



ITIL® 4 Monitor, Support,  
and Fulfil

# Learner Workbook

PeopleCert

Official Training Materials

# Unlocking your potential to achieve more

## Welcome to the Learner Workbook for the ITIL® 4 Monitor, Support, and Fulfil Official Training Materials.

PeopleCert develops global best practice frameworks and certifications, manages exams, and delivers certifications. Its product portfolio of more than 700 certifications in IT & Digital Transformation, Project Management, Business, and Languages includes ITIL® and PRINCE2® - two of the most globally recognised IP-protected frameworks, developed and evolved by the UK Government over a 30-year period.

The Official Training Materials for our courses enhance the learning experience for both trainers and learners, enabling high quality and effective delivery of training. PeopleCert products combine the knowledge and experience of experts from around the world.

Our courses use that knowledge to transform learners from beginner to practitioner, utilizing real-world experience, product expertise, and years of training knowledge to bring the topic alive.

Consequently, learners will develop a solid foundation on which to develop their businesses and improve their careers.

## Powering Best Practice

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# About this material

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This course is for anyone who is preparing to sit the ITIL® ITIL® 4 Specialist: Monitor, Support, and Fulfil examination. The aim is to provide you with an understanding of the key concepts, principles, value and challenges of the five practices that make up the Monitor, Support, and Fulfil course. These practices are:

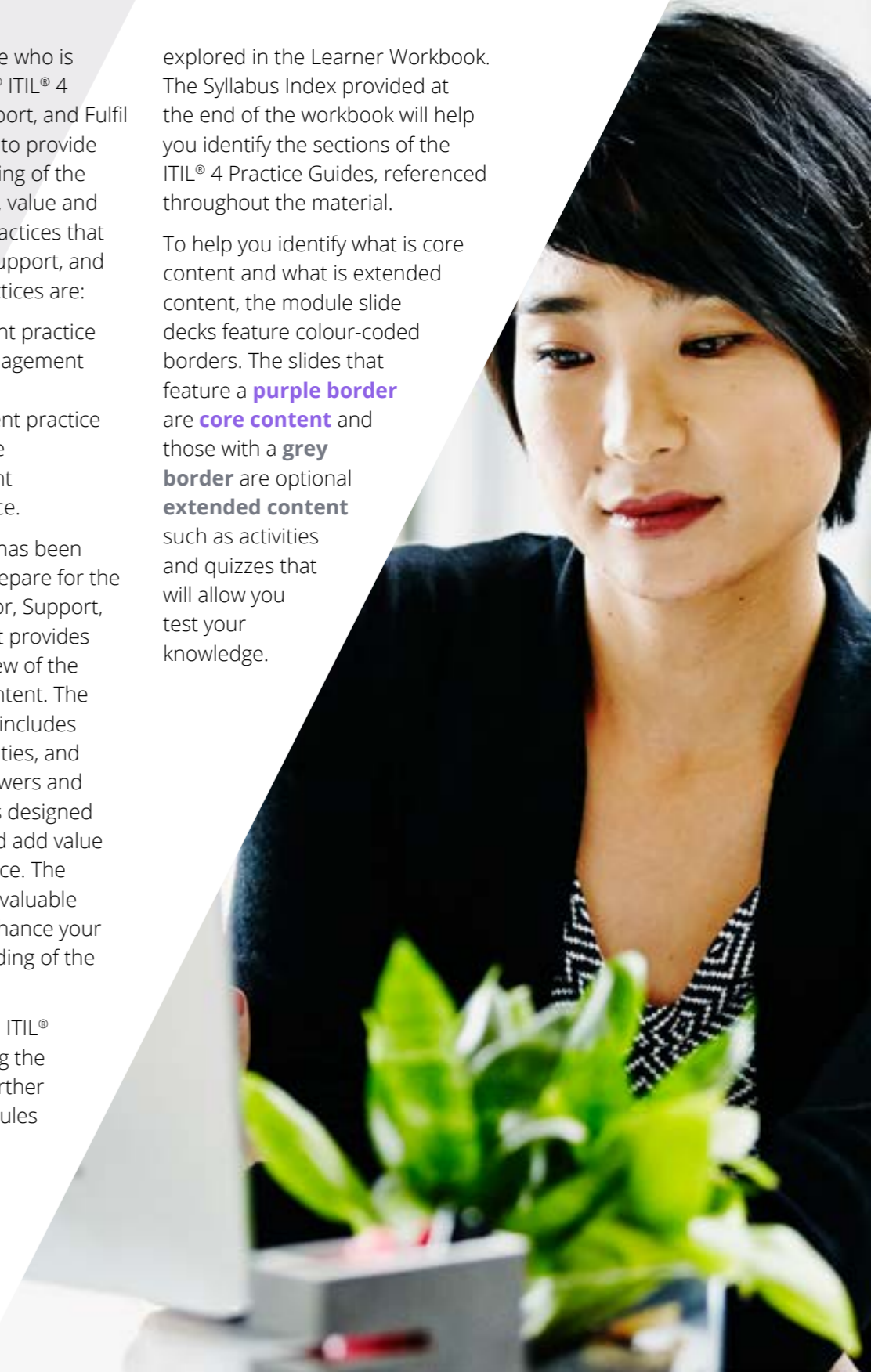
- incident management practice
- service request management practice
- problem management practice
- service desk practice
- monitoring and event management practice.

The Learner Workbook has been designed to help you prepare for the ITIL® 4 Specialist: Monitor, Support, and Fulfil examination. It provides guidance and an overview of the course's examinable content. The Learner Workbook also includes questions/quizzes, activities, and sample papers with answers and rationales. It has been designed to reinforce learning and add value to your course experience. The workbook also includes valuable resources, which will enhance your learning and understanding of the material.

Do not forget to use the ITIL® 4 Practice Guides, during the course, as it provides further information on the modules

explored in the Learner Workbook. The Syllabus Index provided at the end of the workbook will help you identify the sections of the ITIL® 4 Practice Guides, referenced throughout the material.

To help you identify what is core content and what is extended content, the module slide decks feature colour-coded borders. The slides that feature a **purple border** are **core content** and those with a **grey border** are optional **extended content** such as activities and quizzes that will allow you test your knowledge.



## Aims of the course

The overall aim of this course is to enable you to gain a pass mark in the ITIL® 4 Specialist: Monitor, Support, and Fulfil examination. To pass the exam, you will need to:

- understand the key concepts of the Monitor, Support, and Fulfil (MSF) practices
- understand the processes of the MSF practices
- understand the roles and competences of the MSF practices
- understand how information and technology support and enable the MSF practices
- understand the role of partners and suppliers in the MSF practices
- understand how the ITIL capability model can be used to develop the MSF practices
- understand how the ITIL guiding principles support the MSF practices.

## The ITIL® 4 Specialist: Monitor, Support, and Fulfil examination

The examination is designed to assess whether you can demonstrate sufficient recall and understanding of the ITIL® 4: Monitor, Support, and Fulfil practices, as described in the syllabus. The ITIL® 4 Practice qualifications build upon learners' existing knowledge of the ITIL® 4 framework.

Two sample papers are available for you to practise during the course. These will help you to become confident in your understanding of the Monitor, Support, and Fulfil practices and familiarize you with the style and structure of the exams.

Take advantage of the mock exams and set yourself up for success! Mock exams are one of the best ways to engage in practice and tackle exam anxiety.










You will sit a 90 minute examination. All questions are multiple-choice and there is only one correct answer per question.

Remember, this is a closed book exam, so you must not have any notes or resources available.

**You will need to answer 39 out of 60 questions correctly to pass.**

You can always use the Take<sup>2</sup> resit option, which is available at a fraction of the original exam price, if you require another attempt.

## Information icons

	Objectives
	Timed activity
	Discuss/reflect/activity
	Think about/question and answer
	Key learning points
	Detailed ITIL practice
	Review or multiple choice question
	The slides that feature a <b>purple border</b> are <b>core content</b>
	The slides that feature a <b>grey border</b> are optional <b>extended content</b>

# Introduction

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## Introduction



### Key icons

Attention	Further Reading	Q&A / Think about
Book reference	Detailed ITIL practice	Question
Configuration/Setting	Key learning points	Review multiple choice question
Discuss/Reflect/Activity	Learning Objectives / Objectives	Syllabus
		Timing

*Icons indicate specific actions and/or items. Please refer to the list for each icon's meaning.*

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### Introductions

- Introduce yourself
- Allow class to make some quick introductions

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## Course introductions

Taking turns, each person:




- Introduce yourself
- State your role
- Explain why you are on this course
- Describe what you hope to get from this course

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## Practice guides

Don't forget to use the **Practice guides** for more detailed information on the modules presented.




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## Learner materials

What is included in the Official Training Materials for the learner?

- Syllabus
- Sample exams
- Post-course survey



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## General information



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## Course objectives

**In this course you will learn:**

1. Understand the key concepts of the *Monitor, Support, and Fulfil* (MSF) practices.
2. Understand the processes of the MSF practices.
3. Understand the roles and competences of the MSF practices.
4. Understand how information and technology support and enable the MSF practices.
5. Understand the role of partners and suppliers in the MSF practices.
6. Understand how the ITIL capability model can be used to develop the MSF practices.
7. Understand how the ITIL guiding principles support the MSF practices.

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The objectives of this course are:

- Understand the key concepts of the *Monitor, Support, and Fulfil* (MSF) practices.
- Understand the processes of the MSF practices.
- Understand the roles and competences of the MSF practices.
- Understand how information and technology support and enable the MSF practices.
- Understand the role of partners and suppliers in the MSF practices.
- Understand how the ITIL capability model can be used to develop the MSF practices.
- Understand how the ITIL guiding principles support the MSF practices.

Notes



# Module 1

## Introduction to the MSF practices



# Introduction to the MSF practices



This slide outlines the key syllabus topics that will be covered in this session.

Notes



This slide outlines the key learning points that will be covered in this topic.



These are the key concepts of the Monitor, Support, and Fulfil course, which will be explored further in the following slides.

Notes



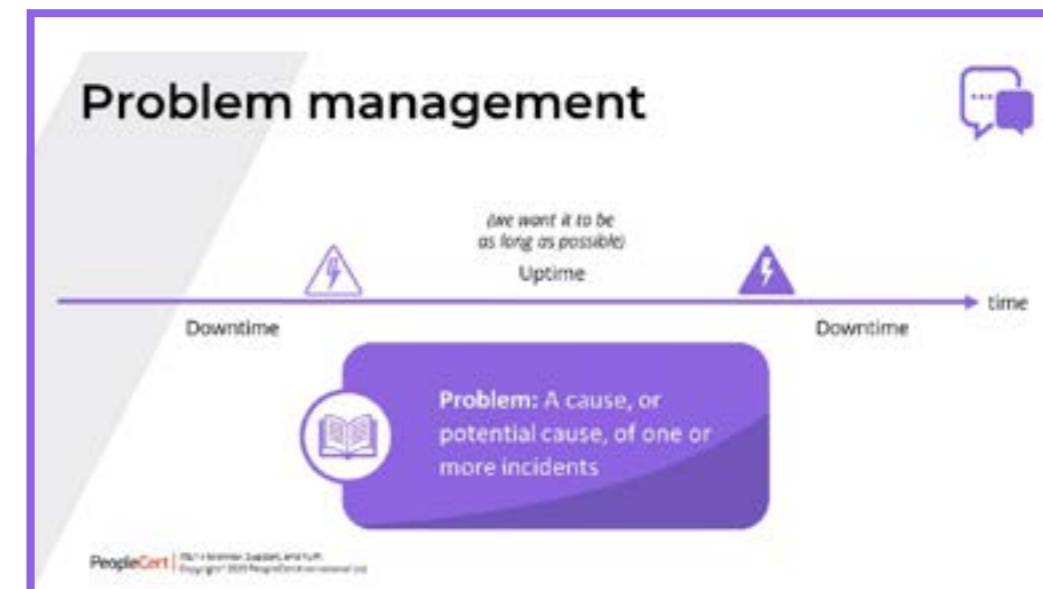
From the service quality and availability perspective, the time between incidents should be as long as possible, and the duration of incidents should be minimised. The latter is ensured by the incident management practice. Problem management plays an important role in the former, but it is not correct to say that problem management is the main or the only practice ensuring long uptime.

This is achieved throughout the product and service lifecycle, by good service design, development, testing, release, operations, and usage. If all these are performed well and effectively coordinated and integrated, there will be a low risk of errors in the live environment, and little need for problem management. Problem management deals with errors that managed to bypass all controls of the pre-operations environments.

Notes

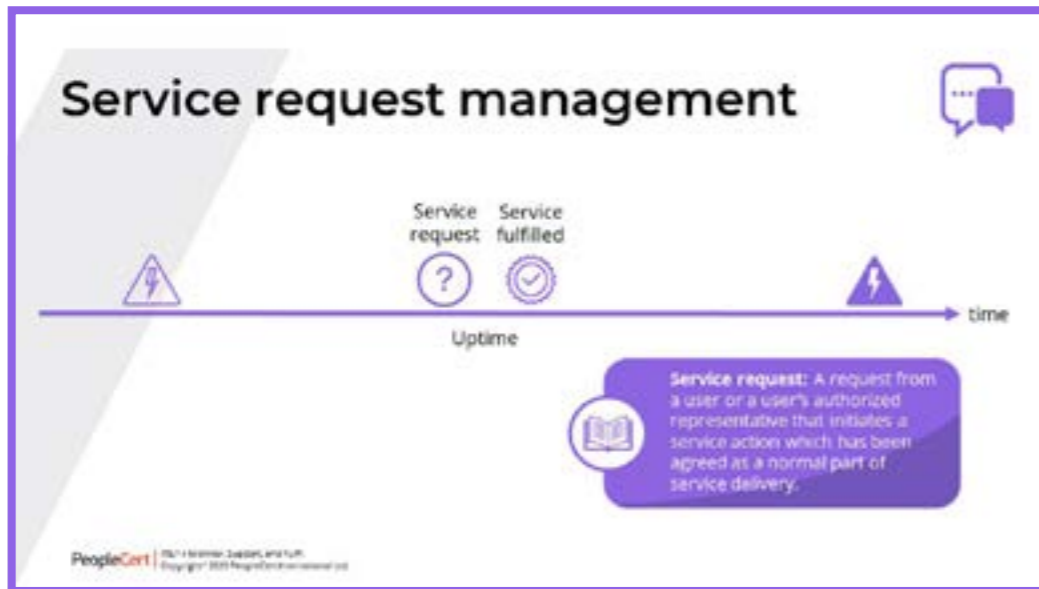


The **purpose** of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible.

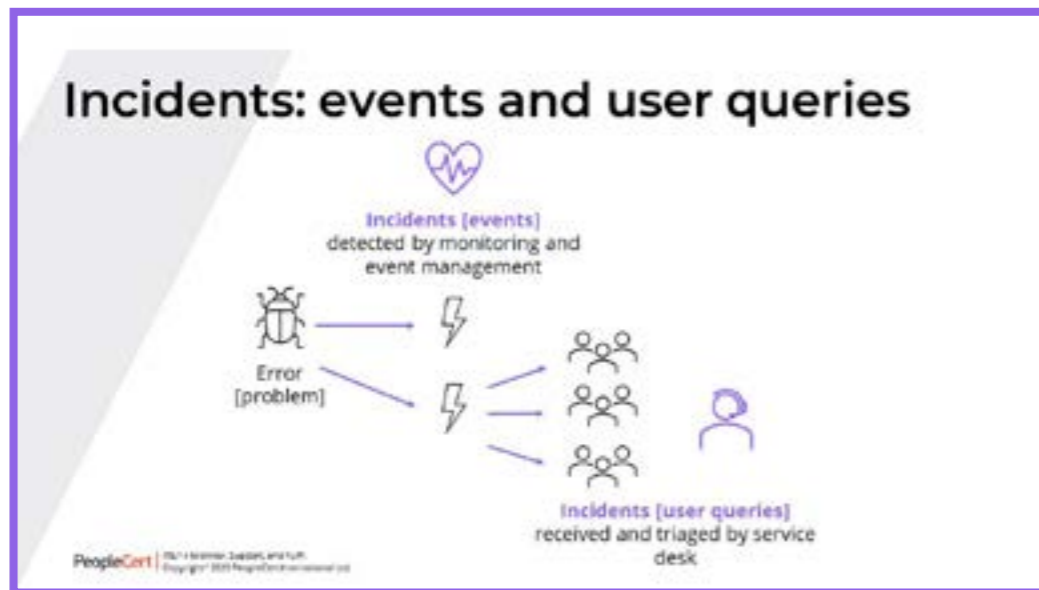


The **purpose** of the problem management practice is to reduce the likelihood and impact of incidents by identifying the actual and potential causes of incidents and managing workarounds and known errors

Notes



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

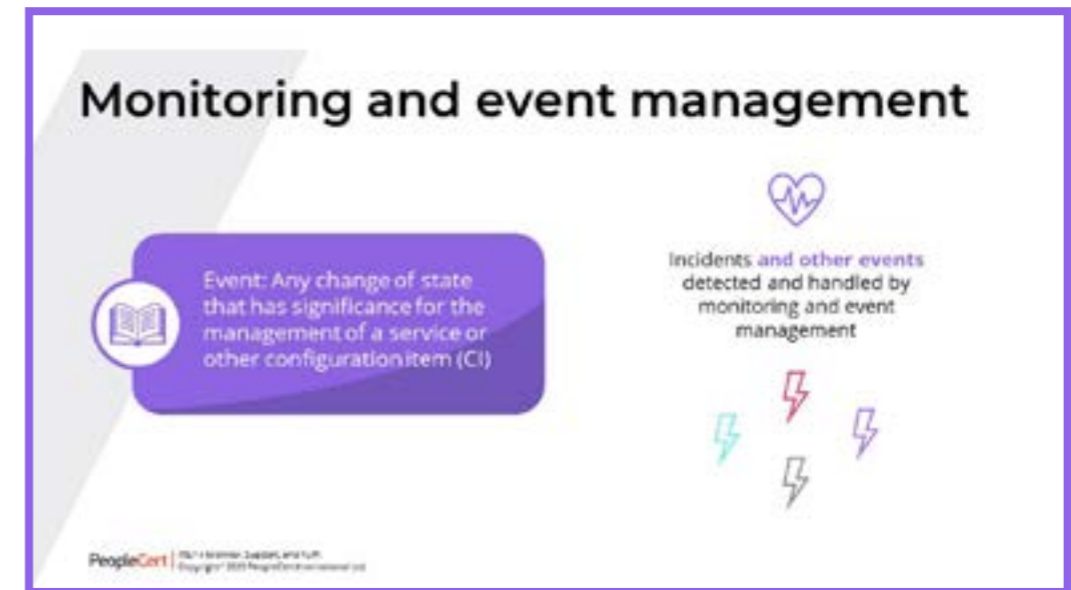


Errors in the live environment cause incidents which affect users, who in turn report incidents.

Notes



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 for all users



The **purpose** of the monitoring and event management practice is to support the normal operation of service component by observing, analyzing, and appropriately responding to changes of state in those components

Notes

### The MSF practices are applied together

	Monitoring and event management	Service desk	Incident management	Problem management	Request fulfilment
To resolve incidents and restore normal operations	✓	✓	✓	✓	
To ensure normal service operations and delivery and prevent incidents	✓	✓		✓	✓

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Together, these practices are involved in several value streams, including the following:

- detection and resolution of incidents (as shown in the first line of the table)
- monitoring of the service operation and fulfilment of the pre-agreed maintenance (as shown in the second line of the table)

The practices are involved in other value streams besides the ones listed here; these are merely examples.

### Practices, processes, and service value streams



**Process:** A set of interrelated or interacting activities that transform inputs into outputs.

**Management practice:** A set of organizational resources designed for performing work or accomplishing an objective.

**Service value stream:** A series of steps an organization undertakes to create and deliver products and services to consumers.

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To perform certain tasks or respond to particular situations, organizations create service value streams. These are specific combinations of activities and resources of multiple practices, and each one is designed for a particular scenario. Once designed, value streams should be subject to continual improvement.

Each practice may include one or more processes and activities that may be necessary to fulfil the purpose of that practice.

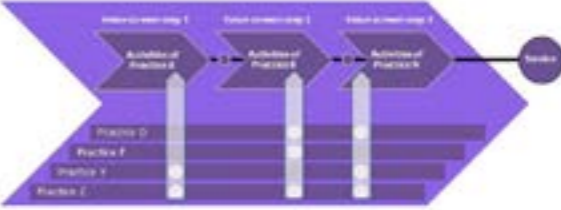
**Notes**

### Practices, processes, and service value streams

Practices include **multiple** processes.

Workflow of a service value stream is formed of activities from **multiple** practices.

Practices enable value **only** in the context of service value streams.



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To perform certain tasks or respond to particular situations, organizations create service value streams. These are specific combinations of activities and practices, and each one is designed for a particular scenario. Once designed, value streams should be subject to continual improvement.

Many organizations have been following best practice recommendations for various service management practices, such as incident management, change enablement, software development, and many others.

However, the practices have often been adopted and organized in a siloed, isolated manner just as they were presented in the service management bodies of knowledge. In reality, a flow of work required to create or restore value, for a customer or another stakeholder, is almost never limited to one practice.

**Notes**



There are many operating models for service providers describing the most commonly adopted value streams. This slide gives five as an example:

1. Incident resolution
2. Request fulfilment
3. New or changed product or service development and release
4. Update of the product and service portfolio
5. Ongoing operation and maintenance of the products and services.

The MSF practices are typically involved in value streams 1, 2, and 5 and may support 3 and 4 by providing information.

Notes

**Incident resolution as a service value stream (1/3)**

Resolution of incidents and restoration of normal service operation requires the **incident management practice**, but this is **not enough**.

Resolution of incidents is a **service value stream** which involves multiple practices.

The service value stream may include **activities** from other practices and use **information** and **tools** provided by other practices.

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The following slide present one of the previously outlined service value streams in more detail: **incident resolution**.

The incident management practice is not enough to restore normal service after it has been interrupted. The real-life workflow may include the activities outlined on the following slides, which are described as parts of different practices.

**Incident resolution as a service value stream (2/3)**

Incident management activities	Practices involved
Incident detection	Service desk (for user-reported incidents) or Monitoring and event management
Incident registration	Incident management
Incident classification	Incident management
Incident diagnosis	Incident management, Knowledge management, Problem management

- How do these practices contribute to each incident management activity?
- How is the cooperation between these practices managed?

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Incidents can be detected via monitoring or reported by users (respective practices are involved). Incident diagnosis is based on the information provided by knowledge and problem management. Incident classification and diagnosis are likely to use service configuration information.

Notes

## Incident resolution as a service value stream (3/3)

- How do these practices contribute to each incident management activity?
- How is the cooperation between these practices managed?
- Who is responsible for the end-to-end value stream?

Incident management activities	Practices involved
Incident resolution	<p><b>Incident management</b> and one or more of:</p> <ul style="list-style-type: none"> <li><b>Problem management</b> Change enablement Software development and management Service validation and testing</li> <li><b>Service desk</b> Deployment management Release management Infrastructure and platform management Supplier management</li> </ul>
Incident closure	<p><b>Incident management</b> <b>Service desk</b> Monitoring and event management <b>Problem management</b> Knowledge management Relationship management</p>

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Incident resolution may involve the implementation of changes, development and release of new software versions or patches and infrastructure changes. Incident closure may need communications with users and customers, updates to knowledge bases, and confirmations from other practices.

## Analysing a service value stream

How should the different practices be considered at each step?

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The following are some simple and practical recommendations for service value stream analysis and mapping:

### 1. Identify the scope of the value stream analysis

It can be mapped to a particular product or service or applied to most or all of them. Similarly, service value streams may differ for different consumers; for example, incidents can be solved and communicated differently for internal and

**Notes**

external customers, for B2B and B2C products, or for services based on products developed inhouse or sourced externally.

### 2. Define the purpose of the value stream from the business standpoint

Make sure the stakeholder's concerns are clearly understood because they are the ones defining value. In case of incident management, it is usually the user who needs to return to normal work as soon as possible; however, there are usually other interested parties. For example, internal users may be unable to provide normal service to a business customer because of the incident, and the value of the value stream should be considered from the business perspective, not solely from the user perspective.

### 3. Do the service value stream walk

Walk through or directly experience the steps and information flow as they go in practice (consider the Lean technique of Gemba walk):

#### a. Identify the workflow steps

#### b. Collect data as you walk

#### c. Evaluate the workflow steps

Typically, the criteria for evaluation are:

- value for the stakeholder (does the step add value for the business stakeholder?)
- effectiveness or performance (is the step performed well?)
- availability (are required resources available to execute the step?)
- capacity (are required resources enough?)
- flexibility (are the required resources interchangeable within the step?)

#### d. Map the activities and the information flows

In an ideal situation, the flow goes smoothly without delays and pauses, there are no disconnections between the steps, and the workload is level with minimal (and agreed) variation.

#### e. Create and review the timeline and resource level

Map out process times and lead times for resources and workload through the workflow steps.

### 4. Reflect on the value stream map (VSM)

Identify factors that might not have been entirely apparent at first. The information collected is used at this step to find the waste.

### 5. Create a 'to be' VSM

This informs and drives improvement. The value stream should be considered holistically to ensure end-to-end efficiency and value creation, not just local improvements.

### 6. Using the 'to be' VSM, plan improvements

Refer to the continual improvement practice guide for a practical improvement model.

**Notes**

## Recap: key learning points

- The MSF practices are applied together to achieve a range of objectives, including:
  - resolution of incidents and restoration of normal operations
  - ensuring normal service operations and prevention of incidents
- To achieve these and other objectives, organizations apply multiple practices in the context of service value streams
- The MSF practices are used to manage:
  - user queries
  - events
  - incidents
  - problems
  - service requests

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This slide outlines the key learning points that were covered in this topic.

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# Module 2

## Incident management

Overview: Incident management

2.1 Value streams and processes

2.2 Organizations and people

Activity: Incident  
management roles

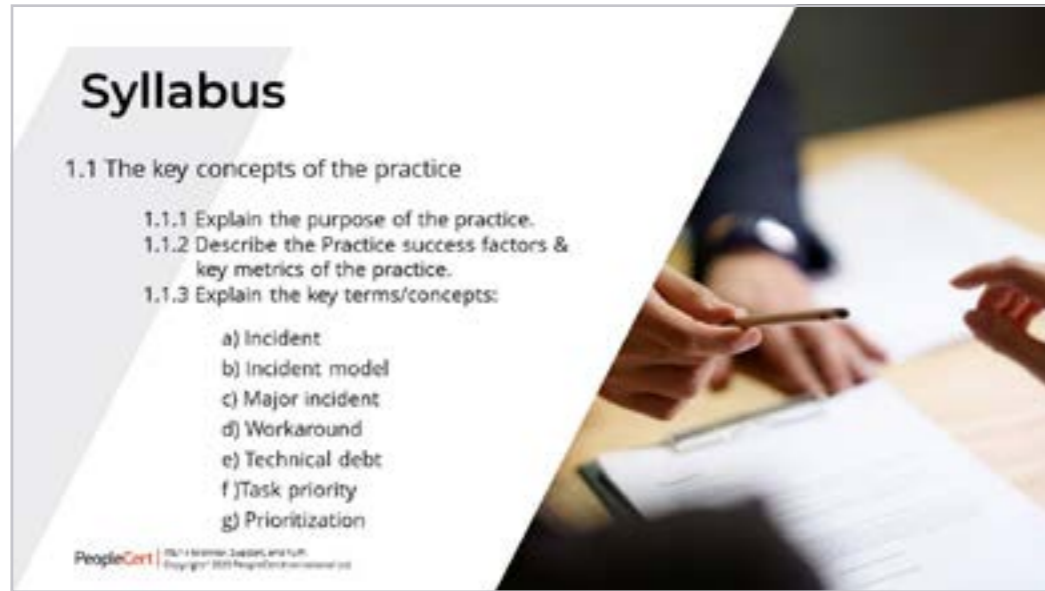
2.3 Information and  
technology

2.4 Partners and  
suppliers

Quiz



# Overview: Incident management



**Syllabus**

1.1 The key concepts of the practice

- 1.1.1 Explain the purpose of the practice.
- 1.1.2 Describe the Practice success factors & key metrics of the practice.
- 1.1.3 Explain the key terms/concepts:
  - a) Incident
  - b) Incident model
  - c) Major incident
  - d) Workaround
  - e) Technical debt
  - f) Task priority
  - g) Prioritization

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This slide outlines the key syllabus topics that will be covered in this session.



**What you will learn**

By the end of this topic, you will be able to:

- Explain the purpose of the incident management practice.
- Recall the definitions of the key terms related to the practice.
- Explain the incident management practice success factors and associated metrics.

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This slide outlines the key learning points that will be covered in this topic.

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Notes

**Incident management**

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

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

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The incident management practice ensures that periods of unplanned service unavailability or degradation are minimized, thus reducing negative impacts on users. There are two main factors enabling this: early incident detection and the quick restoration of normal operation.

The quick detection and resolution of incidents is made possible with effective and efficient processes, automation, and supplier relationships alongside skilled and motivated specialist teams. Resources from the four dimensions of service management are combined to form the incident management practice.

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**What is 'normal service operation'?**

From the service provider's perspective?

From the user's perspective?

From the service customer's perspective?

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The purpose of incident management is to restore 'normal service operation'. What can be considered to be normal operation? How might this differ from the perspective of the service provider, service customer, or user?

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### Normal service operation

	Subjective	Objective
Service provider	Specialist opinion	Technical specifications Service level agreements
Service consumer	User opinion	Service level agreements

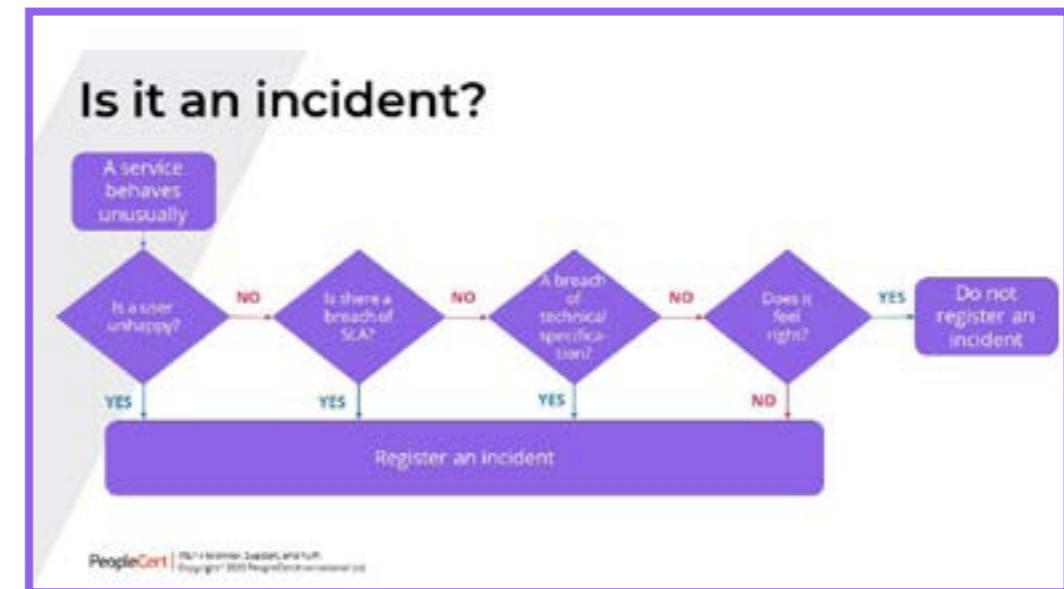
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Conditions of normal service operation are typically defined within service level agreements (SLAs) or other forms of service quality specification, either agreed with the customer or defined by the service provider. In some cases, the internal service provider's specification can include more quality criteria than were initially agreed with the customers.

The incident management practice is not limited to the service quality perceived by users. It includes restoration of the normal operation of services and resources, even when their failure or deviation is not visible to the service consumers. In this case, normal operation can be defined in the technical specifications of services or configuration items (CIs).

Finally, if there is no documented specification of a normal operation, an expert opinion may be used to assess the status of the resources and services.

Notes



When determining whether or not an incident should be registered, the following guidelines should be followed:

- If users perceive the situation as abnormal, it is recommended to register an incident and work on making users happy as quickly as possible, regardless of whether there is a breach of SLA.
- If users have not reported anything, but a service level agreement is breached, register an incident and work to restore the agreed level of service before it affects users.
- If a service or configuration item is not working as defined in a technical specification, register an incident and work to restore normal performance before it affects the SLA and users.
- If there is no formal specifications of service or component normal operation, or if the service works within the specifications, but a specialist thinks that it is not operating normally, register an incident and restore normal operation as quickly as reasonably possible.

Notes