



ITIL® 4 Capacity and performance management | Official Practice Guide

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Welcome



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Information icons

-  **Key message** 
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Chapter 1

About this guide

This guide provides practical guidance for the capacity performance and management practice. It is split into seven main sections, covering:

- general information about the practice
- the practice's processes and activities and their roles in the service value chain
- the organizations and people involved in the practice
- the information and technology supporting the practice
- considerations for partners and suppliers for the practice
- information on assessing and developing the capability of the practice
- recommendations for succeeding in the practice.

ITIL® 4 qualification scheme

Selected content from this guide is examinable as a part of the following syllabi:

- **ITIL® 4 Specialist:** High-Velocity IT

Please refer to the respective syllabus documents for details.

Chapter 2

General information

2.1 Purpose and description



Key message

The purpose of the capacity and performance management practice is to ensure that services achieve agreed and expected performance and satisfy current and future demand in a cost-effective way.

The capacity and performance management practice usually covers service performance and the performance of the resources which support services, such as infrastructure, applications, and third-party services. In many organizations, this practice also covers the capacity and performance of staff, especially when staff are directly involved in service transactions. This requires integration into value streams with the workforce and talent management practice.

This practice ensures that the requirements for the capacity and performance of services and resources are understood and fulfilled efficiently, in line with the organization's strategy and commitments. To achieve this, the practice is applied throughout the organization's product and service lifecycle, from ideation to operations. This practice is extremely important when products and services are planned and designed, decisions made at these stages will affect performance-level and other constraints, as well as the organization's ability to monitor and manage these aspects.

Capacity and performance are closely connected to service availability, continuity, information security, and their respective practices. These practices often address the same characteristics of CIs and services but focus on different aspects of their quality. Sharing resources across all four dimensions of service management can be significantly beneficial in these areas. However, a clear separation of responsibilities is required in some areas, such as externally regulated areas like service continuity and information security.

The capacity and performance management practice has multiple benefits for both service providers and consumers.

Benefits for the service provider include:

- improved resource management
- optimization of service costs
- improved budgeting and accounting
- higher levels of customer and user satisfaction
- better alignment between business and service provider objectives
- better alignment between product, service, and resource management
- reduced service risks
- contributions to marketing and sales of services
- support of service continuity and availability management.

Benefits for the service consumer include:

- assurance of business service performance and scalability
- optimized IT service costs
- reduced business risks
- support of business availability and continuity.

2.2 Terms and concepts



Performance

A measure of what is achieved or delivered by a system, person, team, practice, or service.

Service performance is usually associated with the rate of service transactions and the time needed to fulfil service transactions at a given level of demand. Service performance depends on service capacity, the maximum throughput that a configuration item (CI) or service can deliver. The specific metrics that are used will depend on the technology and business nature of the service or CI. Service capacity should be designed to ensure that demand for that service can be met.



Demand

One or more metrics that define expected or achieved service quality

The capacity and performance management practice focuses on demand in the context of number, size, or frequency of transactions or activities, rather than the wider context of understanding all requirements of the service consumers.

The performance of a service or CI is often determined by its utilization.



Utilization

The extent to which a resource is being used to generate useful output. Usually expressed as a percentage.

Many CIs deliver optimal performance when their utilization is significantly below 100 percent, but under-utilized resources can reduce efficiency and increase costs. Monitoring utilization is important to ensure that the balance between performance and efficiency is acceptable.

For consumers, performance is an important service characteristic, and therefore it is a topic for negotiation, agreement, monitoring, and reporting. These activities involve multiple practices (including the business analysis, relationship management, service design, service level management (SLM), and measurement and reporting practices, and others). The capacity and performance management practice is used in conjunction with these to ensure that capacity and performance are sufficiently and consistently addressed.

Service performance is a complex characteristic. Analysing service performance is only possible with multiple measurements and agreements about how those measurements should be understood. Agreements should depend on the service architecture, importance of certain transactions and supporting components, quality criteria, and other parameters. Moreover, performance from the perspective of a user or a group of users can be different from the performance measured from the provider's or customer's perspectives. For example, service transaction delays that are experienced by 2.5% of users will be perceived by the 2.5% as poor performance, but the agreed performance targets might still be met.

The capacity and performance management practice should ensure a transparent, consistent, and practical understanding of capacity and performance (expected, agreed, designed, and actual) among all relevant parties.

When services are provided to thousands or millions of people, there is usually no single generic agreement on the service performance with customers. However, overall service performance is critical for the service provider.

2.3 Scope

The capacity and performance management practice ensures that services deliver agreed levels of performance to meet the needs of customers and users in a cost-effective way. To achieve this, the capacity and performance management practice includes the definition, measurement, analysis, and improvement of the capacity and performance of services, products, and components. It is a centre of expertise for capacity-related matters and supports other service management practices.

The scope of capacity and performance management is very broad. Each organization will need to consider exactly what will be considered by this practice, but this will often include:

- **Hardware:** including servers, storage, networking infrastructure, or any specialized equipment needed by the service.
- **Client devices:** including laptops, phones, tablets, and so on.
- **Software:** including software that runs on servers, client devices, networking infrastructure, and so on.
- **Cloud services:** including infrastructure (IaaS), software (SaaS), platforms (PaaS), and so on.
- **Supporting tools:** including user portals, monitoring tools, and so on.
- **People:** especially where staff are directly involved in transactions.
- **Value streams and processes:** that are directly involved in transactions.

The capacity and performance management practice needs to consider everything within scope from two different perspectives:

- the capacity and performance of individual services
- the capacity and performance of shared resources and infrastructure that are used by multiple services.

Many practices directly or indirectly contribute to service performance. Table 2.1 lists activities which are closely related to capacity and performance management. It is important to remember that ITIL practices are merely collections of tools to use in the context of value streams and should be combined as necessary depending on the specific organizational, service, and customer contexts.

Table 2.1 Activities related to the capacity and performance management practice described in other Official Practice Guides

Activity	Official Practice Guide
Understanding, negotiating, and agreeing on the customer requirements for capacity and performance	Business analysis, SLM
Designing a service model to meet capacity and performance requirements	Service design
Aligning capacity and performance architecture and design with the business architecture	Architecture management
Identifying the risks associated with capacity and performance	Risk management
Monitoring and managing the usage of IT assets such as software licenses or client devices	IT asset management
Analysing the impacts of changes on capacity and performance targets	Change enablement
Monitoring the capacity and performance of services and raising alerts when thresholds are breached	Monitoring and event management
Implementing risk mitigation measures and changing the service infrastructure to ensure resilience	Project management, change enablement
Testing capacity and performance designs and controls	Service validation and testing, software development and management, infrastructure and platform management
Reacting to events which might affect the organization's ability to meet capacity and performance targets	Incident management, problem management
Managing capacity and performance incidents and problems	
Managing and implementing improvements related to capacity and performance on an ongoing basis	Continual improvement

2.4 Practice success factors



Practice success factor (PSF)

A complex functional component of a practice that is required for the practice to fulfil its purpose.

A PSF is more than a task or activity; it includes components from all four dimensions of service management. The nature of the activities and resources of PSFs within a practice may differ, but together they ensure that the practice is effective.

The capacity and performance management practice includes the following PSFs:

- identifying service capacity and performance requirements
- measuring, assessing, and reporting service performance and capacity
- treating service performance and capacity risks.

2.4.1 Identifying service capacity and performance requirements

Identifying service capacity and performance requirements includes:

- **Understanding customer requirements for service performance:** the business analysis and SLM practices are normally used to communicate with customers in order to understand their performance and capacity requirements for IT services and negotiate the service level requirements (SLRs). The capacity and performance management practice supports and inputs into the SLM, business analysis, and service design practices. Capacity and performance management can be crucial for optimizing a service design to meet increasing capacity demands, while deferring an increase in costs.
- **Determining performance and capacity criteria:** the line between high and low performance should be clearly defined. It is also important to define the point at which poor performance is considered to be an unavailable service. The following factors should be considered when determining service performance criteria:
 - **Service actions/functionality/vital business functions:** service performance is defined by critical service actions.
 - **Acceptable delays in executing service transactions:** delays should not be counted as service degradation; and unacceptable degradation, which should be treated as unavailability.
 - **Scale factor:** service performance degradation generally means that delays are experienced by significant numbers of users, not individuals.
- **Choosing the right set of capacity and performance metrics:** metrics should reflect how service degradation may affect the service provider and customers.

2.4.2 Measuring, assessing, and reporting service capacity and performance

Performance is one of the most essential aspects of service quality, so it is important that the service provider can measure, assess, and report performance. Reporting performance in terms of the lead time and the number of transactions per time frame is a widely accepted practice. However, it is important to ensure that the measurements are understandable from the users' perspective, as well as from the technical perspective. For more on defining meaningful metrics for services, readers should refer to the Service Level Management ITIL® 4 Practice Guide.

When defining suitable measurements, it is crucial to reflect the business impacts of service degradation, rather than the technical performance of the service components.

Two of the most important objectives of the capacity and performance management practice are to ensure sufficient capacity and performance monitoring and translate monitoring data into service performance information.

Incident records can be sources of service disruption data. However, it is often difficult to obtain reliable performance and capacity data based on these, especially for user-reported incidents, and to align it with the agreed service performance metrics.

More reliable sources of performance and capacity data are infrastructure monitoring tools. However, although these can work well for measuring resource-provision type services, it is almost impossible to correctly measure the performance of service transactions based solely on the infrastructure monitoring data. This is especially difficult when a service is dependent on combinations of cloud services, shared resources, public networking, and other complex interactions. Tools such as real user monitoring and business transaction monitoring can help to overcome this issue.

2.4.3 Treating service capacity and performance risks

The capacity and performance management practice is not only about planning and monitoring capacity and performance. This practice includes defining and managing controls to manage a wide range of risks that might impact services' capacity and performance. For this, it is used in conjunction with the risk management and other risk-focused practices, such as the availability management, service continuity management, and information security management practices. Agreed performance controls are implemented through the service design, software development and management, and infrastructure and platform management practices.

In the context of risk management, the risk identification, prioritization, and measurement stages are key to the capacity and performance management practice.

The capacity and performance management practice ensures that risks will be treated effectively by:

- assessing the impacts of components' capacity and performance on the end-to-end performance of products and services and identifying related vulnerabilities and constraints
- assessing the impacts of products' and services' capacity and performance on the user and customer experience
- designing effective controls and countermeasures to prevent, detect, and mitigate capacity and performance risks
- monitoring and controlling capacity and performance risks on an ongoing basis and optimizing risk management activities within the scope of the practice.

2.5 Key metrics

Key metrics for the capacity and performance management practice are mapped to its PSFs. They can be used as KPIs in the context of value streams to assess the contribution of the practice to the effectiveness and efficiency of those value streams. The key metrics are listed in Table 2.2.

The effectiveness and performance of the ITIL practices should be assessed within the context of the value streams to which the practices contribute. The context of the business and the value streams is important when defining what is considered good or not so good performance of a practice. This is why this Official Practice Guide cannot recommend universal key performance indicators for capacity and performance management: the target values for each metric can only be defined in the organization's context.

Table 2.2 Examples of key metrics for the practice success factors


Practice success factors	Key metrics
Identifying service capacity and performance requirements	Percentage of products and services with capacity and performance requirements agreed with customers and documented in an SLA. Percentage of new or changed operational products and services that match capacity and performance requirements documented in SLAs. Timely updates on service capacity and performance requirements and criteria during major service changes.
Measuring, assessing, and reporting service capacity and performance	Percentage of accepted business cases for new components and architecture designs that are in line with the performance requirements. Reduction in the use of old (unsupported) components or architecture designs that cause breached SLAs due to performance issues. Percentage of products and services: <ul style="list-style-type: none">• with defined capacity and performance metrics• whose capacity and performance are monitored• included in service capacity and performance reports. Percentage of enacted improvement initiatives logged by the capacity and performance management practitioners.
Treating service capacity and performance risks	Number of unplanned capacity and performance upgrades to products, services, and components. Ratio of actual losses to expected losses due to insufficient capacity and performance of products or services.

Chapter 3

Value streams and processes

3.1 Processes

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

 **Process**

A set of interrelated or interacting activities that transform inputs into outputs. A process takes one or more defined inputs and turns them into defined outputs. Processes define the sequence of actions and their dependencies.

Capacity and performance management activities form two processes:

- **Managing product and service capacity and performance:** this process is focused on analysing, designing, and monitoring the capacity and performance of resources, products, and services throughout their lifecycle. The process supports design, implementation, delivery, monitoring, and support of agreed levels of capacity and performance.
- **Measuring and reporting capacity and performance:** this process is focused on design, implementation, and continual improvement of capacity and performance measurement and reporting capabilities. It ensures sufficient understanding of product and service capacity and performance and supports agreed quality of products and services.

3.1.1 Managing product and service capacity and performance

This process includes the activities listed in Table 3.1 and transforms the inputs into outputs.

Table 3.1 Inputs, activities, and outputs of the 'managing product and service capacity and performance' process

Key inputs	Activities	Key outputs
Customer requirements Business and technology architectures Service catalogue Service specifications Service models and configuration models Agreements with suppliers and partners User and customer feedback Improvement plans and registers Financial information	Analyse capacity and performance requirements Propose and verify solution design Support and verify solution testing and implementation Support and verify monitoring and reporting of capacity and performance Resource and capacity provisioning Analyse capacity and performance data and initiate improvements	Capacity and performance requirements report Capacity and performance design solutions Capacity and performance implementation verification Resource, product, and service capacity and performance records and reports Periodic capacity and performance report Improvement initiatives

Figure 3.1 shows a workflow diagram of the process.

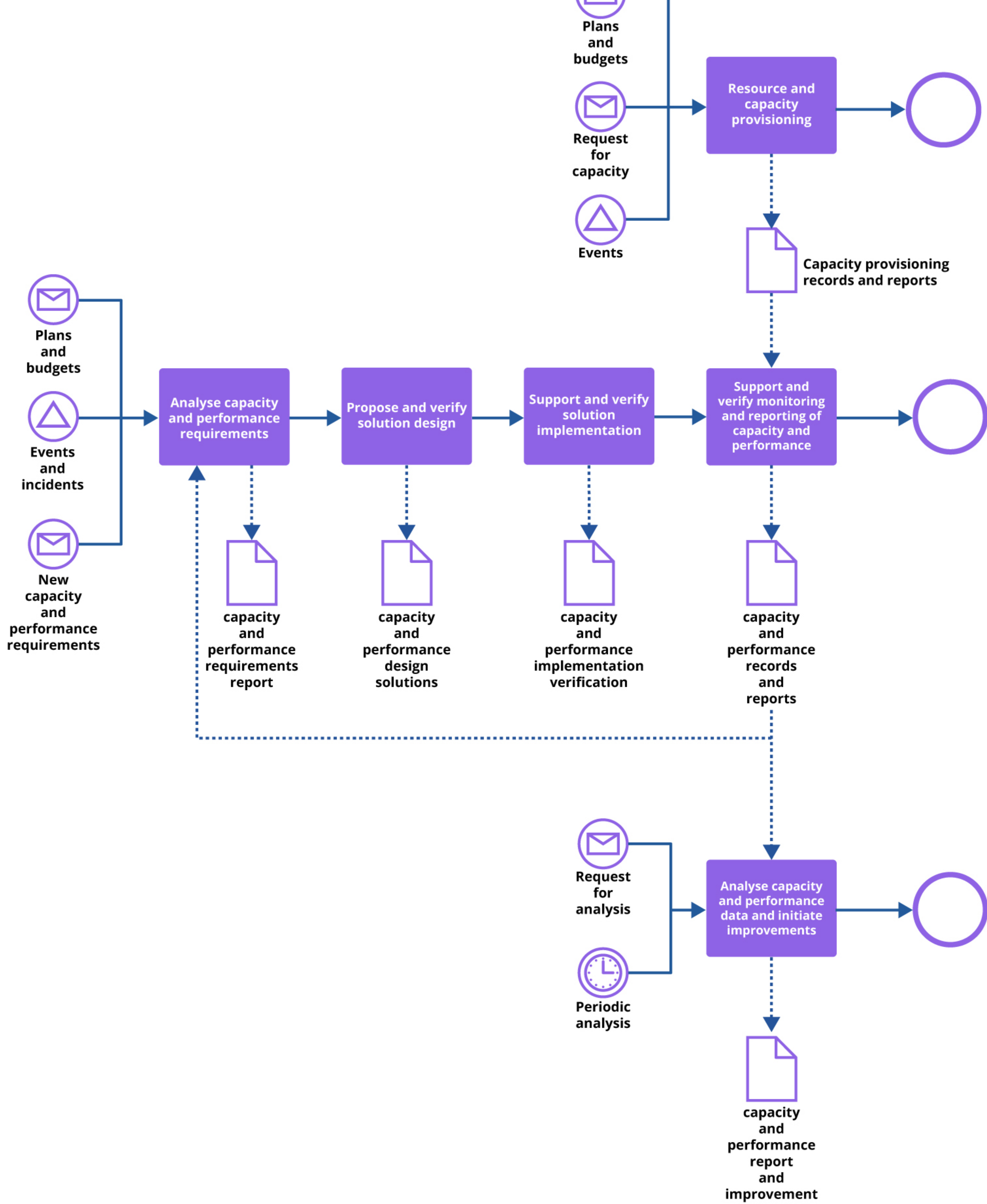


Figure 3.1 Workflow of the 'managing product and service capacity and performance' process

These activities may be performed with varying levels of formality by many people in the organization and may apply to resources, products, or services. Table 3.2 describes these activities further.

Table 3.2 Activities of the 'managing product and service capacity and performance' process

Activity	Description
Analyse capacity and performance requirements	Resource / product / service owner (depending on the level of capacity and performance requirements), service designer, infrastructure engineer, and software developer review and analyse the capacity and performance requirements coming from either service customers or another service provider team. The requirements are mapped to the available resources and funds, architectural constraints, and other relevant factors. If the requirements are not viable, this conclusion is communicated to the originator of the requirements. Capacity and performance requirements analysis may be triggered by events or incidents indicating that a previously agreed level of capacity and performance is not being reached or under threat. In such situations, relevant specialists review capacity and performance records and reports, aiming to identify what can be improved in the current solution design or its implementation.
Propose and verify solution design	If the capacity and performance requirements are viable, resource / product / service owner (depending on the level of capacity and performance requirements), service designer, infrastructure engineer, software developer, and other relevant specialists identify and propose one or more solutions to meet the requirements. These solutions serve as input to service design activities (see Service Design ITIL® 4 Practice Guide).
Support and verify solution implementation	During development, testing, deployment, and release of the selected solution, service owner (or another relevant owner role, depending on the level of the solution) ensures that the agreed capacity and performance solution is implemented correctly, and that capacity and performance levels are tested and confirmed. This activity adds capacity and performance perspective to many activities of the following practices: <ul style="list-style-type: none">• Software development and management• Infrastructure and platform management• Service validation and testing• Deployment management• Release management
Support and verify capacity and performance monitoring and reporting	When the solution (resource, product, or service) is live, agreed capacity and performance records and reports are generated manually and/or automatically. A relevant owner (resource, product, or service) reviews the records and reports to verify that they are produced in line with the agreed capacity and performance solution. If the records and reports are not valid, the owner reports an incident.
Resource and capacity provisioning	Based on the agreed plans and budgets, and triggered by plans, requests, and events, resources are provisioned to products and services to ensure the agreed level of capacity and performance. This activity is coordinated by the capacity and performance manager following the agreed design of products and services and the organization's planning and budgeting procedures. Resources may be provisioned automatically or manually, depending on the type of resources and technology architecture.
Analyse capacity and performance data and initiate improvements	Resource / product / service owner, together with other relevant specialists, regularly reviews capacity and performance records and reports to identify trends in resource, product, and service capacity and performance. The resulting capacity and performance review report may include improvement initiatives which may inform capacity and performance design. This review may also be requested by various stakeholders (customers, architects, executive leaders, and others).

3.1.2 Measuring and reporting capacity and performance

This process ensures an end-to-end capacity and performance measurement and reporting across the organization and its service ecosystem, including capacity and performance of relevant third-party services. It may also include a certain level of visibility of the customer's resources involved in service consumption.

This process includes the activities listed in Table 3.3 and transforms the inputs into outputs.

Table 3.3 Inputs, activities, and outputs of the 'measuring and reporting capacity and performance' process

Key inputs	Activities	Key outputs
Capacity and performance reporting needs and requirements Customer requirements Business and technology architectures Service catalogue Service specifications Service models and configuration models Agreements with suppliers and partners	Analyse capacity and performance measurement and reporting needs and capabilities Agree capacity and performance measurement and reporting requirements Design capacity and performance measurements and reports Implement capacity and performance measurement and reporting Review capacity and performance measurement and reporting	Capacity and performance monitoring, measurement, and reporting designs Capacity and performance records and reports Improvement initiatives

Figure 3.2 shows a workflow diagram of the process.

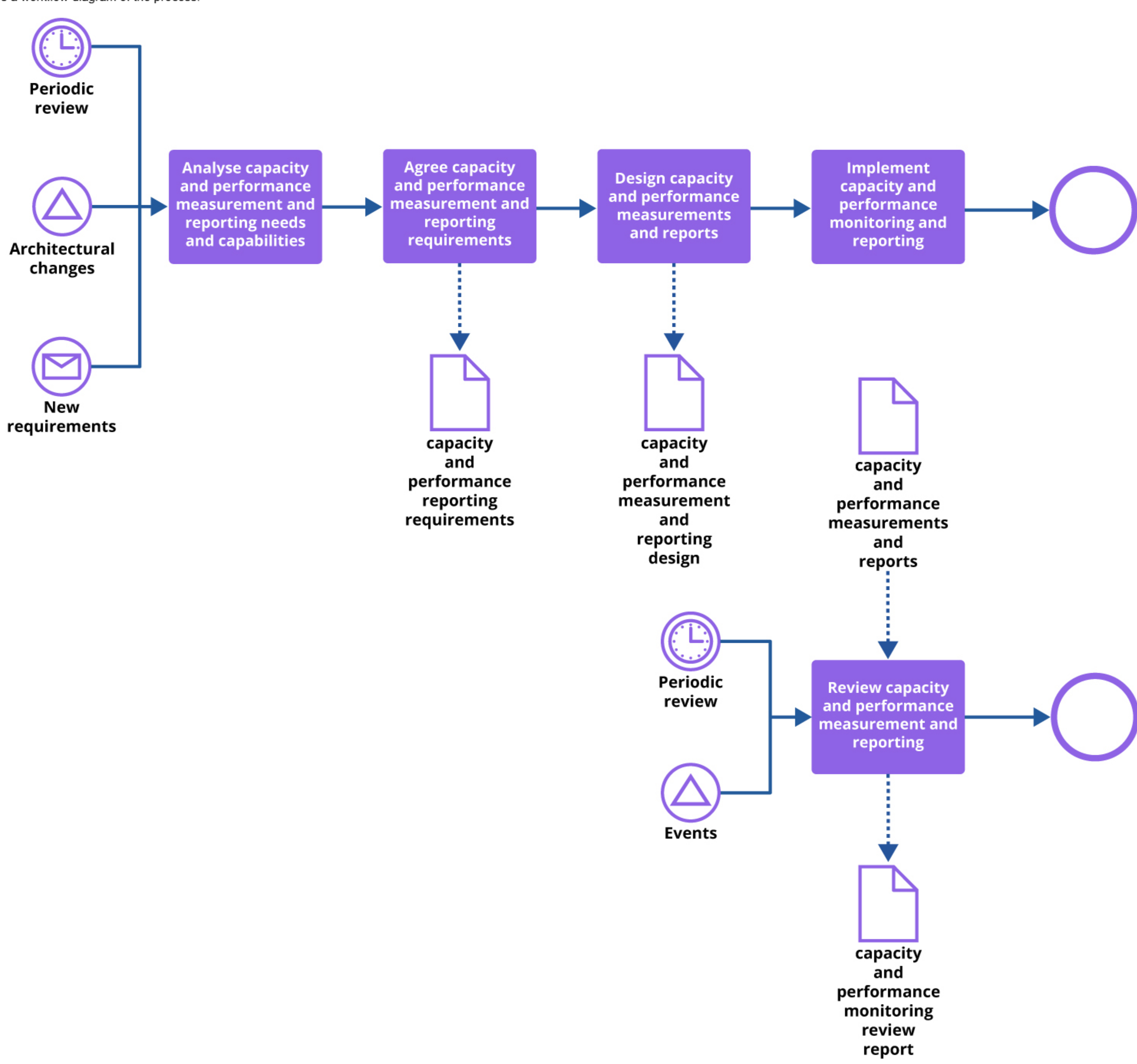


Figure 3.2 Workflow of the 'measuring and reporting capacity and performance' process

Table 3.4 provides an overview of the process activities.

Table 3.4 Activities of the 'measuring and reporting capacity and performance' process

Activity	Description
Analyse capacity and performance measurement and reporting needs and capabilities	Capacity and performance manager collects and analyses capacity and performance reporting needs of resource, product, and service owners; customers; service continuity managers, information security managers, and other stakeholders. Together with business and technology architects and other specialists, capacity and performance manager reviews organization's capacity and performance measurement and reporting capabilities and constraints. Resulting report includes prioritized capacity and performance reporting requirements mapped to available monitoring, measurement, and reporting capabilities (or lack thereof).
Agree on capacity and performance measurement and reporting requirements	Capacity and performance manager discuss the identified requirements and supporting capabilities with the stakeholders. Together they agree on realistic solutions based on the available capabilities, or plan implementation of additional measurement and reporting capabilities to meet the requirements.
Design capacity and performance measurements and reports	Based on the agreed list of requirements, the capacity and performance manager designs and proposes measurement and reporting solutions. They are discussed with relevant stakeholders. Discussions include financial and technical capabilities, timelines, and other relevant aspects of the measurement and reporting solutions.
Implement capacity and performance measurement and reporting	Agreed and approved measurement and reporting capabilities are implemented using such practices as project management, change enablement, service design, supplier management, and others, depending on the solution. Capacity and performance manager monitors the implementation and accepts the results. Implemented measurement and reporting capabilities are then used to monitor and manage capacity and performance of resources, services, and products, as described in section 3.1.1.
Review capacity and performance measurement and reporting	Capacity and performance manager, together with relevant stakeholders, reviews utilization, effectiveness, and efficiency of the capacity and performance measurement and reporting capabilities. The resulting report may include improvement initiatives which may inform capacity and performance design. This review is conducted regularly, and may also be requested by various stakeholders (architects, executive leaders, and others).

3.2 Value stream contribution

3.2.1 Service value streams

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.

 **Value stream**

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

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.

In practice, however, many organizations identify the value stream concept after having worked for a while (sometimes for years) without the value streams being managed, mapped, or understood. This means that when the importance of the concept becomes clear, the first step is to understand and map the 'as is' situation and the true flows of work, then analyse them in order to identify and eliminate the non-value-adding activities and other forms of waste.

Identifying and understanding existing value streams is critical to improving an organization's performance. Mapping activities in the form of value streams allows the organization to understand what it delivers and how, and to make continual improvements to its services. Combined, an organization's value streams form an operating model which can be used to understand and improve how the organization creates value for the stakeholders.

Many organizations follow best practice recommendations for various service management practices, such as incident management, change enablement, software development, and many others. However, the practices are often adopted and organized in a siloed, isolated manner, just as they are presented in 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.

3.2.2 Capacity and performance management in service value streams

Capacity and performance management plays a key role in many different value streams. This practice contributes directly to the design, creation, maintenance, and continual improvement of services, and has important interactions with practices that resolve incidents and problems.

Table 3.5 describes how the key service value streams involve capacity and performance management.

Table 3.5 Capacity and performance management in key service value streams

Value Stream	The role of capacity and performance management
Creation of a new or changed product or service	Evaluating customer requirements for capacity and performance and helping to analyse the costs and risks of alternative solutions to achieve these Evaluating potential capacity or performance impact of a new or changed service on other services that are not being changed Design for monitoring and reporting service capacity and performance to be included in the overall service design
Service delivery	Providing input to IT asset management on capacity of resources, to support allocation of resources to service consumers, and recovery of assets that may no longer be needed
Product and service support	Analysis of incident data that could impact capacity and performance Creation of problem records based on analysis of capacity and performance data Helping to create solutions to resolve capacity and performance related incidents and problems
Product and service operations	Monitoring service capacity and performance and identifying trends and risks that could result in failure to meet agreed targets. Proactively taking action when agreed capacity and performance targets are at risk, for example by negotiating for additional resources to monitor services or purchasing additional vendor support for a short period of time. Regular testing of capacity and performance controls, such as automated triggering of additional cloud services when demand exceeds a defined threshold.
Continual improvement of products and services	Identifying opportunities to improve service capacity and performance or reduce costs, while still achieving agreed levels of capacity and performance. Helping to identify underutilized resources.

The capacity and performance management practice is critical for many service value streams; however, the effectiveness and efficiency of many of the capacity management activities are assessed based upon agreed service requirements. Therefore, these value streams are also highly dependent on the relevant availability targets and service level agreements.

3.2.3 Analysing a service value stream

3.2.3.1 The key steps of a service value stream analysis

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

1. **Identify the scope of the value stream analysis:** this 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 customers; for example, incidents can be solved and communicated differently for internal and external customers, B2B and B2C products, or services based on products developed in-house or sourced externally. Interactions with users and customers during incident handling and resolution may follow different models in each of these scenarios.
2. **Define the purpose of the value stream from the business standpoint:** make sure the stakeholder's concerns are clearly understood, since they are the ones defining value. The definitions of service quality should be aligned with the organization's strategy and support value creation for the organization and other stakeholders.
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? Does it support the relationship approach?)
 - effectiveness or performance (is the step performed well?)
 - availability (are required resources available to execute the step?)
 - capacity (are the 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.

4. **Create and review the timeline and resource level:** map out process times and lead times for resources and workload through the workflow steps.
5. **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. Some commonly performed interactions between stakeholders and team members can be undocumented or even contradict the agreed procedures.

6. **Create a 'to be' VSM:** this informs and drives improvement. The value stream should be considered holistically for an end-to-end efficiency and value creation, not just local improvements.

7. **Using the 'to be' VSM, plan improvements:** refer to the ITIL® 4 Continual Improvement Official Practice Guide to ensure the organization should be included in the continual improvement plan for the value streams.

3.2.3.2 Capacity and performance management considerations in a service value stream analysis

To ensure that relevant capacity and performance management activities are included in service value streams, the following steps can be added to the above recommendations:

- At the scoping step (1), identify the customers related to the value stream and other involved external and internal stakeholders. What are their service capacity and performance expectations? Do they use service capacity and performance plans or reports? Are these stakeholders satisfied? Which other practices are involved in supporting capacity and performance management activities?

- During the service value stream walk (3a), identify the practices involved at every step and how capacity and performance plans and targets are used. What service capacity and performance plans, reports and data are readily available? Are there situations where required capacity and performance information is not available? Is there evidence that service capacity and performance are regularly planned, measured, reviewed, and improved, and what inputs, outputs, and triggers are in place to support interactions between capacity and performance management and other practices?

- During the workflow steps evaluation (3c), evaluate the impact of capacity and performance management on the value stream's effectiveness and efficiency. Special attention should be paid to steps where required capacity and performance information is not available or insufficient. Do capacity and performance plans and targets stimulate the right behaviour? Does capacity and performance management create any risks or delays in the value stream? Are capacity and performance plans and reports sufficient? Are they available when needed and in a convenient form? Are capacity and performance management activities automated where appropriate? Are steps taken to continually improve capacity and performance of services, and ensure that these meet or exceed customer expectations? Do other practices interact effectively and efficiently with capacity and performance management?

- At the reflection and planning steps (4-5), ensure that capacity and performance management plans and reports are available to the relevant stakeholders throughout the value stream and their provision and use are optimized for business value.

- Include the creation or update of capacity plans, controls, designs, measurements, dashboards, and reports in the value stream improvement plans (6).

Chapter 4

Organizations and people

4.1 Roles, competencies, and responsibilities

4.1.1 Capacity manager role

In some organizations, there is a dedicated capacity manager. In other organizations, this role may be combined with other IT service management roles.

This role is typically responsible for:

- establishing and communicating the scope and policy for capacity and performance management
- assigning responsibility, and authority, for other capacity and performance management roles as appropriate
- establishing required inputs, outputs, and triggers between capacity and performance management activities and activities of other practices
- ensuring that the capacity and performance requirements of customers are understood sufficiently early on, and that these can be incorporated into the designs of new and changed services and shared resources
- ensuring that capacity and performance architectures, designs, and controls are developed, tested, and updated as needed
- ensuring that capacity plans are developed, shared, maintained, and used to support the achievement of agreed capacity and performance targets
- ensuring that capacity and performance measurement and reporting is carried out and that customers are satisfied with the reports
- ensuring that the capacity and performance of services and shared resources continues to meet the evolving needs of customers in a cost-effective way
- managing a centre of excellence (if one is needed) to ensure that best practice is shared across the organization and a consistent approach to capacity and performance management is taken where appropriate
- ensuring that the performance of the capacity and performance management practice is monitored, reviewed and improved.

4.1.2 Capacity and performance management roles in an organization

The ITIL practices do not describe the practice management roles such as practice owner, practice lead, or practice coach. They focus instead on the specialist roles that are specific to each practice. The structure and naming of each role may differ from organization to organization, so any roles defined in ITIL should not be treated as mandatory, or even recommended. Remember, roles are not job titles. One person can take on multiple roles and one role can be assigned to multiple people.

Roles are described in the context of processes and activities. Each role is characterized with a competency profile based on the model shown in Table 4.1.

Table 4.1 Competency codes and profiles

Competency code	Competency profile (activities and skills)
L	Leader: decision-making, delegating, overseeing other activities, providing incentives and motivation, and evaluating outcomes.
A	Administrator: assigning and prioritizing tasks, record-keeping, ongoing reporting, and initiating basic improvements
C	Coordinator/communicator: coordinating multiple parties, maintaining communication between stakeholders, and running awareness campaigns
M	Methods and techniques expert: designing and implementing work techniques, documenting procedures, consulting on processes, work analysis, and continual improvement
T	Technical expert: providing technical (subject matter) expertise and conducting expertise-based assignments

The roles which are typically involved in the capacity and performance management activities are listed in Table 4.2, together with the associated competency profiles.

Table 4.2 Roles involved in the capacity and performance management activities

Activity	Responsible roles	Competence profile	Specific skills
Managing product and service capacity and performance			
Analyse capacity and performance requirements	Product owner Service owner Resource owner Service architect Capacity manager	TCA	Good knowledge of the organization's architecture, products, and services Good understanding of the stakeholders' requirements from products, services, and resources
Propose and verify solution design	Product owner Service owner Resource owner Service architect Capacity manager	TMCA	Good knowledge of the organization's architecture, products, and services Good understanding of the stakeholders' requirements from products, services, and resources Expertise in capacity and performance measurement Good knowledge of service design
Support and verify solution implementation	Product owner Service owner Resource owner Service architect Capacity manager	TMCA	Good knowledge of the organization's architecture, products, and services Good knowledge of the capacity and performance solutions Expertise in capacity and performance measurement Good knowledge of service implementation practices
Support and verify capacity and performance monitoring and reporting	Product owner Service owner Resource owner Service architect Capacity manager	TMCA	Good knowledge of the organization's architecture, products, and services Good knowledge of the capacity and performance solutions Expertise in capacity and performance measurement Good knowledge of service operations and support practices
Resource and capacity provisioning	Capacity manager	TA	Good knowledge of the organization's plans and budget Good knowledge of the product and service architecture Good knowledge of the capacity and performance solutions
Analyse capacity and performance data and initiate improvements	Product owner Service owner Resource owner Service architect Capacity manager	TMCA	Good knowledge of the organization's architecture, products, and services Good understanding of the stakeholders' requirements from products, services, and resources Expertise in capacity and performance measurement
Measuring and reporting capacity and performance			
Analyse capacity and performance measurement and reporting needs and capabilities	Product owner Service owner Resource owner Service architect Capacity manager Service designer	TCA	Good knowledge of the organization's architecture, products, and services Good understanding of the stakeholders' requirements from products, services, and resources Expertise in capacity and performance measurement Expertise in measurement and reporting
Agree on capacity and performance measurement and reporting requirements	Product owner Service owner Resource owner Service architect Capacity manager Service designer	TMCA	Good knowledge of the organization's architecture, products, and services Good understanding of the stakeholders' requirements to products, services, and resources Expertise in capacity and performance measurement Expertise in measurement and reporting
Design capacity and performance measurements and reports	Product owner Service owner Resource owner Service architect Capacity manager Service designer	TMCA	Good knowledge of the organization's architecture, products, and services Good understanding of the stakeholders' requirements from products, services, and resources Expertise in capacity and performance measurement Expertise in measurement and reporting
Implement capacity and performance measurement and reporting	Product owner Service owner Resource owner Service architect Capacity manager	TCA	Good knowledge of the organization's architecture, products, and services Good understanding of the stakeholders' requirements from products, services, and resources Expertise in capacity and performance measurement Expertise in measurement and reporting
Review capacity and performance measurement and reporting	Product owner Service owner Resource owner Service architect Capacity manager Service designer	TMCA	Good knowledge of the organization's architecture, products, and services Good understanding of the stakeholders' requirements from products, services, and resources Expertise in capacity and performance measurement Expertise in measurement and reporting

4.2 Organizational structures and teams

It is unusual to see a dedicated organizational structure for the capacity and performance management practice, although capacity and performance practitioners may be supported by formal positions and job descriptions. Service capacity is normally managed by other organizational functions, where roles can be combined depending on the nature of the services. Roles that are often combined with the capacity manager role include IT asset manager and availability manager. Where these roles are not combined, it is important that the people doing this work communicate regularly and have a good working relationship.

Where service providers are responsible for a limited number of services and components (such as a service integrator function), there can be a capacity manager. This role is accountable for coordinating practices, functions, and organizations to ensure cost-efficient service capacity and sufficient levels of service performance.

In a large organization with many services, there may be a dedicated capacity and performance management team, with specialist knowledge of capacity and performance designs, tools, and techniques. This team will typically develop tools, architectures, and designs that can be used throughout the organization to help achieve capacity and performance goals. It will provide guidance and support to the teams responsible for all aspects of designing, creating, maintaining, monitoring, and continually improving services, but will not design the services or implement the technology.

Even in the smallest organization, someone needs to take on the role of capacity manager. This may not be a dedicated role and can be combined with many different service management roles, including availability management, risk management, and possibly even service continuity management. It is not usually appropriate to combine capacity and performance management with roles that are mainly focused on new or changed services (such as service design, or release management) because this may lead to a lack of focus on maintaining, monitoring, and continually improving capacity and performance of services.

In product-focused organizations, the responsibility for planning, developing, exercising, maintaining, and improving capacity and performance may be included in each product team. In this situation, a centre of excellence for capacity and performance management can be created to ensure that best practice is shared across the product teams and that a consistent approach to capacity and performance management is taken where appropriate. Management of this centre of excellence would typically be part of the capacity manager role, which would be outside of the product teams.

Chapter 5

Information and technology

5.1 Information exchange: inputs and outputs

The effectiveness of the capacity and performance management practice is based on the quality of the information used. This information includes, but is not limited to:

- component-based reports
- service-based reports
- performance exception reports
- performance and workload forecasts
- architecture models for different ranges of service demand
- vendor-sizing recommendations and models.

The key inputs and outputs of the practice are listed in Chapter 3.

5.2 Automation and tooling

In some cases, the work of the capacity and performance management practice can significantly benefit from automation (as mentioned in Chapter 3). Where this is the case, and automation is possible and effective, it involves the solutions outlined in Tables 5.1 and 5.2.

Table 5.1 Automation solutions for the capacity and performance management practice

Automation tools	Application in capacity and performance management
Analysis and reporting tools	Analysing capacity and performance data and creating regular reports
Asset management tools	Planning and managing the use of software licenses and other IT assets, in value streams that include IT asset management and other practices
Business process modelling tools	Identification of business capacity and performance requirements
Availability and capacity monitoring and management tools	Creating models to support analysis of capacity and performance for services and shared infrastructure Modelling the effect of capacity management designs and controls to help predict the capacity and performance of new and changed services
Collaboration and communication tools	Working across practices and teams to integrate capacity and performance management into value streams for designing, creating, maintaining, monitoring, and continually improving services
Architecture management tools	Integrating capacity and performance management into architectural plans to ensure consistent designs for new and changed services
Financial management systems	Understanding budgets so that capacity and performance management plans can include appropriate thresholds and triggers for required investments
Knowledge and document management tools	Sharing knowledge and information about capacity and performance management tools, techniques, and controls
Monitoring and event management tools	Measuring capacity and performance of services and components to support creation of regular capacity and performance reports Triggering corrective action when trends indicate that capacity and performance targets might be breached Triggering planned investments to meet predicted increase in demand for services
Orchestration and integration platforms	Automated provision of resources and allocation of capacity to products and services
Remote administration, diagnosis, deployment, and other infrastructure and software management tools	Automated provision of resources and allocation of capacity to products and services Implementation of capacity and performance management solutions and controls
Service catalogue tools	Identifying services and service models to help identify the need for capacity and performance management controls Service portal can be used for sharing capacity and performance dashboards and reports
Service configuration management tools	Identifying components that contribute to services to enable design and management of capacity and performance controls
Workflow and task management tools	Initiating changes to implement new or changed performance and capacity management controls Identifying incidents that may impact capacity and performance of services

Table 5.2 Automation solutions for capacity and performance management activities

Process activity	Means of automation	Key functionality	Impact on the effectiveness of the practice
Managing product and service capacity and performance			
Analyse capacity and performance requirements	Analysis and reporting tools Business process modelling tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Architecture management tools Knowledge management tools Service configuration management tools	Business impact analysis Service configuration modelling Capacity and performance modelling and calculation Team collaboration Risk assessment	Medium to High
Propose and verify solution design	Business process modelling tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Architecture management tools Workflow and task management tools	Business impact analysis Service configuration modelling Capacity and performance modelling and calculation Team collaboration Risk assessment	Medium to High
Support and verify solution implementation	Analysis and reporting tools Automated testing tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Monitoring and event management tools Service configuration management tools Workflow and task management tools	Service configuration modelling Capacity and performance modelling and calculation Team collaboration Project reporting	High
Support and verify monitoring and reporting of capacity and performance	Analysis and reporting tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Monitoring and event management tools Service configuration management tools Workflow and task management tools	Capacity and performance modelling and calculation Team collaboration Impact assessment	High
Resource and capacity provisioning	Workflow and task management tools Orchestration and integration platforms Remote administration, diagnosis, deployment, and other infrastructure and software management tools	Approval and task management Automated and manual provision of IT resources to products and services	High
Analyse capacity and performance data and initiate improvements	Analysis and reporting tools Business process modelling tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Architecture management tools Knowledge management tools Risk management tools Service configuration management tools Workflow and task management tools	Business impact analysis Service configuration modelling Capacity and performance modelling and calculation Team collaboration Risk assessment	Medium to High
Measuring and reporting capacity and performance			
Analyse capacity and performance measurement and reporting needs and capabilities	Analysis and reporting tools Business process modelling tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Architecture management tools Knowledge management tools Monitoring and event management tools Risk management tools Service catalogue tools Service configuration management tools Workflow and task management tools	Business impact analysis Service configuration modelling Capacity and performance modelling and calculation Team collaboration Risk assessment	High
Agree capacity and performance measurement and reporting requirements	Business process modelling tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Workflow and task management tools	Business impact analysis Service configuration modelling Capacity and performance modelling and calculation Team collaboration	High
Design capacity and performance measurements and reports	Business process modelling tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Workflow and task management tools	Service configuration modelling Capacity and performance modelling and calculation Team collaboration	High
Implement capacity and performance measurement and reporting	Business process modelling tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Workflow and task management tools	Service configuration modelling Capacity and performance modelling and calculation Team collaboration Project reporting	Medium
Review capacity and performance measurement and reporting	Analysis and reporting tools Business process modelling tools Capacity and performance and capacity modelling and management tools Collaboration and communication tools Architecture management tools Knowledge management tools Monitoring and event management tools Risk management tools Service catalogue tools Service configuration management tools Workflow and task management tools	Business impact analysis Service configuration modelling Capacity and performance modelling and calculation Team collaboration Risk assessment	High

5.2.1 Recommendations for automation of capacity and performance management

The following recommendations can help when applying automation to capacity and performance management:

- **Visualize product and service models:** use service configuration management tools or other available systems to produce and analyse visual models of products, services, configuration items, and their relation to customers, to help identify capacity and performance needs, designs and architecture options, and related risks.
- **Use automation to trigger planned capacity and performance controls from monitoring and event management:** whenever possible, planned capacity improvements should trigger automatically when they are needed. For example, purchase of increased network bandwidth between locations, or expansion of cloud storage should happen quickly, and reliably, with no discernible impact on end users.
- **Monitor trends and take action before capacity or performance targets are breached:** capacity and performance management should not simply monitor and report that targets have, or have not, been achieved. It is possible to detect when a service is nearing a breach, or is not behaving in the expected way, and take proactive action to ensure that the capacity and performance targets are met. Ideally, this should be managed by triggering a threshold in a capacity and performance management plan, but even where this was not an expected capacity or performance issue, action can be taken before agreed service levels are breached.
- **Integrate capacity and performance management targets in all relevant workflows:** link capacity and performance management targets to the relevant workflows (such as incident management and service level management), monitoring data (such as incidents and performance of configuration items), and external service performance (such as cloud service capacity and response time). Set notification thresholds in the context of the capacity and performance targets.
- **Use a wide range of monitoring and data collection tools:** capacity and performance are not simple, one dimensional aspects of a service. Simply collecting incident data or component performance data is not sufficient. A wide range of different monitoring tools and techniques is needed to provide a holistic view of service performance.
- **Use modelling tools where appropriate:** modelling tools can help to predict potential capacity and performance of new or changed services and shared infrastructure. However, use them with caution, as modern complex systems may be much more difficult to model than traditional legacy infrastructure.
- **Consider use of evolving AI tools:** AI tools may be able to create a consolidated view of capacity and performance based on a wide range of different data types, collected in different ways from multiple sources. This is especially important for high volume services with large numbers of independent end users, where social media, email, or free text in incident records, may be able to provide critical performance data in an unstructured format.
- **Automate creation of dashboards and reports:** monthly reports can only give an outdated view of service capacity and performance. Automation can enable the creation of dashboards and reports on demand that will give customers, and other stakeholders, an up-to-date view of service capacity and performance that is focused on their specific needs.

Chapter 7

Capability assessment and development

7.1 The practice capability levels

The practice success factors described in section 2.4 cannot be developed overnight. The ITIL maturity model defines the following capability levels applicable to any management practice:

- Level 1** The practice is not well organized; it is performed as initial or intuitive. It may occasionally or partially achieve its purpose through an incomplete set of activities.
- Level 2** The practice systematically achieves its purpose through a basic set of activities supported by specialized resources.
- Level 3** The practice is well-defined and achieves its purpose in an organized way, using dedicated resources and relying on inputs from other practices that are integrated into a service management system.
- Level 4** The practice achieves its purpose in a highly organized way, and its performance is continually measured and assessed in the context of the service management system.
- Level 5** The practice is continually improving organizational capabilities associated with its purpose.

For each practice, the ITIL maturity model defines criteria for every capability level from level 2 to level 5. These criteria can be used to assess the practice's ability to fulfil its purpose and to contribute to the organization's service value system.

Each criterion is mapped to one of the four dimensions of service management and to the supported capability level. The higher the capability level, the more comprehensive realization of the practice is expected. For example, criteria related to practice automation are typically defined at levels 3 or higher because effective automation is only possible if the practice is well-defined and organized.

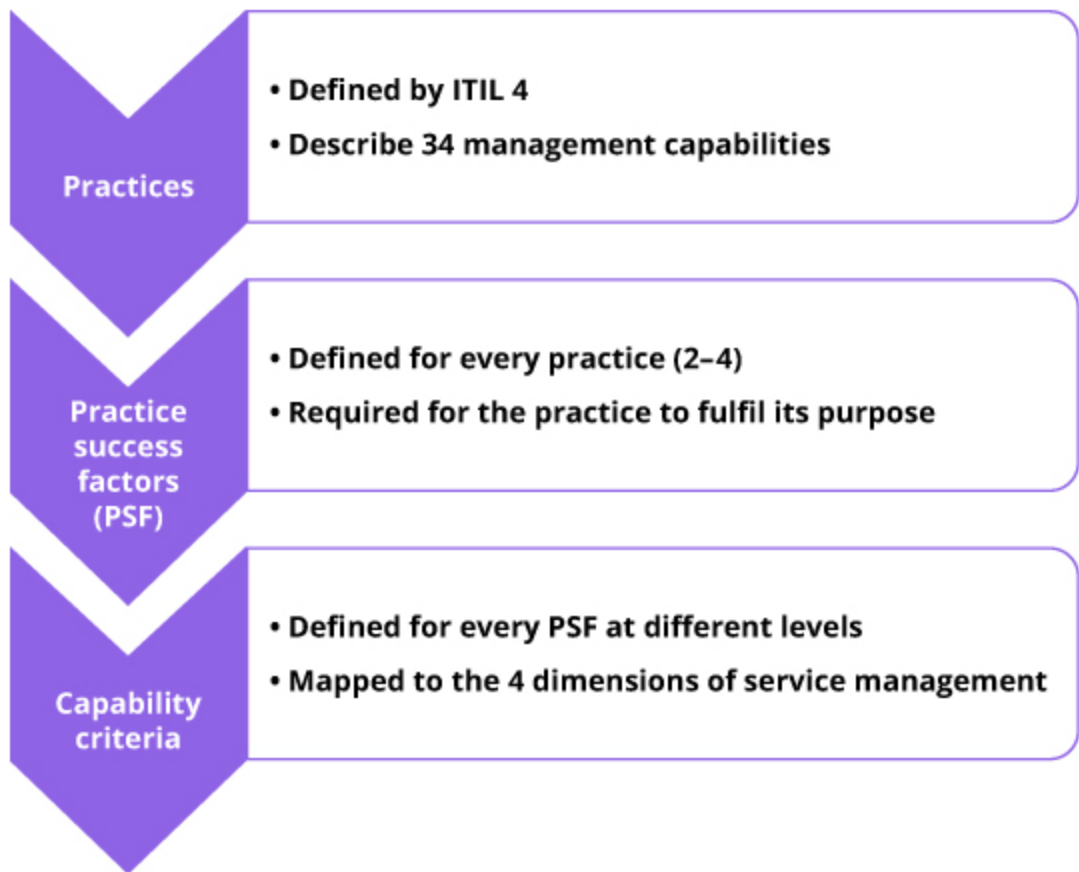


Figure 7.1 Design of the capability criteria

This approach results in every practice having up to 30 capability criteria based on the practice PSFs and mapped to the four dimensions of service management. The number of criteria at each level differs; the four dimensions are comprehensively covered starting from level 3, so this level typically has more criteria than others.

Table 7.1 outlines the capability criteria that are defined in the ITIL maturity model for the capacity and performance management practice.

Table 7.1 Capacity and performance management capability criteria

PSF	Criterion	Dimension	Capability level
Identifying service capacity and performance requirements	The stakeholders' requirements for service capacity and performance are identified	Value streams and processes	2
	Service capacity and performance requirements are analysed and addressed during product and service design, and service level negotiations	Value streams and processes	3
	Service capacity and performance requirements are translated into capacity and performance requirements for underpinning resources and services	Information and technology	3
	Service capacity and performance requirements are tracked and managed using an integrated information system	Information and technology	3
	The stakeholders' requirements for service capacity and performance are recorded and managed consistently across the organization and its services	Value streams and processes	4
	The effectiveness of the requirements identification is measured and reported	Value streams and processes	4
	The capacity and performance requirements identification are regularly reviewed and continually improved	Value streams and processes	5
Measuring, assessing, and reporting service capacity and performance	Service capacity and performance are measured and reported	Value streams and processes	2
	The responsibilities for capacity, performance measurements, and reporting are agreed and assigned	Value streams and processes	3
	Capacity and performance of third-party services is measured and reported	Partners and suppliers	3
	Capacity, performance measurement, and reporting are automated where relevant	Information and technology	3
	Service capacity, performance measurements, and reports provide information about the business impact of capacity and performance	Value streams and processes	3
	Capacity and performance measurement information is tracked and managed using an integrated information system	Information and technology	4
	The effectiveness of the capacity, performance measurement, and reporting is measured and reported	Value streams and processes	4
	The effectiveness of the capacity, performance measurement, and reporting is regularly reviewed and continually improved	Value streams and processes	5
Treating service availability risks	Capacity and performance risks are identified and managed	Value streams and processes	2
	The responsibilities for treating sustainability risks are agreed and assigned	Value streams and processes	3
	Capacity and performance risk controls are automated where relevant	Information and technology	3
	Partners and suppliers are involved in the management of capacity and performance risks, where relevant	Partners and suppliers	3
	The competencies required to manage the capacity and performance risks are identified and qualified human resources are available	Organizations and people	3
	Capacity and performance risks information is tracked and managed using an integrated information system	Information and technology	4
	The effectiveness of the capacity and performance risks management is measured and reported	Value streams and processes	4
	The effectiveness of the capacity and performance risks management is regularly reviewed and continually improved	Value streams and processes	5

These capability criteria can be used by organizations for self-assessment and the improvement of the practice.

7.2 Capability self-assessment

A self-assessment can be conducted by the service provider's internal audit team, if the service provider has one, or by the respective team of the parent organization. If there is no specialized team in the organization, the assessment can be done by a team of practice owners and managers responsible for other management practices of the service provider, or a mixed team of the service provider's executive leaders and managers.

To perform a quick self-assessment using the capability criteria, the following rules should be followed.

- Start with the level 2 criteria. Based on the knowledge of the organization, answer the question, is this a valid description of our organization in MOST cases?
- If the answer to the question above is 'yes', make a list of at least three types of material evidence that could prove the answer. These can be records, documents, interviews with business stakeholders, or service provider's employees.
- If the answer is 'yes' to all criteria of level 2, this level is considered achieved. Proceed to the criteria of level 3.
- If not all criteria of level 2 are met, the practice is considered to be at level 1. Focus on the criteria that are not met; what is missing in the organization? Why? How can it affect the service consumer and the quality of the IT services? What can be done to meet the criteria that are currently missed?
- The same approach is applied at every next level; the practice is considered to be at the level where all criteria are met. It is important to focus on the missing capabilities and improvement opportunities, rather than on a formal achievement of a high capability level.

7.3 Capacity and performance management capability development

Management practices should support the achievement of the organization's objectives and enable the creation of value for stakeholders. Depending on the service provider's strategy, positioning, and business and operating models, some practices may be more important and therefore require a higher level of capability. No organization requires all management practices to be at capability level 5. A higher capability level provides higher assurance of the fulfilment of the practice's purpose, but it comes with a cost: the cost of management, automation, and training, for example. To achieve optimal performance with a sufficient level of assurance, organizations should define a target capability level for each management practice.

Figure 7.2 and Table 7.2 show the capability development model, which can be applied to every management practice. The structure of this Official Practice Guide is aligned with the development steps.

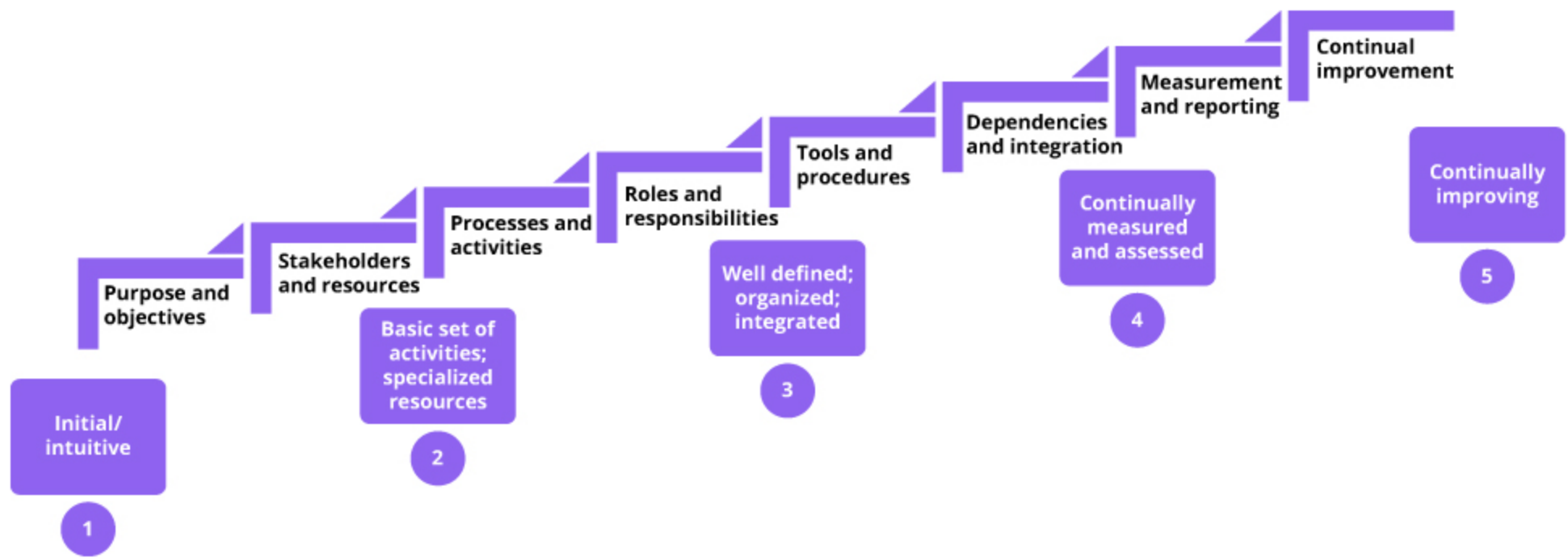


Figure 7.2 The capability development steps and levels

Table 7.2 The capacity and performance management capability development steps

Capability level	Define, agree, and implement	Comment for capacity and performance management	Chapter (for recommendations)
2	Purpose and objectives	Customers and services	2.1
	Scope	Service relationships context and types of service level agreements	2.3
	Processes and activities	SLA lifecycle and service quality management	3.1
	Roles and responsibilities	Roles and responsibilities, automation, and information exchange	4
	Tools and procedures		5
3	Dependencies and integration	Integration in the organization's service value streams	3.2
		Use of integrated information system	5
		Suppliers and other parties involved in service level management	6
4	Measurement and reporting	Metrics	2.5
5	Continual improvement	Regular review of practice and the service level management capability development	2.4, 2.5, 7

Chapter 8

Recommendations for practice success

Most of the content of the Official Practice Guides should be taken as a suggestion of areas that an organization might consider when establishing and nurturing their own practices. When using the content of the Official Practice Guides, organizations should always follow the ITIL guiding principles:

- focus on value
- start where you are
- progress iteratively with feedback
- collaborate and promote visibility
- think and work holistically
- keep it simple and practical
- optimize and automate.

In Table 8.1, recommendations for the success of the capacity and performance management practice are linked to the relevant guiding principles.

Table 8.1 Recommendations for the success of capacity and performance management

Recommendation	Comments	ITIL guiding principles
Ensure you understand service consumer needs and expectations	Capacity and performance management must manage a balance between capacity, performance, and cost. A clear understanding of the needs and expectations of the service consumers will help to ensure that the service provider designs and manages services with just the right level of capacity and performance	Focus on value Collaborate and promote visibility Keep it simple and practical
Ensure you understand legal and regulatory requirements for service capacity and performance	Legal and regulatory requirements are non-negotiable. All of these requirements must be understood before agreeing on service capacity and performance targets, and definitely before starting to design new or changed services	Focus on value Think and work holistically
Do not provide high levels of capacity and performance that are not needed	It can be easy to get carried away and design high performance solutions that are not needed, and that increase service costs unnecessarily. The best solution is usually one that meets the requirements without adding significant costs	Focus on value Keep it simple and practical
Keep improving service performance when this can be done without significant cost	Achieving a performance target that was agreed sometime in the past may be sufficient, but service consumer expectations and market capabilities are constantly evolving. As part of continual improvement, the service provider should identify and implement low cost improvements to service performance, even if targets are currently being met. This will help to ensure that the service remains competitive.	Progress iteratively with feedback Start where you are Focus on value
Monitor the end-to-end capacity and performance of services, not just the capacity and performance of components	Make use of tools and services that can monitor the end-to-end performance of services from the perspective of end users. Also, use tools and services to test the capacity of services with simulated workloads, to ensure that predicted capacity levels can actually be achieved.	Optimize and automate Keep it simple and practical Focus on value
Integrate capacity and performance management into the organization's value streams	Capacity and performance management does not create value for service consumers by itself; it needs to be integrated with many other practices to ensure that services are designed, implemented, maintained, and continually improved with a focus on capacity and performance, as well as all other requirements. Integrate tools and processes for capacity and performance management with the tools and processes used for other IT service management practices, to ensure that triggers are in place and that information is shared in a timely way	Think and work holistically Collaborate and promote visibility Optimize and automate Focus on value

Glossary

demand

One or more metrics that define expected or achieved service quality.

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.

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.

ITIL continual improvement model

A model which provides organizations with a structured approach to implementing improvements.

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 maturity model

A tool that organizations can use to objectively and comprehensively assess their service management capabilities and the maturity of their service value system.

ITIL service value chain

An operating model for service providers that covers all the key activities required to effectively manage products and services.

metric

A measurement or calculation that is monitored or reported for management and improvement.

organization

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

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.

output

A tangible or intangible deliverable of an activity.

partners and suppliers

A tool that organizations can use to objectively and comprehensively assess their service management capabilities and the maturity of their service value system.

performance

A measure of what is achieved or delivered by a system, person, team, practice, or service.

practice

A set of organizational resources designed for performing work or accomplishing an objective. These resources are grouped into the four dimensions of service management.

practice success factor

A complex functional component of a practice that is required for the practice to fulfil its purpose.

process

A set of interrelated or interacting activities that transform inputs into outputs. A process takes one or more defined inputs and turns them into defined outputs. Processes define the sequence of actions and their dependencies.

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 and/or supply goods. Service provision 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.

service relationship

A cooperation between a service provider and service consumer. Service relationships include service provision, service consumption, and service relationship management. Relationships can be basic, cooperative or collaborative (also known as a partnership).

service value system

A model representing how all the components and activities of an organization work together to facilitate value creation.

stakeholder

A person or organization that has an interest or involvement in an organization, product, service, practice, or other entity.

supplier

A stakeholder responsible for providing services that are used by an organization.

user

A person who uses services.

utilization

The extent to which a resource is being used to generate useful output. Usually expressed as a percentage.

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.

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