2021: Copyright of Quint unless otherwise stated.

Quint is an accredited training Organization (ATO) with PeopleCert, APMG, EXIN, DevOps Agile Skills Association (DASA) and LEAN IT Association (LITA).

Quint is licensed by AXELOS Limited and officially authorized for ITIL®, PRINCE2®, MoP®, MSP®, MoV®, PRINCE2 Agile®, P3O®, M_o_R® and accredited for the following AXELOS products.



IT Infrastructure Library®, PRINCE2®, MoP®, MSP®, PRINCE2 Agile®, P3O®, M_o_R®, MoV® and the Swirl Logo are [registered] trademarks of AXELOS Limited. These trademarks are used by Quint under permission of AXELOS Limited. All rights reserved.

Quint is licensed and accredited by APMG International, EXIN and PeopleCert for the following products:



Application Services Library ASL® and Business Information Services Library BiSL® are registered trademarks of the ASL BiSL Foundation.

PMI®, PMP® and PMBOK® are registered trademarks of the Project Management Institute Inc.

SDI Logo® is a registered trademark of Customers International Ltd.



Quint is a founding forerunner of the DevOps Agile Skills Association (DASA).



The PMI Registered Education Provider logo is a registered mark of the Project Management Institute, Inc. Quint has been approved by PMI to issue PDUs for your courses.

ED.SO.22.01145-38166-004592- 28/01/2022

| | | | |
|------------|---|------------|--|
| 03 | Notice | 07 | PMI Project Management Professionals |
| 09 | Agenda Timetable | 11 | Candidate Syllabus |
| 17 | Module 1 Introduction | 73 | Module 2 Dimensions and Principles |
| 115 | Module 3 SVC and CI | 147 | Module 4 Management Practices Overview |
| 187 | Module 5 Services Management Practices (Detailed) | 229 | Sample Exams (Question Book & Rationale) |
| 291 | Glossary | 311 | Forms |
| 315 | Poster | | |

ED.SO.22.01145-38166-004592- 28/01/2022

Attendees of this course earn Professional Development Units (PDUs) granted by the Project Management Institute (PMI®) in order to maintain their status as certified Project Management Professional (PMP).

Please ask your instructor for the applicable Registered Education Provider (R.E.P.) ID and Course code in order to be able to claim your PDUs after completing your course.

If you are interested to learn more about this program, please log on to:

<http://www.pmi.org/>

ED.SO.22.01145-38166-004592-28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022

| Day 1 | Day 2 |
|--|---|
| Mod 1: Introductions, about the exam | Recap |
| Mod 1: ITIL Rationale, Agile, DevOps Key Concepts | Mod 4: Service and technical management Practices overview |
| Coffee break | Coffee break |
| Mod 1: Key Components(Exercise 1) | Exercise 4 |
| Mod 2: Four dimensions and Guiding principles | Mod 5: Change Enablement (exercise 5a) |
| | Mod 5: Incident Management (exercise 5b) |
| Lunch | Lunch |
| Mod 2: Four Dimensions and Guiding Principles (Exercise 2) | Mod 5: Problem Management (exercise 5c) |
| | Mod 5: Service desk (exercise 5d) |
| Mod 3: Service value chain and Continual Improvement | Mod 5: Service Level Management (exercise 5e) |
| Tea break | Tea break |
| Mod 3: Service value chain and Continual Improvement (Exercise 3) | Mod 5: Service Request Management (Exercise 5f) |
| Mod 4: General Management Practices overview | Recap and/or Mock Exam |

ED.SO.22.01145-38166-004592- 28/01/2022

ITIL® 4 Foundation Candidate Syllabus

September 2019

ED.SO.22.01145-38166-004592-28/01/2022

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 |

| Learning Outcome | Assessment Criteria | Book Reference | BLO | Marks |
|--|--|---|-----|-------|
| | 5.2 Describe the purpose of each value chain activity: <ol style="list-style-type: none"> Plan Improve Engage Design & transition Obtain/build 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: <ol style="list-style-type: none"> Information security management (5.1.3) Relationship management (5.1.9) Supplier management (5.1.13) IT asset management (5.2.6) Monitoring and event management (5.2.7) Release management (5.2.9) Service configuration management (5.2.11) Deployment management (5.3.1) Continual improvement (5.1.2) Change enablement (5.2.4) Incident management (5.2.5) Problem management (5.2.8) Service request management (5.2.16) Service desk (5.2.14) 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: <ol style="list-style-type: none"> IT asset Event Configuration item Change Incident Problem 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: <ol style="list-style-type: none"> Continual improvement (5.1.2) including: <ul style="list-style-type: none"> The continual improvement model (4.6, fig 4.3) Change enablement (5.2.4) Incident management (5.2.5) Problem management (5.2.8) Service request management (5.2.16) Service desk (5.2.14) 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 |

ED.SO.22.01145-38166-004592- 28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

IT Service Management

ITIL® 4 Foundation

Module 1

Introduction

1

ED.SO.22.01145-38166-004592- 28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

About This Course

Next Topic
IT Service Management, Agile And DevOps
(Not Examined)

2

What is ITIL?

Most widely adopted guidance on IT service management (ITSM) in the world

Has led the ITSM industry with guidance, training, and certification programmes for more than 30 years.

ITIL 4 provides guidance, organizations need to address new service management challenges and utilize the potential of modern technology

Agenda

Suggested times

- 09:00 start day
- 10:30 Coffee
- 12:30 Lunch
- 15:00 Tea
- 16:45 Wrap up
- 17:00 End of day

| Day 1 | | Day 2 | |
|---------------------|---|---------------------|--|
| Mod 1: | Introductions, about the exam | | Recap |
| Mod 1: | ITIL Rationale, Agile, DevOps Key Concepts | Mod 4: | Service and technical management Practices overview |
| Coffee break | | Coffee break | |
| | | | Exercise 4 |
| Mod 1: | Key Components (Exercise 1) | Mod 5: | Change Enablement (exercise 5a) |
| Mod 2: | Four dimensions and Guiding principles | Mod 5: | Incident Management (exercise 5b) |
| Lunch | | Lunch | |
| | | Mod 5: | Problem Management (exercise 5c) |
| Mod 2: | Four Dimensions and Guiding Principles (Exercise 2) | Mod 5: | Service desk (exercise 5d) |
| | Mod 3: Service value chain and Continual Improvement | Mod 5: | Service Level Management (exercise 5e) |
| Tea break | | Tea break | |
| Mod 3: | Service value chain and Continual Improvement (Exercise 3) | Mod 5: | Service Request Management (Exercise 5f) |
| Mod 4: | General Management Practices overview | | Recap and/or Mock Exam |

Housekeeping

- **Electronic devices in silent mode!**
- **Reader, tablets/laptops in airplane mode**
- **We work in 1,5 hour sessions, followed by a break,**
- **Discuss luncheon arrangements and dietary needs,**
- **Language issues**
- **Required study time**
- **What time shall we finish today?**



IT14-223_1.46_ENG_QWRN_ITIL4FO

4

Electronic devices in silent mode!

- Step out of the room if there is something important

Reader, tablets/laptops in airplane mode

- No email or social media during classes!

We work in 1,5 hour sessions, followed by a break,

- you are free to suggest an extra short break any time!

Discuss luncheon arrangements and dietary needs,

Language issues:

- Course materials language, spoken language, exam language
- Extra exam time needed?

Required study time:

- Study at least one hour per course-day
- Mock exams are in the back of your binder (make at least one)

What time shall we finish today?

ED.SO.22.01145-38166-004592-28/01/2022

Getting To Know Each Other

- **You invest in yourselves, so:**
- **Present yourself answering these questions:**
 - What do you want to achieve with this course?
 - What is your experience in projects and in project management?
 - Tell us about your role and ambition at work.
 - Do you have prior experience with ITIL and ITSDM?
 - Explain the organizational context you are in.



Purpose of This Course

- Introduction to modern IT-enabled services
- Common language and key concepts
- How to improve services with ITIL 4 guidance
- Understand ITIL 4 framework (how it has evolved)
- Prepare for ITIL 4 Foundation exam

ED.SO.22.01145-38166-004592-28/01/2022

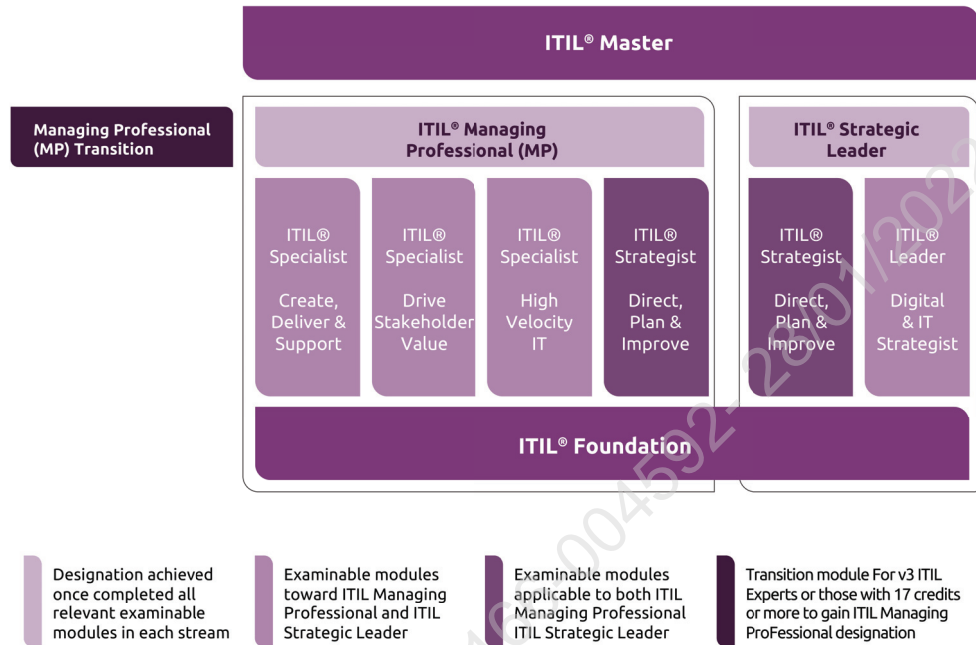
Target Audience for This Course

- **The target audience for this qualification is:**
 - Individuals at the start of their journey in Service Management.
 - ITSM Managers and aspiring ITSM Managers.
 - Individuals working in other parts of “IT” (digital, product, development) with strong interface with service delivery.
 - Existing ITIL qualification holders wishing to update their knowledge.

ED.SO.22.01145-38166-004592-28/01/2022

ITIL 4 Certification Scheme

[AXELOS ITIL® 4 Website](#)



IT14-223_1.46_ENG_QWRN_ITIL4FO

8

ED.SO.22.01145-3810004592-2017022

ITIL 4 Design Rationale

- **ITIL 4 publications will evolve in an Agile way**
- **Each book focused on one certificate:**
 - Lean: it eliminates unnecessary content.
 - Modular: it enables more frequent updates to publications.
 - Practical: it provides relevant practical guidance to module topic.
 - Evolutional: It keeps what is relevant and provides consistency.
 - Collaborative: driven by the IT community.
 - Flexible: enables the link between best- and emerging practices.
- **How ITIL 4 will be evolving:**
 - ITIL processes/practices will expand to provide holistic view.
 - End-to-end operating model (adding value).
 - From major releases to continual improvement.
 - Flexible value flow (service teams).
- **ITIL guiding principles and continual improvement are central to ITIL 4**

The Foundation Exam

- **Duration: 60 minutes**
 - Non-native speakers may be awarded 25% extra time up to 75 minutes.
- **Closed book, no materials on the tables**
- **40 questions**
 - 4 options per question, one only to be selected.
 - Each question is worth one mark.
 - No 'trial' questions.
- **Pass mark 65% or higher**
 - a raw score of 26 marks or above 0.
- **Question styles used within this type are: 'standard', 'missing word', 'list'(2 correct items), and, exceptionally, 'negative' standard OTQ.**





ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

IT Service Management, Agile And DevOps (Not Examined)

Previous Topic

About This Course

Next Topic

Key Components

11

In This Section

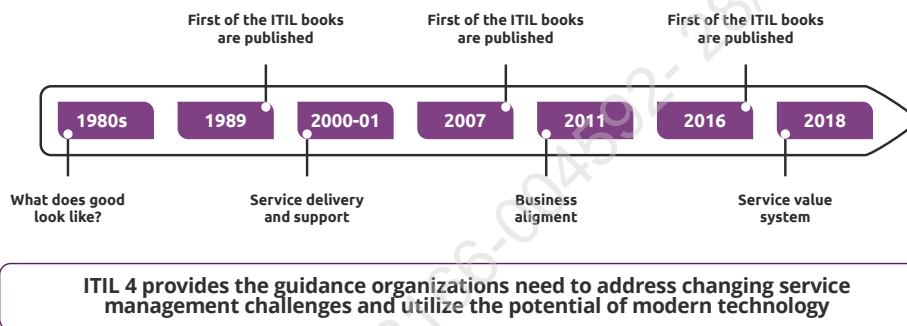
- ITIL history
- Shift left and digital transformation
- Influence of Lean, Agile, DevOps on IT Service Management
- Impact of Lean, Agile and DevOps on the organization
- How ITIL supports Agile and DevOps

ED.SO.22.01145-38166-004592-28/01/2022

ITIL History

- ITIL Emerged in the 1980s**

- ITIL in 1980's ----- Focus on practical guidance, 36 books
- ITIL v2 in 2001 ----- Focus on processes, maturity, Support and Delivery book
- ITIL v3 in 2007 ----- Focus on Service Lifecycle, 5 lifecycle books
- ITIL 2011 edition in 2011 ----- Update to V3
- ITIL 2016 Practitioner course ----- ITIL guiding principles created
- ITIL 4 in 2019 ----- Focus on Value and flexibility (Agile and DevOps)



ITIL4-223_1.46_ENG_QWRN_ITIL4FO

13

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

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

Developments leading-up to ITIL 4

▪ Shift left

- moving person, process, or technology closer to customer,
- self-service or web submission (automation).
- better service and achieving better business results.
- faster and more efficient and effective resolution.
- Reduces costs (transfers costs to customer)
- Means redesign of the business process (understand what part of work can shift)
- Automate where added value of personal touch is low.

▪ Digital transformation

- Enables a shift-left
- Re-imagining of business in the digital age
- Begins and ends with customer
- From video rental to streaming
- Virtual (cloud based) infrastructure

Influence of Lean, Agile, DevOps on IT Service Management

- For example, a release would traditionally have been done by specialist teams



- Lean looks at the Value Stream, eliminates waiting time & rework (grey arrows)
 - Educating specialist team members so they can participate in all steps
 - Creating a perfect flow & instant reaction to demand (Pull)



- Agile added the idea of getting there in short iterations.

- Learning and adapting each time, adding value with each iteration



- DevOps teams automate releases in a virtual/cloud environment,
 - resulting in (almost) continual releases. It includes operational support

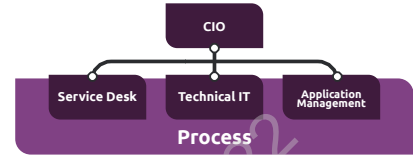


ED.SO.22.01145-35166-001592-28/01/2022

Impact of Lean, Agile and DevOps on the Organization

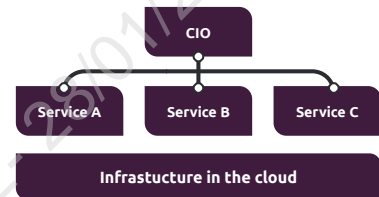
- **Classical IT organization with specialist departments**

- Consists of Silo's.
- Needs formal processes to manage services.
- ITIL Processes require a process manager, process owner, KPI's.
- Resulting in a complex matrix organization.



- **Modern Agile or DevOps service teams**

- Close to or integrated with the customers.
- Customer specifies demand directly to team (informal).
- Support and development in one team (DevOps).
- Even a server is software (virtual / in the cloud).
- Challenge is to maintain common strategy and governance.



- **The ITIL 4 answer:**

- Most organizations have a mix; centralized service desk, legacy systems.
- ITIL 4 practices replace ITIL 2011 processes,
- Apply ITIL 4 according to what the organization/team/service needs.
- DevOps teams can use ITIL practices to standardize and/or formalize ITSM.
- ITIL helps automate and/or collaborate with other teams, manage an end-to-end service.

ED.SO.22.01145-30146-004592-251012022

How ITIL Supports Agile

- **With ITIL in place:**
 - ITIL provides context to Agile and DevOps teams to work more effectively and to coordinate with other teams, departments and suppliers.
 - Teams work effectively, faster and deliver a more stable deployment.
 - Reduced cost of service and better coordination between Agile projects and business/service.
 - Focus on delivering best value, being effective and efficient within context of wider service.
- **Agile team roles aligned with ITIL**
 - Agile roles can be combined with ITIL roles.
 - some examples:
 - product managers/owners can perform role of service owner
 - Scrum masters can perform role of change manager
 - Scrum masters as part of continual improvement, running retrospectives and ensuring lessons are learned.

DevOps

- **Arose from Agile software projects,**
 - Led to more frequent releases.
 - Centers on delivering live software.
 - Unifying technical operations and delivery.
 - Moving from individual releases to continual releasing.
 - Testing and implementing is highly automated.
- **ITIL roles:**
 - change, release, Incident and problem management roles or activities should be assigned in the DevOps team to ensure service and release effectiveness.

ED.SO.22.01145-38166-00459/28/01/2022



Previous Topic

It Service Management, Agile and DevOps (Not examined)

Key Concepts

Next Topic

Key Components



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

19

Key Concepts

The most important concepts and terminology of ITIL are:

- **IT service management**
- **Value and value co-creation**
- **Stakeholders**
- **Services**
 - Definition
 - Offerings
- **Value:**
 - outcomes, costs, and risks.
 - Warranty and Utility.
- **Service relationships**

ITIL-223_1.46_ENG_QWRN_ITIL4FO

20

A shared understanding of the key concepts and terminology of ITIL by organizations and individuals is critical to the effective use of this guidance to address real-world service management challenges. To that end, this module explains some of the most 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
- value: outcomes, costs, and risks.

These concepts apply to all organizations and services, regardless of their nature and underpinning technology. But the first thing that must be outlined is the most fundamental question of all: What is 'service management'?

Key Concept: Service Management

Definition Service Management:

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

- **Requires an understanding of:**
 - The nature of value.
 - Nature and scope of stakeholders involved.
 - How value creation is enabled through services.
- **Service management challenges:**
 - Intangible nature of output and products.
 - Demand tightly coupled with customer's assets.
 - High level of contact for producers and customers.
 - Perishable nature of service output and capacity.

Value and Value co-creation

Value is the perceived benefits, usefulness and importance of something

- **Key message:**
 - The purpose of an organization is to create value for stakeholders.
- **Value co-creation**
 - Communication in value chain is bi-directional.
 - Active collaboration between providers and consumers.
 - Including other organizations that are part of the service relationships.
 - Stakeholders across the service value chain contribute to:
 - definition of requirements.
 - design of service solutions.
 - service creation and/or provisioning.

ITIL4-223_1.46_ENG_QWRN_ITIL4FO

22

The term 'value' is used regularly in service management, and it is a key focus of ITIL 4.

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

Value can be subjective. The purpose of an organization is to create value for stakeholders. This value is the perceived benefits, usefulness and importance of something.

Most IT organizations get stuck in a discussion about IT costs but rarely do they manage to connect costs to Value.

Value is achieved through IT output which enables the user to create business value.

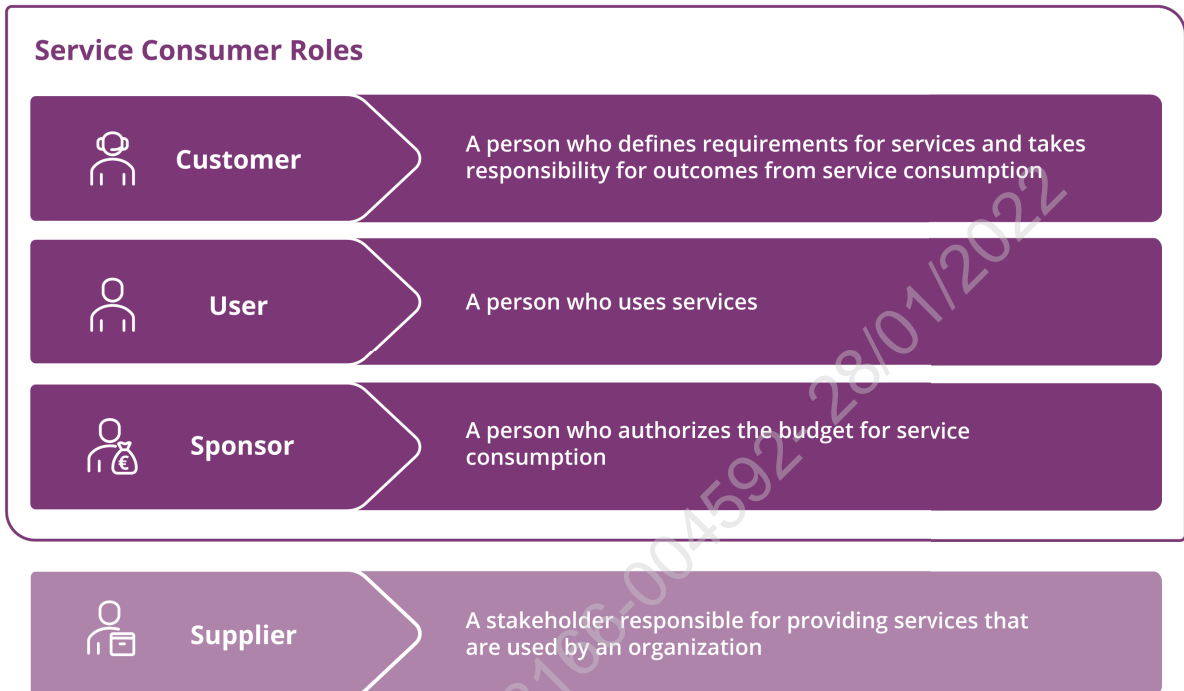
In service teams (Agile and Devops) the customer is in the driving seat and directly decides value.

Value is co-created through an active collaboration between providers and consumers, as well as other organizations that are part of the relevant service relationships. Providers should no longer attempt

to work in isolation to define what will be of value to their customers and users, but actively seek to establish mutually beneficial, interactive relationships with their consumers, empowering them to be creative collaborators in the service value chain. Stakeholders across the service value chain contribute to the definition of requirements, the design of service solutions and even to the service creation and/or provisioning itself.

ED.SO.22.01145-38166-004592-28/01/2022

Stakeholders in Service Management



IT14-223_1.46_ENG_QWRN_ITIL4FO

23

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

Suppliers are internal or third parties, responsible for supplying goods or services needed to deliver IT services. E.g. hardware and software vendors and outsourcing organizations

In service management there are many different kinds of stakeholder, each of which must be understood in the context of the creation of value in the form of services.

Other Stakeholders

- **Organization**

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



IT14-223_1.46_ENG_QWRN_ITIL4FO

24

Organizations vary in size and complexity, and in their relation to legal entities, from a single person or a team to a complex network of legal entities united by common objectives, relationships, and authorities. An organization that coordinates adventure vacations can fill the role of a service provider to a travel agent when it sells a vacation, while simultaneously filling the role of service consumer when it purchases hang-gliding outings to add to their vacation packages.

Traditionally the provider organization is an IT department of a company, and the other functional units in the company are consumers. A provider could also be selling services on the open market to other businesses, to individual consumers, or it could be part of a service alliance, collaborating to provide services to consumer organizations. An organization in the provider role has a clear understanding of who its consumers are and who the other stakeholders are in the associated service relationships.

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

What is a Service?

*Services are 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**.*

*A **product** is a configuration of resources, created by the organization, that will be potentially valuable for their customers*

- **Products are complex and not fully visible to customer.**
 - What consumer sees doesn't always represent all service components.
 - Organizations decide which components consumers see.
 - Components tailored to suit target consumer groups.
 - Products are the resources that are needed to enable a service.

IT14-223_1.46_ENG_QWRN_ITIL4FO

25

The services that an organization provides are based on one or more of its products. Organizations own or have access to a variety of resources, including 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 be valuable for its customers.

Each product that an organization offers, is created with a number of target consumer groups in mind, and the products will be tailored to appeal to, and meet the needs of, these groups. A product is not exclusive to one consumer group, and can be used to address the needs of several different groups.

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

Service Offerings

Definition: Service offering

- Description of one or more services, designed to address the needs of a target consumer group.
- Service offering may include goods, access to resources, and service actions

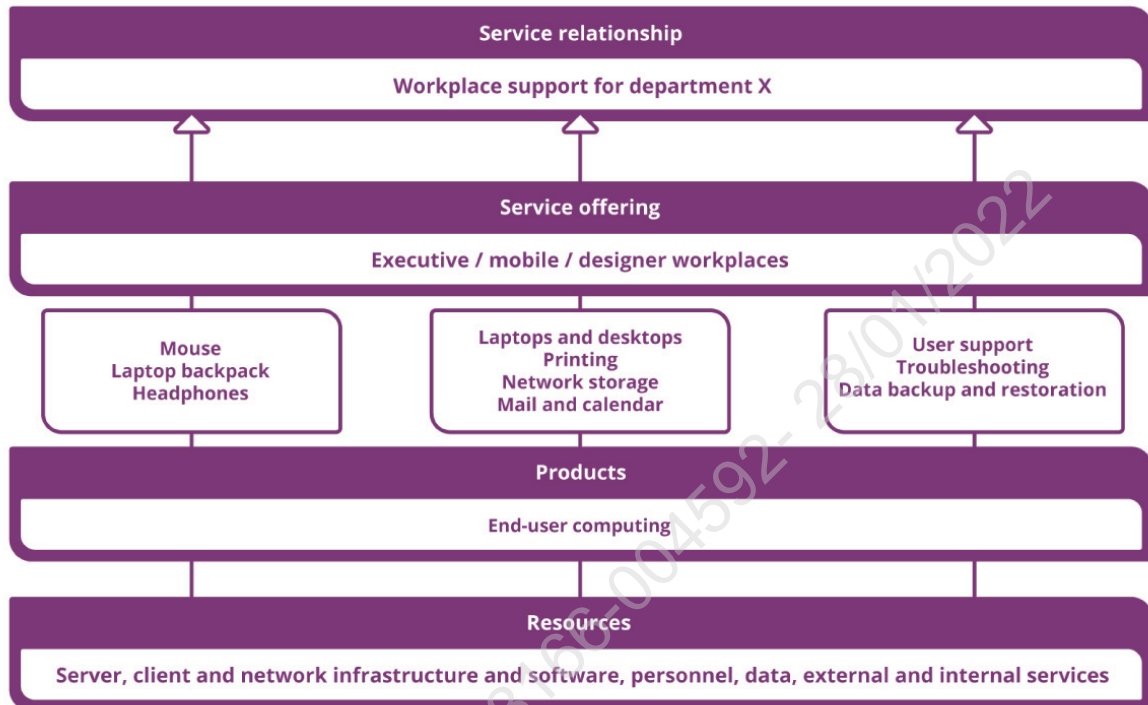
| Goods Outcome | Access to Resources | Service Actions |
|--|--|--|
| Ownership is transferred to the consumer | Ownership is not transferred to the consumer | Performed by the provider to address a consumer need |
| Consumer takes responsibility for future use | Access is granted/ licensed under agreed terms or conditions | Performed according to agreement with consumer |

IT14-223_1.46_ENG_QWRN_ITIL4FO

26

Services are offered to target consumer groups, and those groups may be either internal or external to the service provider organization. Different offerings can be created based on the same product, which allows it to be used in multiple ways to address the needs of different consumer groups. For example, a software service can be offered as a limited free version, or as a comprehensive paid-for version, based on one product of the service provider.

Example of Service Offerings



IT14-223_1.46_ENG_QWRN_ITIL4FO

27

This slide illustrates the service offering of workplace support.

The relationship is with department X.

The types of services are: executive, mobile or designer workplace.

Goods are: Mouse, laptop backpack and headphones,

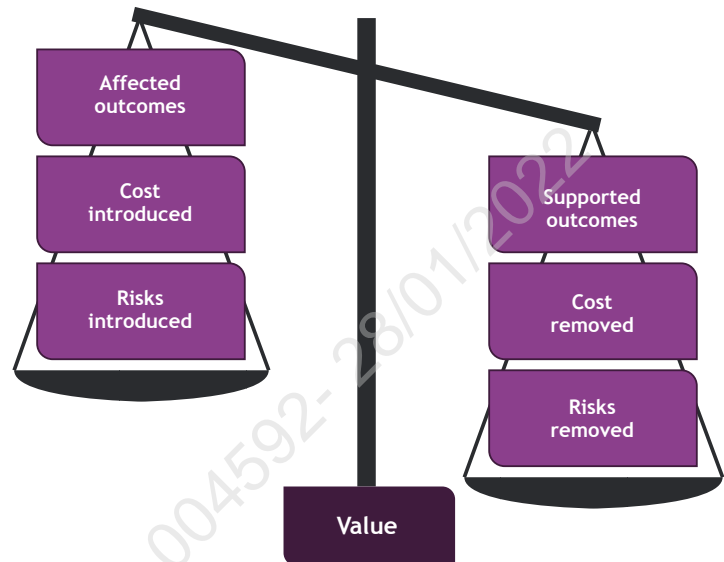
Access to resources are: the laptops and desktops, printing, network storage and mail and calendar.

Related to workplace services are service actions such as user support, trouble shooting, data backup and restoration.

Achieving Value

Definition of a service:

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



IT14-223_1.46_ENG_QWRN_ITIL4FO

28

An organization in the role of service provider should evaluate what its services should do and how its services should be provided to meet the needs of consumers.

Achieving desired outcomes requires resources (and therefore costs) and is often associated with risks.

Service providers help their consumers to achieve outcomes, and in doing so, take on some of the associated risks and costs (see the definition of service).

But service relationships can introduce new risks and costs and can negatively affect some outcomes, while supporting others.

Service relationships are perceived as valuable only when they have more positive effects than negative, as depicted in the figure.

Definitions of Output, Outcome, Cost & Risk

- **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, as in:
 - Costs removed from customer (Part of value)
 - Costs imposed on customer (Costs of consumption)
- **Risk:**
 - Possible event that could cause harm or hinder achievement of objectives.
 - Can be defined as uncertainty of outcome.
 - Can be used in context of measuring probability of positive or negative outcomes.
 - As in:
 - Risks removed from customer (part of value).
 - Risks imposed on customer (risks of consumption).

IT14-223_1.46_ENG_QWRN_ITIL4FO

29

There is a difference between outputs and outcomes.

The output of a wedding photography service may be an album in which selected photos are artfully arranged.

The outcome of the service is the preservation of memories and the ability of the couple and their family and friends to easily recall those memories by looking at the album.

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

- costs removed from the consumer by the service (a part of the value proposition). This may include costs of staff, technology, and other resources, which the consumer does not need to provide
- costs imposed on the consumer by the service (the costs of service consumption). The total cost of consuming a service includes the price charged by the service provider (if applicable), plus other costs such as staff training, costs of network utilization, procurement, etc. Some consumers describe this as what they have to 'invest' to consume the service.

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

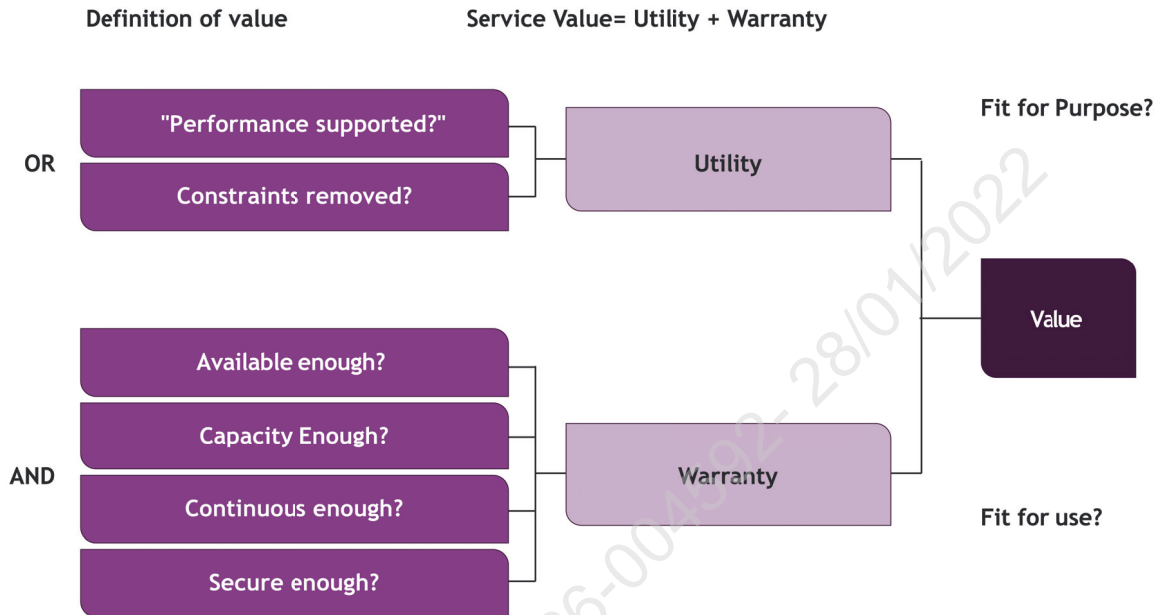
It is the duty of the provider to manage the detailed level of risk on behalf of the consumer

There are two types of risk that are of concern to service consumers:

- risks removed from a consumer by the service (part of the value proposition). May include failure of the consumer's server hardware or lack of staff availability. In some cases, a service may only reduce a consumer's risks, but the consumer may determine that this reduction is sufficient to support the value proposition
- risks imposed on a consumer by the service (risks of service consumption). An example of this would be a service provider ceasing to trade, or experiencing a security breach.

ED.SO.22.01145-38166-004531 28/01/2022

Service Value Definition



Perception is an important factor in determining value!

IT14-223_1.46_ENG_QWRN_ITIL4FO

30

Both utility and warranty are essential for a service to facilitate its desired outcomes and therefore help create value.

For example, a recreational theme park may offer many exciting rides designed to deliver thrilling experiences for park visitors (utility), but if a significant number of the rides are frequently unavailable due to mechanical difficulties, the park is not fulfilling the warranty (it is not fit for use) and the consumers will not receive their expected value.

Likewise, if the rides are always up and running during advertised hours, but they do not have features that provide the levels of excitement expected by visitors, the utility is not fulfilled, even though the warranty is sufficient. Again, consumers would not receive the expected value.

Utility

- Functionality offered by product or service to meet particular need.
- Summarized as ‘what the service does’
- Determines if service is ‘fit for purpose’.
- Supports performance of consumer and/or removes constraints

Warranty

- Assurance that product or service will meet agreed requirements.
- Summarized as ‘how the service performs’
- Determines if a service is ‘fit for use’.
- Relates to service levels aligned with needs of service consumers.
- Based on formal agreement, or marketing message or brand image.
- Addresses availability of service, capacity, levels of security and continuity.

ED.SO.22.01145-38166-004592- 28/01/2022

Service Relationships

- **Service relationships aim to co-create value**
 - Roles are:
 - Service providers and
 - Service consumers
 - An organization can have both roles
- **Service relationship**
 - A cooperation between a service provider and service consumer.
 - Service relationships include service provision, service consumption and service relationship management.

Service relationships aim to co-create value. The definition of a Service relationship is A cooperation between a service provider and service consumer. Service relationships include service provision, service consumption, and service relationship management. these will be explained in the next slides.

Service Relationships



IT14-223_1.46_ENG_QWRN_ITIL4FO

32

Service provisioning are activities performed by an organization to provide services.

Service Consumption consist of activities performed by a service consumer to consume services.

Service relationship management consists of joint activities performed by a service provider and a service consumer to ensure continual value co-creation based on agreed and available service offerings.

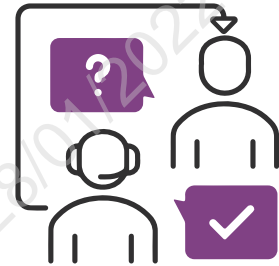
Service Provisioning

Management of provider resources configured to deliver the service.

Provision of access to resources for users.

Fulfillment of the agreed service actions.

Service performance management and continual improvement.



ED.SO.22.01145-38166-004592-28/01/2022

Service Consumption



Management of the consumer resources needed to consume the service.

Utilization of the provider's resources.

Requesting of service actions to fulfill.

Receipt of, or acquiring of goods.

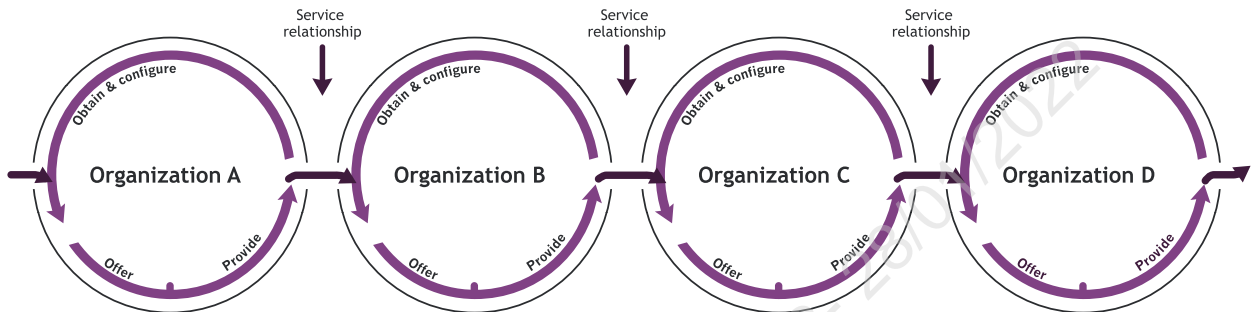
IT14-223_1.46_ENG_QWRN_ITIL4FO

34

Service consumption Activities performed by an organization to consume services.

Service consumption includes management of the consumer's resources needed to use the service.

The Service Relationship Model



IT14-223_1.46_ENG_QWRN_ITIL4FO

35

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

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

The service consumer can use its new or modified resources to create its own products to address the needs of another target consumer group, thus becoming a service provider



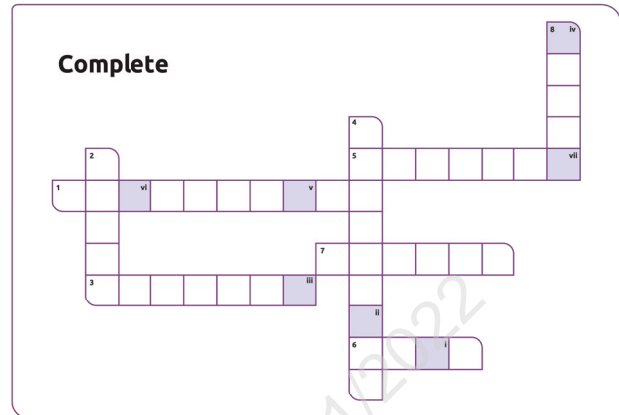
Exercise

IT14-223_1.46_ENG_QWRN_ITIL4FO

36

ED.SO.22.01145-38166-004592-28/01/2022

Fill-in the cryptogram below



Horizontal

1. A service is a means of enabling valueby facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks.
3. A person who authorizes the budget for the service consumption.
5. A result for a stakeholder enabled by one or more outputs.
6. ... refers to possible events that could cause harm or loss, or make it more difficult to achieve objectives.
7. A tangible or intangible deliverable of an activity.

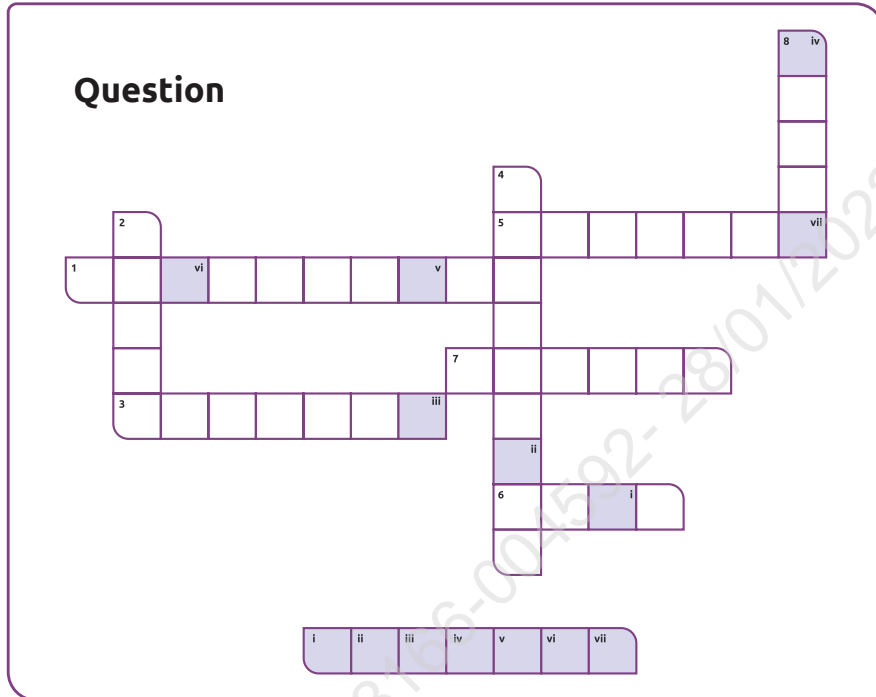
Vertical

2. What is: Ownership is transferred to the consumer?
4. In the service relationship model: Service providers are also service.
8. Is the perceived benefits, usefulness and importance of something.

ED.SO.22.01145-38166-004392-22/01/2022

Find the word in the gray numbered fields

Question



Legend:

| | | | | | | |
|---|----|-----|----|---|----|-----|
| i | ii | iii | iv | v | vi | vii |
|---|----|-----|----|---|----|-----|

IT14-223_1.46_ENG_QWRN_ITIL4FO

38



Exercise - The value of services

Discussion:

- **What is the difference between:**
 - enabling value for customers and
 - delivering value to customers?
- **Discuss the value of**
 - “workplace and office automation”
 - versus “E-banking” in terms of output and outcomes.
- **For the above two examples:**
 - what are the stakeholders and what is their role?
 - How are specific risks and costs transposed by the service?

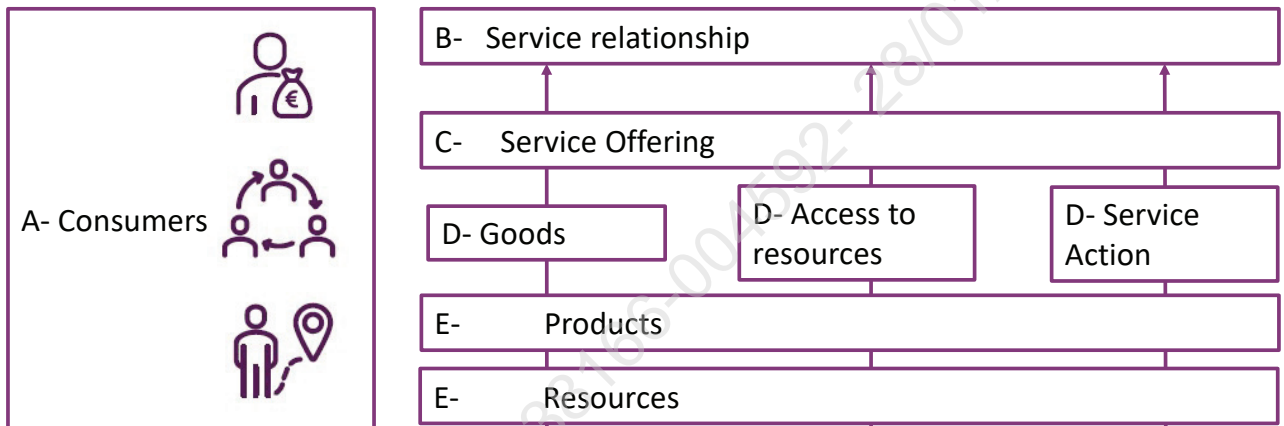
ED.SO.22.01145-38166-004592-28/01/2022

Exercise - Service Offering

Consider a specialty unit (like oncology) within a hospital and answer the questions below.

Discuss for the case:

- Who are consumers, customers, users and sponsors in the hospital unit value chain?
- Describe the service relationship and how continual value co-creation is ensured?
- what are the service offerings?
- what are the goods, access to resources, service actions?
- what are the products and resources



IT14-223_1.46_ENG_QWRN_ITIL4FO

40



Previous Topic

Key Concept

Key Components



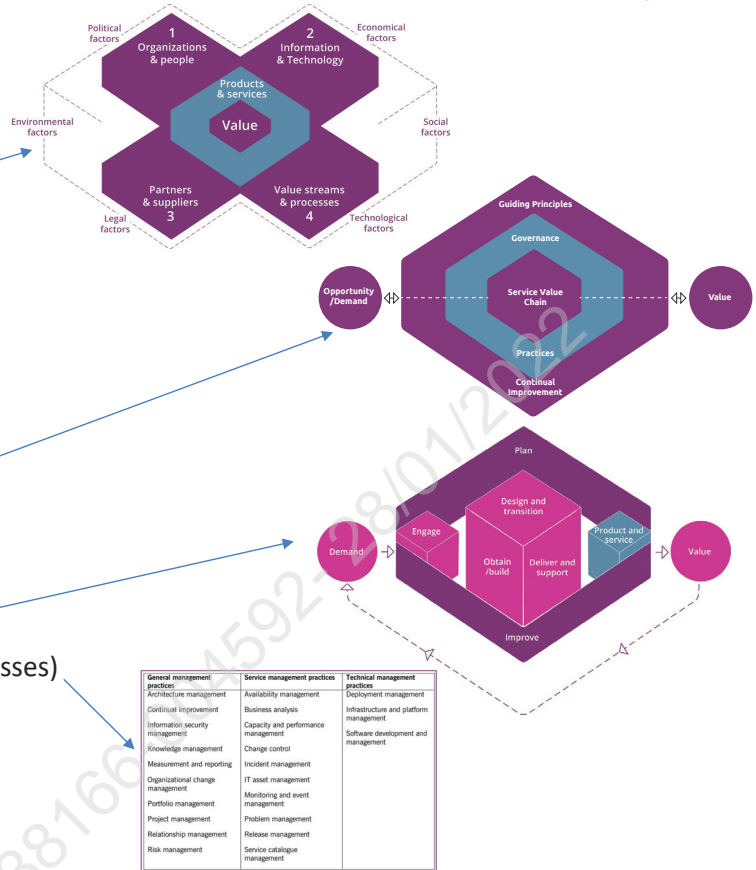
ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

41

ITIL 4 Key Components

- **Four dimensions model:**
 - Organizations & people
 - Information & technology
 - Partners & suppliers
 - Value stream and processes
- **ITIL service value system (SVS):**
 - Guiding principles
 - Governance
 - The service value chain (SVC)
 - ITIL 4 practices (used to be processes)
 - Continual improvement



IT14-223_1.46_ENG_QWRN_ITIL4FO

42

ITIL has led the ITSM industry with guidance, training, and certification programmes for more than 30 years.

ITIL 4 brings ITIL up to date by re-shaping much of the established ITSM practices in the wider context of customer experience, value streams, and digital transformation, as well as embracing new ways of working, such as Lean, Agile, and DevOps.

ITIL 4 provides the guidance organizations need to address new service management challenges and utilize the potential of modern technology.

It is designed to ensure a flexible, coordinated and integrated system for the effective governance and management of IT-enabled services.

The Four Dimensions Model

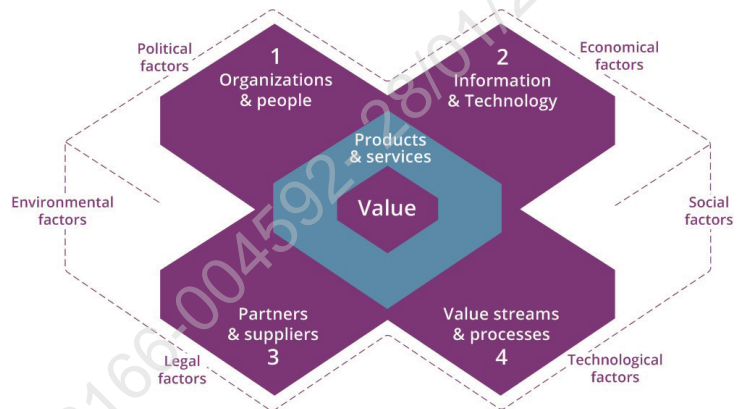
- **Is like a the value formula**
 - Aligns the four dimensions to how value is created
 - Do we have the right organizational structure and people?
 - Are we using the right technologies?
 - Do we have the right partners?
 - What value streams and processes do we need?

- **Can describe the present**
 - Where are we now?
- **Can also describe the future**
 - Where do we want to be?

- **Helps check progress**

- **Core is the Service Value System**

- **Helping you memorize:**
 - 4 Dimensions = VOIP
 - Environmental factors = PESTLE



IT14-223_1.46_ENG_QWRN_ITIL4FO

43

To ensure a holistic approach to service management, ITIL 4 outlines four dimensions of service management, from which each component of the SVS should be considered.

By giving each of the four dimensions an appropriate amount of focus, an organization ensures its SVS remains balanced and effective.

The four dimensions collectively are critical to the effective and efficient facilitation of value for customers and other stakeholders in the form of products and services.

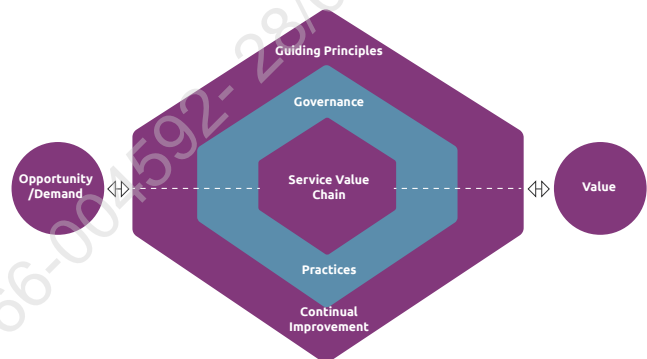
The Service Value System (SVS)

Operates across the 4 dimensions:

1. Guiding principles give direction.
2. Governance checks progress against strategies, plans, policies.
3. Continual improvement drives change.
4. Service Value Chain (SVC) aligns to above three components.
5. Practices provide guidance for activities in the Service Value Chain.

ITIL service Value System (SVS) describes how all components and activities of the organization work together as a system to enable value creation.

Components, activities, resources can be (re)configured flexibly to suit the situation. This requires integration/coordination of activities/practices across the value chain.



ITIL4-223_1.46_ENG_QWRN_ITIL4FO

44

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

These can be combined in a flexible way, which requires integration and coordination to keep the organization consistent.

The ITIL SVS facilitates this integration and coordination and provides a strong, unified, value-focused direction for the organization.

The structure of the ITIL SVS is shown in the figure.

The **ITIL service value chain** provides an operating model for the creation, delivery, and continual improvement of services. It is a flexible model that defines six key activities that can be combined in many ways, forming multiple value streams. The service value chain is flexible enough to be adapted to multiple approaches, including DevOps and centralized IT, to address the need for multimodal service management. The adaptability of the value chain enables organizations to react to changing demands from their stakeholders in the most effective and efficient ways.

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

The **ITIL guiding principles** can be used to guide an organization's decisions and actions and ensure a shared understanding and common approach to service management across the organization. The ITIL guiding principles create the foundation for an organization's culture and behavior from strategic decision-making to day-to-day operations.

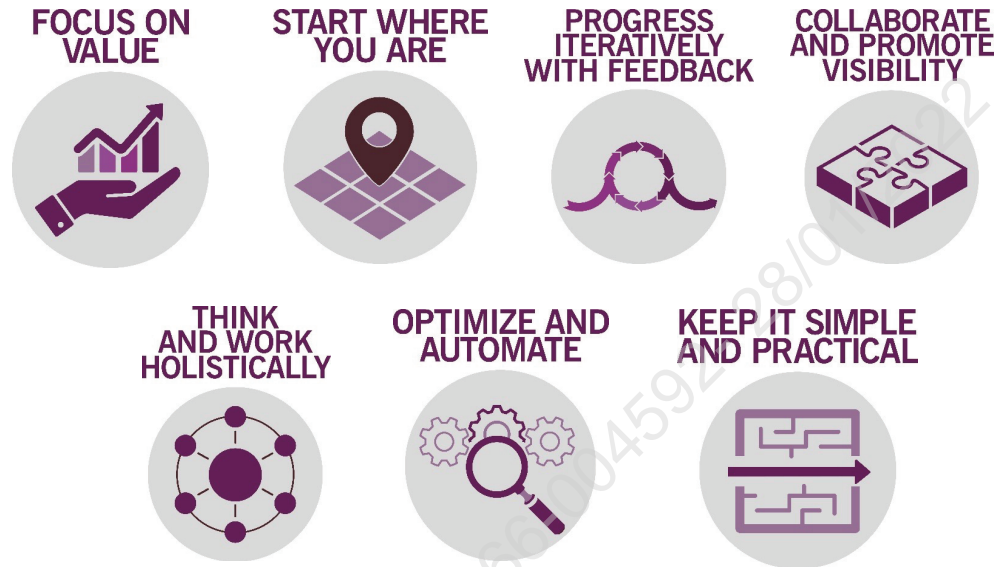
The ITIL SVS also includes **governance** activities that enable organizations to continually align their operations with the strategic direction set by the governing body.

Every component of the ITIL SVS is supported by continual **improvement**. ITIL provides organizations with a simple and practical improvement model to maintain their resilience and agility in a constantly changing environment.

ED.SO.22.01145-38166-004592-28/01/2020

ITIL Guiding Principles

(Explained in detail in module 2)



ITIL4-223_1.46_ENG_QWRN_ITIL4FO

45

A guiding principle is a recommendation that guides an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure. A guiding principle is universal and enduring.

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

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

The guiding principles are universally applicable to practically any initiative and to all relationships with stakeholder groups. For example, the first principle, focus on value, can (and should) be applied not only to service consumers, but to all relevant stakeholders and their respective definitions of value.

ED.SO.22.01145-38166-004592-28/01/2022

Governance (not required for exam)

- Checks progress against objectives
- Checks continual improvement
- Checks if/how value is created
- Helps adopt/adapt the guiding principles

- ITIL refers to ISACA's COBIT 5 framework

IT14-223_1.46_ENG_QWRN_ITIL4FO

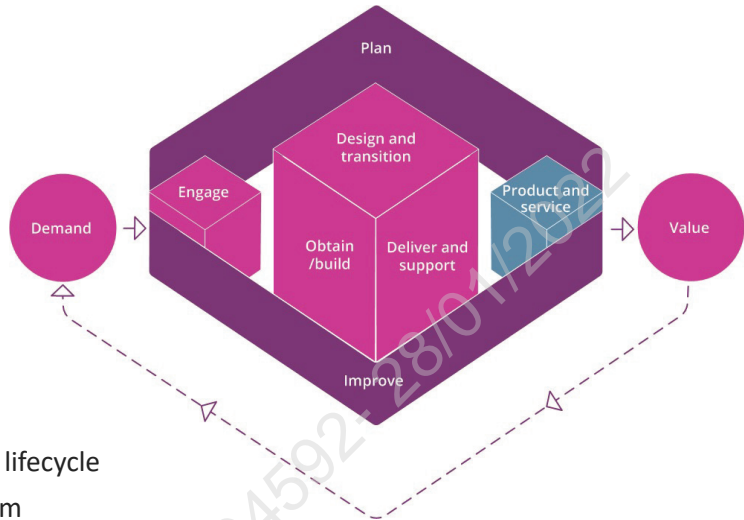
46

Every organization is directed by a governing body, i.e. a person or group of people who are accountable at the highest level for the performance and compliance of the organization. All sizes and types of organization perform governance activities; the governing body may be a board of directors or executive managers who take on a separate governance role when they are performing governance activities. The governing body is accountable for the organization's compliance with policies and any external regulations.

The Service Value Chain (SVC)

- **Activities that create value:**

1. Plan
2. Engage
3. Improve
4. Design & Transition
5. Obtain & Build
6. Deliver & Support



- **Activities:**

- Manage services through the lifecycle
- Are executed by a service team
- Use the ITIL 4 practices for guidance

IT14-223_1.46_ENG_QWRN_ITIL4FO

47

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

As shown in the figure, the ITIL service value chain includes six value chain activities which lead to the creation of products and services and, in turn, value.

The ITIL 4 Practices

| General Management Practices | Service Management Practices | Technical Management Practices |
|--|--|--------------------------------------|
| Architecture management | Availability management | Deployment management |
| Continual improvement | Business analysis | Infrastructure & platform Management |
| Information security management | Capacity & performance Management | Software development and management |
| Knowledge management | Change enablement | |
| Measurement and reporting | Incident management | |
| Organizational change management | IT asset management | |
| Portfolio management | Monitoring & event Management | |
| Project management | Problem management | |
| Relationship management | Release management | |
| Risk management | Service catalogue management | |
| Service Financial Management | Service Configuration Management | |
| Strategy Management | Service Continuity Management | |
| Supplier Management | Service Design | |
| Workforce & talent management | Service desk | |
| | Service level management | |
| | Service request management | |
| | Service validation & testing | |

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

Now more general called practices

Use as plug-ins for activities in the value chain

Bold print practices required for Foundation exam

Bold printed practices are required for the ITIL 4 foundation course



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Module Completed

49

ED.SO.22.01145-38166-004592-28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

IT Service Management

ITIL® 4 Foundation

Module 2

Four Dimensions and Guiding Principles

1

ED.SO.22.01145-38166-004592- 28/01/2022



The four Dimensions of Service Management

Next Topic

The Guiding Principles



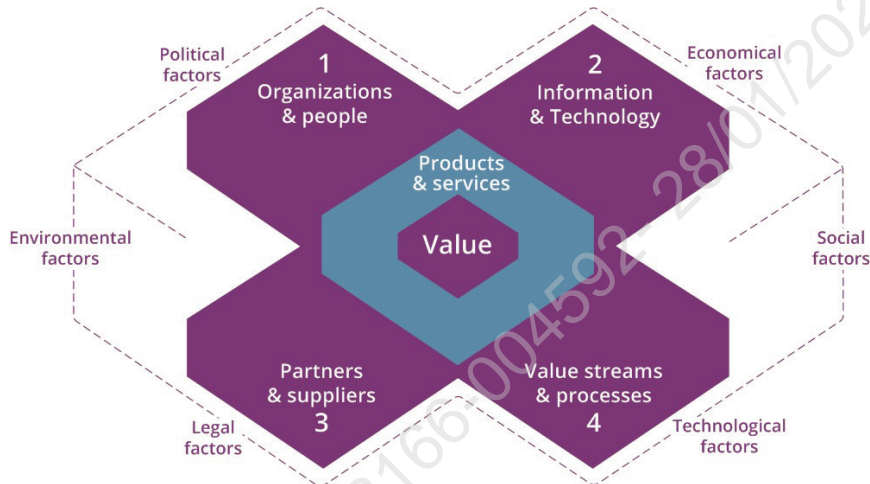
ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

2

The four dimensions of Service Management

- **Holistic ITSM approach to the value of products/services for customers/ stakeholders.**
- **Relevant to the whole SVS, the service value chain and all ITIL practices.**
- **Constrained to - influenced by - external factors beyond control of the SVS.**



IT14-223_1.46_ENG_QWRN_ITIL4FO

3

Not addressing all four dimensions can result in services becoming undeliverable, not meeting expectations of quality or efficiency.

For example, failing to consider the value streams and processes dimension holistically can lead to wasteful work, duplication of efforts, or worse, work that conflicts with what is being done elsewhere in the organization.

Equally, ignoring the partners and suppliers dimension could mean that outsourced services are misaligned with the needs of the organization.

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

The four dimensions apply to all services being managed, as well as to the SVS in general. These perspectives should be considered for every service, and that each one should be addressed when managing and improving the SVS at all levels.

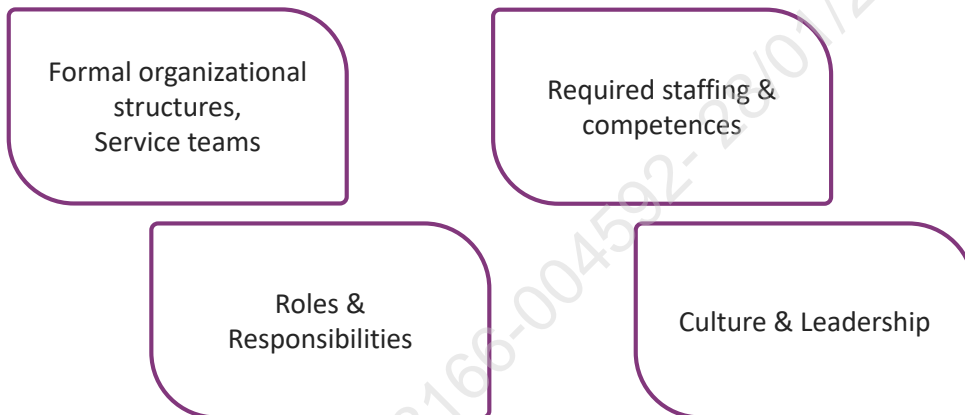
The four dimensions represent a holistic approach to service management, and organizations should ensure that there is a balance of focus between each dimension. The impact of external factors on the four dimensions should also be considered. All four dimensions and the external factors that affect them should be addressed as they evolve, considering emerging trends and opportunities. It is essential that an organization's SVS is considered from all four dimensions, as the failure to adequately address or account for one dimension, or an external factor, can lead to sub-optimal products and services.

ED.SO.22.01145-38166-004592-28/01/2022

Organizations and People

Key message

- Complexity of organizations is growing.
- Structure and management should support strategy and operating model.
- That Includes roles, responsibilities, and systems of authority and communication.



IT14-223_1.46_ENG_QWRN_ITIL4FO

4

Organizational effectiveness is not only dependent on a formal structure or system of authority. It also needs a culture that supports its objectives and employees with the right level of capacity and competency.

Leaders must use values that motivate people to work in desirable ways.

It is how an organization carries out work that creates shared values and attitudes, which are considered the organization's culture.

Aspects that play a role:

- Structure and roles
- Culture and communication styles, a healthy organizational culture
- Collaboration and coordination
- Capable and competent employees
- Leadership and common values
- How activities are carried out

Information and Technology

Key message

- Applies both to service management and to the services being managed.
- Information and knowledge necessary for ITSM.
- Required technologies.
- Relationships between different components of the SVS, such as:
 - Inputs/outputs of activities and practices.

Relationships between components

Technologies

Information and knowledge

IT14-223_1.46_ENG_QWRN_ITIL4FO

5

Consider the following questions:

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

Technologies that support service management include

- workflow management systems,
- knowledge bases,
- inventory systems,
- communication systems,
- analytical tools.
- Artificial intelligence,
- machine learning,
- mobile platforms,
- cloud solutions,

- remote collaboration tools,
- automated testing,
- deployment solutions
- other cognitive computing solutions

Service management increasingly benefits from developments in technology. Technologies are used at all levels, from strategic planning and portfolio optimization to system monitoring and user support. The use is becoming common practice among service providers.

Another key consideration in this dimension is how information is exchanged between different services and service components. For many services, information management is the primary means of enabling customer value. The challenges of information management, such as those presented by security and regulatory compliance requirements, are also a focus of this dimension. For example, an organization may be subject to the European Union's General Data Protection Regulation (GDPR), which influences its information management policies and practices.

For an IT service, it includes information created, managed, and used in the course of service provision and consumption.

Information and technologies cover all levels of IT architecture, including applications, databases, communication systems, and their integrations.

IT services use the latest technology developments, such as blockchain, artificial intelligence, and cognitive computing.

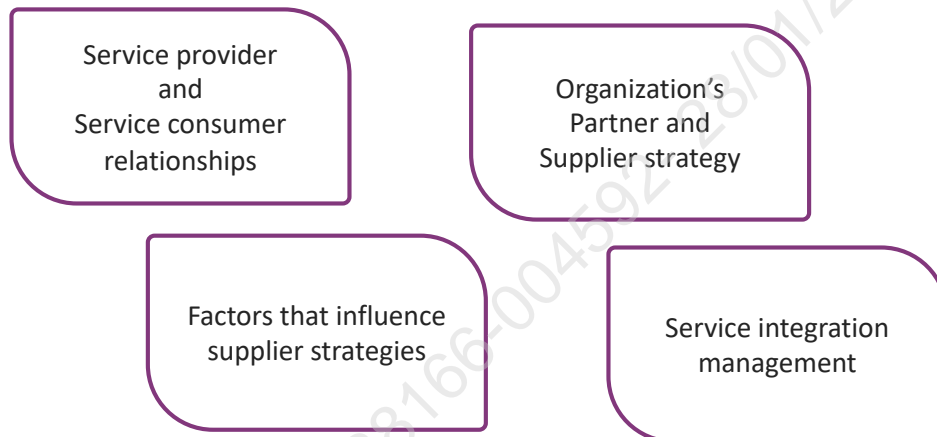
These services provide a business differentiation potential to early adopters, especially in highly competitive industries.

Other technology solutions, such as cloud computing or mobile apps, have become common practice across many industries globally.

Partners and Suppliers

Key message

- Organizations and services depend partly on external services.
- Relationships between organizations involved in design, development, deployment, delivery, support and/or continual improvement of services.
- This dimension Incorporates contracts/agreements with partners/suppliers.



IT14-223_1.46_ENG_QWRN_ITIL4FO

6

A service provider's position will vary depending on their strategy for customer relationships. A service consumer will depend on its strategy for sourcing and supplier management. An organization's strategy should be based on its goals, culture, and business environment. Some may focus on core competencies, using partners and suppliers to provide other needs. Others may rely on their own resources, using partners and suppliers as little as possible. There are many variations between these two opposite approaches.

An organization may address the partners and suppliers dimension through service integration and management.

This involves use of a specially established integrator to ensure that service relationships are properly coordinated.

Service integration and management may be kept within the organization, but can also be delegated to a trusted partner.

Factors that may influence an organization's strategy when using suppliers include:

Strategic focus

Either focus on core competencies and outsource non-core functions to third parties, or stay self-sufficient and retain control over important functions.

Corporate culture

Can cause historical preference (cultural bias) for one approach over another. This is difficult to change without compelling reasons.

Resource scarcity

If in short supply, a service provider may need to engage a supplier.

Cost concerns

A service provider may believe it more economical to source from a supplier.

Subject matter expertise

It may be less risky to use a supplier that already has expertise, rather than develop and maintain in house.

External constraints

Government regulation or policy, industry codes of conduct, and social, political or legal constraints may impact a supplier strategy.

Demand patterns

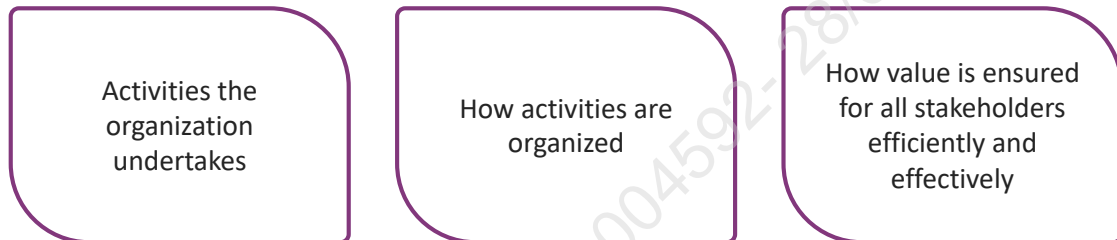
Customer activity or demand may be seasonal or demonstrate high degrees of variability. Patterns may impact the extent to which use is made of external service providers.

Recent trends include companies that offer technical resources (infrastructure) or capabilities (platforms, software) 'as a service'. They bundle goods and services into a single product as a utility, and is accounted for as operating expenditure. This frees companies from investing in costly infrastructure and software assets that need to be accounted for as capital expenditure.

Value Streams and Processes

Key message

- Defines how organization/SVS, work together to enable value creation.
- Focused on how activities are organized, and ensure effective value creation for all stakeholders.



IT14-223_1.46_ENG_QWRN_ITIL4FO

7

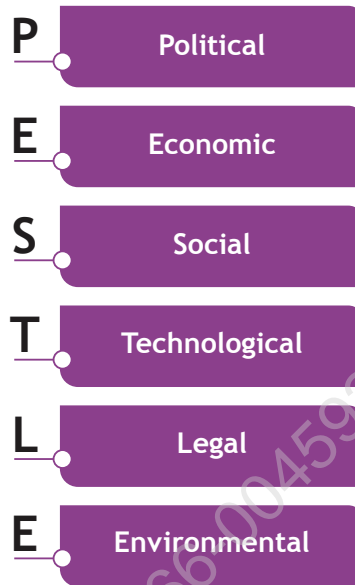
Value streams for service management

- A series of steps to create and deliver products and services to a service consumer.
- A combination of the organization's value chain activities
- Derived from LEAN and it aims to improve the way a process adds value

Processes (in a matrix organization)

- Set of activities that transform inputs to outputs to accomplish an objective
- Well-defined processes can improve productivity within and across organizations
- Detailed in procedures who is involved and work instructions how they are carried out

External Factors Influencing the Dimensions



IT14-223_1.46_ENG_QWRN_ITIL4FO

8

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

- Government and societal attitudes towards environmentally friendly products and services may result in the organization investing more in tools and technologies that meet external expectations. An organization may choose to partner with other organizations (or source services from external providers) who can demonstrate environmentally friendly credentials. For example, some companies publish product environmental reports that describe their products' performance against their policies around climate change, safer materials, and other resources.
- Economic and societal factors may influence organizations to create several versions of the same product to address various consumer groups that show different buying patterns. One example is music and video streaming services, many of which have a free tier (with advertising), a premium tier (without advertising), and in some cases a 'family plan' that allows multiple individual profiles under one paid-for account.
- Data protection laws or regulations (like GDPR) have changed how companies must collect, process, access, and store customer data, as well as how they work with external partners and suppliers

Exercise - the four dimensions

Discuss the following case: A regional hospital wants to start an experiment with a one-stop diagnostic clinic (as a separate unit in the hospital). The purpose is that clients will arrive on a physician's referral and in one day get all the tests needed for a diagnosis and a treatment plan. Clients are assigned to a case manager who will order tests, evaluate and order further tests until a team of specialists can diagnose and set a treatment plan. ALL IN ONE DAY.

An IT DevOps service team has been designated to support the unit by developing the apps and data systems it needs to operate independent of the central IT, but it needs to coordinate where the unit uses corporate IT systems and infrastructure.

Discuss how the 4 dimensions will be implemented differently from the 4 dimensions in the central IT domain.



Previous Topic

The four dimensions of Service Management

The Guiding Principles

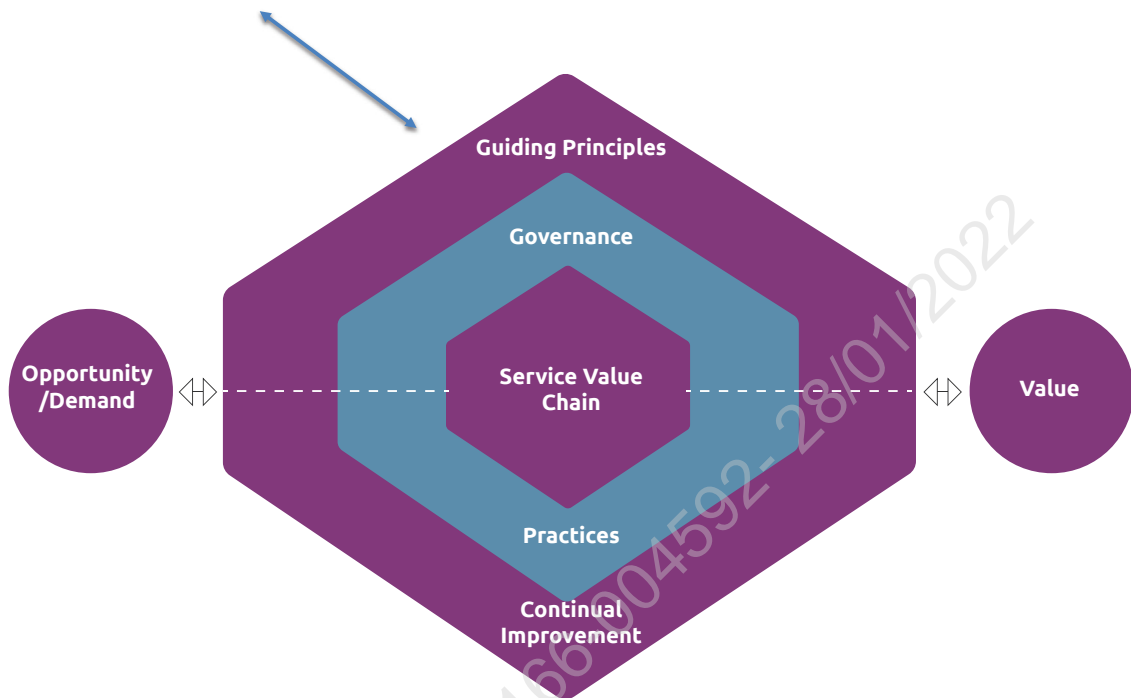


ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

10

Guiding Principles



IT14-223_1.46_ENG_QWRN_ITIL4FO

11

Guiding principles are core messages of ITIL and service management, for successful actions and good decisions of all types and at all levels.

They can guide organizations as they adopt service management and adapt to ITIL guidance.

The Guiding Principles

Definition: Guiding principle

- A recommendation that guides an organization in all circumstances,
- Regardless of changes in goals, strategies, type of work, or management structure.
- Is universally applicable and enduring.

Principles:

- Guide organizations as they
 - adopt a service management approach and
 - adapt ITIL guidance to their own specific needs and circumstances.
- Allows organizations to integrate the use of multiple methods into an overall approach to service management.
- Are universally applicable to nearly any initiative.

IT14-223_1.46_ENG_QWRN_ITIL4FO

12

Guiding principles encourage continual improvement at all levels.

They are also reflected in other frameworks, such as Lean, Agile, DevOps, and COBIT.

This helps organizations to integrate the use of different methods into service management.

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

For example, the first principle, focus on value, can (and should) be applied not only to service consumers, but to all relevant stakeholders and their respective definitions of value.

The Service Value System (SVS) – Guiding principles



IT14-223_1.46_ENG_QWRN_ITIL4FO

13

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

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

The guiding principles are universally applicable to any initiative and all relationships with stakeholder groups. For example, the first principle, focus on value, can be applied to service consumers, all relevant stakeholders and their respective definitions of value

Focus on Value



Key message:

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

- **The customer experience:**
 - Experience must be actively managed.
 - Is an element of value:
 - Customer experience (CX)
 - User experience (UX)

IT14-223_1.46_ENG_QWRN_ITIL4FO

14

Questions to determine value:

- Who is being served?
- Why is customer using the service?
- How does service help achieve customer goals?
- What are costs/financial consequences for consumer?
- What risks are involved for service consumer?

Focus on Value – Applying the principle

- Know how consumers use service.
- Encourage a focus on value among all staff.
- Focus on value during operations and improvement initiatives.
- Have common focus on value in every improvement step.

IT14-223_1.46_ENG_QWRN_ITIL4FO

15

Know how consumers use service

- Understand how service contributes to expected outcomes
- How consumers perceive service provider
- Collect ongoing feedback on value

Encourage a focus on value among all staff

- Teach staff to be aware of their customers and understand CX.

Focus on value during operations and improvement initiatives

- Organization as a whole contributes to value that customer perceives
- Everybody within organization must maximize value they create
- Value creation not only for people working on projects and new things.

Have common focus on value in every improvement step

- Understand what is expected,
- Know how value will be measured,
- How everyone should contribute to co-creating the value.

Exercise - Focus on value

Using the example of the one-stop-diagnosis unit in the hospital, discuss how focus on value can be implemented and how it would differ from the way the central IT unit is focusing on value.

ED.SO.22.01145-38166-004592-28/01/2022

Start Where You Are

**Key message:**

- Don't remove what was done in the past.
- Risk is wasting time, existing services, processes, people and tools
- Consider what is already available to be leveraged.

Assessing where you are:

- Base decisions on accurate information.
- Measure existing services to understand what can be re-used.

The role of measurement

- Measurements support analysis, but don't replace it.
- When measure becomes a target, it ceases to be a good measure *Goodhart's Law*.

IT14-223_1.46_ENG_QWRN_ITIL4FO

17

Assessing where you are:

- Base decisions on accurate information.
- Measure existing services to understand what can be re-used
- Check discrepancies between reports and reality
- Unchecked assumptions can badly impact timelines, budgets, and quality.
- A person with little knowledge may spot things that others would miss.
- Observers should not be afraid to ask stupid questions.

The role of measurement

- Measurements support analysis, but don't replace it
- When measure becomes a target, it ceases to be a good measure Goodhart's La
- Over-reliance on data-analytics introduces bias and risks in decision-making.
- Use a variety of techniques to develop knowledge of environments
- Some things can only be measured (e.g. temperature and wind),
- Otherwise direct observation is preferred.

Start Where You Are – Applying the principle

Look objectively at what exists;

- Use customer or desired outcome as starting point.
- Check current elements on utility and warranty
- Can current elements be re-used to for desired future state?

Determine if/how current items can be replicated or expanded;

- Leveraging what exists will reduce work to transition to desired state.
- Focus on learning and improvement, not just replication and expansion.

Apply your risk management skills.

- associated with re-using existing practices including old behaviors.
- associated with something new not being performed correctly.
- Consider risks as part of decision-making, of making or not making a change.

Recognize when nothing from current state can be re-used.

- Regardless of desirability, there will be times when the only way is to start over
- These situations are very rare.

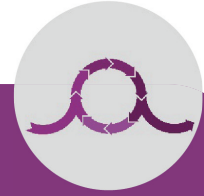
Exercise - Start where you are

Case study is in module 2, on slide 9

Using the example of the one-stop-diagnosis unit in the hospital, discuss what needs to be done to satisfy this principle and how it relates to the central IT unit.

ED.SO.22.01145-38166-004592-28/01/2022

Progress Iteratively with Feedback



Key message:

- Resist temptation to do everything at once.
- Work iteratively by organizing work into smaller sections
- Focus on each effort will be sharper and easier to maintain.

Role of Feedback is to understand:

- End user/customer perception of value created.
- Efficiency/effectiveness of value chain activities..
- Effectiveness of governance and management controls.
- Interfaces between organization, partner and supplier network.
- Demand for products and services.

IT14-223_1.46_ENG_QWRN_ITIL4FO

20

Iteration and feedback together

- Working timeboxed, iterative with embedded feedback loop, allows for:
 - greater flexibility
 - faster responses to customer and business needs
 - the ability to discover and respond to failure earlier
 - an overall improvement in quality.

Improvement iterations can be sequential or simultaneous, based on the requirements of the improvement and what resources are available. Each individual iteration should be both manageable and managed, ensuring that tangible results are returned in a timely manner and built upon to create further improvement.

A major improvement initiative or programme may be organized into several significant improvement initiatives, and each of these may, in turn, comprise smaller improvement efforts. The overall initiative or programme, as well as its component iterations, must be continually re-evaluated and potentially revised to reflect any changes in circumstances and ensure that the focus on value has not been lost. This re-evaluation should make use of a wide range of feedback channels and methods to ensure that the status of the initiative and its progress are properly understood.

Progress Iteratively with Feedback – Applying the principle

Comprehend the whole, but do something small

- Enemy is desire to understand and account for everything.
- Leads to ‘analysis paralysis’; much time spent analyzing and getting nothing done.
- Understanding the big picture is important, but so is making progress.

Ecosystem is constantly changing, so feedback is essential

- Change is happening constantly.
- Seek and use feedback at all times and at all levels.

Fast does not mean incomplete

- Iterations should be in line with concept of the minimum viable product.
- A minimum viable product is a version of the final product.
- Each step allows a maximum amount of validated learning with the least effort.

Exercise - progress iteratively with feedback

Case study is in module 2, on slide 9

Using the example of the one-stop-diagnosis unit in the hospital, discuss how this principle can be of value to this new unit and how it can drive the success of the unit.

ED.SO.22.01145-38166-004592-28/01/2022

Collaborate and Promote Visibility



Key message:

- 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.

Collaborate with Stakeholders

- The organization itself, customers and/or user.
- developers, suppliers (internal and external).
- Collaborate in value chain, opportunities spotted to automate activities.

Roadblocks

- Some organizations do a poor job of interacting with customers.
- Providers and consumers may think it is a waste of time to get or provide input.
- the right level of collaboration with customers will lead to better outcomes for all stakeholders.

ITIL4-223_1.46_ENG_QWRN_ITIL4FO

23

Increasing urgency through visibility

- Importance of improvement work must be transparent and have management support
- organization needs to perform such activities as:
 - understanding the flow of work in progress
 - identifying bottlenecks, as well as excess capacity
 - uncovering waste.

Creative solutions, enthusiastic contributions, and important perspectives can be obtained from unexpected sources, so inclusion is generally better than exclusion.

Cooperation and collaboration are better than isolated work (silo activity).

Silos can occur through behavior of individuals and teams, but also through structural causes.

E.g. where business units are impeded or unable to collaborate, because they are designed to fulfil the needs of only a specific part of the organization.

Applying the guiding principle of think and work holistically can help to break down barriers between silos of work.

The need for genuine collaboration has been a driving factor in the development of DevOps.

Without effective collaboration, neither Agile, Lean, nor any other ITSM framework or method will work.

Collaborate and Promote Visibility – Applying the principle

Collaboration does not mean consensus

- Consensus from everyone is not necessary.
- Trying to make everyone happy ends up as doing nothing or as inadequate.

Communicate in a way the audience can hear

- Organizations use the same (traditional) methods to communicate.
- Selecting the right method and message for each audience is critical.

Decisions can only be made on visible data

- Making decisions in absence of data is risky.
- Decide what data is needed and what work needs to be made visible.
- Balance the cost of collecting data against the benefit and intended usage.

ED.SO.22.01145-38166-011592-28/01/2022

Exercise - Collaborate and promote visibility

Case study is in module 2, on slide 9

Using the example of the one-stop-diagnosis unit in the hospital, discuss how this principle can be implemented. Who are the stakeholder groups that should be involved in developing this unit? What should their involvement be?

ED.SO.22.01145-38166-004592-28/01/2022

Think and Work Holistically



Key message:

No service, practice, process, department, or supplier stands alone. Outputs that organization delivers to itself, its customers and other stakeholders must work in an integrated way, handle its activities as a whole, not as separate parts. All the organization's activities should be focused on the delivery of value.

Taking a holistic approach to service management:

- Includes understanding how all parts of the organization work together.
- Requires end-to-end visibility of how demand is captured and translated into outcomes.
- In a complex system, alteration of one element can impact others. These impacts need to be identified, analyzed and planned for.

ITIL-223_1.46_ENG_QWRN_ITIL4FO

26

Services are delivered to internal and external service consumers through the coordination and integration of the four dimensions of service management.

Taking a holistic approach to service management includes establishing an understanding of how all the parts of an organization work together in an integrated way. It requires end-to-end visibility of how demand is captured and translated into outcomes. In a complex system, the alteration of one element can impact others and, where possible, these impacts need to be identified, analyzed and planned for.

Think and Work Holistically – Applying the principle

Recognize the complexity of the systems

- Different levels of complexity require different heuristics for decision-making.
- Methods and rules for a simple system can be ineffective in a complex system.
- Relationships between components can be complicated and change frequently.

Collaboration is key to thinking and working holistically

- If right mechanisms in place for stakeholders to collaborate timely, it will be possible to address issues holistically without unwanted delays.

Look for patterns in needs and interactions between system elements

- Use knowledge in each area to find what is essential for success, which relationships between elements influence the outcomes.
- With this info, needs can be anticipated, standards set, and a holistic view point achieved.

Automation can facilitate working holistically

- automation can support end-to-end visibility for the organization and provide integrated management.

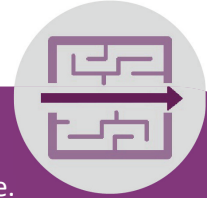
Exercise - Think and work holistically

Case study is in module 2, on slide 9

Using the example of the one-stop-diagnosis unit in the hospital, discuss where things can be kept simple in the new unit and where we must keep an eye on complexities? What kind of client interactions could possibly be automated? (e.g. check-in, scheduling next step, communication with clients, WiFi and client portal?)

ED.SO.22.01145-38166-004592-28/01/2022

Keep It Simple and Practical



Key message:

- Always use minimum number of steps to accomplish an objective.
- Outcome-based thinking produces practical solutions and valuable outcomes.
- If a process, service, action, or metric fails to produce eliminate it.
- This is frequently ignored, resulting in overly complex methods that rarely maximize outcomes or minimize cost.

Judging what to keep

- When analyzing an improvement target, always ask if it contributes to value creation.
- When improving service management, start uncomplicated and then add controls, activities, or metrics when they are truly needed.
- Understanding how something contributes to value creation helps keep it simple.
- Establish and communicate a holistic view of the organization's work so that teams or groups understand how their work is being influenced by, and in turn influences, others.
- Be mindful of conflicting objectives.

IT14-223_1.46_ENG_QWRN_ITIL4FO

29

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.

Keep It Simple and Practical – Applying the principle

Ensure value

- Every activity should contribute to the creation of value.

Simplicity is the ultimate sophistication

- It may seem harder to simplify, but it is often more effective.

Do fewer things, but do them better

- Minimizing activities to include only those with value for one or more stakeholders will allow more focus on the quality.

Respect the time of the people involved

- A process that is too complicated and bureaucratic wastes time of people involved.

Easier to understand, more likely to adopt

- To embed a practice, make sure it is easy to follow.

Simplicity is the best route to achieving quick wins

- quick wins allow organizations to demonstrate progress and manage stakeholder expectations.
- Working in an iterative way with feedback will quickly deliver incremental value at regular intervals.

ED.SO.22.01145-38106-04592-28/01/2022

Exercise - Keep it simple and practical

Case study is in module 2, on slide 9

Using the example of the one-stop-diagnosis unit in the hospital, discuss what kind of patient interactions that can be simplified as opposed to the general hospital procedures? Discuss how LEAN principles help improve value streams.

ED.SO.22.01145-38166-004592-28/01/2022

Optimize and Automate



Key message:

- Maximize value of work carried out by human and technical resources.
- Four dimensions show areas to consider when designing, managing, or operating a service.
- Technology helps automate simple work
- Allow more complex decision-making for humans.
- Over-automation can increase costs, reduce robustness and resilience.

The road to optimization

- Continual improvement, measurement and reporting are essential.
- Use ITIL, Lean, DevOps, Kanban, and other sources.
- Automate steps like testing and releasing (DevOps).

ITIL4-223_1.46_ENG_QWRN_ITIL4FO

32

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.

High-level steps:

- Understand and agree the optimization context
- Assess current state of optimization
- Agree future state and priorities of organization, focus on simplification and value
- Ensure optimization has appropriate level of stakeholder engagement
- Execute improvements in an iterative way
- Continually monitor impact of optimization

Optimize and Automate – Applying the principle

- **Simplify and/or optimize before automating**
 - Something complex or sub-optimal will not achieve the desired outcome.
 - map the standard and repeating processes and streamline where you can.
- **Define your metrics**
 - Make sure metrics are outcome-based and focused on value.
 - Use same metrics to define the baseline and measure the achievements.
- **Use the other guiding principles when applying this one**
 - Progress iteratively with feedback
 - Iterative optimization make progress visible, increase stakeholder buy-in.
 - Keep it simple and practical
 - Maybe something is simple, but not optimized, so use these two principles together
 - Focus on value
 - Decide what to optimize and automate and how, based on what will create best value.
 - Start where you are
 - Current technology may be underutilized.

Exercise - Optimize and automate

Case study is in module 2, on slide 9

Using the example of the one-stop-diagnosis unit in the hospital, discuss some client based steps (like check-in, plan the day (including lunch) update the schedule, etc. what kind of outcome based metrics will be useful to manage and improve the automation of these processes?

ED.SO.22.01145-38166-004592-28/01/2022

Principle Interaction

Principles interact with - and depend on- each other.

Examples,

- When progressing iteratively with feedback, working holistically ensures each improvement includes all elements necessary to deliver results.
- Making use of appropriate feedback is key to collaboration.
- focusing on what is valuable to customer helps keeping things simple and practical.

Don't use just one or two principles,

- Consider relevance of each principle and how they apply together.
- Not all principles will be critical in every situation,
- Reviewed all principles on each occasion to determine how appropriate they are.

Exercise Guiding Principles

Case study is in module 2, on slide 9

Summarize the discussion-exercises on the different principles here and discuss their interaction.

The Guiding principles are:

- | | | |
|----|------------------------------------|---------------------------------|
| 1. | Focus on value | – for stakeholders |
| 2. | Start where you are | – understand current state |
| 3. | Progress iteratively with feedback | – so actions remain appropriate |
| 4. | Collaborate and promote visibility | – across boundaries |
| 5. | Think and work holistically | – oversee all aspects |
| 6. | Keep it simple and practical | – use outcome based thinking |
| 7. | Optimize and automate | – eliminate waste |
-

ED.SO.22.01145-38166-004302-28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Module Completed

37

ED.SO.22.01145-38166-004592-28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

IT Services Management

ITIL® 4 Foundation

Module 3

Services Value Chain and Continual Improvement

1

ED.SO.22.01145-38166-004592- 28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

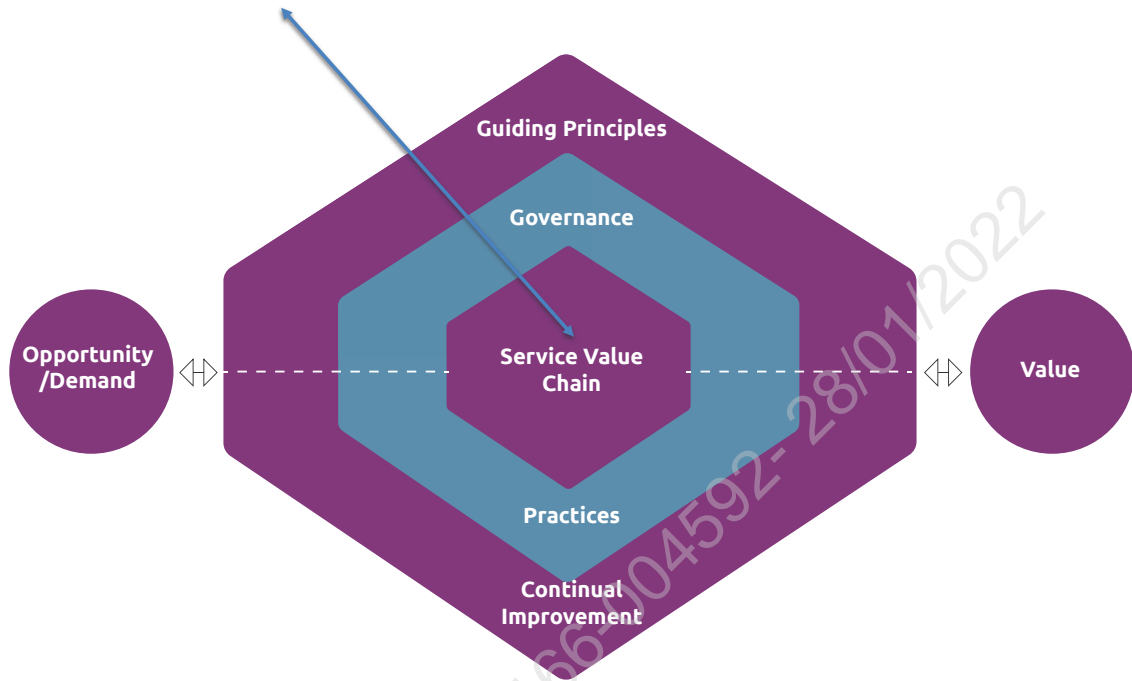
The Service Value Chain

Next Topic

Exercise 3

2

Service Value Chain



IT14-223_1.46_ENG_QWRN_ITIL4FO

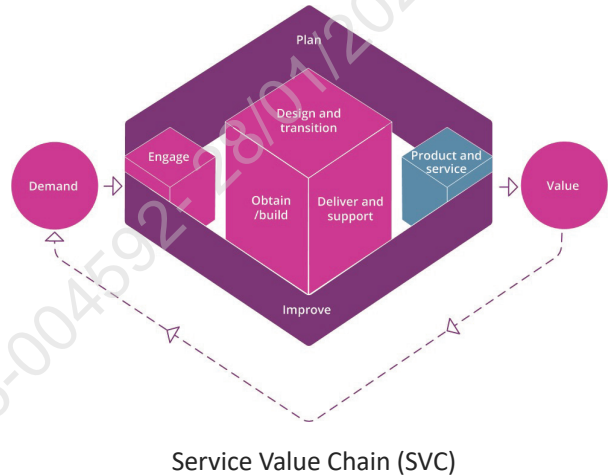
3

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

The Service Value Chain and the Value Streams

- **An operating model outlining activities that:**
 - respond to demand
 - facilitate value realization
 - through creation and management of products and services.

- **The six value chain activities are:**
 - plan
 - improve
 - engage
 - design and transition
 - obtain/build
 - deliver and support.



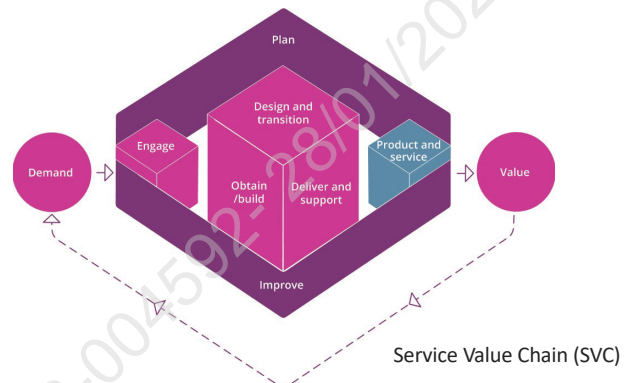
IT14-223_1.46_ENG_QWRN_ITIL4FO

4

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

Value Streams

- A value stream is a series of steps an organization undertakes to create and deliver products and services to consumers.
- Although the high-level steps are universal, different products and clients need different streams of work.
- Examples of a value streams:
 - Development of a new application
 - Changing an existing application
 - Etc.



- 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.

IT14-223_1.46_ENG_QWRN_ITIL4FO

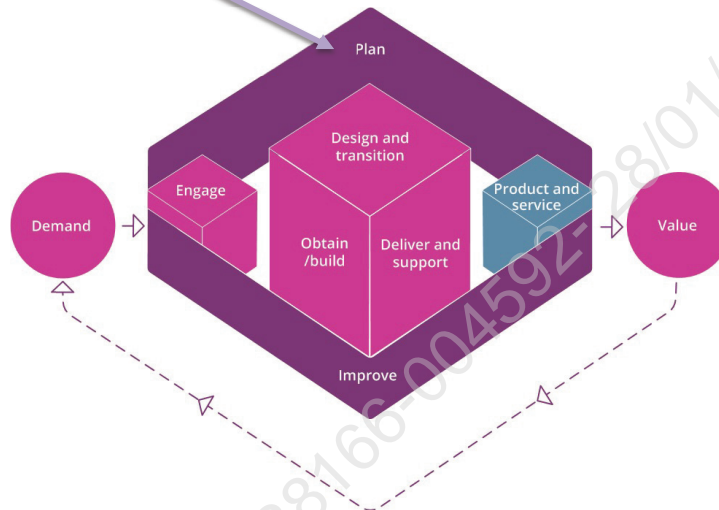
5

To carry out a certain task, or respond to a particular situation, organizations create service value streams. Service value streams are specific combinations of activities and practices, and each one is designed for a particular scenario, like solving an incident, the development of a new application or changing an existing application. The value stream will be designed specifically to be used in a particular scenario like this and will provide a complete guide to the activities, practices, and roles involved in a scenario. Once designed, value streams should be subject to continual improvement

Plan

Key message

- Ensures a shared understanding of: vision, current status, improvement direction
- It does this for all four dimensions and all products/services across the organization.

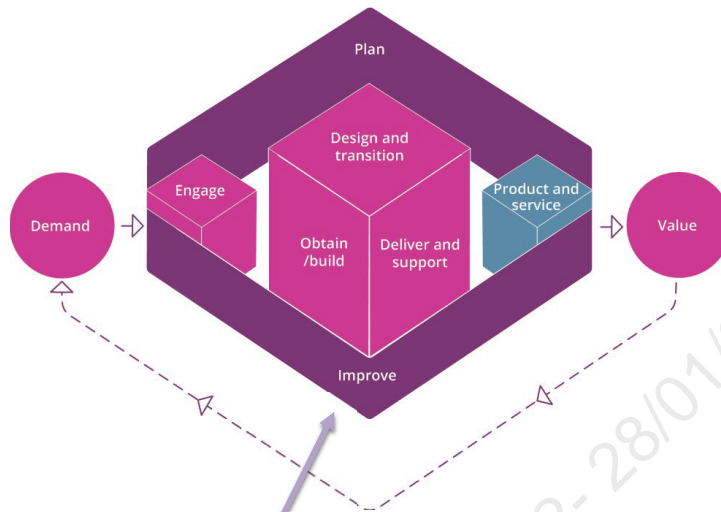


IT14-223_1.46_ENG_QWRN_ITIL4FO

6

Information used in this activity amongst others are policies, requirements and constraints, value chain performance information, information about new products and services. This information will be used for example to make plans, portfolio and architecture decisions.

Improve



Key message

- 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.

IT14-223_1.46_ENG_QWRN_ITIL4FO

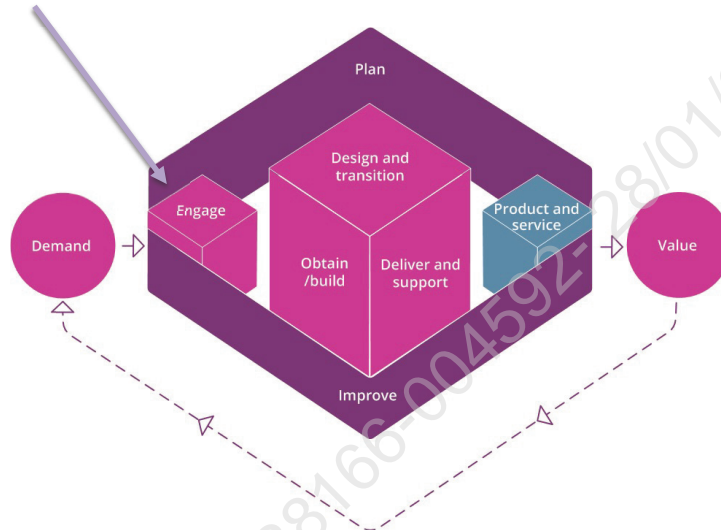
7

To give a more background on information used in this activity you can consider feedback from the stakeholders provided by engage or performance and improvement opportunities which will be used to plan and report improvement opportunities

Engage

Key message

- Provide good understanding of stakeholder needs, transparency, continual engagement and good relationships with all stakeholders



IT14-223_1.46_ENG_QWRN_ITIL4FO

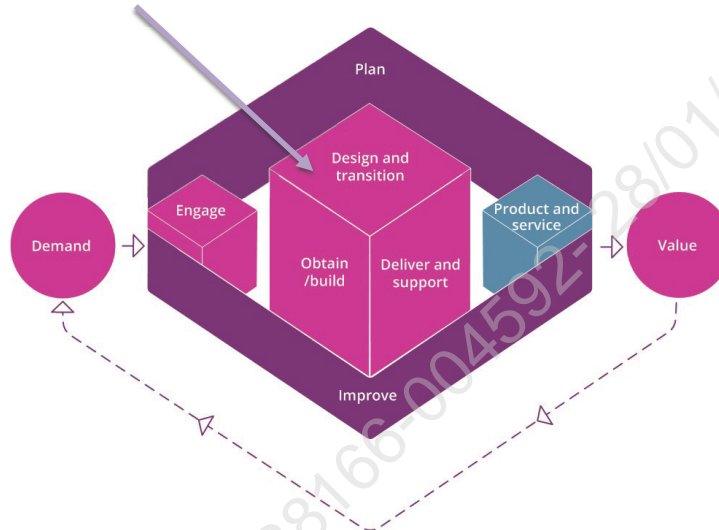
8

An example of an input to this activity is contract and agreement requirements or opportunities from current and potential customers and users; this will be then used to design product and service requirements and contracts and agreements amongst others.

Design & Transition

Key message

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



IT14-223_1.46_ENG_QWRN_ITIL4FO

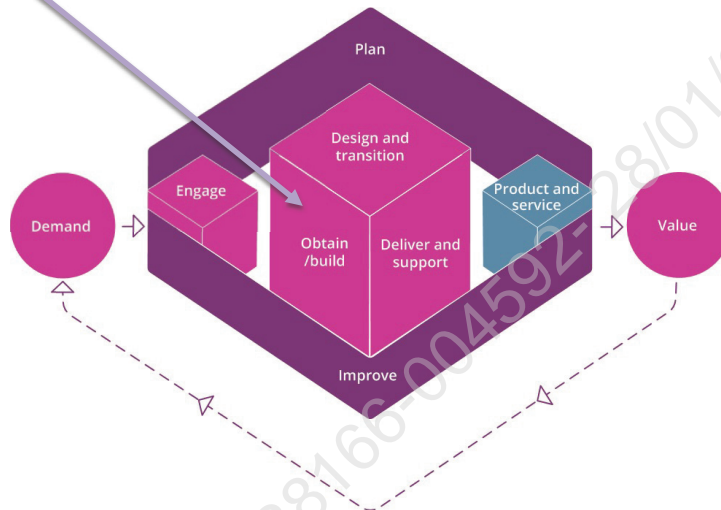
9

Some key inputs to this activity are architecture and plans, improvement initiatives, knowledge and information about new and changed products and services, then one of the outputs can be requirements and specifications for obtain or build.

Obtain/Build

Key message

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



IT14-223_1.46_ENG_QWRN_ITIL4FO

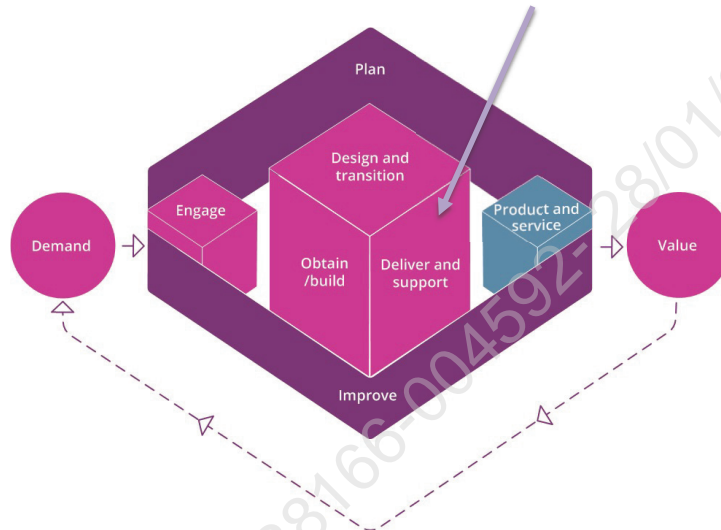
10

Inputs are amongst others goods and services provided by external and internal suppliers and partners, requirements and specifications provided by design and transition change or project initiation requests this input is necessary to create output like service components for deliver and support and design and transition also to create contract and agreements requirements for engage.

Deliver & Support

Key message

- 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.



IT14-223_1.46_ENG_QWRN_ITIL4FO

11

Examples of key inputs to this activity are new and changed products and services provided by design and transition, service components provided by obtain/build examples of the key outputs of this activity are services delivered to customers and users, information on the completion of user support tasks for engage, product and service performance information for engage and improve.



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Previous Topic
The Service Value Chain

Exercises

Next Topic
Continual Improvement

12



Discussion:

In the one-stop diagnosis case observe the following value stream:

Clients get a personal login in the client portal. In that personal space they can see the invitation to an intake for a one-stop diagnosis with a barcode. Patients have to print the barcode or have it on their phone. At the clinic, they have to check in in the waiting room using the barcode (there is a console like you have on the airport). Once checked in they will be called for their appointment. During the day patients will get new appointments for tests and for evaluations in different waiting areas and they have to check-in for each appointment.

The client portal functionality is provided by the central IT department but the check-in functionality has to be created for the clinic.

ED.SO.22.01145-38162004312

Exercise: Service Value System

- Consider the check-in value stream for the one-stop-diagnosis case.
- Discuss and fill-in the tables on the following slides for the DevOps team.

ED.SO.22.01145-38166-004592-28/01/2022

Exercise: SVC activities (1):

Providing an automated check-in for clinic appointments. The check-in must verify if the client is in the right waiting room.

| Value Chain Activity | Plan |
|----------------------|------|
| Practices | |
| Roles | |
| Activities | |

| Value Chain Activity | Improve |
|----------------------|---------|
| Practices | |
| Roles | |
| Activities | |

ED.SO.22.01145-38166-004592-28/01/2022

Exercise: SVC activities (2):

Providing an automated check-in for clinic appointments.

| Value Chain Activity | Engage |
|----------------------|--------|
| Practices | |
| Roles | |
| Activities | |

| Value Chain Activity | Design & Transition |
|----------------------|---------------------|
| Practices | |
| Roles | |
| Activities | |

ED.SO.22.01145-38166-004592-28/01/2022

Exercise: SVC activities (3):

Providing an automated check-in for clinic appointments.

| Value Chain Activity | Obtain /Build |
|----------------------|---------------|
| Practices | |
| Roles | |
| Activities | |

| Value Chain Activity | Deliver & Support |
|----------------------|-------------------|
| Practices | |
| Roles | |
| Activities | |

ED.SO.22.01145-38166-004592-28/01/2022



Previous Topic

Exercise

Continual Improvement

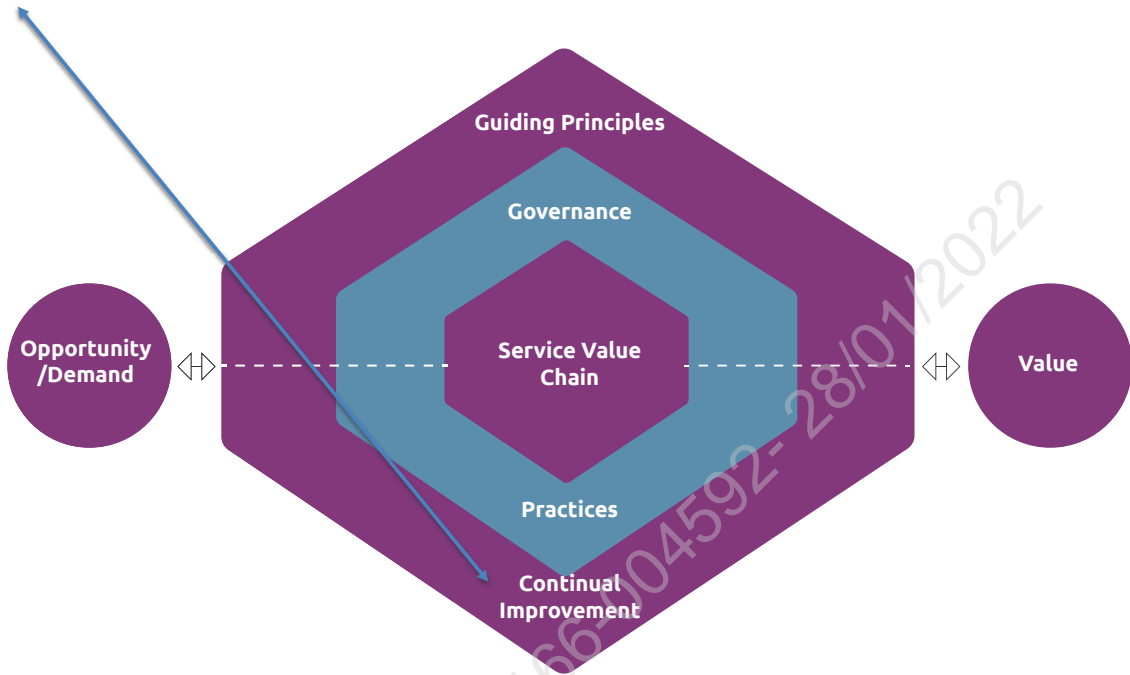


ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

18

Continual Improvement



IT14-223_1.46_ENG_QWRN_ITIL4FO

19

Continual improvement takes place in all areas of the organization and at all levels, from strategic to operational.

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

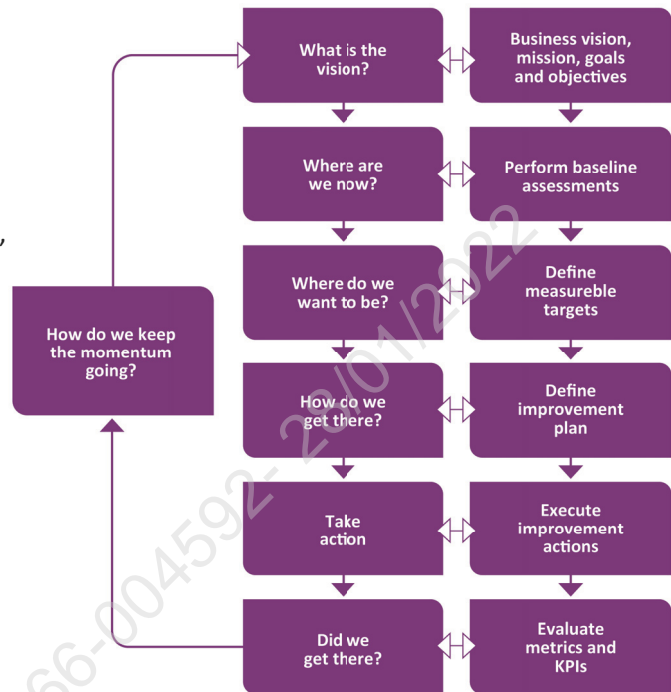
Continual Improvement

- **ITIL SVS supports continual improvement and value creation at all levels:**
- **SVS:**
 - ITIL continual improvement model, which provides organizations with a structured approach to implementing improvements
- **SVC:**
 - improve service value chain activity, which embeds continual improvement into the value chain
- **Practice:**
 - continual improvement practice, supporting organizations in their day-to-day improvement efforts.

ED.SO.22.01145-38166-004592-28/01/2022

Continual Improvement Model

- **High-level guide for improvements:**
 - increases success of ITSM initiatives,
 - focus on customer value,
 - improvement efforts linked to vision.,
 - iterative approach,
 - manageable pieces with separate goals,
 - achieved incrementally.



IT14-223_1.46_ENG_QWRN_ITIL4FO

21

The continual improvement model applies to the SVS in its entirety, as well as to all of the organization’s products, services, service components, and relationships.

The ITIL continual improvement model can be used as a high-level guide to support improvement initiatives.

Use of the model increases the likelihood that ITSM initiatives will be successful, puts a strong focus on customer value, and ensures that improvement efforts can be linked back to the organization’s vision.

The model supports an iterative approach to improvement, dividing work into manageable pieces with separate goals that can be achieved incrementally.

It is important to remember that the scope and details of each step of the model will vary significantly based on the subject and the type of improvement.

Continual Improvement Model – 1. What is the vision

Key message

- Each improvement initiative should support the organization's goals and objectives
- First step is to define vision of the initiative.
- This provides context for all subsequent decisions
- links individual actions to the organization's vision for future

- **Focuses on two key areas:**

- Organization's vision/objectives translated to specific organizational unit so context, objectives, and boundaries are understood.
- high-level vision for the planned improvement needs to be created.

IT14-223_1.46_ENG_QWRN_ITIL4FO

22

The work to do:

- Understand high-level direction
- Describe / understand planned improvement initiative in context
- Understand stakeholder roles
- Understand / agree expected value to be realized
- Clarify role of person/team in relation to organization's vision.

Continual Improvement Model – 2. Where are we now?

Key message

- success depends on clear/ accurate understanding of starting point and impact,
- An improvement journey from A to B, needs clear definition of Point A

• Current state assessments

- existing services, including: users' perception, competencies and skills, processes and procedures, capabilities of technological solutions.
- Understand organization's culture, values and attitudes across stakeholder groups, to decide what level of organizational change management is required.
- objective measurement for accurate understanding of issues with current state.
- Will help assess level of improvement by comparison with the initial state.
- This step is easier with a good measurement system is in place

IT14-223_1.46_ENG_QWRN_ITIL4FO

23

If skipped,

- there will not be an objective baseline measurement.
- effectiveness of improvement activities will then be difficult to assess

Continual Improvement Model – 3. Where do we want to be?

Key message

- An improvement journey from A to B, needs clear definition of Point B
- A journey cannot be mapped out if the destination is not clear.

• Gap analysis

- evaluate scope and distance to be travelled to achievement of initiative's vision.
- target state represents progress towards vision, not entire vision.
- Actions are prioritized actions along the way to completing the vision
- objectives CSF's and KPI's
 - critical success factors (CSFs)
 - key performance indicators (KPIs).
- Objectives need to be SMART:
 - specific, measurable, achievable, relevant, and time-bound.

ITIL4-223_1.46_ENG_QWRN_ITIL4FO

24

If skipped,

- target state will remain unclear.
- It will be hard explain what key stakeholders will gain from the initiative,
- It can result in low support or even pushback.

Continual Improvement Model – 4. How do we get there?

Key message

- straightforward and direct for a single simple improvement,
- If not simple, design experiments to test which options.

- **Work in iterations:**

- Even if path is clear, iterations are effective
- each iteration is an opportunity to check progress, re-evaluate the approach, and change direction

IT14-223_1.46_ENG_QWRN_ITIL4FO

25

If skipped

- execution of improvements can fail to achieve what is required.
- Failed improvements erode confidence and can make it difficult to get support for future improvements.

Continual Improvement Model – 5. Take action

Key message

- The plan for improvement is acted upon.
- This could involve:
 - waterfall-style approach, expert detailed design followed by build
 - Agile approach, experimenting, iterating, changing directions, or even going back to previous steps.

• General tips:

- Some improvements are part of a big initiative that makes a lot of change,
- other improvements are small but significant.
- a large change can consist of smaller improvement iterations.
- remain open to change direction throughout the approach.
- Focus on results more than on sticking to the method

ITIL4-223_1.46_ENG_QWRN_ITIL4FO

26

Keep continual focus on:

- measuring progress towards vision
- managing risks,
- ensuring visibility and overall awareness of the initiative.

Important ITIL practices are:

- organizational change management,
- measurement and reporting,
- risk management
- continual improvement.

Once completed, the work will result in a new current state.

Continual Improvement Model – 6. Did we get there?

Key message

- Too often, it is assumed that the expected benefits have been achieved,
- path to improvement is filled with obstacles, so success must be validated

- **Tips:**

- Check on:
 - progress (have the original objectives been achieved?)
 - value (are those objectives still relevant?)
- If not, additional actions are selected, resulting in a new iteration.

IT14-223_1.46_ENG_QWRN_ITIL4FO

27

If skipped:

- hard to be sure that desired outcomes were achieved
- lessons from this iteration will be lost.

Continual Improvement Model – 7. How do we keep the momentum going?

Key message

- focus of initiative should shift to marketing successes
- reinforcing new methods and behaviors ensures that progress will not be lost
- It also builds support and momentum for next improvements.

• Tips:

- Embed changes with organizational change management and knowledge management to avoid risk of reversion.
- Leaders and managers should integrate new methods and institutionalize new behaviors.
- In case of failure stakeholders need to be informed of the reasons
- Failure requires a thorough analysis the lessons learned.
- Lessons include what can be done differently the next iteration
- Transparency is important for future efforts, regardless of results of current iteration.

IT14-223_1.46_ENG_QWRN_ITIL4FO

28

If skipped:

- improvements will remain isolated and independent initiatives,
- any progress may be lost over time.
- It may also be difficult to get support for future improvements,
- It may be difficult to embed continual improvement in organization's culture.

Exercise

- The experiment with Implementing a one-stop-diagnosis clinic is part of a larger effort to reduce waiting lists and improve the value to clients. If the clinic is a success, the old polyclinics, blood testing, x-rays and MRI's can defer their patients to the new clinic as a first line support, increasing throughput and reducing costs.
- Discuss the steps in the Continual Improvement model that need to be managed to make sure that the new clinic will be a success.

ED.SO.22.01145-38166-004592-28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Module Completed

30

ED.SO.22.01145-38166-004592-28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

IT Service Management

ITIL® 4 Foundation

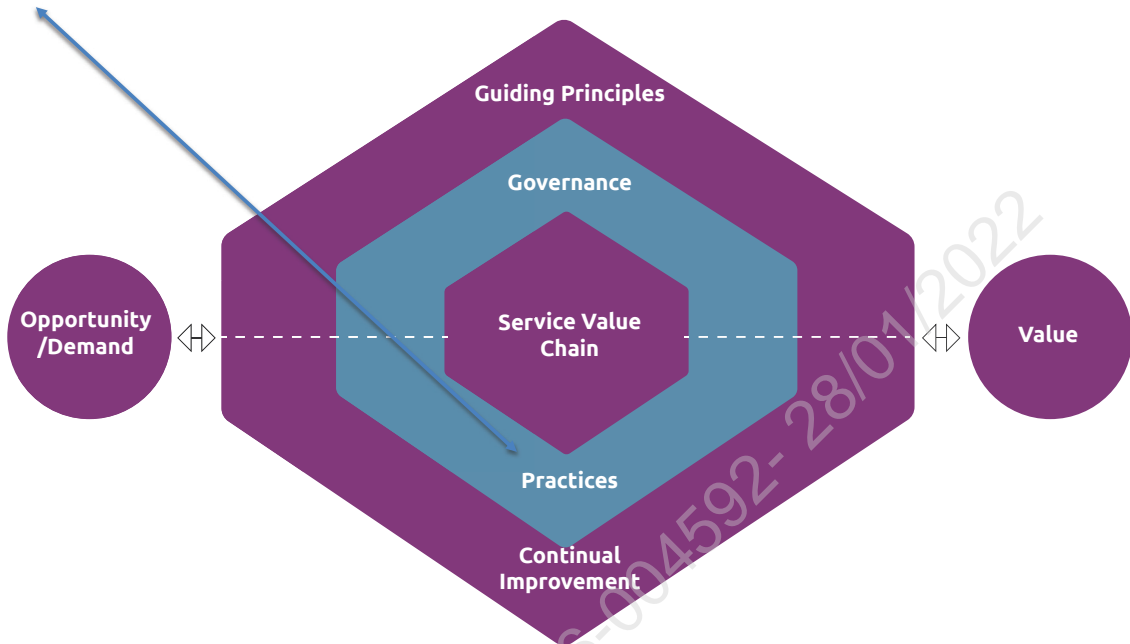
Module 4

Management Practices Overview

1

ED.SO.22.01145-38166-004592- 28/01/2022

Practices



IT14-223_1.46_ENG_QWRN_ITIL4FO

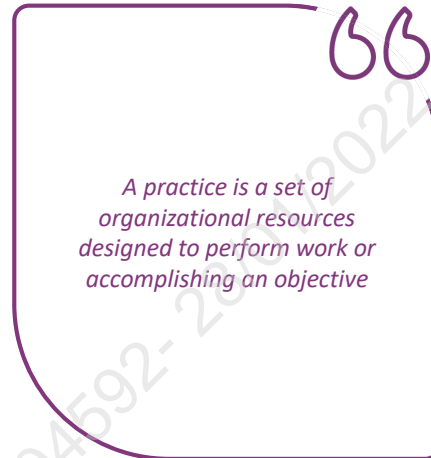
2

The ITIL SVS includes 14 general management practices, 17 service management practices, and three technical management practices, all of which are subject to the four dimensions of service management.

What is a Practice?

- **Each practice**

- Supports multiple service value activities
- Includes resources based on the 4 dimensions of service management



IT14-223_1.46_ENG_QWRN_ITIL4FO

3

In ITIL, a management practice is a set of organizational resources designed for performing work or accomplishing an objective. The origins of the practices are as follows:

- General management practices have been adopted and adapted for service management from general business management domains.
- Service management practices have been developed in service management and ITSM industries.
- Technical management practices have been adapted from technology management domains for service manage

The ITIL 4 Practices

| General Management Practices | Service Management Practices | Technical Management Practices |
|--|--|--------------------------------------|
| Architecture management | Availability management | Deployment management |
| Continual improvement | Business analysis | Infrastructure & platform Management |
| Information security management | Capacity & performance Management | Software development and management |
| Knowledge management | Change enablement | |
| Measurement and reporting | Incident management | |
| Organizational change management | IT asset management | |
| Portfolio management | Monitoring & event Management | |
| Project management | Problem management | |
| Relationship management | Release management | |
| Risk management | Service catalogue management | |
| Service Financial Management | Service Configuration Management | |
| Strategy Management | Service Continuity Management | |
| Supplier Management | Service Design | |
| Workforce & talent management | Service desk | |
| | Service level management | |
| | Service request management | |
| | Service validation & testing | |

Used to be processes in ITIL V2 and V3.
Now more general called practices
Use as plug-ins for activities in the value chain

Bold print practices required for Foundation exam

IT14-223_1.46_ENG_QWRN_ITIL4FO

4

Bold printed practices are required for the ITIL 4 foundation course



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

General Management Practices

Next Topic

Service Management Practices

5

General Management Practices

General management practices have been adopted/adapted for service management from general business management domains

In this section

1. **Continual Improvement (as General Management Practice)**
2. **Information security management**
3. **Relationship Management**
4. **Supplier Management**

Continual Improvement (as General Management Practice)

Purpose:

- Align organization's practices and services with changing business needs through ongoing identification and improvement of services, service components, practices or any element involved in efficient and effective management of products and services.

Key activities of continual improvement practices include:

- 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.

IT14-223_1.46_ENG_QWRN_ITIL4FO

7

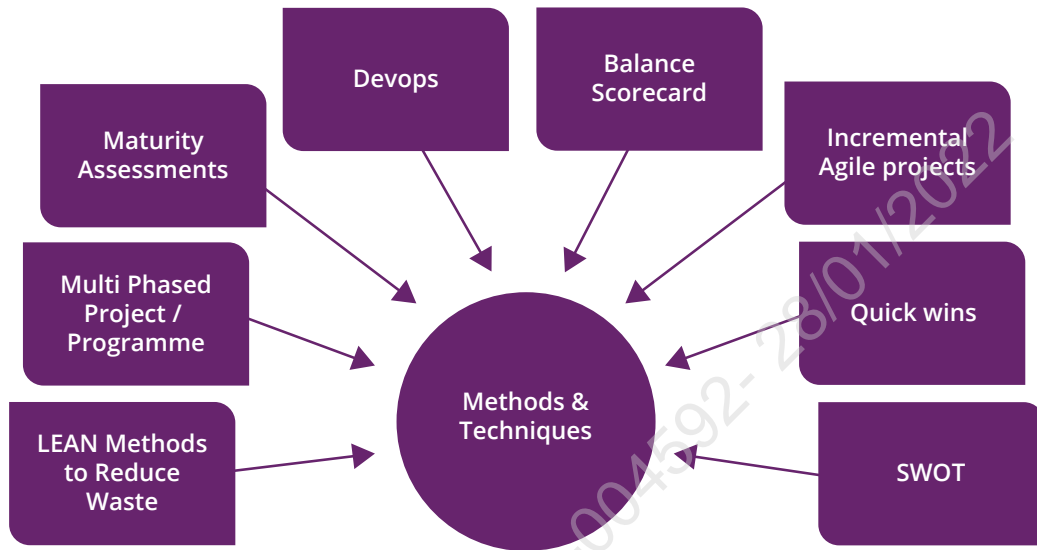
Scope:

- development of improvement-related methods
- propagation of a continual improvement culture across the organization,
- Embedding continual improvement into every fiber of the organization.
- Without it operational concerns and project work eclipse continual improvement efforts.

Different types of improvement may call for different improvement methods.

Some may be organized in a multi-phase project, others as a single quick effort.

Continual Improvement



IT14-223_1.46_ENG_QWRN_ITIL4FO

8

Approaches to continual improvement can be found in many places. Lean methods provide perspectives on the elimination of waste. Agile methods focus on making improvements incrementally at a cadence. DevOps methods ensure that improvements are not only designed well, but applied effectively. Organizations should not commit to too many different approaches, but it is a good idea to select a few key methods so teams will have a shared understanding of how to work together.

When third-party suppliers form part of the service landscape, they should also be part of the improvement effort. Contracts should include details of how they will measure, report on, and improve their services over the life of the contract.

Continual Improvement

- **A continual improvement register (CIR)**
 - A database or structured document to track and manage improvement ideas from identification through final action

| Improvement idea | Impact | Priority |
|---|--------|----------|
| Promote the guiding principles across partners and suppliers | M | |
| Automate software deployment to shorten the release cycle | M | |
| Update service desk scripts to improve incident response time | H | |

IT14-223_1.46_ENG_QWRN_ITIL4FO

9

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

Some practices make a special contribution to continual improvement. Problem management practice can uncover issues that will be managed through continual improvement. The changes initiated through continual improvement may fail without the critical contributions of organizational change management. And many improvement initiatives will use project management practices to organize and manage their execution.

Continual Improvement



- Embedding continual improvement into the way people think and work
- Leading efforts and advocate practice across organization
- Active participation in continual improvement is a core part of everyone’s job
- Contracts should include how they measure, report and improve

IT14-223_1.46_ENG_QWRN_ITIL4FO

10

Continual improvement is everyone’s responsibility. Although there may be a group of staff members who focus on this work full-time, it is critical that everyone in the organization understands that active participation in continual improvement activities is a core part of their job. The highest levels of the organization need to take responsibility for embedding continual improvement into the way that people think and work.

Training should be provided to staff members to help them to contribute to continual improvement. There should at least be a small team dedicated full-time to leading continual improvement efforts and advocating the practice across the organization. This team can serve as coordinators, guides, and mentors, helping others in the organization to develop the skills they need and navigating any difficulties that may be encountered.

Continual Improvement (CI) in the Value Chain

| Value Chain Activity | Contribution |
|--------------------------------|---|
| Plan | <i>CI practice is applied to planning activities, methods and techniques to make sure they are relevant to the organization's current objectives and context.</i> |
| Improve | <i>CI is key to this activity. It structures resources and activities enabling improvement at all levels of the organization and the SVS</i> |
| Engage | <i>Each of these value chain activities are subject to continual service improvement and the CI practice is applied to all of them.</i> |
| Design & Transition | |
| Obtain / Build | |
| Deliver & Support | |

ED.S0.22.01145-38166-00192-281312021

Exercise - continual improvement

- The one-stop-diagnosis initiative is part of a strategy of the hospital to reduce waiting lists and reduce costs and improve client satisfaction and employee motivation.
- Use the steps of the continual improvement model to discuss what the steps should be, what should be measured and evaluated, in order to monitor progress on the strategic values.
- During the discussion you can reference the 4 dimensions and the principles.

ED.SO.22.01145-38166-004592-28/01/2022

Information Security Management

Purpose:

- to protect information needed by organization to conduct business.



IT14-223_1.46_ENG_QWRN_ITIL4FO

13

- authentication (ensuring someone is who they claim to be)
- non-repudiation (ensuring that someone can't deny that they took an action).

Security is established by

- policies, processes, behaviors, risk management, and controls.

It maintains a balance between:

- Prevention - Ensuring that security incidents don't occur
- Detection - Rapidly and reliably detecting security incidents that can't be prevented
- Correction - Recovering from security incidents after they are detected.

Protecting the organization from harm and allowing it to innovate.

- Controls that are too restrictive may do more harm than good, or may be circumvented
- Information security controls should align with its risk appetite.

Information security management interacts with every other practice.

- creates controls that each practice must consider when planning how work will be done.
- It depends on other practices to help protect information.
- must be driven from the most senior level in the organization,
- Be based on clearly understood governance requirements and organizational policies.
- Can be a dedicated information security team, which carries out assessments and defines policies, procedures, and controls.
- In high-velocity environments, information security is integrated as much as possible into the daily work of

ED.SO.22.01145-38166-004592-28/01/2022

Exercise - Information security management

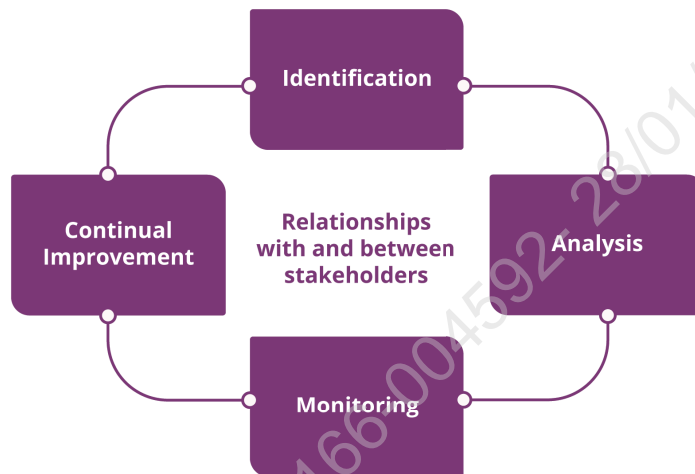
- The check-in system for the one-stop-diagnosis clinic is interfacing the client portal where all the invitations and test results go. The client can see all documents in this portal. The portal is managed by the central IT function. There is a security officer who sets the policy and who monitors the team for compliance.
- Discuss what needs to be implemented in order to manage security compliance.

ED.SO.22.01145-38166-004592-28/01/2022

Relationship Management

Purpose:

- To establish/ nurture links between organization and stakeholders at strategic and tactical levels.



IT14-223_1.46_ENG_QWRN_ITIL4FO

15

To ensure that stakeholders’

- needs and drivers are understood,
- products and services prioritized appropriately
- satisfaction is high
- have constructive relationships
- complaints and escalations handled through a sympathetic (formal) process
- requirements conflicts are mediated appropriately.
- priorities for new or changed products and services are established and articulated
- Receive products and services that facilitate value creation
- Receive value creation in line with the organization’s strategy and priorities

Exercise - Relationship management

- In the case of the one-stop-diagnostic clinic, make an overview of the stakeholder groups that stand to benefit from the clinic and the type of benefit for each group. Decide how to communicate with each group.
- For the check-in consoles, decide which stakeholder group you will need to get the requirements right.

ED.SO.22.01145-38166-004592-28/01/2022

Supplier Management

Purpose:

- To ensure that organization's suppliers and their performances are managed to support seamless provision of products and services.
- including creating closer, more collaborative relationships with key suppliers to uncover and realize new value and reduce the risk of failure.

IT14-223_1.46_ENG_QWRN_ITIL4FO

17

Activities include:

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

Exercise - Supplier management

- If the central IT has outsourced the network management to an external supplier, how would you set-up communications about shortcomings in such a basic service?

ED.SO.22.01145-38166-004592-28/01/2022



Exercise

For each of the practices that we have described, select the right description of the purpose below:

Ensure the organization's supplier and their performance are managed appropriately to support the provision of seamless, quality products, services and components

practices is to protect the information needed by the organization to conduct its business

establish and nurture the links between the organization and its stakeholders at strategic and tactical level



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Previous Topic
General Management practices

Service Management Practices

Next Topic
Technical Management

20

Service Management Practices

Service management practices have been developed in service management and ITSM industries

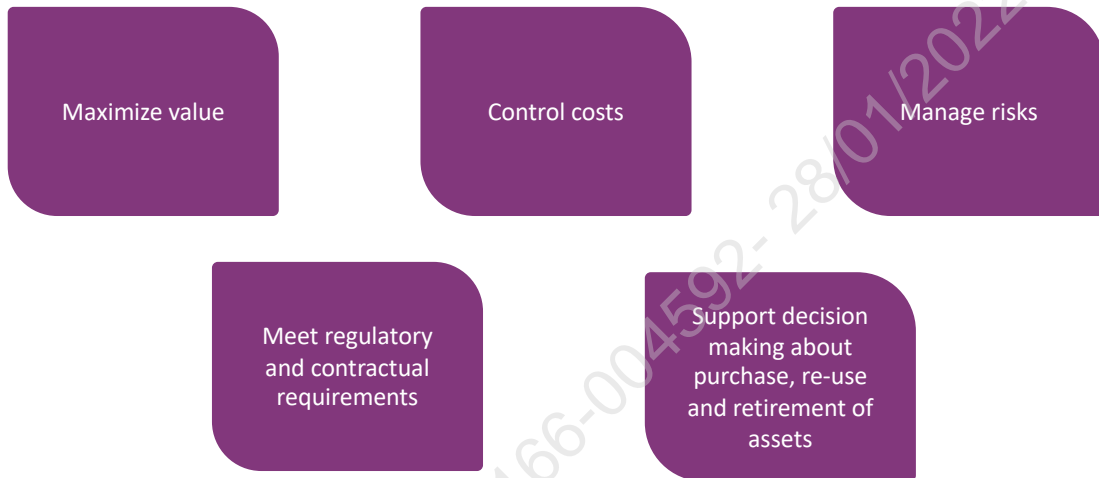
In this section

1. IT asset management and IT asset
2. Monitoring and event management
3. Release management
4. Service configuration management and Configuration item

IT Asset Management

Purpose:

- to plan and manage the full lifecycle of all IT assets, to help the organization:



IT14-223_1.46_ENG_QWRN_ITIL4FO

22

Types of asset management

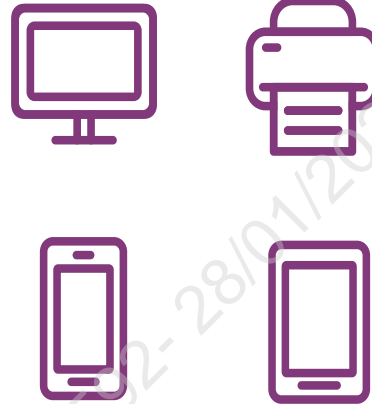
- IT asset management (ITAM) is a sub-practice of asset management, specifically aimed at managing lifecycles and total costs of IT equipment and infrastructure.
- Software asset management (SAM) is an aspect of IT asset management specifically aimed at managing acquisition, development, release, deployment, maintenance, and retirement of software assets.

IT asset management typically includes the following activities:

- Define, populate, maintain asset register (structure and content), and storage facilities for assets and related media
- Control asset lifecycle with other practices (upgrading obsolete software, onboarding new staff members) and record all changes to assets (status, location, characteristics, assignment, etc.)
- Provide current and historical data, reports, and support other practices about IT assets
- Audit assets, related media, and conformity (licence terms and conditions) and drive corrective and preventive improvements to deal with detected issues.

IT Asset Management

An IT asset is any financially valuable component that can contribute to delivery of an IT product or service



IT14-223_1.46_ENG_QWRN_ITIL4FO

23

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

them or otherwise ensure that this data is not lost or stolen with the device.

- In all cases, the organization needs to ensure that the full lifecycle of each asset is managed. This includes managing asset provisioning; receiving, decommissioning, and return; hardware disposal; software re-use; leasing management; and potentially many other activities.

ED.SO.22.01145-38166-004592- 28/01/2022

Exercise - IT Asset management

- For the one-stop-diagnosis clinic, discuss how assets will be managed such as: scanners, laboratory equipment, check-in consoles. These are all considered IT components because they communicate via the IT network.
- What do you need to know in order to calculate the costs per client?

ED.SO.22.01145-38166-004592-28/01/2022

Monitoring & Event Management

Purpose:

- to systematically observe services and service components, record/report selected changes of state identified as events.
- Identify/prioritize categories of events such as: infrastructure, services, business processes, information security
- establish responses, including conditions that lead to potential faults or incidents.

Definition:

An event is any change of state that has significance for the management of a configuration item (CI) or service

ITIL4-223_1.46_ENG_QWRN_ITIL4FO

25

Events are recognized through notifications created by IT service, CI, or monitoring tool.

Activities:

- identifying what should be monitored, establishing monitoring strategy, implementing/maintaining monitoring, using native monitoring features and designed-for-purpose monitoring tools
- Establishing/maintaining thresholds for events, and choosing criteria to define each type of event (informational, warning, or exception)
- Establishing/maintaining policies for how a detected event should be handled to ensure proper management
- implementing processes and automations to operationalize defined thresholds, criteria, and policies.

Exercise - Monitoring and event management

- What kind of events need to be monitored to actively guard the operation of the one-stop-diagnosis clinic?

ED.SO.22.01145-38166-004592-28/01/2022

Release Management

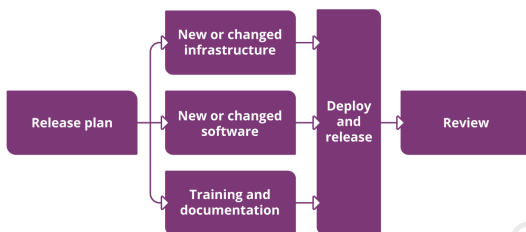
Purpose:

- to make new and changed services and features available for use.

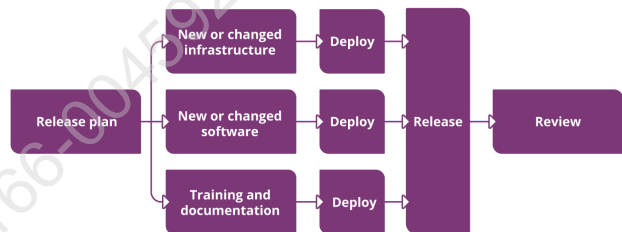
Definition:

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

Release Management Traditional Waterfall



Release Management Agile/DevOps



IT14-223_1.46_ENG_QWRN_ITIL4FO

27

A release may comprise many different infrastructure and application components that work together to deliver new or changed functionality. It may also include documentation, training (for users or IT staff), updated processes or tools, and any other components that are required. Each component of a release may be developed by the service provider or procured from a third party and integrated by the service provider.

Releases can range in size from the very small, involving just one minor changed feature, to the very large, involving many components that deliver a completely new service. In either case, a release plan will specify the exact combination of new and changed components to be made available, and the timing for their release.

A release schedule is used to document the timing for releases. This schedule should be negotiated and agreed with customers and other stakeholders. A release post-implementation review enables learning and improvement, and helps to ensure that customers are satisfied.

In an Agile/DevOps environment there can be significant release management activity after deployment. In these cases, software and infrastructure are typically deployed in many small increments, and release management activity enables the new functionality at a later point.

Release management is often staged, with pilot releases being made available to a small number of users to ensure that everything is working correctly before the release given to additional groups.

Staging of a release is often achieved using blue/green releases or feature flags:

- Blue/green releases (or A/B releases) use two mirrored production environments. Users can be switched to an environment that has been updated with the new functionality by use of network tools that connect them to the correct environment.
- Feature flags enable specific features to be released to individual users or groups in a controlled way. The new functionality is deployed to the production environment without being released. A user configuration setting then releases the new functionality to individual users (or groups of users) as needed.

Exercise - Release management

- For the one-stop-diagnosis clinic, there is a new requirement for implementing a screen for each waiting area with the client name and time and contact, indicating if the appointment is on schedule or not. Discuss how consecutive updates to the check-in system will be tested and handled in the live environment.

ED.SO.22.01145-38166-004592-28/01/2022

Service Configuration Management

Purpose:

- to ensure that accurate/reliable information about configuration of services, and CIs is available when and where needed.
- This includes information on how CIs are configured and the relationships between them

Definitions:

Configuration item:

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

Configuration management system:

- A set of tools, data, and information used to support service configuration management.



IT14-223_1.46_ENG_QWRN_ITIL4FO

29

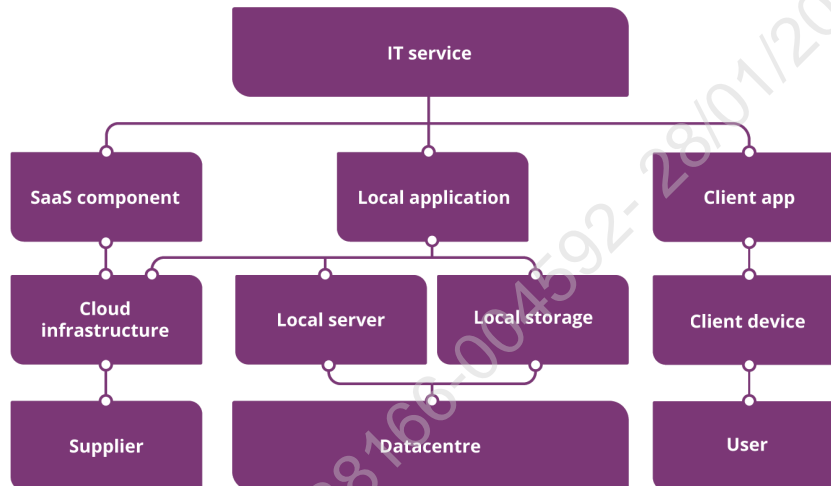
Scope:

- Services, hardware, software,
- networks, buildings, people,
- suppliers, and documentation.

Service Configuration Management (2)

- IT Assets**

- Is a bigger group
- Contains configuration items
- But also IT facilities such as air-conditioning



IT14-223_1.46_ENG_QWRN_ITIL4FO

30

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

Exercise - Configuration management

- Discuss what would be the minimum requirement for documenting the clinic's configuration. How will you keep it up to date?

ED.SO.22.01145-38166-004592-28/01/2022



Previous Topic
Service Management Practices

Technical Management



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

32

Technical Management Practices

Technical management practices have been adapted from technology management domains for service management purposes by expanding or shifting their focus from technology solutions to IT services

In this section

1. Deployment Management

Deployment Management

Purpose:

- to move new or changed hardware, software, documentation, processes, or any other component to live environments.
- May also be involved in deploying components to other environments for testing or staging.

Guidance

- Works with release management, change enablement, Availability management.
- Approaches for deployment:
 - Phased deployment: New or changed components deployed to part of the production environment at a time,
 - Continuous delivery: Components integrated, tested, and deployed when needed, frequent opportunities for customer feedback loops. (DevOps)
 - Big bang deployment: New or changed components deployed to all targets at the same time. Approach is sometimes needed when dependencies prevent simultaneous use of both old and new components.
 - Pull deployment: New or changed software made available to users who download the software when they choose. Approach can be integrated with request management

IT14-223_1.46_ENG_QWRN_ITIL4FO

34

Components that are available for deployment should be maintained in one or more secure locations to ensure that they are not modified before deployment. These locations are collectively referred to as a definitive media library for software and documentation, and a definitive hardware store for hardware components.

Tools that support deployment are many and varied. They are often integrated with configuration management tools, and can provide support for audit and change enablement. Most organizations have tools for deploying client software, and these may be integrated with a service portal to support a request management practice.

Communication around deployments is part of release management. Individual deployments are not generally of interest to users and customers until they are released.

If infrastructure is provided as a service, then deployment of new or changed servers, storage, or networking is typically managed by the organization, often treating the infrastructure as a code, so that the organization can automate deployment. In these environments it is possible that some

deployments may be under the control of the supplier, such as the installation of firmware updates, or if they provide the operating system as well as the infrastructure they may deploy operating system patches. The IT organization must ensure that they know what deployments are planned, and which have happened, to maintain a controlled environment.

If application development is provided as a service, then deployment may be carried out by the external application developer, by the in-house IT department, or by a service integrator. Again, it is essential that the organization is aware of all deployments so that a controlled environment can be maintained.

ED.SO.22.01145-38166-004592-28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Module Completed

35



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

IT Service Management

ITIL® 4 Foundation

Module 5

Service Management Practices (Detailed)

1

ED.SO.22.01145-38166-004592- 28/01/2022

Service Management Practices

Service management practices have been developed in service management and ITSM industries

In this section

1. **Change enablement**
2. **Incident management**
3. **Problem management**
4. **Service desk**
5. **Service level management**
6. **Service request management**

ED.SO.22.01145-38166-004592-25/01/2022

The ITIL 4 Practices

| General Management Practices | Service Management Practices | Technical Management Practices |
|--|--|--------------------------------------|
| Architecture management | Availability management | Deployment management |
| Continual improvement | Business analysis | Infrastructure & platform Management |
| Information security management | Capacity & performance Management | Software development and management |
| Knowledge management | Change enablement | |
| Measurement and reporting | Incident management | |
| Organizational change management | IT asset management | |
| Portfolio management | Monitoring & event Management | |
| Project management | Problem management | |
| Relationship management | Release management | |
| Risk management | Service catalogue management | |
| Service Financial Management | Service Configuration Management | |
| Strategy Management | Service Continuity Management | |
| Supplier Management | Service Design | |
| Workforce & talent management | Service desk | |
| | Service level management | |
| | Service request management | |
| | Service validation & testing | |

Used to be processes in ITIL V2 and V3.

Now more general called practices

Use as plug-ins for activities in the value chain

Bold print practices required for Foundation exam

IT14-223_1.46_ENG_QWRN_ITIL4FO

3

Bold printed practices are required for the ITIL 4 foundation course



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Change Enablement

Next Topic

Incident Management

4

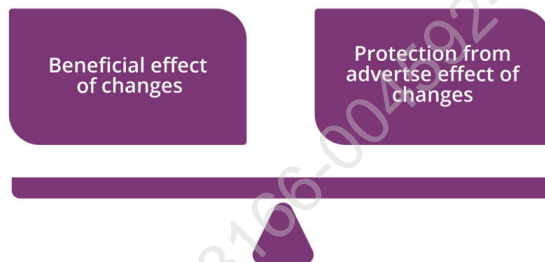
Change Enablement

Purpose:

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

Scope defined by organization:

- IT infrastructure, applications, documentation, processes, supplier relationships; anything that impacts a product or service. Focused on products/services,
- Not in scope is organizational change management, which manages people aspects of changes to ensure organizational transformation.



IT14-223_1.46_ENG_QWRN_ITIL4FO

5

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

It is important to distinguish change enablement from organizational change management. Organizational change management manages the people aspects of changes to ensure that improvements and organizational transformation initiatives are implemented successfully.

Change enablement is usually focused on changes in products and services. 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. All changes should be assessed by people who are able to understand the risks and the expected benefits; the changes must then be authorized before they are deployed. This assessment, however, should not introduce unnecessary delay.

Change Enablement

A change is the addition, modification, or removal of anything that could have a direct or indirect effect on services.

| | |
|------------------|--|
| Standard | <ul style="list-style-type: none"> • Pre-authorized • Implement without additional authorization |
| Normal | <ul style="list-style-type: none"> • Authorization based on change type • Low-risk, someone who can make rapid decisions • Very major, could be as high as management board |
| Emergency | <ul style="list-style-type: none"> • Expedited assessment and authorization • May be separate change authority |

IT14-223_1.46_ENG_QWRN_ITIL4FO

6

Three types of change:

- Standard changes
 - Initiated as service requests or operational changes.
 - Low-risk, pre-authorized, well understood, fully documented, implemented without authorization.
 - Procedure for standard change needs risk assessment and authorization first time only.
- Normal changes
 - Change triggered by change request
 - Must be scheduled, assessed, authorized following a standard process.
 - Use change model for a type of change to define roles and steps.
 - Low risk change; authority is someone who can make rapid decisions,
 - Major change; authority can be management board (or equivalent).
 - RFC created manually or in automated pipeline (DevOps Continuous Integration (CI) & Continuous Deployment (CD))
- Emergency changes

- Must be implemented quickly to resolve serious incident or implement a security patch.
- Not included in change schedule, bypasses organized change meetings
- Subject to same testing, assessment, and authorization as normal changes,
- For speed, document after change, implement with less testing.
- Possibly appoint separate change authority for emergency changes.-

ED.SO.22.01145-38166-004592-28/01/2022

Change Enablement Authorization

- **Change authority**
 - Person or group who authorizes a change
 - Assigned to a type of change to ensure efficient/effective change enablement
 - Decentralized in high-velocity organizations (peer review)
- **Change schedule**
 - Used to help plan changes, assist in communication, avoid conflicts and assign resources

IT14-223_1.46_ENG_QWRN_ITIL4FO

7

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. In high-velocity organizations, it is a common practice to decentralize change approval, making the peer review a top predictor of high performance. Regardless of who the change authority is, they may need to communicate widely across the organization.

The risk assessment activity, for instance, may require them to gather input from many people with specialist knowledge. Additionally, there is usually a need to communicate information about the change to ensure people in IT and the business are fully prepared before the change is deployed.

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.

Exercise - Change enablement

- Discuss for the one-stop-diagnosis clinic how changes in the Central IT function should be coordinated with the software developments within the DevOps team

ED.SO.22.01145-38166-004592-28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Previous Topic
Change Enablement

Incident Management

Next Topic
Problem Management

Incident Management

Purpose:

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

Incident

Unplanned interruption to a service or reduction in quality of a service.



Incidents should be logged



Incidents should be managed to meet target resolution times



Incidents should be prioritized

IT14-223_1.46_ENG_QWRN_ITIL4FO

10

There should be a formal process for logging and managing incidents. This process does not usually include detailed procedures for how to diagnose, investigate, and resolve incidents, but can provide techniques for making investigation and diagnosis more efficient.

There may be scripts for collecting information from users during initial contact, and this may lead directly to diagnosis and resolution of simple incidents. Investigation of more complicated incidents often requires knowledge and expertise, rather than procedural steps.

It is important that people working on an incident provide good-quality updates in a timely fashion. These updates should include information about symptoms, business impact, CIs affected, actions completed, and actions planned. Each of these should have a timestamp and information about the people involved, so that the people involved or interested can be kept informed. There may also be a need for good collaboration tools so that people working on an incident can collaborate effectively.

Practice:

- Incidents can have a big impact on customer/user satisfaction and perception,
- Specific management and resources needed for different types of incident.
- Clear process needed so everyone understands how to contribute to service value, outcomes, costs, and risks

Incident Management

| | |
|--|--|
| Design an incident practice for different types of incident | <ul style="list-style-type: none"> • Incidents based on different impact • Major incidents • Information security incidents |
| Prioritize incidents | <ul style="list-style-type: none"> • Based on agreed classification • Ensure highest impact is resolved first |
| Use robust tool to log & manage incidents | <ul style="list-style-type: none"> • Link to configuration item, changes, problems, known errors, etc. • Provide matching to other incidents, problems or known errors |

IT14-223_1.46_ENG_QWRN_ITIL4FO

11

Incidents:

- Low impact Incidents managed not to consume too many resources.
- Larger impact Incidents require more resources and more complex management.
- Target resolution times agreed, documented, communicated to ensure expectations
- Separate processes for managing major incidents or information security incidents.
- Use different solution groups depending on complexity of the issue or the incident type.

Incident Management

- Incidents may be escalated to a support team
- Requires high level of collaboration between teams
- Routing based on incident category
- When solving an incident, update the information and timeframe



IT14-223_1.46_ENG_QWRN_ITIL4FO

12

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.

Incident Management

- **Tools:**

- Information stored in incident-records in a tool.
- Tool can provide (automated) links to related CIs, changes, problems, known errors, and other knowledge.
- Tools can provide intelligent analysis of incident data to help with future incidents.
- Incident records get timestamped and are regularly updated with symptoms, business impact and ci's involved
- collaboration (workflow) tool helps people working together on an incident effectively.

IT14-223_1.46_ENG_QWRN_ITIL4FO

13

Dealing with incidents is possible in every value chain activity, though the most visible (due to effect on users) are incidents in an operational environment. 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.

Contracts:

Third-party products and services used as service components require agreements to align supplier obligations with commitments to customers. Routine management of this aspect of supplier contracts is often part of the incident management practice. A supplier can also act as a service desk, logging and managing all incidents and escalating them to relevant subject matter experts or other parties as required.

Exercise - Incident Management

- Discuss the role of the DevOps team in solving incidents. Is the DevOps team 1st line to all incidents or should colleagues in the one-stop-diagnosis clinic call the Central IT Service desk?

ED.SO.22.01145-38166-004592-28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Previous Topic
Incident Management

Problem Management

Next Topic
Service Desk

15

Problem Management

Purpose:

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



IT14-223_1.46_ENG_QWRN_ITIL4FO

16

Problems, managed differently from incidents:

- Incidents must be resolved so that normal business activity can take place.
- Problems require investigation/analysis to identify causes, develop workarounds, and recommend longer-term resolution. This reduces number and impact of future incidents

Workarounds

- Are documented in problem records
- Workarounds can be documented at any stage (incident – problem identification – problem control – error control)
- If a workaround has been documented early, it should be reviewed during problem control when problem analysis is complete

Errors:

- Some errors are unidentified/unresolved as services go live
- Errors, flaws or vulnerabilities can cause incidents.
- They can apply to the four dimensions of service management.
- Errors are called problems, addressed by problem management practice.

Problem Management - Phases

| Problem identification | ⇒ | Problem control | ⇒ | Error control |
|---|---|--|---|---|
| <ul style="list-style-type: none"> Identify and log problems Trend analysis Recurring incidents Suppliers/partners information | | <ul style="list-style-type: none"> Prioritize and manage based on risks Examine causes Document workarounds & known errors. Analyze from perspective of 4 dimensions Workarounds can become a permanent way of dealing with incidents | | <ul style="list-style-type: none"> Manage known errors Identify potential permanent solutions, Justify Request for Change (RFC) re-assesses status of known errors Improve workarounds |

IT14-223_1.46_ENG_QWRN_ITIL4FO

17

Problem identification

- Identify and log problems: trend analysis of incident records
- detection of duplicate and recurring issues (major-incident management)
- info from suppliers/partners, software developers, test- and project-teams.
- Any other sources of information can also lead to problems being identified.

Problem control:

- Prioritization based on risks with potential impact and probability.
- Examine causes to incidents , duration and impact
- documenting workarounds and known errors.
- Analyze from perspective of 4 dimensions of service management
- Workarounds are documented in problem records at any stage
- Workarounds can become a permanent way of dealing with incidents

Error control:

- manage known errors (faulty components have been identified).
- Identify permanent solutions, justify Request for Change (RFC)
- re-assesses known errors on impact, effectiveness, cost of permanent resolutions
- Workaround may be improved based on assessment after using it.

Problem Management - Interfaces



IT14-223_1.46_ENG_QWRN_ITIL4FO

18

Problem and incident management together in value chain:

- Activities may complement each other (identifying cause of incident leads to incident resolution),
- Activities may conflict (investigating cause of incident can delay restoration of service).

Interfaces with other practices

- Risk Management: Adopt risk management tools and techniques to identify, assess, and control risks in any of the four dimensions of service management.
- Change Enablement: initiate resolution via change enablement and participate in the post-implementation review
- Knowledge Management: Use info from knowledge management system to analyze and update system with workarounds and known errors.
- Continual Improvement: identify improvement opportunities in all four dimensions of service management. Solutions can be improvement opportunities in a continual improvement register (CIR), and continual improvement techniques are used to prioritize and manage them (Agile product backlog).

Exercise - Problem management

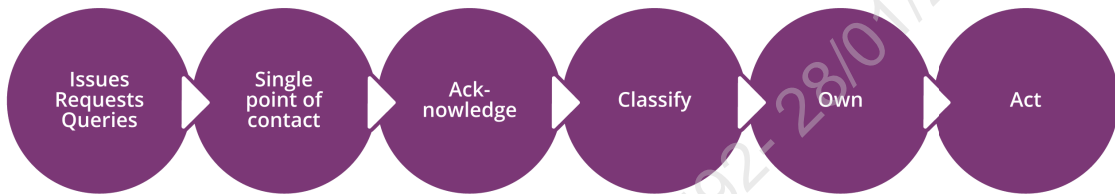
- As a part of the activities of an Agile/DevOps team, discuss how problem management can be integrated in the design and release activities.

ED.SO.22.01145-38166-004592-28/01/2022

Service Desk

Purpose:

- to capture demand for incident resolution and service requests.
- also single point of contact (SPOC) between service provider and users.



IT14-223_1.46_ENG_QWRN_ITIL4FO

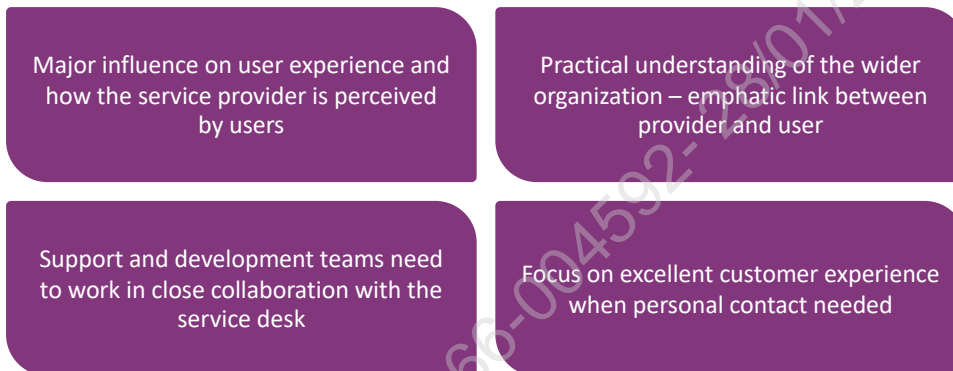
20

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

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

Service Desk

- **Effect of Increased automation and virtualization**
 - More support for ‘people and business’ rather than simply technical issues.
 - Various matters arranged, explained, and coordinated, rather than just to get broken technology fixed
 - service desk has become a vital part of any service operation.



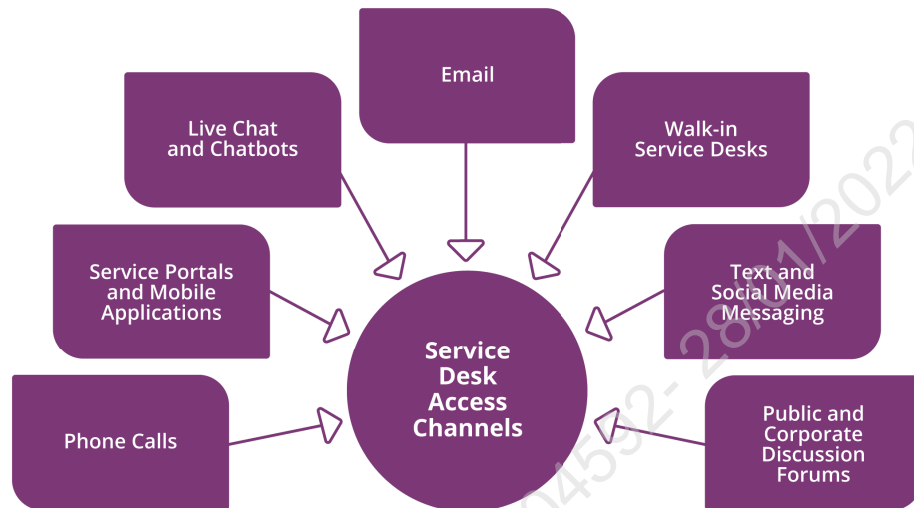
IT14-223_1.46_ENG_QWRN_ITIL4FO

21

Other aspects:

- Vital role in delivery of services, must be actively supported by its peer groups.
- Clear path for users to report issues, queries, and requests, and have them actioned.
- Empathetic and informed link between the service provider and users.
- Practical understanding of wider business context.
- Major influence on user experience and how service provider is perceived by users.
- Escalates issues for underpinning support from other teams.
- Physical team (shift-work), distributed/virtual team, automated technology/bots.
- Support/development teams work with service desk in ‘joined up’ approach.
- Provide self service via online portals and mobile applications (AI, robotic process automation (RPA), and chatbots).
- Automation reduces phone contact, and provides greater ability to focus on excellent Customer experience (CX).

Service Desk - Channels



IT14-223_1.46_ENG_QWRN_ITIL4FO

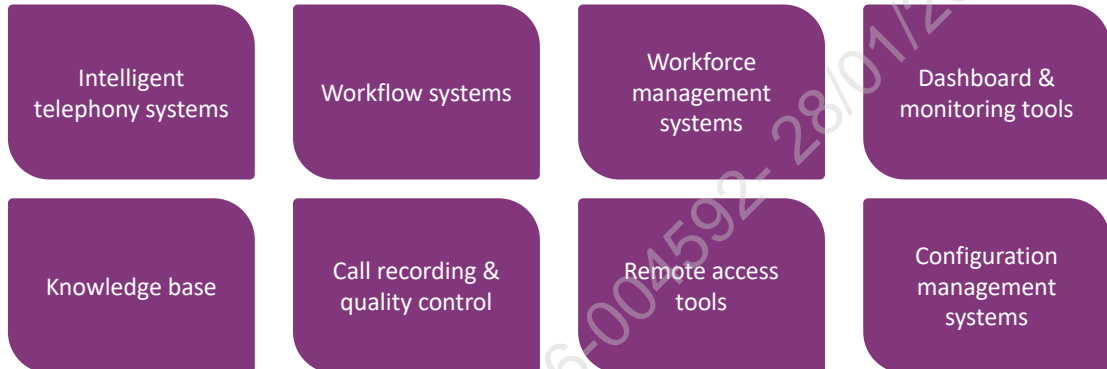
22

Service desks channels for access include:

- phone calls, which can include specialized technology, such as interactive voice response (IVR), conference calls, voice recognition, and others
- service portals and mobile applications, supported by service and request catalogues, and knowledge bases
- chat, through live chat and chatbots
- email for logging, updating, follow-up surveys and confirmations. Unstructured emails are difficult to process. AI and machine learning are addressing this
- walk-in service desks are becoming more prevalent in some sectors, e.g. higher education, where there are high peaks of activity that demand physical presence
- text and social media messaging, are useful for notifications in case of major incidents and for contacting specific stakeholder groups, but can also be used to allow users to request support
- public and corporate social media and discussion forums for contacting service provider and for peer-to-peer support.

Service Desk

- **Supporting technologies for a centralized service desk**
 - virtual service desk allows agents to work from multiple locations
 - A virtual service desk requires more sophisticated supporting technology
 - solutions are often cloud-based.



IT14-223_1.46_ENG_QWRN_ITIL4FO

23

In some cases, the service desk is a tangible team, working in a single location. A centralized service desk requires supporting technologies, such as:

- intelligent telephony systems, incorporating computer-telephony integration, IVR, and automatic call distribution
- workflow systems for routing and escalation
- workforce management and resource planning systems
- a knowledge base

Service Desk Skills



IT14-223_1.46_ENG_QWRN_ITIL4FO

24

Service desk staff require training and competency across a number of broad technical and business areas. In particular, they need to demonstrate excellent customer service skills such as empathy, incident analysis and prioritization, effective communication, and emotional intelligence. The key skill is to be able to fully understand and diagnose a specific incident in terms of business priority, and to take appropriate action to get this resolved, using available skills, knowledge, people, and processes

Exercise - Service Desk

- Discuss if the first line for all incidents should be with the central IT Service desk or with the DevOps team

ED.SO.22.01145-38166-004592-28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Service Level Management

Previous Topic

Service Desk

Next Topic

Service Request Management

26

Service Level Management

Purpose:

- to set clear business-based targets for service performance, so that delivery of a service can be properly assessed, monitored, and managed against these targets.



IT14-223_1.46_ENG_QWRN_ITIL4FO

27

Definition: Service level agreement

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

Activities:

- involves definition, documentation, and active management of service levels.
- may involve a 'bundle' of varied and disparate activities, a number of these will need to be combined and aggregated to reflect a realistic view.
- provides end-to-end visibility of organization's services.
- establishes shared view of services and target service levels with customers
- ensures defined service levels through collection, analysis, and reporting of metrics
- performs reviews to ensure services meet needs of organization and customers
- captures and reports service issues, including performance against defined service levels.

Skills and competencies include:

- relationship management, business liaison, business analysis, and commercial/supplier management.

The practice requires

- pragmatic focus on the whole service and not simply its constituent parts;

ED.SO.22.01145-38166-004592- 28/01/2022

Service Level Management

Service level agreement:
A documented agreement between service provider and customer that identifies services required and expected level of service

Key Requirements for Successful SLA

- Related to a defined service
- Should relate to defined outcomes, not just operated metrics
- Should reflect an agreement between the service provider and the service consumer
- Must be simply written and easy to understand for all parties

IT14-223_1.46_ENG_QWRN_ITIL4FO

28

Service level agreements (SLAs):

- tool to measure the performance of services from the customer’s point of view,
- agreed in the wider business context.
- Challenges; not fully reflect wider service performance and user experience.

Key requirements for successful SLAs include:

- related to defined ‘service’ in service catalogue
- relate to defined outcomes and not simply operational metrics. Use balanced bundles of metrics, such as customer satisfaction and key business outcomes.
- reflect ‘agreement’, i.e. engagement and discussion between the service provider and the service consumer.
- be simply written and easy to understand and use for all parties.
- Watermelon SLA effect, as like a watermelon the SLA may appear green on the outside (metrics), but is actually red inside (perception).

Service Level Management – Information sources



IT14-223_1.46_ENG_QWRN_ITIL4FO

29

Customer engagement

- Initial listening, discovery, and information capture for metrics, measurement, and ongoing progress discussions.

Customer feedback

- Gathered from formal and informal sources, including:
 - Surveys - event based from follow-up questions to specific incidents, or from periodic surveys
 - Key business-related measures - measures agreed between service provider and customer, based on what the customer values as important.
 - Could be bundle of SLA metrics, specific business activity such as a sales transaction, project completion, or operational function such as getting ambulance to site of an accident within x minutes.

Operational metrics

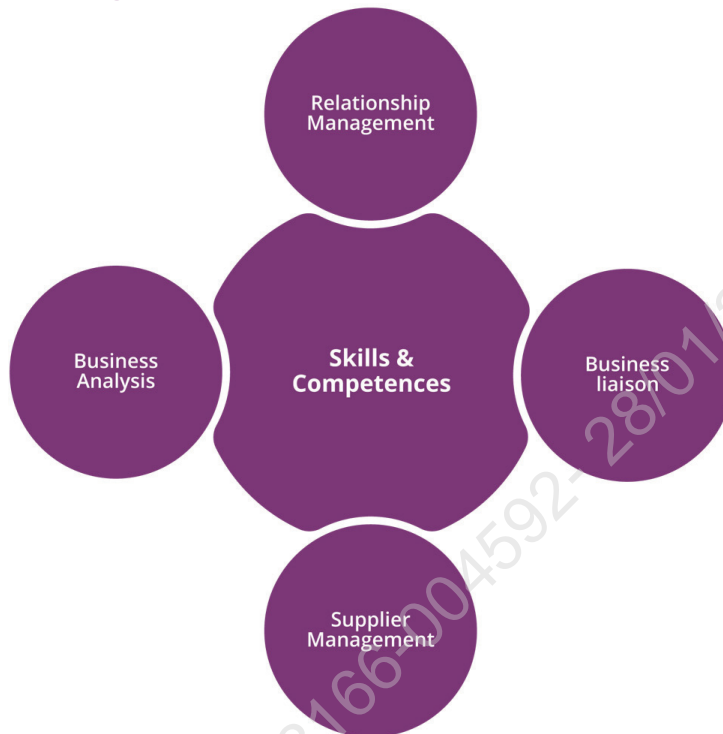
- low-level indicators of operational activities, may include system availability, incident response and fix times, change and request processing times, and system response times.

Business metrics

- any business activity that is useful or valuable to customer, used to measure success of service.
- E.g.: transactional binary measures such as ATM or POS terminal availability during business hours (09:00–17:00 daily) or successful completion of passenger check-in.

ED.SO.22.01145-38166-004592-28/01/2022

Service Level Management



IT14-223_1.46_ENG_QWRN_ITIL4FO

30

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

Exercise- Service Level Management

- Discuss for the one-stop-diagnosis clinic the impact of existing SLA's with Central IT. How formal should the SLA's be between the clinic and the DevOps team?

ED.SO.22.01145-38166-004592-28/01/2022



Previous Topic

Service Level Management

Service Request Management



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

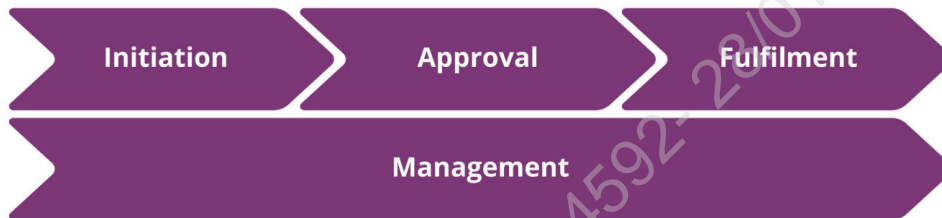
32

Service Request Management

Purpose:

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

- Service requests are pre-defined and pre-arranged and can usually be formalized with clear, standard procedures.



Service requests are a normal part of service delivery, not a failure or degradation of service, which are handled as incidents

IT14-223_1.46_ENG_QWRN_ITIL4FO

33

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

Others, such as the setup of a new employee, may be quite complex and require contributions from many teams and systems for fulfilment. Regardless of the complexity, the steps to fulfil the request should be well-known and proven. This allows the service provider to agree times for fulfilment and to provide clear communication of the status of the request to users.

Service Request Management

Service request

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

Request for a service delivery action

Request for information

Request for provision of a resource or service

Request access to a resource or service

Feedback compliments and complaints

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

IT14-223_1.46_ENG_QWRN_ITIL4FO

34

Scope:

- request for a service delivery action (providing a report, replacing a toner cartridge)
- request for information (how to create a document or the office hours are)
- request for provision of a resource or service (providing a phone or laptop to a user, or providing a virtual server for a development team)
- request for access to a resource or service (providing access to a file or folder)
- feedback, compliments, and complaints (complaints about a new interface or compliments to a support team).
- Fulfilment of service requests may include changes to services or their components; usually standard changes.

Service Request Management - Guidelines

Standardize and automate to greatest degree.

Set policies streamlining service requests with limited or no additional approvals.

Manage user expectations to what organization can deliver.

Identify opportunities for improvement to produce faster fulfilment times

Set policies and workflows to redirect requests which should be managed as incidents or changes.

Some service requests can be automated allowing for a complete self-service experience

IT14-223_1.46_ENG_QWRN_ITIL4FO

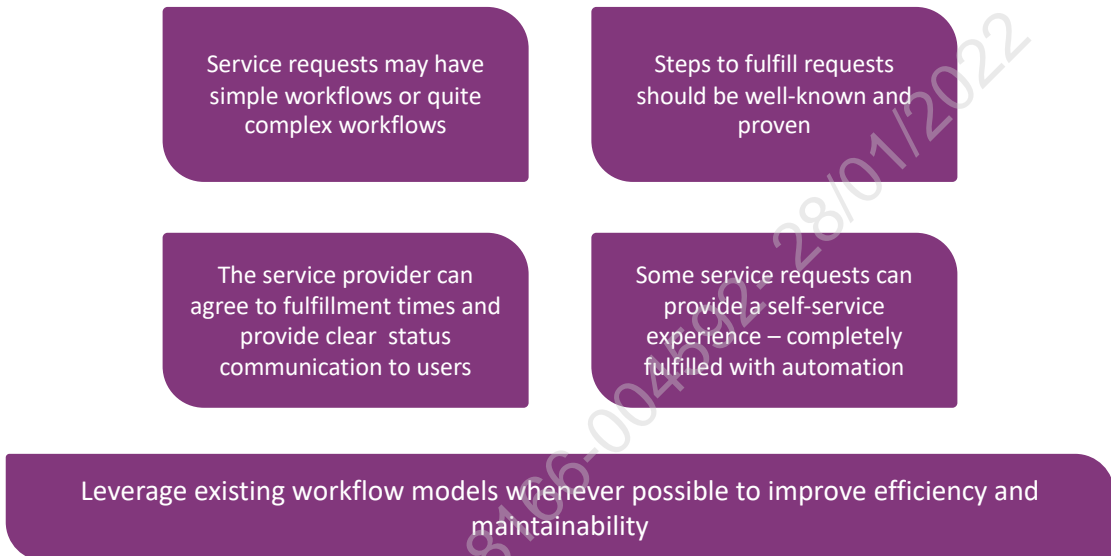
35

Processes:

- Needs well-designed processes and procedures, operationalized through tracking and automation tools to maximize the efficiency of the practice.
- Different types request have different workflows,
- Efficiency and maintainability is improved with limited number of workflows.
- New service requests must be added to the service catalogue,
- Use existing workflow models for new requests when possible.

Service Request Management

- Service request management depends on well-designed processes and procedures, operationalized through tracking and automation tools



IT14-223_1.46_ENG_QWRN_ITIL4FO

36

- to maximize the efficiency of the practice.
- Different types of service request will have different fulfilment workflows, but both efficiency and maintainability will be improved if a limited number of workflow models are identified. When new service requests need to be added to the service catalogue, existing workflow models should be leveraged whenever possible.

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

Exercise - Service Request Management

- Discuss for the one-stop-diagnosis clinic what kind of service requests should be handled by the DevOps team and which by Central IT.

ED.SO.22.01145-38166-004592-28/01/2022



ITIL® and the Swirl logo are registered trade marks of AXELOS Limited, used under permission of AXELOS Limited. These trademarks are used by Quint Wellington Redwood under permission of AXELOS Limited. All rights reserved.

IT14-223_1.46_ENG_QWRN_ITIL4FO

Module Completed

38

ED.SO.22.01145-38166-004592-28/01/2022



SAMPLE EXAMS

ED.SO.22.01145-38166/204592-28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022



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.

- 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

- 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

- 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

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

- 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

- 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

- 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'

- 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

- 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

- 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

ED.SO.22.01145-38166-004532-28/01/2022



The ITIL® 4 Foundation Examination

Sample Paper 1

Answers and Rationales

ED.SO.22.01145-38166-004592-28/01/2022

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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |



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.

- 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

- 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

- 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

- 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

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

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

- 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

- 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

- 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

- 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

ED.SO.22.01145-38166-004592-28/01/2022

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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

| 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> |

ED.SO.22.01145-38166-004592- 28/01/2022



GLOSSARY

ED.SO.22.01145-38166-004592-28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022

GLOSSARY

ED.SO.22.01/45-38166-01/192-2/01/2022

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.

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.

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.

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.

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.

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.

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.

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.

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.



FORMS

ED.SO.22.01145-38166-004592-28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022

First Name: _____

Last Name: _____

Birth Date: _____

Date: _____

Workshop: _____

Instructor 1: _____

Instructor 2: _____

| Question (Please check only one box) | Strongly Agree | Agree | Neutral | Dis-agree | Strongly Dis-agree |
|--|----------------|-------|---------|-----------|--------------------|
| The content presented in this course was at the right level. | | | | | |
| The content of this course met the stated objectives. | | | | | |
| The labs and exercises reinforced skills taught in the course. | | | | | |
| The labs and exercises were realistic and reinforced how I might use the knowledge or skills on the job. | | | | | |
| My instructor communicated the content of the course effectively. | | | | | |
| My instructor was willing to provide assistance at my level of need. | | | | | |
| This course was worth my time. | | | | | |
| This course met my expectations. | | | | | |
| I will use the skills and knowledge gained in the course. | | | | | |

| How effective, for you, were the following methods | Very Effective | Effective | Neutral | Not Effective |
|--|----------------|-----------|---------|---------------|
| Handling the theory | | | | |
| Group sessions and discussions | | | | |
| Simulations and lab exercises | | | | |
| Comments: | | | | |

Are there any unclear topics? Which ones? Why? _____

Do you have any comments related to the hand-outs, simulation material, quality of the presentation and/or the course locations? _____

In your opinion, what did the instructor do well? _____

In what areas could your instructor improve? _____

What is one thing that would improve this education experience? _____

What is one thing that should not be changed? _____

What other comments do you have? (Please use additional paper if needed) _____

Thank you for your time!



ITIL[®] 4 POSTER

ED.SO.22.01145-38166-004592-28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022

ITIL® 4 Poster

Quint

Environmental factors (PESTLE):

- Political
- Economic
- Social
- Technological
- Legal
- Environmental

1. Organization & people

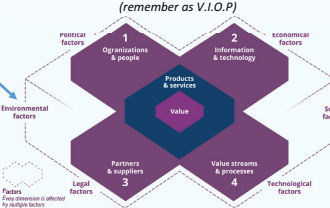
Organization

- Formal organizational structures
- Culture
- Required staffing & competencies
- Roles & responsibilities

People

- Skills & competencies
- Management leadership styles
- Communication & collaboration
- Broad knowledge & deep specialization
- Common objective
- Break down silo's

4 Dimension (remember as V.I.O.P)

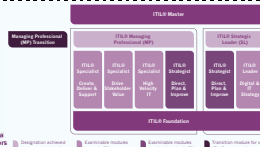


2. Information & Technology

- Information & knowledge
- Technologies
- Supporting service management
- Supporting IT services
- Relationship between components

3. Partners & Suppliers

- Strategic focus, corporate culture,
- Resource scarcity, cost concerns, expertise, demand
- Levels of integration, levels of formality
- Contracts and flexibility, form of cooperation
- Responsibility for outputs and outcomes



4. Value streams & Processes

- Generic model for service delivery
- Uses Service Value chain activities & practices
- Based on LEAN IT
- Value streams involved in delivering outputs
- Who or what performs the service

Value Creation

Service offering example:

Goods: Food, Beverage

Access to resources: Seats, movies

Service actions: Check-in, piloting, baggage handling

Value: Output (Provider)

Cost: Warranty (Fit for purpose)

Risk: Results of using service

Stakeholders: Service Providers

Service Consumers: Customer (requirements)

Other stakeholders: Employees, Community, Charity organizations, Shareholders

Service Relationship management: consists of 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 Value System (SVS)

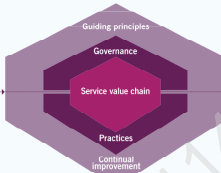
Purpose: Break down the walls (Silo's)

Opportunity

- Options & possibilities to add value

Demand

- Need or desire for products & services



Value

- Outcome of the SVS
- Enables value for different stakeholders

ITIL 4 Elevator Pitch

- "Comprehensive guidance for managing IT services in a digital economy"
- ITIL 4 provides a context for Agile and DevOps teams to work in

Create value in the dimension: **Value streams & Processes**.

By working in the **Service Value System (SVS)**:

- Executing core activities of the **Service Value Chain (SVC)**.
- Adhering to adopted **principles**
- Complying with **corporate governance**
- Using the guidance from **practices**
- Continually improving**

In the SVC, value is created by service teams (as in Agile and DevOps teams) who execute the SVC activities: Plan, Engage, Design & Transition, Obtain and Build, Deliver & Support

1. Guiding Principles

Adopt and adapt, universally applicable

Focus on value

- Understand/identify consumer
- Map value to outcomes

Start where you are

- Look objectively at what exists
- Determine what can be replicated
- Recognize what can't be reused

Progress iteratively with feedback

- Work time-boxed & iterative
- Use feedback loops
- Respond early to failure
- Create tangible results

Keep it simple & practical

- Outcome based thinking
- KISS, do less, and do it better

Optimize and automate

- Optimize first, then automate

Collaborate and promote visibility

- Right people in correct roles
- Information sharing, trust, transparency

Think & work holistically

- Integrate all parts in the solution
- Recognize complexity
- Collaboration is key

Adopt/adapt guiding principles

- Check progress against objectives
- Check continual improvement
- Check if/how value is created

2. Governance

Refers to GCBIT

Components:

- Demand, products & services, Value

Activities: (Service or DevOps team)

- Plan (vision, current status & direction)
- Improve (continual improvement)
- Engage (contact with stakeholders)
- Design & Transition (meet expectations)
- Obtain & Build (make components available)
- Deliver & Support (deliver according to specs)

Notes:

- Practices are plug-ins to activities
- For exam: recognize activity from its outputs

3. Service Value Chain (SVC)

Main activities of value creation. Can be DevOps or Agile team, supports value streams

General Management Practices

- Architecture management
- Continual improvement**
- Information security management**
- Knowledge management
- Measurement and reporting
- Portfolio management
- Organizational Change management
- Project management
- Relationship management**
- Risk management
- Service financial management
- Strategy management
- Supplier management**
- Workforce and talent management

Technical management practices

- Deployment management**
- Infrastructure and platform management
- Software development and management

Service management practices

- Availability management
- Business analysis
- Capacity & performance management
- Change enablement**
- Incident management**
- IT asset management**
- Monitoring & event management**
- Problem management**
- Release management**
- Service catalog management
- Service configuration management**
- Service continuity management
- Service design
- Service desk**
- Service level management**
- Service request management**
- Service validation and testing

Continual improvement

- Business value, vision, goals and objectives
- Perform baseline measurements
- Define measurable targets
- Define the improvement plan
- Enable management actions
- Evaluate metrics and KPIs

Continual improvement is

- A component of the SVS - CSI model
- Applied across the organization
- A **General Management practice**
- Guidance on what you can do
- Continual Improvement Register (CIR)
- "There should at least be a small CSI team"

Carried out in the SVC

- Continual improvement practice used during Plan, Improve, Engage, etc.

(Bold printed practices are required for the Foundation exam)

ITIL® 4 Poster: Management Practices

General

Service Management

Technical

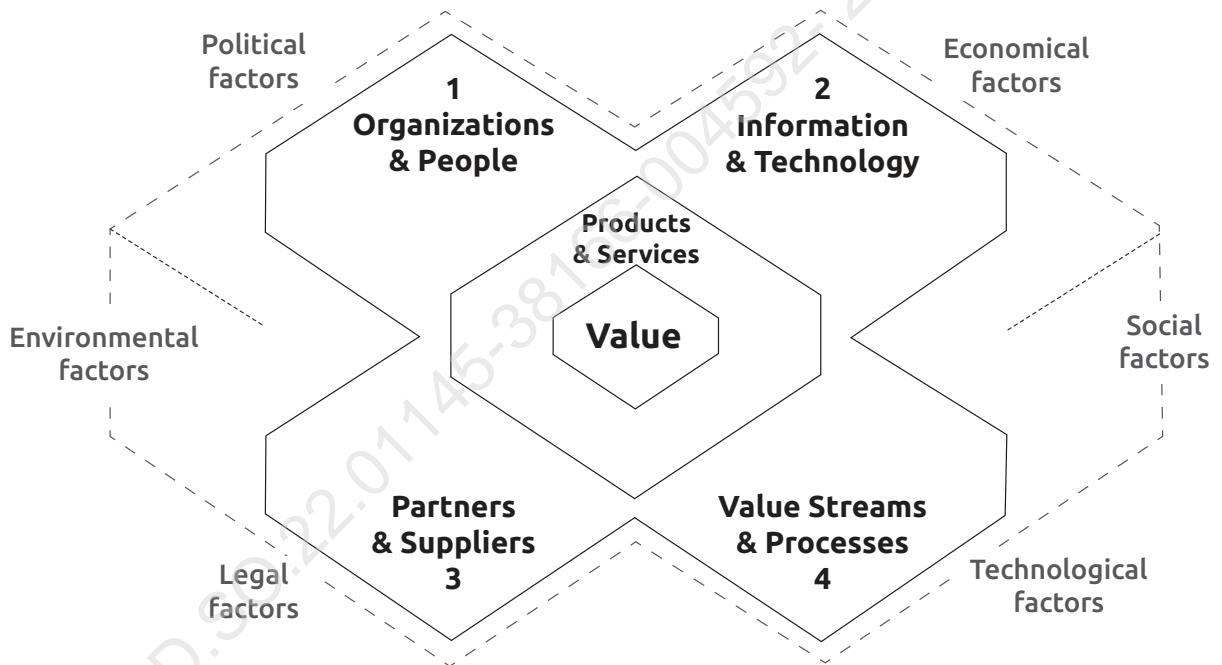
Quint

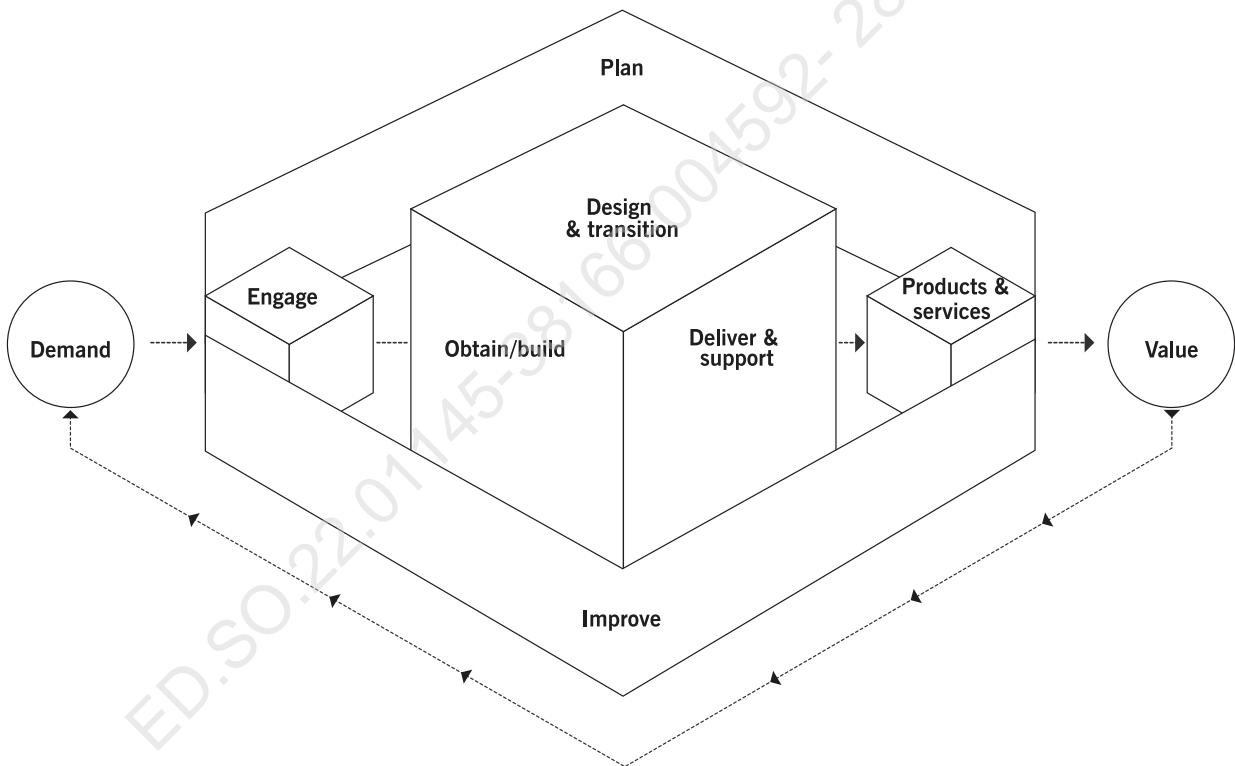
| | | | | |
|---|--|--|---|--|
| <p>Continual Improvement</p> <p>Purpose:</p> <ul style="list-style-type: none"> Align practices/services to changing business needs Ongoing improvement of all elements involved in efficient/effective management of services. <p>Key activities:</p> <ul style="list-style-type: none"> Encouraging continual organizational improvement Securing time and budget for continual improvement Identifying and logging improvement opportunities Assessing and prioritising improvement opportunities Making business cases for improvement action Planning and implementing improvements Measuring and evaluating improvement results Coordinating organizational improvement activities Maintaining continual improvement register CIR Maturity assessments Implement Lean, Agile, DevOps Embedding CI into the way people think and work Leading organizational efforts & advocate practice Active participation in CI is part of everyone's job Contracts should include: measure, report, improve  | <p>Information Security Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Protect business information Manage risks to confidentiality, integrity, availability of information Authentication of identities Non-repudiation (ensuring someone can't deny taking an action). <p>Security is established by:</p> <ul style="list-style-type: none"> Policies, processes, behaviors, risk management, and controls. <p>It maintains a balance between:</p> <ul style="list-style-type: none"> Prevention - Ensuring security incidents don't occur Detection - Detecting incidents that can't be prevented Correction - Recovering from incidents after they are detected.  | <p>Relationship Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Establish/nurture links with stakeholders at strategic and tactical levels. Identification, analysis, monitoring and continual improvement of relationships. <p>Ensures that stakeholders':</p> <ul style="list-style-type: none"> Needs and drivers are understood, Products and services prioritized appropriately Satisfaction is high Have constructive relationships Complaints and escalations handled through a sympathetic (formal) process Requirements conflicts are mediated appropriately. Priorities for new or changed products and services are established and articulated Receive products and services that facilitate value creation Receive value creation in line with the organization's strategy and priorities  | <p>Supplier Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Ensure suppliers performance managed to support seamless provision of services. Create collaborative relationships with key suppliers to realize value and reduce risk. <p>Activities:</p> <ul style="list-style-type: none"> Creating single point of visibility/control to ensure consistency: across all products, services, provided by suppliers 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  | <p>Change Enablement</p> <p>Purpose:</p> <ul style="list-style-type: none"> Maximize successful IT changes by ensuring risks have been assessed, authorizing changes, and managing change schedule. A change is the addition, modification, or removal of anything that could have a direct or indirect effect on services. <p>Scope defined by organization:</p> <ul style="list-style-type: none"> IT infrastructure, applications, documentation, processes, supplier relationships; anything that impacts a product or service. Focused on products/ services Not in scope is organizational change management, which manages people aspects of changes to ensure organizational transformation. <p>Three types of changes:</p> <ul style="list-style-type: none"> Standard - Pre-authorized Normal - Authorization based on change type Emergency - Expedited assessment  |
| <p>Incident Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Minimize negative impact of incidents by restoring normal service operation as quickly as possible. Incident is an unplanned interruption to a service or reduction in quality of a service. <p>Incidents:</p> <ul style="list-style-type: none"> Low impact Incidents managed not to consume too many resources. Larger impact Incidents require more resources and more complex management. Target resolution times agreed, documented, communicated to ensure expectations Separate processes for managing major incidents or information security incidents. Use different solution groups depending on complexity of the issue or the incident type.  | <p>IT Asset Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Plan/manage lifecycle of IT assets Maximize value, control costs, manage risks, support decisions to purchase/re-use/retire assets, meet regulatory/contractual requirements. <p>Types of asset management</p> <ul style="list-style-type: none"> IT asset management (ITAM), aimed at managing lifecycles and total costs of IT equipment and infrastructure. Software asset management (SAM) aimed at managing acquisition, development, release, deployment, maintenance, and retirement of software assets. <p>IT asset management typical activities:</p> <ul style="list-style-type: none"> Define, populate, maintain asset register and storage facilities for assets and related media Control asset lifecycle with and record all changes Provide current/historical data, about IT assets Audit assets and drive improvements  | <p>Monitoring & Event Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Observe services/components, record/report changes of state Identify/prioritize event categories as: infrastructure, services, business processes, information security Establish responses to conditions that lead to potential faults or incidents. <p>An event is any change of state that has significance for the management of a configuration item (CI) or service</p> <p>Activities:</p> <ul style="list-style-type: none"> Identifying what should be monitored, Establishing/maintaining strategy, Implementing/maintaining monitoring, Using monitoring tools Establishing/maintaining thresholds for events, Choosing criteria to define type of event Establishing/maintaining policies for event handling Implementing processes and automations to operationalize defined thresholds, criteria, and policies.  | <p>Problem Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Reduce likelihood/impact of incidents by identifying causes and managing workarounds and known errors <p>Definitions:</p> <ul style="list-style-type: none"> Problem - A cause, or potential cause, of one or more incidents. Known error - problem that has been analyzed but has not been resolved Workaround - solution that reduces/eliminates impact of incident or problem for which full resolution is not yet available. Some workarounds reduce incident likelihood <p>3 Phases:</p> <ul style="list-style-type: none"> Problem identification Problem control Error control  | <p>Release Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Make new/changed services/features available for use. <p>Definition: Release</p> <p>A version of a service or other configuration item, or a collection of configuration items, that is made available for use.</p> <p>A release may comprise different infrastructure and application components, including documentation, training, updated processes or tools.</p> <p>Releases can range from very small to very large, involving many components. A release plan will specify the combination of new and changed components, and the timing for their release.</p> <p>A release schedule documents the timing for releases. This schedule is agreed with customers and stakeholders. A release post-implementation review enables learning and improvement</p>  |
| <p>Service configuration Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Ensure availability of accurate/reliable information about service configuration Include information how CIs are configured and their relationships <p>Definitions:</p> <ul style="list-style-type: none"> Configuration item: Any component to be managed in order to deliver an IT service. Configuration management system: A set of tools, data, and information used to support service configuration management. <p>Scope:</p> <ul style="list-style-type: none"> Services, hardware, software Networks, buildings, people Suppliers, and documentation  | <p>Service Desk</p> <p>Purpose:</p> <ul style="list-style-type: none"> Capture demand for incident resolution and service requests. Single point of contact (SPOC) between service provider and users <p>Other aspects:</p> <ul style="list-style-type: none"> vital role in delivery of services. Single point of contact for users Empathetic and informed. Understanding business context. Influence on user experience Escalates to other teams. automated technology/bots. Provide self service via online portals and mobile applications Automation reduces phone contact.  | <p>Service Level Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Set business targets for service performance to assess/monitor, manage delivery against targets Service level agreement - A documented agreement between service provider and customer that identifies services required and expected level of service <p>Activities:</p> <ul style="list-style-type: none"> Definition, documentation, management of service levels. Provides end-to-end visibility of services. Shared view of services and service levels with Ensures defined service levels through collection, analysis, and reporting of metrics Performs reviews to ensure services meet needs of organization and customers Captures and reports service issues, including performance against defined service levels.  | <p>Service Request Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> To support agreed service quality by handling pre-defined, user-initiated service requests effective and user-friendly Service request - request from user or user's representative that initiates a service action which has been agreed as a normal part of service delivery <p>Scope:</p> <ul style="list-style-type: none"> Request for a service delivery action request for information Request for provision of a resource or service Request for access to a resource or service Feedback, compliments, and complaints Fulfillment of service requests may include changes to services or their components; usually standard changes.  | <p>Deployment Management</p> <p>Purpose:</p> <ul style="list-style-type: none"> Move new/changed hardware, software, documentation, processes, or other component to live environments. Also involved in deploying components to other environments for testing or staging. <p>Guidance</p> <ul style="list-style-type: none"> Works with release management, change enablement, Availability management. Approaches for deployment: <ul style="list-style-type: none"> Phased deployment Continuous delivery (DevOps) Big bang deployment Pull deployment  |

ITIL® 4 Poster: Value Chain activities, inputs and output

Quint

| Information | Demand | Plan | Improve | Engage | Design & transition | Obtain/build | Deliver & support | Supply |
|--|--------|--------|---------|--------|---------------------|----------------|-------------------|--------|
| Detailed requirements for services and products provided by customers | Output | | | Input | | | | |
| High-level demand for services and products provided by internal and external customers | Output | | | Input | | | | |
| Incidents, service requests, and feedback from users | Output | | | Input | | | | |
| Marketing opportunities from current and potential customers and users | Output | | | Input | | | | |
| Policies, requirements, and constraints provided by the organization's governing body | Output | Input | | | | | | |
| Requests and feedback from customers | Output | | | Input | | | | |
| Cooperation opportunities and feedback provided by partners and suppliers | | | | Input | | | | Output |
| Goods and services provided by external and internal suppliers and partners | | | | | | Input | | Output |
| Knowledge and information about third-party service components from suppliers and partners | | | | Input | | | | Output |
| A product and service portfolio | | Output | | Input | | | | |
| Architectures and policies | | Output | | | Input | Input | | |
| Contract and agreement requirements | | Output | Output | Input | Output | Output | Output | |
| Improvement opportunities and stakeholders' feedback | Output | Output | Input | Output | | | Output | Output |
| Performance information and improvement opportunities | | Output | Input | Output | Output | Output | Output | |
| Portfolio decisions | | Output | | | Input | | | |
| Strategic, tactical, and operational plans | | Output | | | | | | |
| Improvement initiatives and plans | | Input | Output | Input | Input | Input | Input | |
| Improvement status reports | | Input | Output | Input | Input | Input | Input | |
| Service performance information | | | Output | | Input | | Output | |
| Value chain performance information for the governing body | | Input | Output | | | | | |
| Value chain performance information, improvement initiatives, and plans | | Input | Output | | | | | |
| Change or project initiation requests | | | | Output | | Input | | |
| Consolidated demands and opportunities | | Input | | Output | | | | |
| Contracts and agreements with external and internal suppliers and partners | | | | Output | Input | Input | Input | Output |
| Knowledge and information about third-party service components | | Input | Input | Output | Input | Input | Input | Output |
| Product and service requirements | | | | Output | Input | | | |
| Service performance reports for customers | Input | | | Output | | | | |
| Stakeholders' feedback | Output | | Input | Output | | | | |
| User support tasks | | | | Output | | | Input | |
| Knowledge and information about new and changed products and services | | Input | Input | Input | Input / Output | Input / Output | Input | |
| New and changed products and services | | | | | Output | | Input | |
| Requirements and specifications | | | | | Output | Input | | |
| Service components | | | | | Input | Output | Input | |
| Change requests | | | | | | Input | Output | |
| Information on the completion of user support tasks | | | | Input | | | Output | |
| Product and service performance information | | | Input | Input | | | Output | |
| Services delivered to customers and users | Input | | | | | | Output | |





ED.SO.22.01145-38166-004592- 28/01/2022

ED.SO.22.01145-38166-004592- 28/01/2022