# TECHNICAL SPECIFICATION

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## Information technology — Process assessment —

## Part 8:
## An exemplar process assessment model for IT service management

*Technologies de l'information — Évaluation des procédés —*

*Partie 8: Un modèle d'évaluation des procédés exemplaire pour le management des services IT*

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# Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, the joint technical committee may decide to publish an ISO/IEC Technical Specification (ISO/IEC TS), which represents an agreement between the members of the joint technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/IEC TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/IEC TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/IEC TS 15504-8:2012 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering.*

ISO/IEC TS 15504-8 consists of the following parts, under the general title *Information technology — Process assessment*:

— *Part 1: Concepts and vocabulary*

— *Part 2: Performing an assessment*

— *Part 3: Guidance on performing an assessment*

— *Part 4: Guidance on use for process improvement and process capability determination*

— *Part 5: An exemplar software life cycle process assessment model*

— *Part 6: An exemplar system life cycle process assessment model*

— *Part 7: Assessment of organizational maturity [Technical Report]*

— *Part 8: An exemplar process assessment model for IT service management [Technical Specification]*

— *Part 9: Target process profiles [Technical Specification]*

— *Part 10: Safety extension [Technical Specification]*

# Introduction

This part of ISO/IEC 15504 provides an example of an IT Service Management Process Assessment Model (PAM) for use in performing a conformant assessment in accordance with the requirements of ISO/IEC 15504-2. It enables implemented processes of ISO/IEC 20000-4 to be assessed according to the requirements of ISO/IEC 15504-2.

An integral part of conducting an assessment is to use a Process Assessment Model (PAM) that is constructed for that purpose. A PAM is related to a Process Reference Model (PRM) and is conformant with ISO/IEC 15504-2. ISO/IEC 15504-2 sets out the minimum requirements for performing an assessment in order to ensure consistency and repeatability of the ratings. ISO/IEC 15504-2 addresses the assessment of process and the application of process assessment for improvement and capability determination. Results of conformant process assessments may be compared when the scopes of the assessments are considered to be similar. The requirements for process assessment defined in ISO/IEC 15504-2 form a structure which:

a) facilitates self-assessment;

b) provides a basis for use in process improvement and capability determination;

c) takes into account the context in which the assessed process is implemented;

d) produces a process rating;

e) addresses the ability of the process to achieve its purpose;

f) is applicable across all application domains and sizes of organization;

g) may provide an objective benchmark between organizations.

The PRM defined in ISO/IEC TR 20000-4 has been used as the basis for the PAM in this part of ISO/IEC 15504. The relationship between ISO/IEC 20000-1, ISO/IEC TR 20000-4 and ISO/IEC 15504-2 is shown in Figure 1.
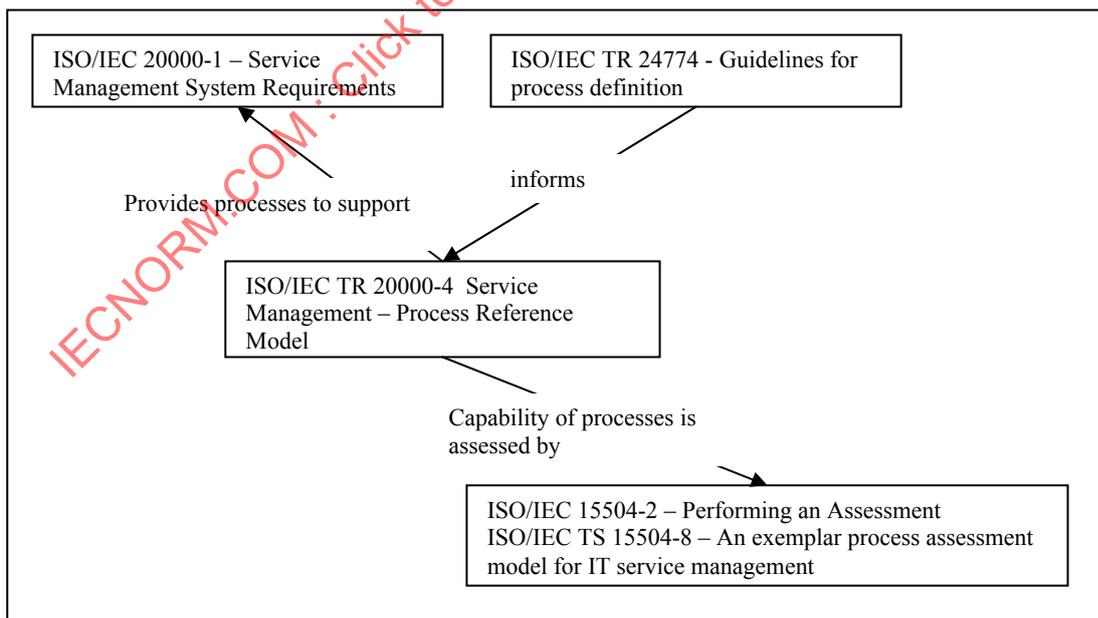


**Figure 1 —Relationship between ISO/IEC 20000-1, ISO/IEC TR 20000-4 and ISO/IEC 15504-2**

Any organisation may use processes with additional elements in order to suit it to the environment and circumstances. The Process Reference Model (PRM) that is the basis for this Process Assessment Model is ISO/IEC 20000-4:2010. This PRM may not be fully aligned with ISO/IEC 20000-1:2011 as it was developed to align to ISO/IEC 20000-1:2005. A revised PRM aligned to ISO/IEC 20000-1:2011 is being developed and it is expected that this revised PRM will address and resolve these identified incompatibilities. Due to the development status of this PRM, it is known to be unverified and subject to change in the future.

This PAM contains a set of indicators to be considered when interpreting the intent of its PRM. It provides greater detail to indicate process performance and capability. The indicators may also be used when implementing a process improvement program or to help evaluate and select an assessment model, method, methodology or tools.

As an exemplar, this PAM embodies the core characteristics that could be expected of any PAM consistent with ISO/IEC 15504-2. Nevertheless any other PAMs meeting the requirements of ISO/IEC 15504-2 may be used in a conformant assessment.

This Part of ISO/IEC 15504 has a similar structure to ISO/IEC 15504 Parts 5 and 6. It may be used in conjunction with them for joint assessment of service management processes and system/software life cycle processes.

Within this part of ISO/IEC 15504:

— clause 4 provides a detailed description of the structure and key components of a PAM, which includes two dimensions: a process dimension and a capability dimension. Assessment indicators are introduced in this clause;

— clause 5 addresses the process dimension. It uses process definitions from ISO/IEC TR 20000-4 to designate the PRM. The processes of the PRM are described in the PAM in terms of purpose and outcomes. The PAM expands the PRM process definitions by including a set of process performance indicators called base practices for each process. The PAM also defines a second set of indicators of process performance by associating inputs and outputs with each process. Clause 5 is also linked directly to Annex B, which defines the inputs/outputs characteristics;

— clause 6 addresses the capability dimension. It duplicates the definitions of the capability levels and process attributes from ISO/IEC 15504-2, and expands each of the nine attributes through the inclusion of a set of generic practices. These generic practices belong to a set of indicators of process capability, in association with generic resource indicators, and generic inputs/outputs indicators. Annex B is also linked directly to Clause 6 as it defines the inputs/outputs characteristics;

— Annex A provides a statement of conformance of the PAM to the requirements defined in ISO/IEC 15504-2;

— Annexes B provides selected characteristics for typical inputs/outputs to assist the assessor in evaluating the capability level of processes;

— Annex C contains a capability process profile linking the requirements of ISO/IEC 20000-1 to base practices and information items;

— the Bibliography contains a list of informative references.

# Information technology — Process assessment —

## Part 8:
## An exemplar process assessment model for IT service management

## 1  Scope

This part of ISO/IEC 15504:

— defines an exemplar PAM that meets the requirements of ISO/IEC 15504-2 and that supports the performance of an assessment by providing indicators for guidance on the interpretation of the process purposes and outcomes as defined in ISO/IEC TR 20000-4 and the process attributes as defined in ISO/IEC 15504-2;

— provides guidance, by example, on the definition, selection and use of assessment indicators.

A PAM comprises a set of indicators of process performance and process capability. The indicators are used as a basis for collecting the objective evidence that enables an assessor to assign ratings. The set of indicators included in this part of ISO/IEC 15504 is not intended to be an all-inclusive set nor is it intended to be applicable in its entirety. Subsets that are appropriate to the context and scope of the assessment should be selected, and possibly augmented with additional indicators (see Annex C).

The PAM in this part of ISO/IEC 15504 is directed at assessment sponsors and competent assessors who wish to select a model, and associated documented process method, for assessment (for either capability determination or process improvement). Additionally it may be of use to developers of assessment models in the construction of their own model, by providing examples of good service management practices. It can be used by:

a) service providers to assess and improve a Service Management System (SMS), including processes, for the design, development, transition and delivery of services that fulfil service requirements;

b) organizations that are seeking services from service providers and requiring assurance that their service requirements will be fulfilled;

c) service providers to demonstrate their capability for the design, development, transition and delivery of services that fulfil service requirements.

Any PAM meeting the requirements defined in ISO/IEC 15504-2 concerning models for process assessment may be used for assessment. Different models and methods may be needed to address differing business needs. The assessment model in this part of ISO/IEC 15504 is provided as an exemplar of a model meeting all the requirements expressed in ISO/IEC 15504-2.

The scope of this Part of ISO/IEC 15504 is consistent with the scope of Part 5 and 6 of ISO/IEC 15504 in order to assist situations where assessment is being made of both service management and system/software life cycle processes.

NOTE:     **Copyright release for the Exemplar PAM:** Users of this part of ISO/IEC 15504 may freely reproduce the detailed descriptions contained in the exemplar assessment model as part of any tool or other material to support the performance of process assessments, so that it can be used for its intended purpose.

# 2   Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 15504. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO/IEC 15504 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO/IEC 20000-1:2011, *Information technology — Service management — Part 1: Service management system requirements*

ISO/IEC TR 20000-4:2010, *Information technology — Service management — Part 4: Process Reference Model*

ISO/IEC 15504-1:2004, *Information technology — Process assessment — Part 1: Concepts and Vocabulary*

ISO/IEC 15504-2:2003, *Information technology — Process assessment — Part 2: Performing an Assessment*

# 3   Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 15504-1 and ISO/IEC 20000-1 apply.

# 4   Overview of the exemplar Process Assessment Model

## 4.1   Introduction to Overview

This part of ISO/IEC 15504 provides an exemplar PAM that includes examples of assessment indicators.

The PRM defined in ISO/IEC TR 20000-4, associated with the process attributes defined in ISO/IEC 15504-2, establish a PAM used as a common basis for performing assessments of service management system process capability, allowing for the reporting of results using a common rating scale.

The PAM is a two-dimensional model of process capability. In one dimension, the process dimension, the processes are defined. In the other dimension, the capability dimension, a set of process attributes grouped into capability levels is defined. The process attributes provide the measurable characteristics of process capability.

**CAPABILITY Dimension**

Level 5 : Optimizing (2 attributes)    ISO/IEC 15504-2

Level 4 : Predictable (2 attributes)

Level 3 : Established (2 attributes)    ISO/IEC TR 20000-4

Level 2 : Managed    (2 attributes)

Level 1 : Performed  (1 attribute)    Process Reference Model (PRM)

Level 0 : Incomplete

SMS General processes

Design and transition of new or changed services processes

*Processes*

Service delivery processes

*Processes*

Control processes

Resolution processes

Relationship processes

**PROCESS Dimension**

**Figure 2 — Relationship between the Process Assessment Model and its inputs**

Figure 2 shows the relationship between the general structure of the PAM, ISO/IEC 15504-2 and ISO/IEC TR 20000-4.

A PRM and a capability dimension defined in ISO/IEC 15504-2 cannot be used alone as the basis for conducting reliable and consistent assessments of process capability since the level of detail provided is not sufficient. The descriptions of process purpose and outcomes in a PRM, and the process attribute definitions in ISO/IEC 15504-2, need to be supported with a comprehensive set of indicators of process performance and process capability that are used for assessment performance.

The exemplar PAM defined in this part of ISO/IEC 15504 is conformant with the ISO/IEC 15504-2 requirements for a PAM, and can be used as the basis for conducting an assessment of IT service management process capability.

In order to meet the PAM requirements of ISO/IEC 15504-2, a documented process supporting other requirements of ISO/IEC 15504-2 is also required. This need may be met, for example, by the adoption of a supporting method for conducting assessments.

## 4.2   Structure of the exemplar Process Assessment Model

This clause describes the detailed structure of the PAM and its key components.

This PAM expands upon the PRM by including a defined set of assessment indicators. Assessment indicators comprise indicators of process performance and process capability and are defined to support an assessor's judgment of the performance and capability of an implemented process.

Clause 5, together with its associated Annex B, describes the components of the process dimension, and clause 6 describes the components of the capability dimension. Annex A provides a statement of conformance of the PAM to the requirements defined in ISO/IEC 15504-2.

ISO/IEC 15504-2 requires that processes included in a PRM satisfy the following:

*"The fundamental elements of a Process Reference Model are the set of descriptions of the processes within the scope of the model. These process descriptions shall meet the following requirements:*

*a) A process shall be described in terms of its Purpose and Outcomes.*

*b) In any description the set of process outcomes shall be necessary and sufficient to achieve the purpose of the process.*

*c) Process descriptions shall be such that no aspects of the measurement framework as described in clause 5 of this International Standard beyond level 1 are contained or implied."*

As processes are derived directly from ISO/IEC TR 20000-4, these requirements are satisfied.

### 4.2.1 Processes

Figure 3 shows the processes from ISO/IEC TR 20000-4, which are included in the process dimension of the exemplar PAM for service management.

**SMS General Processes**

SMS.1 Audit

SMS.2 Improvement

SMS.3 Information item management

SMS.4 Management review

SMS.5 Resource management

SMS.6 Risk management

SMS.7 Service measurement

SMS.8 Establishment and improvement

SMS.9 Implementation and operation

**Control Processes**

CON.1 Change management

CON.2 Configuration management

CON.3 Release and deployment management

**Relationship Processes**

REL.1 Business relationship management

REL.2 Supplier management

**Design and Transition of New or Changed Services Processes**

DTR.1 Service requirements

DTR.2 Service design

DTR.3 Service transition

DTR.4 Service planning

**Service Delivery Processes**

SDE.1 Budgeting and accounting for services

SDE.2 Capacity management

SDE.3 Information security management

SDE.4 Service availability management

SDE.5 Service continuity management

SDE.6 Service level management

SDE.7 Service reporting

**Resolution Processes**

RES.1 Incident management

RES.2 Service request management

RES.3 Problem management

**Figure 3 — Processes in the Process Reference Model**

### 4.2.2   Process dimension

The process dimension of the PAM includes all processes from the PRM contained in ISO/IEC TR 20000-4 and shown in Figure 3. Each process in the PAM is described in terms of a purpose statement. These statements contain the unique functional objectives of the process when performed in a particular environment. A list of specific outcomes is associated with each of the process purpose statements, as a list of expected positive results of the performance of the processes.

Satisfying the purpose statements of a process represents the first step in building a level 1 process capability where the expected outcomes are observable. The processes are described in Clause 5.

### 4.2.3   Capability dimension

For the capability dimension, the process capability levels and process attributes are identical to those defined in ISO/IEC 15504-2.

Evolving process capability is expressed in the PAM in terms of process attributes grouped into capability levels. Process attributes are features of a process that can be evaluated on a scale of achievement, providing a measure of the capability of the process. They are applicable to all processes. Each process attribute describes a facet of the overall capability of managing and improving the effectiveness of a process in achieving its purpose and contributing to the business goals of the organization.

A capability level is a set of process attribute(s) that work together to provide a major enhancement in the capability to perform a process. The levels constitute a rational way of progressing through improvement of the capability of any process and are defined in ISO/IEC 15504-2.

There are six capability levels, incorporating nine process attributes.

**Level 0: Incomplete process**

*The process is not implemented, or fails to achieve its process purpose.*

*At this level, there is little or no evidence of any systematic achievement of the process purpose.*

**Level 1: Performed process**

*The implemented process achieves its process purpose.*

**Level 2: Managed process**

*The previously described Performed process is now implemented in a managed fashion (planned, monitored and adjusted) and its work products are appropriately established, controlled and maintained.*

**Level 3: Established process**

*The previously described Managed process is now implemented using a defined process that is capable of achieving its process outcomes.*

**Level 4: Predictable process**

*The previously described Established process now operates within defined limits to achieve its process outcomes.*

**Level 5: Optimizing process**

*The previously described Predictable process is continuously improved to meet relevant current and projected business goals.*

Within the PAM, the measure of capability is based upon the nine process attributes (PA) defined in ISO/IEC 15504-2. Process attributes are used to determine whether a process has reached a given capability. Each attribute measures a particular aspect of the process capability.

At each level there is no ordering between the process attributes; each attribute addresses a specific aspect of the capability level. The list of process attributes is shown in Table 1.

**Table 1 — Capability levels and process attributes**

| Process Attribute ID | Capability Levels and Process Attributes |
|---|---|
| | **Level 0: Incomplete process** |
| | **Level 1: Performed process** |
| PA 1.1 | Process performance |
| | **Level 2: Managed process** |
| PA 2.1 | Performance management |
| PA 2.2 | Work Products management |
| | **Level 3: Established process** |
| PA 3.1 | Process definition |
| PA 3.2 | Process deployment |
| | **Level 4: Predictable process** |
| PA 4.1 | Process measurement |
| PA 4.2 | Process control |
| | **Level 5: Optimizing process** |
| PA 5.1 | Process innovation |
| PA 5.2 | Continuous optimization |

The process attributes are evaluated on a four point ordinal scale of achievement, as defined in ISO/IEC 15504-2. They provide insight into the specific aspects of process capability required to support process improvement and capability determination.

## 4.3   Assessment Indicators

The PAM is based on the principle that the capability of a process can be assessed by demonstrating the achievement of process attributes on the basis of evidence related to assessment indicators.

There are two types of assessment indicators: process capability indicators, which apply to capability levels 1 to 5 and process performance indicators, which apply exclusively to capability level 1. These indicators are defined in Clause 4.3.2.

**Figure 4 — Assessment indicators**
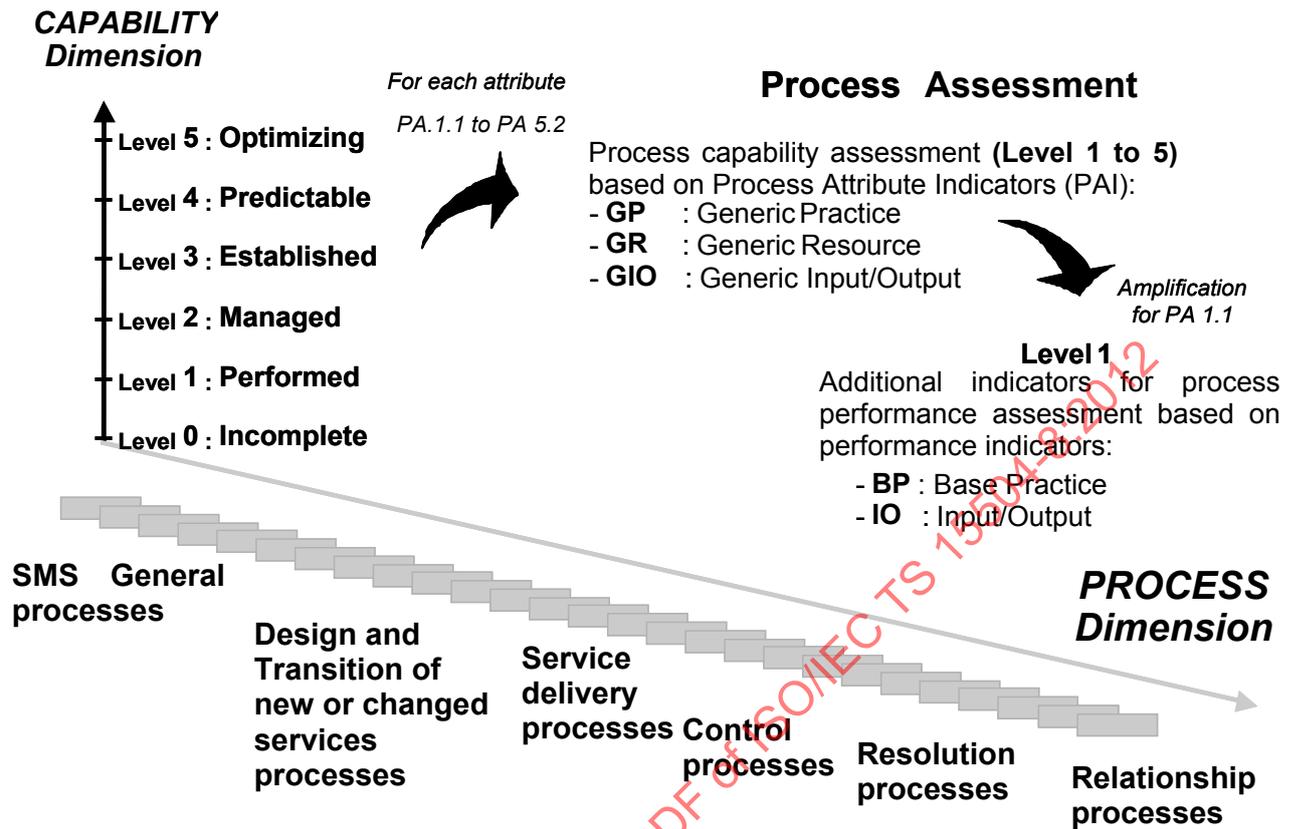
The process attributes in the capability dimension have a set of process capability indicators that provide an indication of the extent of achievement of the attribute in the instantiated process. These indicators concern significant activities, resources or results associated with the achievement of the attribute purpose by a process.

The process capability indicators are:

— Generic Practice (GP);

— Generic Resource (GR);

— Generic Input/Output (GIO).

As additional indicators for supporting the assessment of a process at Level 1, each process in the process dimension has a set of process performance indicators which is used to measure the degree of achievement of the process performance attribute for the process assessed.

The process performance indicators are:

— Base Practice (BP);

— Input/output (IO).

The performance of Base Practices (BPs) provides an indication of the extent of achievement of the process purpose and process outcomes. Input/Outputs (IOs) are either used or produced (or both), when performing the process.

The process performance and process capability indicators defined in the PAM represent types of objective evidence that might be found in an instantiation of a process and therefore could be used to judge achievement of capability.

Figure 4 shows how the assessment indicators are related to process performance and process capability.

### 4.3.1 Process Capability Indicators

The three types of process capability indicators related to levels 1 to 5 are identified in Figure 5. They are intended to be applicable to all processes.
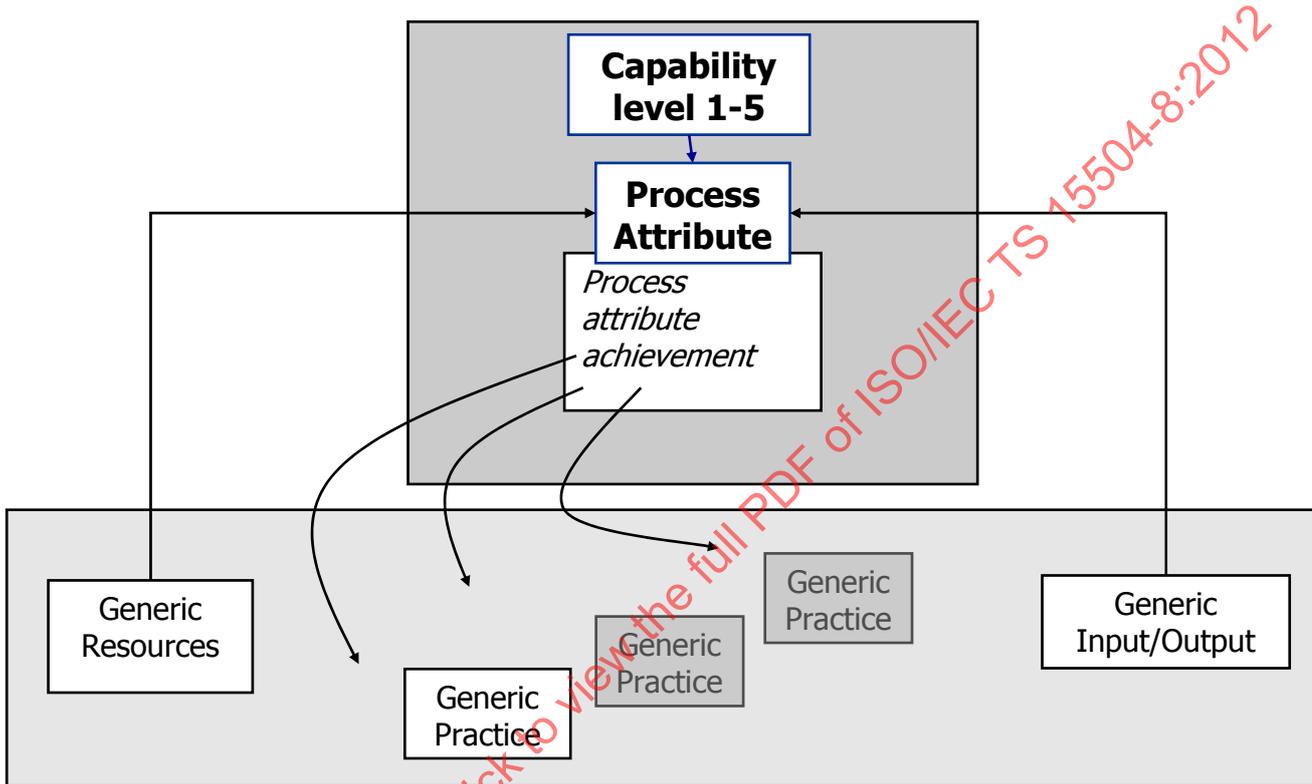


**Figure 5 — Process capability indicators**

All the process capability indicators relate to the process attributes defined in the capability dimension of the PAM. They represent the type of evidence that would support judgments of the extent to which the attributes are achieved. Evidence of their effective performance or existence supports the judgment of the degree of achievement of the attribute. The generic practices are the principal indicators of process capability.

The **Generic Practice (GP)** indicators are indicators of activities of a generic type and provide guidance on the implementation of the attribute's characteristics. They support the achievement of the process attribute and many of them concern management practices, i.e. practices that are established to support the process performance as it is characterized at level 1.

During the evaluation of process capability, the primary focus is on the performance of the generic practices. In general, performance of all generic practices is expected for full achievement of the process attribute.

The **Generic Resource (GR)** indicators are associated resources that may be used when performing the process in order to achieve the attribute. These resources may include human resources, tools, methods and infrastructure. The availability of a resource indicates the potential to fulfil the purpose of a specific attribute.

NOTE: The assessor should interpret the generic resources according to the process assessed; e.g. for PA2.1 resources (with identified objectives, responsibilities and authorities), an assessor would look for roles (with identified objectives, responsibilities and authorities) in primary and supporting processes, but for organizational processes would look for governance structures (e.g. mandated committees, positions) with identified objectives, responsibilities and authorities.

The **Generic Input/Output (GIO)** indicators are sets of characteristics that would be expected to be evident in inputs/outputs of generic types as a result of achievement of an attribute. The generic inputs/outputs form the basis for the classification of the inputs/outputs defined as process performance indicators; they represent basic types of inputs/outputs from all types of processes.

These three types of indicators help to establish objective evidence of the extent of achievement of the specified process attribute.

Due to the fact that Level 1 capability of a process is only characterized by the measure of the extent to which the process purpose is achieved, the process performance attribute (PA.1.1) has a single generic practice indicator (GP.1.1.1). In order to support the assessment of PA.1.1 and to amplify the process performance achievement analysis, additional process performance indicators are defined in the PAM.

### 4.3.2 Process Performance Indicators

There are two types of process performance indicators: **Base Practice (BP)** indicators and **Input/Output (IO)** indicators. Process performance indicators relate to individual processes defined in the process dimension of the PAM and are chosen to explicitly address the achievement of the defined process outcomes.

Evidence of performance of the base practices, and the presence of inputs/outputs with their expected characteristics, provide objective evidence of the achievement of the process outcomes.

A base practice is an activity that addresses the purpose of a particular process. Consistently performing the base practices associated with a process will help the consistent achievement of its purpose. A coherent set of base practices is associated with each process in the process dimension. The base practices are described at an abstract level, identifying "what" should be done without specifying "how". Implementing the base practices of a process should achieve the basic outcomes that reflect the process purpose. Base practices represent only the first step in building process capability, but the base practices represent the unique, functional activities of the process, even if that performance is not systematic.

In this particular PAM the base practices have been used as a vehicle to link the outcomes of each process in the PRM with the requirements defined for that process in ISO/IEC 20000-1. This has been achieved using the following strategy:

- Singular requirements from ISO/IEC 20000-1 have been identified and assigned a unique identifier (process number plus sequential numbering within the sub-clause).

- Each process outcome has been linked to a single base practice.

- Each base practice has been linked (Annex C) to one or more ISO/IEC 20000-1 singular requirements to demonstrate that it satisfies a CL1 objective.

- Where relevant, singular requirements in ISO/IEC 20000-1 that imply a level of capability higher than CL1, are indicated, together with the process that supports the intent of this higher capability level.

This approach provides insight on how the singular requirements from ISO/IEC 20000-1 contribute to the achievement of the process purpose and outcomes. The performance of a process requires inputs and produces outputs that are identifiable and usable in achieving the purpose of the process. In this assessment model, each input/output has a defined set of example characteristics that may be used when reviewing the input/output to assess the effective performance of a process. Input/output characteristics may be used to identify the corresponding input/output produced/used by the assessed organization.

Clause 5 contains a complete description of the processes, including the base practices and the associated inputs and outputs.

Annex B contains a list of generic inputs/outputs together with their characteristics.

## 4.4 Measuring process capability

The process performance and process capability indicators in this model give examples of evidence that an assessor might obtain, or observe, in the performance of an assessment. The evidence obtained in the assessment, through observation of the implemented process, can be mapped onto the set of indicators to enable correlation between the implemented process and the processes defined in this assessment model. These indicators provide guidance for assessors in accumulating the necessary objective evidence to support judgments of capability. They are not mandatory.

An indicator is defined as an objective characteristic of a practice or input/output that supports performing a conformant assessment in accordance with the requirements of ISO/IEC 15504-2. The assessment indicators, and their relationship to process performance and process capability, are shown in Figure 6.

Observable (objective) evidence collected during an assessment is used to confirm the indicators (e.g., practices were performed). All such evidence comes either from the examination of inputs/outputs of the processes assessed, or from statements made by the performers and managers of the processes.

The existence of base practices, inputs/outputs, and input/output characteristics, provide evidence of the performance of the processes associated with them. Similarly, the existence of process capability indicators provides evidence of process capability.
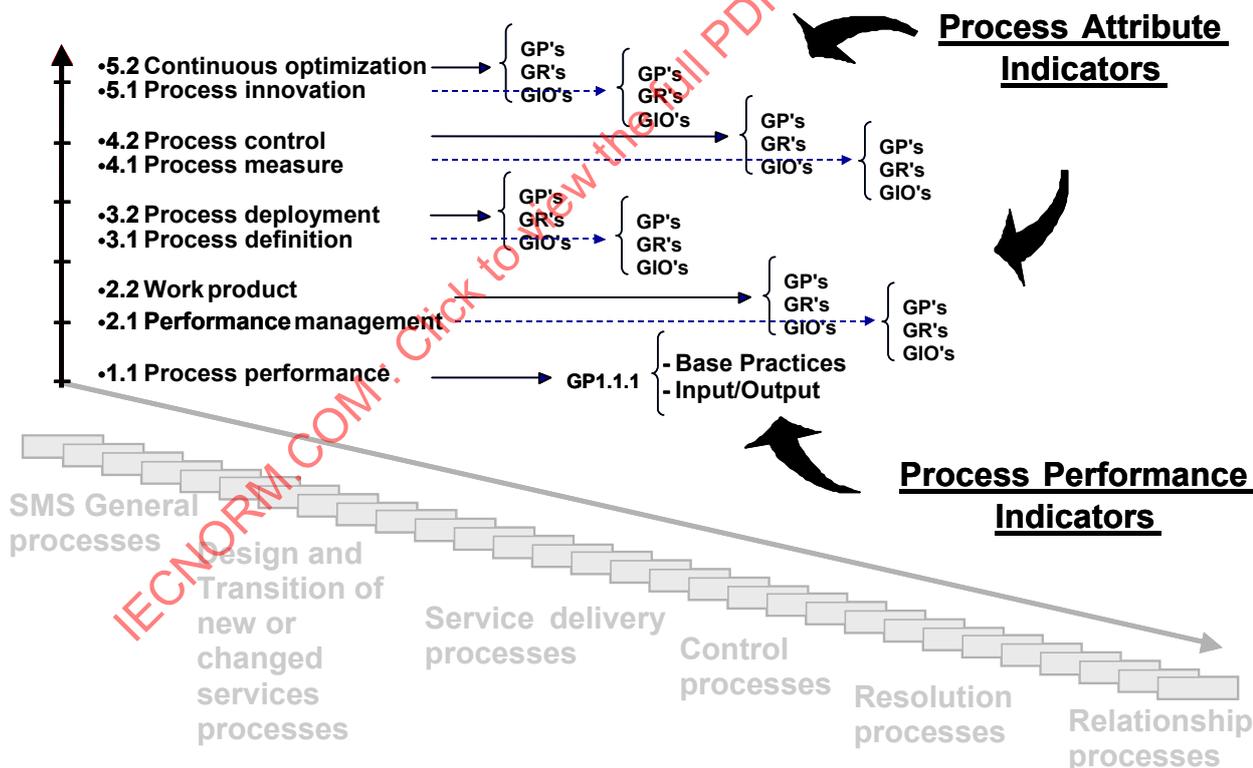


**Figure 6 — Relationship between assessment indicators and process capability**

The evidence obtained should be recorded in a form that clearly relates to an associated indicator, so that the support for the assessor's judgment can be readily confirmed or verified as required by ISO/IEC 15504-2.

The output from a process assessment is a set of process profiles, one for each process within the scope of the assessment. A typical process profile is illustrated in ISO/IEC 15504-4. Each process profile consists of a set of the process attribute ratings for an assessed process. Each attribute rating represents a judgment by the assessor of the extent to which the attribute is achieved. To improve the reliability and repeatability of the assessment, the judgments of the assessor are based on a coherent set of recorded objective evidences.

# 5 The process dimension and process performance indicators (Level 1)

## 5.1 General

This clause defines the processes and the process performance indicators, also known as the process dimension, of the PAM. The processes in the process dimension can be directly mapped to the processes defined in the PRM.

The processes are classified into Process Groups which are shown in Figure 3. The process purposes, outcomes, the practices, the inputs and outputs of processes are included in this clause.

The individual processes are described in terms of process name, process purpose, and process outcomes as defined in ISO/IEC TR 20000-4:

a) name: a short noun phrase that summarizes the scope of the process, identifying the principle concern of the process, and distinguishes it from other processes within the scope of the PRM;

b) purpose: describes at a high level the overall objectives of performing the process;

c) outcomes: an outcome is an observable result of the successful achievement of the process purpose. Outcomes are measurable, tangible, technical or business results that are achieved by a process. Outcomes are observable and assessable.

In addition, the process dimension of the PAM provides information in the form of:

a) a set of base practices for the process needed to accomplish the process outcomes; a single base practice is explicitly associated with a process outcome;

b) a number of inputs/outputs associated with each process and their relationship to one or more of its outcomes by numbers in square brackets, (i.e. [n]);

c) characteristics associated with each input/output.

The input/output identifiers and characteristics are contained in Annex B.

The base practices and the inputs/outputs constitute the set of indicators of process performance. The associated inputs/outputs listed in this clause may be used when reviewing potential inputs and outputs of an organization's process implementation. They provide objective guidance for potential inputs and outputs to look for, and objective evidence supporting the assessment of a particular process. A documented assessment process and assessor judgment is needed to ensure that process context (application domain, business purpose, development methodology, size of the organization, etc.) is explicitly considered when using this information. This list should not be considered as a checklist of what each organization must have but rather as an example and starting point for considering whether, given the context, the inputs/outputs are necessary and contributing to the intended purpose of the process.

NOTE    Some outcomes are not linked to specific requirements of ISO/IEC 20000-1. These additional outcomes have been included in order to present a complete process so that the process purpose can be achieved. The complete list of affected base practices is shown in Annex C, Table C.3.

## 5.2 CON.1 Change management

| Process ID | CON.1 |
|---|---|
| Name | Change management |
| Purpose | The purpose of the change management process is to ensure all changes are assessed, approved, implemented and reviewed in a controlled manner. |
| Outcomes | As a result of successful implementation of this process:<br><br>1. change requests are recorded and classified;<br><br>2. change requests are assessed using defined criteria;<br><br>3. change requests are approved before changes are developed and deployed;<br><br>4. an implementation schedule of changes and releases is established;<br><br>5. an implementation schedule of changes and releases is communicated to interested parties;<br><br>6. approved changes are developed and tested;<br><br>7. unsuccessful changes are reversed or remedied. |
| Base Practices | CON.1.1 **Record change requests.** Changes to the services, service components, service requirements, catalogue of services, service level agreements and other documented agreements are recorded and classified. [Outcome 1]<br><br>CON.1.2 **Assess change requests.** Requests for change are assessed to identify: a) new or changed information security risks; b) potential impact on the existing information security policy and controls, and the impact of requests for change on releases and plans for deployment. [Outcome 2]<br><br>CON.1.3 **Make decisions on change requests.** The service provider and interested parties make decisions on the acceptance of requests for change. Decision-making takes into consideration the risks, the potential impacts to services and the customer, service requirements, business benefits, technical feasibility and financial impact. [Outcome 3]<br><br>CON.1.4 **Establish an implementation schedule of changes and releases.** Establish a schedule of change containing details of the approved changes and their proposed deployment dates. Planning is coordinated with the change management process and includes references to the related requests for change, known errors and problems which are being closed through this release. [Outcome 4]<br><br>CON.1.5 **Communicate an implementation schedule of changes and releases.** Communicate a schedule containing details of the approved changes and their proposed deployment dates to interested parties. [Outcome 5]<br><br>CON.1.6 **Develop and test approved changes.** Approved changes are developed and tested. [Outcome 6]<br><br>CON.1.7 **Reverse or remedy unsuccessful changes.** The change is reversed or remedied if unsuccessful. [Outcome 7] |
| Inputs | |

| | | |
|---|---|---|
| 04-06 | Change of services provision cost estimates [Outcome 2] | |
| 11-01 | Change request [Outcome 1,2] | |
| 03-03 | Change request classification criteria [Outcome 1] | |
| 03-04 | Change request evaluation criteria [Outcome 2] | |
| 04-07 | Change schedule [Outcome 5,6] | |
| 02-10 | Change schedule communication list [Outcome 5] | |
| 09-08 | Configuration item status report [Outcome 2] | |
| 03-14 | Information security change request evaluation criteria [Outcome 2] | |
| 02-29 | Release log [Outcome 2] | |
| 09-00 | Report [Outcome 3] | |
| 04-20 | Reversing unsuccessful changes plan [Outcome 7] | |
| 04-26 | Services provision budget [Outcome 2] | |

| Process ID | CON.1 |
|---|---|
| Name | Change management |
| **Outputs** | |
| 08-02 | Approval record [Outcome 3] |
| 08-11 | Change request record [Outcome 1] |
| 04-07 | Change schedule [Outcome 4] |
| 08-13 | Communication record [Outcome 5] |
| 02-15 | Implemented changes log [Outcome 6] |
| 11-07 | New or changed service request [Outcome 6] |
| 04-18 | Release schedule [Outcome 4] |
| 09-00 | Report [Outcome 2] |

## 5.3 CON.2 Configuration management

| Process ID | CON.2 |
|---|---|
| Name | Configuration management |
| Purpose | The purpose of the configuration management process is to establish and maintain the integrity of all identified service components. |
| Outcomes | As a result of successful implementation of this process:<br><br>1. items requiring configuration management are identified;<br><br>2. the status of configuration items and modifications are recorded and reported;<br><br>3. changes to items under configuration management are controlled;<br><br>4. the integrity of systems, services and service components is assured;<br><br>5. the configuration of released items is controlled. |
| Base Practices | CON.2.1 **Identify configuration items.** Configuration items are uniquely identified. [Outcome 1]<br><br>CON.2.2 **Record configuration item status.** The information recorded for each configuration item (CI) ensures effective control and includes at least: a) description of the CI; b) relationship(s) between the CI and other CIs; c) relationship(s) between the CI and service components; d) status; e) version; f) location; g) associated requests for change; h) associated problems and known errors. [Outcome 2]<br><br>CON.2.3 **Changes to configuration items are controlled.** All requests for change to configuration items defined in the change management policy are managed using the change management process. The configuration management database records are updated following the successful deployment of changes. [Outcome 3]<br><br>CON.2.4 **Assure the integrity of systems, services and service components.** Configuration control procedures ensure that the integrity of services and service components is maintained. The service provider audits the records stored in the configuration management database. Changes to configuration items are traceable and auditable to ensure integrity of the configuration items and the data in the configuration management database. [Outcome 4]<br><br>CON.2.5 **Control the configuration of released items.** A configuration baseline of the affected configuration items is taken before deployment of a release into the live environment. Master copies of the configuration items recorded in the configuration management database are stored in secure physical or electronic libraries referenced by the configuration records. This includes at least documentation, licence information, software and, where available, images of the hardware configuration. [Outcome 5] |

| Process ID | CON.2 |
|---|---|
| Name | Configuration management |
| **Inputs** | |
| 08-11 | Change request record [Outcome 3] |
| 04-08 | Configuration item audit schedule [Outcome 4] |
| 02-11 | Configuration item change log [Outcome 2,4] |
| 08-15 | Configuration item record [Outcome 2,3,4] |
| 02-12 | Configuration item report user communication list [Outcome 2] |
| 09-08 | Configuration item status report [Outcome 2,3] |
| 03-32 | Release notes [Outcome 5] |
| 01-01 | Service level agreement [Outcome 1] |
| 01-02 | Supplier agreement [Outcome 1] |
| **Outputs** | |
| 08-13 | Communication record [Outcome 2] |
| 08-14 | Configuration item archive [Outcome 5] |
| 09-07 | Configuration item audit report [Outcome 4] |
| 02-11 | Configuration item change log [Outcome 3] |
| 08-15 | Configuration item record [Outcome 1] |
| 09-08 | Configuration item status report [Outcome 2] |

## 5.4   CON.3 Release and deployment management

| Process ID | CON.3 |
|---|---|
| Name | Release and deployment management |
| Purpose | The purpose of the release and deployment management process is to deploy releases into the live environment in a controlled manner. |
| Outcomes | As a result of successful implementation of this process: <br><br> 1.   requirements for releases are established and agreed with interested parties; <br><br> 2.   releases of services and service components are planned; <br><br> 3.   releases are designed; <br><br> 4.   releases are tested prior to deployment; <br><br> 5.   approved releases are deployed; <br><br> 6.   integrity of hardware, software, and other service components is assured during deployment of the release. <br><br> 7.   unsuccessfully deployed releases are reversed or remedied; <br><br> 8.   release information is communicated to interested parties. |
| Base Practices | CON.3.1   **Establish requirements for releases.** Requirements for releases are established and agreed with interested parties. [Outcome 1] <br><br> CON.3.2   **Plan releases of services or service components.** Plan releases of services and service components. [Outcome 2] <br><br> CON.3.3   **Design releases.** Releases are designed. [Outcome 3] <br><br> CON.3.4   **Test releases.** Releases are tested prior to deployment. [Outcome 4] <br><br> CON.3.5   **Deploy releases.** Approved releases are deployed. [Outcome 5] <br><br> CON.3.6   **Assure integrity of hardware, software, and other service components during deployment of the release.** The release is deployed into the live environment so that the integrity of hardware, software and other service components is maintained during deployment of the release.  [Outcome 6] <br><br> CON.3.7   **Reverse or remedy unsuccessful releases.** Unsuccessfully deployed releases are reversed or remedied. [Outcome 7] <br><br> CON.3.8   **Communicate release information to interested parties.** Communicate release information to interested parties. [Outcome 8] |

| Process ID | CON.3 |
|---|---|
| Name | Release and deployment management |
| **Inputs** | |
| 04-01 | Acceptance test environment plan [Outcome 4] |
| 04-07 | Change schedule [Outcome 2] |
| 12-06 | Release acceptance test case [Outcome 4] |
| 03-31 | Release acceptance test criteria [Outcome 3,4] |
| 02-29 | Release log [Outcome 8] |
| 04-16 | Release plan [Outcome 3,5,6] |
| 04-17 | Release reversal arrangements plan [Outcome 7] |
| 04-18 | Release schedule [Outcome 8] |
| 02-31 | Release stakeholder communication list [Outcome 8] |
| 04-20 | Reversing unsuccessful changes plan [Outcome 6] |
| **Outputs** | |
| 04-01 | Acceptance test environment plan [Outcome 2] |
| 08-02 | Approval record [Outcome 4,5] |
| 08-13 | Communication record [Outcome 8] |
| 12-06 | Release acceptance test case [Outcome 3] |
| 03-31 | Release acceptance test criteria [Outcome 1] |
| 09-27 | Release acceptance test report [Outcome 4] |
| 02-29 | Release log [Outcome 5,6,7] |
| 04-16 | Release plan [Outcome 2] |
| 04-17 | Release reversal arrangements plan [Outcome 2] |
| 04-18 | Release schedule [Outcome 2] |
| 04-19 | Removal of services plan [Outcome 2] |
| 04-20 | Reversing unsuccessful changes plan [Outcome 2] |
| 08-52 | Review record [Outcome 4] |

## 5.5  DTR.1 Service requirements

| Process ID | DTR.1 |
|---|---|
| Name | Service requirements |
| Purpose | The purpose of the service requirements process is to establish and agree the service requirements. |
| Outcomes | As a result of successful implementation of this process: |
| | 1.  the required characteristics and context of use of new or changed services are identified; |
| | 2.  the constraints for a service solution are defined; |
| | 3.  the requirements for the new or changed service are defined; |
| | 4.  the requirements for validating the new or changed service are defined; |
| | 5.  requirements for the new or changed service that are to be implemented are negotiated; |
| Base Practices | DTR.1.1  **Identify the required characteristics and contexts of use.** The required characteristics and context of use of new or changed services are identified. [Outcome 1] |
| | DTR.1.2  **Identify the constraints for a service solution.** The constraints for a service solution are defined. [Outcome 2] |
| | DTR.1.3  **Define the requirements for the new or changed service.** The requirements for the new or changed service are defined. [Outcome 3] |
| | DTR.1.4  **Define the validation requirements for the new or changed service.** The requirements for validating the new or changed service are defined. [Outcome 4] |
| | DTR.1.5  **Negotiate the acceptance of the requirements for the new or changed service.** Requirements for the new or changed service that are to be implemented are negotiated. [Outcome 5] |

| Process ID | DTR.1 |
|---|---|
| **Name** | Service requirements |
| **Inputs** | |
| 11-07<br>08-41<br>12-04 | New or changed service request [Outcome 1]<br>New or changed service request record [Outcome 2]<br>New or changed service requirements [Outcome 5] |
| **Outputs** | |
| 09-21<br>08-41<br>12-04 | New or changed service evaluation report [Outcome 2]<br>New or changed service request record [Outcome 1]<br>New or changed service requirements [Outcome 3] |

## 5.6  DTR.2 Service design

| Process ID | DTR.2 |
|---|---|
| **Name** | Service design |
| **Purpose** | The purpose of the service design process is to design and develop new or changed services. |
| **Outcomes** | As a result of successful implementation of this process:<br><br>1.  new or changed services are designed to meet agreed business needs and customer requirements;<br><br>2.  a service specification is prepared that defines the attributes of the new or changed service;<br><br>3.  infrastructure and service components to support the designed service are specified;<br><br>4.  new or changed services are developed that satisfy the criteria identified in the service specification. |
| **Base Practices** | DTR.2.1  **Design new or changed service.** New or changed services are designed to meet agreed business needs and customer requirements. [Outcome 1]<br>DTR.2.2  **Prepare a service specification.** A service specification is prepared that defines the attributes of the new or changed service. [Outcome 2]<br>DTR.2.3  **Specify infrastructure and support components.** Infrastructure and service components to support the designed service are specified. [Outcome 3]<br>DTR.2.4  **Develop new or changed service.** New or changed services are developed that satisfy the criteria identified in the service specification. [Outcome 4] |
| **Inputs** | |
| 03-26<br>04-15<br>12-04<br>12-05<br>04-19<br>12-11 | New or changed service design [Outcome 2,3]<br>New or changed service plan [Outcome 2,3]<br>New or changed service requirements [Outcome 1]<br>New or changed service specification  [Outcome 4]<br>Removal of services plan [Outcome 2]<br>Service requirements [Outcome 1] |
| **Outputs** | |
| 03-26<br>07-02<br>12-05 | New or changed service design [Outcome 1]<br>New or changed service realisation [Outcome 4]<br>New or changed service specification  [Outcome 2,3] |

## 5.7  DTR.3 Service transition

| Process ID | DTR.3 |
|---|---|
| **Name** | Service transition |
| **Purpose** | The purpose of the service transition process is to make the new or changed services operational and includes the build, test and acceptance of the new or changed services. |

| Process ID | DTR.3 |
|---|---|
| Name | Service transition |
| Outcomes | As a result of successful implementation of this process: |
| | 1.  requirements for service transition are identified; |
| | 2.  the new or changed service is deployed and tested according to the service specification; |
| | 3.  the new or changed service is accepted in accordance with the service acceptance criteria; |
| | 4.  information regarding the outcome of the transitioning of new or changed service is communicated to interested parties. |
| Base Practices | DTR.3.1  **Identify service transition requirements.** Requirements for service transition are identified. [Outcome 1] |
| | DTR.3.2  **Deploy new or changed service.** The new or changed service is deployed and tested according to the service specification. [Outcome 2] |
| | DTR.3.3  **Accept new or changed service.** The new or changed service is accepted in accordance with the service acceptance criteria. [Outcome 3] |
| | DTR.3.4  **Communicate outcomes of transitioning of new or changed service.** Communicate information regarding the outcome of the transitioning of new or changed service to interested parties. [Outcome 4] |
| **Inputs** | |
| 11-07 | New or changed service request [Outcome 1] |
| 08-42 | New or changed services acceptance record [Outcome 4] |
| 03-28 | New or changed services test criteria [Outcome 2] |
| 09-23 | New or changed services test report [Outcome 3] |
| 02-42 | Services stakeholder communication list [Outcome 4] |
| **Outputs** | |
| 08-13 | Communication record [Outcome 4] |
| 12-04 | New or changed service requirements [Outcome 1] |
| 08-42 | New or changed services acceptance record [Outcome 3] |
| 09-23 | New or changed services test report [Outcome 2] |
| 08-43 | New or changed services test verification record [Outcome 2] |
| 12-11 | Service requirements [Outcome 1] |

## 5.8  DTR.4 Service planning

| Process ID | DTR.4 |
|---|---|
| Name | Service planning |
| Purpose | The purpose of the service planning process is to plan the provision of a new or changed service. |
| Outcomes | As a result of successful implementation of this process: |
| | 1.  the scope of the work for provision of new or changed services is defined; |
| | 2.  the feasibility of achieving the requirements of the new or changed service with available resources and constraints is assessed; |
| | 3.  the tasks and resources necessary to complete the work are estimated; |
| | 4.  interfaces between organizational units and external parties are identified; |
| | 5.  plans for the provision of the new or changed service are developed. |

| Process ID | DTR.4 |
|---|---|
| **Name** | Service planning |
| **Base Practices** | DTR.4.1 **Define the scope of the work for provision of new or changed services.** The scope of the work for provision of new or changed services is defined. [Outcome 1] |
| | DTR.4.2 **Assess the feasibility of achieving the requirements of the new or changed service.** The feasibility of achieving the requirements of the new or changed service with available resources and constraints is assessed. [Outcome 2] |
| | DTR.4.3 **Estimate the tasks and resources.** The tasks and resources necessary to complete the work are sized and estimated. [Outcome 3] |
| | DTR.4.4 **Identify the interfaces between organizational units and external parties.** Interfaces between organizational units and external parties are identified. [Outcome 4] |
| | DTR.4.5 **Develop plans for the provision of the new or changed services.** Plans for the provision of the new or changed service are developed. [Outcome 5] |
| **Inputs** | |
| 04-07 | Change schedule [Outcome 5] |
| 11-07 | New or changed service request [Outcome 1] |
| 03-27 | New or changed services impact evaluation criteria [Outcome 2] |
| 04-18 | Release schedule [Outcome 5] |
| 12-11 | Service requirements [Outcome 2,3,4,5] |
| 02-41 | Service stakeholder list [Outcome 4] |
| 04-26 | Services provision budget [Outcome 3,5] |
| 02-45 | Supplier role assignments list [Outcome 4] |
| **Outputs** | |
| 04-15 | New or changed service plan [Outcome 4,5] |
| 09-22 | New or changed services impact evaluation report [Outcome 2] |
| 03-43 | Service management resource needs [Outcome 3] |
| 12-11 | Service requirements [Outcome 1] |

## 5.9  REL.1 Business relationship management

| Process ID | REL.1 |
|---|---|
| **Name** | Business relationship management |
| **Purpose** | The purpose of the business relationship management process is to identify and manage customer needs and expectations. |
| **Outcomes** | As a result of successful implementation of this process: |
| | 1.  customers and interested parties are identified; |
| | 2.  the needs and expectations of customers are identified and monitored; |
| | 3.  communication with the customer is planned and implemented; |
| | 4.  service performance is monitored; |
| | 5.  changes to the scope of the services, service level agreements and contracts are identified; |
| | 6.  service complaints are recorded and managed through their life cycle to closure; |
| | 7.  service complaints which are not resolved through normal channels are escalated; |
| | 8.  customer satisfaction is measured and analysed; |
| | 9.  customer satisfaction analysis results are communicated to interested parties. |

| Process ID | REL.1 |
|---|---|
| Name | Business relationship management |
| Base Practices | REL.1.1 **Identify customers and interested parties.** The service provider identifies the customer, users and interested parties of the services. [Outcome 1]<br><br>REL.1.2 **Identify and monitor the needs and expectations of customers.** Promote the understanding of the business environment in which the services operate and requirements for new or changed services by establishing a communication mechanism. This information enables the service provider to prepare to respond to these requirements. [Outcome 2]<br><br>REL.1.3 **Plan and implement communication with the customer.** For each customer, the service provider has a designated individual who is responsible for managing the customer relationship and customer satisfaction. [Outcome 3]<br><br>REL.1.4 **Monitor service performance.** The service provider monitors performance of the service against agreed service targets and other agreed commitments. [Outcome 4]<br><br>REL.1.5 **Identify changes to the scope of the services, service level agreements and contracts.** Identify changes to the scope of services, service level agreements and contracts. [Outcome 5]<br><br>REL.1.6 **Record and manage service complaints through their life cycle to closure.** The service provider records, investigates, acts upon, reports and closes service complaints. [Outcome 6]<br><br>REL.1.7 **Escalate service complaints which are not resolved through normal channels.** Where a service complaint is not resolved through the normal channels, escalation is provided to the customer. [Outcome 7]<br><br>REL.1.8 **Measure and analyse customer satisfaction.** The service provider measures customer satisfaction based on a representative sample from the customer and users of the services. [Outcome 8]<br><br>REL.1.9 **Communicate customer satisfaction analysis results to interested parties.** Customer satisfaction analysis results are communicated to interested parties. [Outcome 9] |

| Inputs | |
|---|---|
| 08-11 | Change request record [Outcome 5] |
| 03-06 | Customer satisfaction assessment instrument [Outcome 8] |
| 08-17 | Customer satisfaction review record [Outcome 9] |
| 04-09 | Customer satisfaction sampling schedule [Outcome 8] |
| 03-43 | Service management resource needs [Outcome 7] |
| 03-44 | Service management roles and responsibilities [Outcome 7] |
| 02-37 | Service provider role assignments list [Outcome 7] |
| 02-38 | Service provision complaint log [Outcome 7] |
| 08-75 | Service provision complaint record [Outcome 6,7] |
| 04-25 | Service provision review schedule [Outcome 4] |
| 12-11 | Service requirements [Outcome 1,2,5] |
| 02-41 | Service stakeholder list [Outcome 2,3] |

| Outputs | |
|---|---|
| 11-01 | Change request [Outcome 5] |
| 08-13 | Communication record [Outcome 9] |
| 03-05 | Customer needs and expectations [Outcome 2] |
| 08-17 | Customer satisfaction review record [Outcome 4,8] |
| 03-11 | Improvement opportunity [Outcome 4] |
| 08-52 | Review record [Outcome 4] |
| 02-37 | Service provider role assignments list [Outcome 3] |
| 09-39 | Service provision complaint disposition report [Outcome 6,7] |
| 02-38 | Service provision complaint log [Outcome 6] |
| 02-41 | Service stakeholder list [Outcome 1] |

## 5.10  REL.2 Supplier management

| Process ID | REL.2 |
|---|---|
| Name | Supplier management |
| Purpose | The purpose of the supplier management process is to ensure supplier services are integrated into service delivery to meet the agreed requirements. |
| Outcomes | As a result of successful implementation of this process:<br><br>1.   relationships between the service provider and suppliers are managed;<br><br>2.   services to be provided are negotiated with each supplier;<br><br>3.   roles and relationships between suppliers are determined;<br><br>4.   the capability of subcontracted suppliers to meet obligations is confirmed;<br><br>5.   supplier obligations to meet service requirements are monitored;<br><br>6.   supplier performance against agreed criteria is monitored. |
| Base Practices | REL.2.1   **Identify contributors to service provision.** The service provider identifies other parties who will contribute to the provision of service components for the new or changed services. [Outcome 1]<br><br>REL.2.2   **Negotiate services with each supplier.** Services to be provided are negotiated with each supplier. [Outcome 2]<br><br>REL.2.3   **Determine roles and relationships.** Roles and relationships between suppliers are determined. [Outcome 3]<br><br>REL.2.4   **Confirm capability of subcontracted suppliers.** The capability of subcontracted suppliers to meet obligations is confirmed. [Outcome 4]<br><br>REL.2.5   **Monitor supplier obligations to meet service requirements.** Supplier obligations to meet service requirements are monitored. [Outcome 5]<br><br>REL.2.6   **Monitor supplier performance.** Supplier performance against agreed criteria is monitored. [Outcome 6] |

| Inputs | |
|---|---|
| 08-11 | Change request record [Outcome 5,6] |
| 03-43 | Service management resource needs [Outcome 1,2] |
| 02-37 | Service provider role assignments list [Outcome 1] |
| 01-02 | Supplier agreement [Outcome 4,5,6] |
| 04-28 | Supplier agreement review schedule [Outcome 5] |
| 02-43 | Supplier performance data [Outcome 6] |
| 03-53 | Supplier performance evaluation criteria [Outcome 6] |
| 02-45 | Supplier role assignments list [Outcome 3] |

| Outputs | |
|---|---|
| 11-01 | Change request [Outcome 6] |
| 09-00 | Report [Outcome 6] |
| 08-52 | Review record [Outcome 5] |
| 03-51 | Sub-contracted supplier roles and responsibilities [Outcome 3] |
| 01-02 | Supplier agreement [Outcome 2] |
| 08-88 | Supplier capability assessment record [Outcome 4] |
| 02-45 | Supplier role assignments list [Outcome 1] |

## 5.11 RES.1 Incident management

| Process ID | RES.1 |
|---|---|
| **Name** | Incident management |
| **Purpose** | The purpose of the incident management process is to restore agreed service within agreed service levels. |
| **Outcomes** | As a result of successful implementation of this process:<br><br>1. incidents are recorded and classified;<br><br>2. incidents are prioritised and analysed;<br><br>3. incidents are resolved and closed;<br><br>4. incidents which are not progressed according to agreed service levels are escalated;<br><br>5. information regarding the status and progress of reported incidents is communicated to interested parties. |
| **Base Practices** | RES.1.1 **Record and classify incidents.** Incidents are recorded and classified with an appropriate priority. Major incidents are distinguished from other types of incidents by the appropriate assignment of status. [Outcome 1]<br><br>RES.1.2 **Prioritize and analyse incidents.** Incidents are prioritised and analysed, taking into account the impact and urgency of the incident or service request. [Outcome 2]<br><br>RES.1.3 **Resolve and close incidents.** Incidents are resolved and closed. [Outcome 3]<br><br>RES.1.4 **Escalate incidents as appropriate.** Escalate incidents which are not progressed according to agreed service levels. [Outcome 4]<br><br>RES.1.5 **Report incident status and progress.** Communicate information regarding the status and progress of incidents to interested parties. [Outcome 5] |
| **Inputs** | |
| 08-22 | Incident [Outcome 1] |
| 08-23 | Incident disposition record [Outcome 2,3,4,5] |
| 11-06 | Information security incident request [Outcome 1] |
| 02-29 | Release log [Outcome 2] |
| **Outputs** | |
| 08-13 | Communication record [Outcome 5] |
| 08-23 | Incident disposition record [Outcome 1,2,3,4] |
| 08-24 | Incident record [Outcome 1] |

## 5.12 RES.2 Service request management

| Process ID | RES.2 |
|---|---|
| **Name** | Service request management |
| **Purpose** | The purpose of the service request management process is to fulfil service requests within agreed service levels. |
| **Outcomes** | As a result of successful implementation of this process:<br><br>1. service requests are recorded and classified;<br><br>2. service requests are prioritised and analysed;<br><br>3. service requests are resolved and closed;<br><br>4. service requests which are not progressed according to agreed service levels are escalated;<br><br>5. information regarding the status and progress of service requests is communicated to interested parties. |

| Process ID | RES.2 |
|---|---|
| Name | Service request management |
| Base Practices | RES.2.1 **Record and classify service requests.** Service requests are recorded and classified with an appropriate priority. [Outcome 1] <br> RES.2.2 **Prioritize and analyse service requests.** Service requests are prioritised and analysed, taking into account the impact and urgency of the service request. [Outcome 2] <br> RES.2.3 **Resolve and close service requests.** Service requests are resolved and closed. [Outcome 3] <br> RES.2.4 **Escalate service requests as appropriate.** Escalate service requests which are not progressed according to agreed service levels. [Outcome 4] <br> RES.2.5 **Report service request status and progress.** Communicate information regarding the status and progress of service requests to interested parties. [Outcome 5] |
| Inputs | |
| 11-15 | Service request [Outcome 1] |
| 08-80 | Service request disposition record [Outcome 2,3,4,5] |
| Outputs | |
| 08-13 | Communication record [Outcome 5] |
| 08-80 | Service request disposition record [Outcome 1,2,3,4] |
| 08-81 | Service request record [Outcome 1] |

## 5.13 RES.3 Problem management

| Process ID | RES.3 |
|---|---|
| Name | Problem management |
| Purpose | The purpose of the problem management process is to minimise service disruption. |
| Outcomes | As a result of successful implementation of this process: <br> 1. problems are identified, recorded, and classified; <br> 2. problems are prioritised and analysed; <br> 3. problems are resolved and closed; <br> 4. problems which are not progressed according to defined service levels are escalated; <br> 5. the effect of unresolved problems is minimised; <br> 6. the status and progress of the resolution of problems are communicated to interested parties. |
| Base Practices | RES.3.1 **Identify problems.** Problems are identified, recorded and classified. [Outcome 1] <br> RES.3.2 **Priortize and analyse problems.** Problems are prioritised and analysed. [Outcome 2] <br> RES.3.3 **Resolve and close problems.** Problems are resolved and closed. [Outcome 3] <br> RES.3.4 **Escalate unresolved problems.** Problems which are not progressed according to agreed service levels are escalated. [Outcome 4] <br> RES.3.5 **Minimise the effects of unresolved problems.** The effect of unresolved problems is minimised. [Outcome 5] <br> RES.3.6 **Communicate problem status to interested parties.** Communicate the status and progress of the resolution of problems to interested parties [Outcome 6] |
| Inputs | |
| 03-30 | Problem classification scheme [Outcome 1] |
| 09-25 | Problem disposition report [Outcome 2,3,4,5,6] |
| 02-27 | Problem management known error log [Outcome 3] |
| 09-26 | Problem mitigation report [Outcome 6] |
| 08-44 | Problem record [Outcome 1] |
| 02-28 | Problem report user communication list [Outcome 6] |

| Process ID | RES.3 |
|---|---|
| **Name** | Problem management |
| **Outputs** | |
| 08-13 | Communication record [Outcome 6] |
| 09-25 | Problem disposition report [Outcome 1,2,3,4] |
| 02-27 | Problem management known error log [Outcome 5] |
| 09-26 | Problem mitigation report [Outcome 5] |

## 5.14 SDE.1 Budgeting and accounting for IT services

| Process ID | SDE.1 |
|---|---|
| **Name** | Budgeting and accounting for IT services |
| **Purpose** | The purpose of the budgeting and accounting for IT services process is to budget and account for service provision. |
| **Outcomes** | As a result of successful implementation of this process:<br><br>1. costs of service provision are estimated;<br><br>2. budgets are produced using cost estimates;<br><br>3. deviations from the budget and costs are controlled;<br><br>4. deviations from the budget are resolved;<br><br>5. deviations from the budget and costs are communicated to interested parties. |
| **Base Practices** | SDE.1.1 **Estimate costs of service provision.** Information is provided to support the costing of service provision. [Outcome 1]<br>SDE.1.2 **Produce budgets using cost estimates.** Costs are budgeted to enable effective financial control and decision-making for services delivered. [Outcome 2]<br>SDE.1.3 **Control costs and deviations from the budget.** The service provider monitors costs against the budget and reviews the financial forecasts. [Outcome 3]<br>SDE.1.4 **Resolve deviations from the budget.** The service provider manages costs. [Outcome 4]<br>SDE.1.5 **Communicate to interested parties deviations from the budget and costs.** The service provider reports costs against the budget. [Outcome 5] |
| **Inputs** | |
| 02-08 | Budgeting and accounting communication list [Outcome 5] |
| 09-03 | Capacity future needs assessment report [Outcome 1] |
| 04-06 | Change of services provision cost estimates [Outcome 2] |
| 03-37 | Service catalogue [Outcome 1] |
| 12-11 | Service requirements [Outcome 1] |
| 04-26 | Services provision budget [Outcome 3] |
| 04-27 | Services provision costs [Outcome 3] |
| 09-40 | Services provision costs against budget variance report [Outcome 4,5] |
| **Outputs** | |
| 04-06 | Change of services provision cost estimates [Outcome 1] |
| 08-13 | Communication record [Outcome 5] |
| 04-26 | Services provision budget [Outcome 2] |
| 09-40 | Services provision costs against budget variance report [Outcome 3,4] |

## 5.15  SDE.2 Capacity management

| Process ID | SDE.2 |
|---|---|
| **Name** | Capacity management |
| **Purpose** | The purpose of the capacity management process is to ensure that the service provider has service capacity to meet current and future agreed requirements. |
| **Outcomes** | As a result of successful implementation of this process:<br><br>1.   current and future capacity and performance requirements are identified;<br><br>2.   capacity is provided to meet current capacity and performance requirements;<br><br>3.   capacity usage is monitored, analysed and performance is tuned;<br><br>4.   capacity is prepared to meet future capacity and performance needs. |
| **Base Practices** | SDE.2.1  **Identify current and future capacity and performance requirements.** The service provider identifies the current and future capacity and performance requirements with the customer and interested parties. [Outcome 1]<br>SDE.2.2  **Provide capacity.** The service provider provides capacity to meet current capacity and performance requirements. [Outcome 2]<br>SDE.2.3  **Monitor capacity usage.** The service provider monitors capacity usage, analyses capacity data and tunes performance.   [Outcome 3]<br>SDE.2.4  **Prepare capacity to meet future capacity needs.** The service provider provides sufficient capacity to fulfil agreed capacity and performance requirements.  [Outcome 4] |

| Inputs | |
|---|---|
| 09-03 | Capacity future needs assessment report [Outcome 4] |
| 04-05 | Capacity plan [Outcome 2,3,4] |
| 08-08 | Capacity plan status record [Outcome 2] |
| 09-04 | Capacity usage analysis report [Outcome 2,4] |
| 02-09 | Capacity usage data [Outcome 3] |
| 08-11 | Change request record [Outcome 4] |
| 03-07 | Customer technology roadmap [Outcome 1] |
| 12-04 | New or changed service requirements [Outcome 1] |
| 12-11 | Service requirements [Outcome 1] |

| Outputs | |
|---|---|
| 09-03 | Capacity future needs assessment report [Outcome 3,4] |
| 04-05 | Capacity plan [Outcome 2,3] |
| 11-02 | Capacity plan change request [Outcome 4] |
| 12-02 | Capacity requirements [Outcome 1] |
| 09-04 | Capacity usage analysis report [Outcome 3] |
| 02-09 | Capacity usage data [Outcome 2] |

## 5.16 SDE.3 Information security management

| Process ID | SDE.3 |
|---|---|
| **Name** | Information security management |
| **Purpose** | The purpose of the information security management process is to manage information security at an agreed level of security within all service management activities. |
| **Outcomes** | As a result of successful implementation of this process: <br><br> 1.  information security requirements are identified; <br><br> 2.  criteria for the assessment of information security risks and the acceptable level of risk are identified; <br><br> 3.  information security risks are identified; <br><br> 4.  information security risk is assessed; <br><br> 5.  information security risk measures and controls are defined; <br><br> 6.  information security risk measures and controls are implemented; <br><br> 7.  security incidents are quantified and recorded; <br><br> 8.  information security concerns are communicated to interested parties; <br><br> 9.  the impact of changes on information security is analysed and reported. |
| **Base Practices** | SDE.3.1 **Identify information security requirements.** The service provider identifies all parties that have a need to access, use or manage the service provider's information or services.  [Outcome 1] <br><br> SDE.3.2 **Identify criteria for the assessment of information security risks.** Criteria for the assessment of information security risks and the acceptable level of risk are identified. [Outcome 2] <br><br> SDE.3.3 **Identify information security risks.** Information security risks are identified. [Outcome 3] <br><br> SDE.3.4 **Assess information security risk.** Management ensures that information security risk assessments are conducted at planned intervals. [Outcome 4] <br><br> SDE.3.5 **Define information security risk measures and controls.** The information security controls describe the risks to which the controls relate, their operation and maintenance.  [Outcome 5] <br><br> SDE.3.6 **Implement information security risk measures and controls.** The service provider operates appropriate information security controls to: a) fulfil the requirements of the information security policy; b) achieve information security management objectives; c) manage risks related to information security. The service provider also implements information security controls with external organizations. [Outcome 6] <br><br> SDE.3.7 **Record security incidents.** Security incidents are quantified and recorded. [Outcome 7] <br><br> SDE.3.8 **Communicate information security concerns.** Communicate information security concerns to interested parties. [Outcome 8] <br><br> SDE.3.9 **Analyse the impact of changes on information security.** The impact of changes on information security is analysed and reported. [Outcome 9] |
| **Inputs** | |

| | |
|---|---|
| 08-23 | Incident disposition record [Outcome 7] |
| 04-12 | Information security audit schedule [Outcome 6] |
| 02-20 | Information security communication list [Outcome 8] |
| 09-16 | Information security controls report [Outcome 6] |
| 12-03 | Information security requirements [Outcome 5,6] |
| 09-18 | Information security risk analysis report [Outcome 5] |
| 03-17 | Information security risk assessment criteria [Outcome 4] |
| 09-19 | Information security risk assessment report [Outcome 6] |
| 04-13 | Information security risk assessment schedule [Outcome 4] |
| 02-23 | Information security risk data [Outcome 4] |
| 03-18 | Information security risk measure [Outcome 4] |
| 08-80 | Service request disposition record [Outcome 7] |

| Process ID | SDE.3 |
|---|---|
| **Name** | Information security management |
| **Outputs** | |
| 02-01 | Access rights list [Outcome 6] |
| 08-13 | Communication record [Outcome 8] |
| 09-16 | Information security controls report [Outcome 5] |
| 08-29 | Information security incident record [Outcome 7] |
| 12-03 | Information security requirements [Outcome 1] |
| 09-18 | Information security risk analysis report [Outcome 4] |
| 03-17 | Information security risk assessment criteria [Outcome 2] |
| 09-19 | Information security risk assessment report [Outcome 4] |
| 02-23 | Information security risk data [Outcome 3,6] |
| 03-18 | Information security risk measure [Outcome 2] |

## 5.17 SDE.4 Service availability management

| Process ID | SDE.4 |
|---|---|
| **Name** | Service availability management |
| **Purpose** | The purpose of the service availability management process is to ensure that agreed service levels will be met in foreseeable circumstances. |
| **Outcomes** | As a result of successful implementation of this process:<br><br>1. service availability requirements are identified;<br><br>2. a service availability plan is developed using the service availability requirements;<br><br>3. service availability is tested against the service availability requirements to validate the plan.<br><br>4. service availability is monitored;<br><br>5. underlying causes of unplanned service non-availability are identified and analysed;<br><br>6. corrective actions are taken to address identified underlying causes;<br><br>7. changes to service availability requirements are reflected in the service availability plan. |
| **Base Practices** | SDE.4.1 **Identify service availability requirements.** The service provider identifies with the customer and interested parties service availability requirements. The agreed requirements take into consideration applicable business plans, service requirements, service level agreements and risks. [Outcome 1]<br><br>SDE.4.2 **Develop a service availability plan.** The service provider creates and implements a service availability plan. [Outcome 2]<br><br>SDE.4.3 **Test service availability.** Service availability is tested against the service availability requirements to validate the plan. [Outcome 3]<br><br>SDE.4.4 **Monitor service availability.** Service availability is monitored. [Outcome 4]<br><br>SDE.4.5 **Identify underlying causes of service non-availability.** Underlying causes of unplanned service non-availability are identified and analysed. [Outcome 5]<br><br>SDE.4.6 **Take action to address underlying causes.** Take corrective actions to address identified underlying causes for unplanned non-availability. [Outcome 6]<br><br>SDE.4.7 **Reflect changes in requirements in the service availability plan.** Changes to service availability requirements are reflected in the service availability plan. [Outcome 7] |
| **Inputs** | |
| 08-11 | Change request record [Outcome 7] |
| 09-30 | Service availability analysis report [Outcome 6] |
| 02-33 | Service availability log [Outcome 5] |
| 04-22 | Service availability plan [Outcome 3,7] |
| 08-53 | Service availability plan amendment record [Outcome 7] |
| 12-07 | Service availability requirements [Outcome 2] |
| 08-83 | Service unplanned non-availability corrective action disposition record [Outcome 6] |

| Process ID | SDE.4 |
|---|---|
| **Name** | Service availability management |
| **Outputs** | |
| 11-01 | Change request [Outcome 7] |
| 03-11 | Improvement opportunity [Outcome 6] |
| 09-30 | Service availability analysis report [Outcome 5] |
| 02-33 | Service availability log [Outcome 4] |
| 04-22 | Service availability plan [Outcome 2] |
| 09-31 | Service availability plan test report [Outcome 3] |
| 12-07 | Service availability requirements [Outcome 1] |

## 5.18  SDE.5 Service continuity management

| Process ID | SDE.5 |
|---|---|
| **Name** | Service continuity management |
| **Purpose** | The purpose of the service continuity management process is to ensure that agreed service levels will be met in foreseeable circumstances. |
| **Outcomes** | As a result of successful implementation of this process: <br><br> 1. service continuity requirements are identified; <br><br> 2. a service continuity plan is developed using the service continuity requirements; <br><br> 3. service continuity is tested against the service continuity requirements to validate the plan; <br><br> 4. changes to service continuity requirements are reflected in the service continuity plan. |
| **Base Practices** | SDE.5.1 **Identify service continuity requirements.** The service provider identifies with the customer and interested parties service continuity requirements. The agreed requirements take into consideration applicable business plans, service requirements, service level agreements and risks. [Outcome 1] <br><br> SDE.5.2 **Develop a service continuity plan.** The service provider creates and implements a service continuity plan. [Outcome 2] <br><br> SDE.5.3 **Test service continuity.** Service continuity is tested against the service continuity requirements to validate the plan. [Outcome 3] <br><br> SDE.5.4 **Reflect changes in requirements in the service continuity plan.** Changes to service continuity requirements are reflected in the service continuity plan. [Outcome 4] |
| **Inputs** | |
| 08-11 | Change request record [Outcome 4] |
| 04-23 | Service continuity plan [Outcome 3,4] |
| 08-61 | Service continuity plan amendment record [Outcome 4] |
| 12-08 | Service continuity requirements [Outcome 2] |
| **Outputs** | |
| 08-01 | Amendment record [Outcome 4] |
| 11-01 | Change request [Outcome 4] |
| 08-52 | Review record [Outcome 3] |
| 04-23 | Service continuity plan [Outcome 2] |
| 09-33 | Service continuity plan test report [Outcome 3] |
| 12-08 | Service continuity requirements [Outcome 1] |

## 5.19 SDE.6 Service level management

| Process ID | SDE.6 |
|---|---|
| Name | Service level management |
| Purpose | The purpose of the service level management process is to ensure that agreed service level targets for each customer are met. |
| Outcomes | As a result of successful implementation of this process: <br><br> 1. services and dependencies are identified; <br><br> 2. service level targets and workload characteristics for services are defined in service level agreements; <br><br> 3. services are monitored against service level agreements; <br><br> 4. service level performance against service level targets is communicated to interested parties; <br><br> 5. changes to service requirements are reflected in the service level agreements. |
| Base Practices | SDE.6.1 **Identify services and dependencies.** Services and dependencies are identified. [Outcome 1] <br> SDE.6.2 **Define service level agreements.** Service level targets and workload characteristics for services are defined in service level agreements established with internal group or the customer. [Outcome 2] <br> SDE.6.3 **Monitor services against service level agreements.** Services are monitored against service level agreements. [Outcome 3] <br> SDE.6.4 **Communicate service level performance.** Communicate service level performance against service level targets to interested parties. [Outcome 4] <br> SDE.6.5 **Manage changes to service level agreements.** Changes to service requirements are reflected in the service level agreements. [Outcome 5] |

| Inputs | |
|---|---|
| 08-11 | Change request record [Outcome 5] |
| 03-37 | Service catalogue [Outcome 2,5] |
| 02-34 | Service data [Outcome 3] |
| 01-01 | Service level agreement [Outcome 3,5] |
| 02-35 | Service level management stakeholder communication list [Outcome 4] |
| 12-11 | Service requirements [Outcome 2] |

| Outputs | |
|---|---|
| 08-01 | Amendment record [Outcome 5] |
| 11-01 | Change request [Outcome 5] |
| 08-13 | Communication record [Outcome 4] |
| 03-37 | Service catalogue [Outcome 1] |
| 01-01 | Service level agreement [Outcome 2] |

## 5.20 SDE.7 Service reporting

| Process ID | SDE.7 |
|---|---|
| Name | Service reporting |
| Purpose | The purpose of the service reporting process is to produce timely and accurate service reports to support effective communication and decision making. |
| Outcomes | As a result of successful implementation of this process: <br><br> 1. the service reporting needs are identified; <br><br> 2. service report content is defined in terms of identified service reporting needs and requirements; <br><br> 3. service reports are produced according to the service report requirements; <br><br> 4. service reports are communicated to interested parties. |

| Process ID | SDE.7 |
|---|---|
| Name | Service reporting |
| Base Practices | SDE.7.1 **Identify service reporting needs.** The service reporting needs and requirements are identified. [Outcome 1]<br><br>SDE.7.2 **Define service report content.** Service report content is defined in terms of identified service reporting needs and requirements. [Outcome 2]<br><br>SDE.7.3 **Produce service reports.** Service reports are produced according to the service report requirements. [Outcome 3]<br><br>SDE.7.4 **Communicate service reports.** Communicate service reports to interested parties. [Outcome 4] |
| **Inputs** | |
| 09-10 | Implemented improvement evaluation report [Outcome 3] |
| 09-00 | Report [Outcome 3] |
| 02-34 | Service data [Outcome 3] |
| 09-40 | Service report [Outcome 4] |
| 02-40 | Service report communication list [Outcome 1,4] |
| 03-48 | Service report content definition [Outcome 3] |
| 03-49 | Service reporting needs definition [Outcome 2] |
| **Outputs** | |
| 08-13 | Communication record [Outcome 4] |
| 09-40 | Service report [Outcome 3] |
| 03-48 | Service report content definition [Outcome 2] |
| 03-49 | Service reporting needs definition [Outcome 1] |

## 5.21 SMS.1 Audit

| Process ID | SMS.1 |
|---|---|
| Name | Audit |
| Purpose | The purpose of the audit process is to independently determine conformity of selected services, products and processes to the requirements, plans and agreements, as appropriate. |
| Outcomes | As a result of successful implementation of this process:<br><br>1. the scope and purpose of each audit is defined;<br><br>2. the objectivity and impartiality of the conduct of audits and selection of auditors are assured;<br><br>3. conformity of selected services, products and processes with requirements, plans and agreements is determined;<br><br>4. nonconformities are recorded;<br><br>5. nonconformities are communicated to those responsible for corrective action and resolution;<br><br>6. corrective actions for nonconformities are verified. |

| Process ID | SMS.1 |
|---|---|
| **Name** | Audit |
| **Base Practices** | SMS.1.1 **Define the audit scope and purpose.** The scope of each audit is defined taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. [Outcome 1] |
| | SMS.1.2 **Assure the objectivity and impartiality of audit conduct.** The selection of auditors and conduct of audits ensures objectivity and impartiality of the audit. Auditors do not audit their own work. [Outcome 2] |
| | SMS.1.3 **Conduct audits.** Audits are conducted to determine the conformity of selected services, products and processes with requirements, plans and agreements. [Outcome 3] |
| | SMS.1.4 **Record nonconformities.** Nonconformities are identified against the management system requirements, the requirements identified by the service provider or the service requirements. The results of internal audits including nonconformities, concerns and actions identified, are recorded. [Outcome 4] |
| | SMS.1.5 **Communicate nonconformities to those responsible for corrective action and resolution.** Results and actions are prioritized and responsibility allocated for actions, and communicated to interested parties. [Outcome 5] |
| | SMS.1.6 **Verify corrective actions for nonconformities.** Management responsible for the area being audited ensures that any corrections and corrective actions are taken without undue delay to eliminate nonconformities and their causes. Follow-up activities include the verification of the actions taken. [Outcome 6] |

| Inputs | |
|---|---|
| 08-05 | Audit nonconformity record [Outcome 5,6] |
| 04-02 | Audit plan [Outcome 2,3] |
| 08-06 | Audit result [Outcome 4] |
| 02-06 | Audit results communication list [Outcome 5] |
| 04-03 | Audit schedule [Outcome 1,3] |
| 02-07 | Auditor list [Outcome 3] |
| 04-08 | Configuration item audit schedule [Outcome 1] |
| 04-12 | Information security audit schedule [Outcome 1] |

| Outputs | |
|---|---|
| 08-04 | Audit nonconformity disposition record [Outcome 6] |
| 08-05 | Audit nonconformity record [Outcome 4] |
| 04-02 | Audit plan [Outcome 1] |
| 08-06 | Audit result [Outcome 3] |
| 02-07 | Auditor list [Outcome 2] |
| 08-13 | Communication record [Outcome 5] |

## 5.22  SMS.2 Improvement

| Process ID | SMS.2 |
|---|---|
| **Name** | Improvement |
| **Purpose** | The purpose of the improvement process is to continually improve the SMS, services and processes. |
| **Outcomes** | As a result of successful implementation of this process: |
| | 1.  opportunities for improvement are identified and recorded; |
| | 2.  opportunities for improvement are evaluated against agreed criteria for approval; |
| | 3.  approved improvements are prioritised and actions planned; |
| | 4.  approved improvements are implemented and confirmed; |
| | 5.  the results of improvement actions are reported and communicated to interested parties. |

| Process ID | SMS.2 |
|---|---|
| **Name** | Improvement |
| **Base Practices** | SMS.2.1 **Identify opportunities for improvement.** Opportunities for improvement, including corrective and preventive actions, are documented. [Outcome 1]<br><br>SMS.2.2 **Evaluate opportunities for improvement.** The service provider uses the evaluation criteria in the policy on continual improvement, when making decisions on opportunities for improvement. [Outcome 2]<br><br>SMS.2.3 **Plan approved improvements.** Opportunities for improvement are prioritized. Approved improvements are planned. The service provider manages improvement activities including setting targets for improvements in one or more of quality, value, capability, cost, productivity, resource utilization and risk reduction. [Outcome 3]<br><br>SMS.2.4 **Implement approved improvements.** The service provider manages improvement activities including ensuring that approved improvements are implemented. [Outcome 4]<br><br>SMS.2.5 **Communicate results of improvement actions.** The service provider reports on implemented improvements. [Outcome 5] |
| **Inputs** | |
| 09-10 | Implemented improvement evaluation report [Outcome 4,5] |
| 02-16 | Improvement communication list [Outcome 5] |
| 04-10 | Improvement implementation schedule [Outcome 4] |
| 03-11 | Improvement opportunity [Outcome 1] |
| 11-04 | Improvement opportunity approved request [Outcome 4] |
| 03-12 | Improvement opportunity evaluation criteria [Outcome 2] |
| 09-11 | Improvement opportunity evaluation report [Outcome 2,3] |
| 08-21 | Improvement opportunity record [Outcome 2] |
| 04-11 | Improvement plan [Outcome 4] |
| 03-13 | Improvement target [Outcome 4] |
| 08-29 | Information security incident record [Outcome 1] |
| 04-20 | Reversing unsuccessful changes plan [Outcome 2] |
| **Outputs** | |
| 08-13 | Communication record [Outcome 5] |
| 09-10 | Implemented improvement evaluation report [Outcome 4] |
| 04-10 | Improvement implementation schedule [Outcome 3] |
| 11-04 | Improvement opportunity approved request [Outcome 3] |
| 09-11 | Improvement opportunity evaluation report [Outcome 2] |
| 02-18 | Improvement opportunity implementation log [Outcome 4] |
| 08-21 | Improvement opportunity record [Outcome 1] |
| 04-11 | Improvement plan [Outcome 3] |
| 03-13 | Improvement target [Outcome 3] |

## 5.23 SMS.3 Information item management

| Process ID | SMS.3 |
|---|---|
| **Name** | Information item management |
| **Purpose** | The purpose of the information item management process is to identify the items to be produced, and to maintain the recorded information produced by a process. |
| **Outcomes** | As a result of successful implementation of this process:<br><br>1. information items are identified in accordance with defined criteria;<br><br>2. Information items are controlled and issued according to defined criteria;<br><br>3. information items are communicated to interested parties;<br><br>4. information items are maintained in accordance with planned arrangements;<br><br>5. the integrity of information items is assured. |

| Process ID | SMS.3 |
|---|---|
| Name | Information item management |
| Base Practices | SMS.3.1 **Identify information items.** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. [Outcome 1]<br><br>SMS.3.2 **Control and issue information items.** Information items are controlled and issued according to defined criteria. Note: The evidence in ISO/IEC 20000-1 is the verb 'approve' and 'agree'. [Outcome 2]<br><br>SMS.3.3 **Communicate information items.** Communicate information items to interested parties. Note: The keyword in ISO/IEC 20000-1 is 'communicate'. [Outcome 3]<br><br>SMS.3.4 **Maintain information items.** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. [Outcome 4]<br><br>SMS.3.5 **Assure the integrity of information items.** Documents required by the SMS are controlled. Records are legible, readily identifiable and retrievable. [Outcome 5] |
| **Inputs** | |
| 07-01 | Information item [Outcome 3] |
| 10-02 | Information item repository [Outcome 1,2,4,5] |
| 03-42 | Service management objectives [Outcome 1] |
| 04-24 | Service management plan [Outcome 1] |
| **Outputs** | |
| 08-01 | Amendment record [Outcome 4] |
| 08-02 | Approval record [Outcome 2] |
| 08-13 | Communication record [Outcome 3] |
| 07-01 | Information item [Outcome 1] |
| 08-85 | Status record [Outcome 5] |

## 5.24 SMS.4 Management review

| Process ID | SMS.4 |
|---|---|
| Name | Management review |
| Purpose | The purpose of the management review process is to assess the performance of the SMS and to identify potential improvements. |
| Outcomes | As a result of successful implementation of this process:<br><br>1. the objectives of the review are established;<br><br>2. the status and performance of an activity or process are assessed;<br><br>3. risks, problems and opportunities for improvement are identified and recorded;<br><br>4. review results are communicated to interested parties;<br><br>5. action items resulting from reviews are tracked to closure. |

| Process ID | SMS.4 |
|---|---|
| Name | Management review |
| Base Practices | SMS.4.1 **Establish review objectives.** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. [Outcome 1]<br><br>SMS.4.2 **Assess the status and performance of an activity or process.** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. [Outcome 2]<br><br>SMS.4.3 **Identify risks, problems and opportunities for improvement.** The results of management reviews, concerns and actions identified, are recorded. [Outcome 3]<br><br>SMS.4.4 **Communicate review results to interested parties.** Communicate the results and actions to interested parties. [Outcome 4]<br><br>SMS.4.5 **Track action items resulting from reviews to closure.** The records from the management review include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. [Outcome 5] |

| Inputs | |
|---|---|
| 08-17 | Customer satisfaction review record [Outcome 2] |
| 02-17 | Improvement opportunity disposition log [Outcome 5] |
| 09-12 | Information security audit report [Outcome 2] |
| 02-24 | Management review communication list [Outcome 4] |
| 02-25 | Management review issue log [Outcome 3,5] |
| 03-23 | Management review objectives [Outcome 2] |
| 09-20 | Management review process assessment report [Outcome 2] |
| 03-24 | Management review resource forecast [Outcome 2] |
| 09-00 | Report [Outcome 2] |
| 09-31 | Service availability plan test report [Outcome 2] |
| 03-37 | Service catalogue [Outcome 2] |
| 09-33 | Service continuity plan test report [Outcome 2] |
| 09-34 | Service continuity plan test result finding report [Outcome 2] |
| 01-01 | Service level agreement [Outcome 2] |
| 08-74 | Service performance record [Outcome 2] |

| Outputs | |
|---|---|
| 08-13 | Communication record [Outcome 4] |
| 03-11 | Improvement opportunity [Outcome 3] |
| 02-18 | Improvement opportunity implementation log [Outcome 5] |
| 02-25 | Management review issue log [Outcome 2,5] |
| 03-23 | Management review objectives [Outcome 1] |
| 08-44 | Problem record [Outcome 3] |
| 08-52 | Review record [Outcome 2] |
| 02-32 | Risk log [Outcome 3] |

## 5.25  SMS.5 Resource management

| Process ID | SMS.5 |
|---|---|
| Name | Resource management |
| Purpose | The purpose of the resource management process is to provide the organization with necessary infrastructure, work environment, and human resources, consistent with business needs and service requirements. |
| Outcomes | As a result of successful implementation of this process:<br><br>1.  resources and infrastructure are determined and provided;<br><br>2.  roles, responsibilities and competencies needed to support SMS processes are defined;<br><br>3.  individuals with the necessary competencies are appointed to the roles needed to perform service management activities;<br><br>4.  identified competency gaps are filled through training or recruitment. |
| Base Practices | SMS.5.1 **Determine and provide resources and infrastructure.** Determine and provide resources and infrastructure to support SMS processes and service provision. [Outcome 1]<br><br>SMS.5.2 **Define roles, responsibilities and competencies.** Define the roles, responsibilities and competencies needed to support SMS processes. [Outcome 2]<br><br>SMS.5.3 **Appoint individuals with the necessary competencies.** Individuals with the necessary competencies are appointed to the roles needed to perform service management activities. [Outcome 3]<br><br>SMS.5.4 **Fill competency gaps through training or recruitment.** The service provider where applicable, provides training or takes other actions to achieve the necessary competence.  [Outcome 4] |

| Inputs | |
|---|---|
| 12-09 | Service management competency requirements [Outcome 4] |
| 03-44 | Service management roles and responsibilities [Outcome 3] |

| Outputs | |
|---|---|
| 12-09 | Service management competency requirements [Outcome 2] |
| 03-43 | Service management resource needs [Outcome 1] |
| 03-44 | Service management roles and responsibilities [Outcome 2] |
| 08-73 | Service management training record [Outcome 4] |
| 03-46 | Service provider roles and responsibilities [Outcome 3] |
| 03-51 | Sub-contracted supplier roles and responsibilities [Outcome 2] |
| 02-45 | Supplier role assignments list [Outcome 2] |

## 5.26  SMS.6 Risk management

| Process ID | SMS.6 |
|---|---|
| Name | Risk management |
| Purpose | The purpose of the risk management process is to identify, analyse, evaluate, treat and monitor the risks continually. |
| Outcomes | As a result of successful implementation of this process:<br><br>1.  risks are identified;<br><br>2.  identified risks are categorised, assessed and the priority in which to apply resources to treatment of these risks is determined;<br><br>3.  risks and their proposed treatment are communicated to interested parties;<br><br>4.  assessed risks are monitored;<br><br>5.  appropriate treatment is taken to correct or avoid unacceptable assessed risks. |

| Process ID | SMS.6 |
|---|---|
| **Name** | Risk management |
| **Base Practices** | SMS.6.1 **Identify risks.** Identify risks during the establishment of a process or a service. [Outcome 1] |
| | SMS.6.2 **Categorise and assess risks.** Identified risks are categorised, assessed and the priority in which to apply resources to treatment of these risks is determined. [Outcome 2] |
| | SMS.6.3 **Communicate risks and proposed treatment to interested parties.** Communicate risks and their proposed treatment to interested parties. [Outcome 3] |
| | SMS.6.4 **Monitor risks.** Assessed risks are monitored. [Outcome 4] |
| | SMS.6.5 **Take appropriate treatment to avoid unacceptable risks.** Appropriate treatment is taken to correct or avoid unacceptable assessed risks. [Outcome 5] |
| **Inputs** | |
| 03-04 | Change request evaluation criteria [Outcome 1] |
| 03-14 | Information security change request evaluation criteria [Outcome 4] |
| 09-19 | Information security risk assessment report [Outcome 4] |
| 04-15 | New or changed service plan [Outcome 2] |
| 09-00 | Report [Outcome 2] |
| 02-32 | Risk log [Outcome 2,3,4,5] |
| 03-36 | Service availability risk evaluation criteria [Outcome 1] |
| 03-39 | Service continuity risk evaluation criteria [Outcome 1] |
| 03-50 | Service risk evaluation criteria [Outcome 1] |
| **Outputs** | |
| 08-13 | Communication record [Outcome 3] |
| 09-14 | Information security change request evaluation report [Outcome 4] |
| 09-00 | Report [Outcome 1,4] |
| 02-32 | Risk log [Outcome 2] |
| 04-21 | Risk treatment strategy [Outcome 5] |
| 09-41 | Service risk assessment report [Outcome 1] |

## 5.27  SMS.7 Service measurement

| Process ID | SMS.7 |
|---|---|
| **Name** | Service measurement |
| **Purpose** | The purpose of the service measurement process is to identify, collect, analyse, and report data relating to the services provided and processes implemented to support effective management of the processes, and to objectively demonstrate the quality of the services provided. |
| **Outcomes** | As a result of successful implementation of this process: |
| | 1.  the prioritised information needs related to provided services and implemented processes are identified; |
| | 2.  an appropriate set of measures, driven by the information needs are identified and/or developed; |
| | 3.  the required data are collected, and verified; |
| | 4.  the required data are analysed and the results interpreted; |
| | 5.  measurement information is used to support decisions and provide an objective basis for communication. |

| Process ID | SMS.7 |
|---|---|
| Name | Service measurement |
| Base Practices | SMS.7.1 **Identify the prioritised information needs related to provided services.** Identify the prioritised information needs related to provided services and implemented processes. [Outcome 1] |
| | SMS.7.2 **Identify an appropriate set of measures.** An appropriate set of measures, driven by the information needs are identified and/or developed. [Outcome 2] |
| | SMS.7.3 **Collect and verify the required data.** The success or failure of releases is monitored. Measurements include incidents related to a release in the period following deployment of a release. [Outcome 3] |
| | SMS.7.4 **Analyse the required data.** The service provider analyses the types, volumes and impacts of information security incidents. The service provider analyses data and trends on incidents and problems. Requests for change are analysed at to detect trends. The success or failure of releases is analysed. Analysis includes assessment of the impact of the release on the customer. [Outcome 4] |
| | SMS.7.5 **Support decisions and communication.** Support decisions and provide an objective basis for communication with measurement information. [Outcome 5] |

| Inputs | | |
|---|---|---|
| 09-01 | Analysis report | [Outcome 5] |
| 03-25 | Measurement objectives | [Outcome 2,3] |
| 03-29 | Performance criteria | [Outcome 3] |
| 02-03 | Performance data | [Outcome 4] |
| 01-01 | Service level agreement | [Outcome 1] |

| Outputs | | |
|---|---|---|
| 09-01 | Analysis report | [Outcome 4] |
| 03-25 | Measurement objectives | [Outcome 1] |
| 03-29 | Performance criteria | [Outcome 2] |
| 02-03 | Performance data | [Outcome 3] |

## 5.28  SMS.8 SMS Establishment and improvement

| Process ID | SMS.8 |
|---|---|
| Name | SMS Establishment and improvement |
| Purpose | The purpose of the SMS establishment and improvement process is to identify the scope of, and provide the service management processes that enable the effective implementation and improvement of all IT services. |
| Outcomes | As a result of successful implementation of this process: |
| | 1. service requirements are established in response to business needs, customer requirements and customer requests; |
| | 2. the objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements; |
| | 3. SMS processes are established to support service management objectives; |
| | 4. action is taken to improve the effectiveness and efficiency of the SMS to meet the service management objectives and requirements. |

| Process ID | SMS.8 |
|---|---|
| **Name** | SMS Establishment and improvement |
| **Base Practices** | SMS.8.1 **Establish service requirements in response to business needs, customer requirements and customer requests.** The service provider identifies the service requirements for the new or changed services.   [Outcome 1] |
| | SMS.8.2 **Identify the objectives and requirements for service management.** The objectives and requirements for service management are identified and established  to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. [Outcome 2] |
| | SMS.8.3 **Establish SMS processes.** SMS processes are established to support service management objectives. [Outcome 3] |
| | SMS.8.4 **Improve effectiveness and efficiency.** Take action to improve the effectiveness and efficiency of the SMS to meet the service management objectives and requirements. [Outcome 4] |
| **Inputs** | |
| 03-42 | Service management objectives [Outcome 3] |
| 12-10 | Service management process interface requirements [Outcome 3] |
| **Outputs** | |
| 12-01 | Alternative party process requirements [Outcome 2] |
| 02-17 | Improvement opportunity disposition log [Outcome 4] |
| 03-17 | Information security risk assessment criteria [Outcome 3] |
| 05-00 | Policy [Outcome 3] |
| 06-00 | Procedure [Outcome 3] |
| 03-42 | Service management objectives [Outcome 2] |
| 05-09 | Service management policy [Outcome 2] |
| 12-10 | Service management process interface requirements [Outcome 2] |
| 09-37 | Service management system performance analysis report [Outcome 4] |
| 03-45 | Service management system scope definition [Outcome 2] |
| 12-11 | Service requirements [Outcome 1] |

## 5.29  SMS.9 SMS Implementation and operation

| Process ID | SMS.9 |
|---|---|
| **Name** | SMS Implementation and operation |
| **Purpose** | The purpose of the SMS implementation and operation process is to plan, manage and monitor the performance of IT service provision, in order to satisfy the requirements of customers and interested parties. |
| **Outcomes** | As a result of successful implementation of this process: |
| | 1.  service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers; |
| | 2.  services supplied by other parties are managed to meet the service requirements; |
| | 3.  performance and progress against the planned arrangements is monitored; |
| | 4.  actions to correct deviations from planned arrangements are taken when targets are not achieved; |
| | 5.  organizational risks are continually identified, analysed, treated and monitored. |

| Process ID | SMS.9 |
|---|---|
| Name | SMS Implementation and operation |
| Base Practices | SMS.9.1 **Service management is planned and implemented.** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. [Outcome 1] |
| | SMS.9.2 **Manage services provided by other suppliers.** Services supplied by other parties are managed to meet the service requirements. [Outcome 2] |
| | SMS.9.3 **Monitor service delivery against planned arrangements.** Performance and progress against the planned arrangements is monitored. [Outcome 3] |
| | SMS.9.4 **Take action to correct deviations from planned arrangements when targets are not achieved.** Take action to correct deviations from planned arrangements when targets are not achieved. [Outcome 4] |
| | SMS.9.5 **Manage organisational risks.** Organizational risks are continually identified, analysed, treated and monitored. [Outcome 5] |

| Inputs | |
|---|---|
| 12-01 | Alternative party process requirements [Outcome 2] |
| 04-02 | Audit plan [Outcome 1] |
| 08-06 | Audit result [Outcome 3] |
| 04-03 | Audit schedule [Outcome 3] |
| 12-02 | Capacity requirements [Outcome 1] |
| 02-02 | Issue log [Outcome 4,5] |
| 02-25 | Management review issue log [Outcome 5] |
| 03-23 | Management review objectives [Outcome 5] |
| 09-00 | Report [Outcome 3] |
| 05-09 | Service management policy [Outcome 1] |
| 04-26 | Services provision budget [Outcome 1] |
| 02-42 | Services stakeholder communication list [Outcome 4] |

| Outputs | |
|---|---|
| 04-03 | Audit schedule [Outcome 1] |
| 04-05 | Capacity plan [Outcome 1] |
| 08-13 | Communication record [Outcome 4] |
| 04-08 | Configuration item audit schedule [Outcome 1] |
| 04-09 | Customer satisfaction sampling schedule [Outcome 1] |
| 03-11 | Improvement opportunity [Outcome 4] |
| 04-12 | Information security audit schedule [Outcome 1] |
| 04-13 | Information security risk assessment schedule [Outcome 1] |
| 02-02 | Issue log [Outcome 3,4] |
| 04-14 | Management review schedule [Outcome 1] |
| 09-00 | Report [Outcome 2] |
| 08-52 | Review record [Outcome 3] |
| 04-21 | Risk treatment strategy [Outcome 5] |
| 04-24 | Service management plan [Outcome 1] |
| 04-25 | Service provision review schedule [Outcome 1] |
| 04-28 | Supplier agreement review schedule [Outcome 1] |

# 6  Process capability indicators (Level 1 to 5)

This clause presents the process capability indicators related to the process attributes associated with capability levels 1 to 5 defined in the capability dimension of the PAM. Process capability indicators are the means of achieving the capabilities addressed by the considered process attributes. Evidence of process capability indicators support the judgment of the degree of achievement of the process attribute.

The capability dimension of the PAM consists of six capability levels matching the capability levels defined in Part 2 of this International Standard. This clause describes the process capability indicators for the nine

process attributes included in the capability dimension for levels 1 to 5. Clause 5 describes the assessment indicators for process performance which is characterized by Level 1 process capability.

Level 0 does not include any type of indicators. Level 0 reflects a non-implemented process or a process which fails to partially achieve its outcomes.

NOTE 1: In the next paragraphs, ISO/IEC 15504-2 process attribute definitions and attribute achievements are identified with italic font.

NOTE 2: Following each generic resource and generic input/output is '[PA x.y Achievement 1]'. This refers to process attribute x.y achievement 1 which is satisfied by this indicator.

## 6.1   Level 1: Performed process

### 6.1.1   PA 1.1 Process performance attribute

*The process performance attribute is a measure of the extent to which the process purpose is achieved. As a result of full achievement of this attribute:*

- the process achieves its defined outcomes.

#### 6.1.1.1   Generic Practices for PA 1.1

**GP 1.1.1 Achieve the process outcomes**

Perform the intent of the practices.

Use inputs and produce outputs that evidence the process outcomes.

NOTE:      The assessment of a performed process is based on process performance indicators, which are defined in Clause 5 of this document.

#### 6.1.1.2   Generic Resources for PA 1.1

Resources are used to perform the intent of process specific practices. [PA 1.1 Achievement a]

#### 6.1.1.3   Generic Inputs/Outputs for PA 1.1

7.0 Product [PA 1.1 Achievement a]

⎯ Inputs/Outputs exist that provide evidence of the achievement of the process outcomes.

## 6.2   Level 2: Managed process

The previously described *Performed process* is now implemented in a managed fashion (planned, monitored and adjusted) and its work products are appropriately established, controlled and maintained.

The following attributes of the process, together with the previously defined attributes, demonstrate the achievement of this level:

### 6.2.1   PA 2.1 Performance management attribute

*The performance management attribute is a measure of the extent to which the performance of the process is managed. As a result of full achievement of this attribute:*

*a)   objectives for the performance of the process are identified;*

b)  *performance of the process is planned and monitored;*

c)  *performance of the process is adjusted to meet plans;*

d)  *responsibilities and authorities for performing the process are defined, assigned and communicated;*

e)  *resources and information necessary for performing the process are identified, made available, allocated and used;*

f)  *interfaces between the involved parties are managed to ensure both effective communication and also clear assignment of responsibility.*

### 6.2.1.1   Generic Practices for PA 2.1

**GP 2.1.1 Identify the objectives** for the performance of the process.

NOTE: Performance objectives may include – (1) quality of the outputs produced, (2) process cycle time or frequency and (3) resource usage.

Performance objectives are identified based on process requirements and customer requirements.

The scope and boundaries of the process performance is defined.

Assumptions and constraints are considered when identifying the performance objectives.

**GP 2.1.2 Plan and monitor the performance** of the process to fulfill the identified objectives.

Plan(s) for the performance of the process are developed. The process performance cycle is defined.

Key milestones for the performance of the process are established.

Estimates for process performance attributes are determined and maintained.

Process activities and tasks are defined.

Schedule is defined and aligned with the approach to performing the process.

Process inputs/outputs reviews are planned.

The process is performed according to the plan(s).

Process performance is monitored to ensure planned results are achieved.

**GP 2.1.3 Adjust** the performance of the process.

Process performance issues are identified.

Appropriate actions are taken when planned results and objectives are not achieved.

The plan(s) are adjusted, as necessary.

Rescheduling is performed as necessary.

**GP 2.1.4 Define responsibilities and authorities** for performing the process.

Responsibilities, commitments and authorities to perform the process are defined, assigned and communicated.
Responsibilities and authorities to verify process inputs/outputs are defined and assigned.

The needs for process performance experience, knowledge and skills are defined.

**GP 2.1.5 Identify and make available resources** to perform the process according to plan.

The human and infrastructure resources necessary for performing the process are identified, made available, allocated and used.

The information necessary to perform the process is identified and made available.

**GP 2.1.6 Manage the interfaces** between involved parties.

The individuals and groups involved in the process performance are determined.

Responsibilities of the involved parties are assigned.

Interfaces between the involved parties are managed.

Communication is assured between the involved parties.

Communication between the involved parties is effective.

### 6.2.1.2 Generic Resources for PA 2.1

Human resources with identified objectives, responsibilities and authorities; [PA 2.1 Achievement a, d, e, f]

Facilities and infrastructure resources; [PA 2.1 Achievement a, d, e, f]

— Service planning, management and control tools, including time and cost reporting, and feedback; [PA 2.1 Achievement b, c]

— Workflow management system; [PA 2.1 Achievement d, f]

— Email and/or other communication mechanisms; [PA 2.1 Achievement d, f]

— Information and/or experience repository; [PA 2.1 Achievement b, e]

— Problem and issue management mechanisms. [PA 2.1 Achievement c]

### 6.2.1.3 Generic Inputs/Outputs for PA 2.1

4.0 Plan [PA 2.1 Achievement a, b, c, d, e, f]

— Defines objectives to perform the process.

— Describes assumptions and constraints considered in defining the objectives.

— Includes milestones and timetable to produce the outputs of the process.

— Identifies tasks, resources, responsibilities and infrastructure needed to perform the process.

— Considers risks related to fulfill defined objectives.

— Identifies stakeholders and communication mechanisms to be used.

— Describes how the plan is controlled and adjusted when needed.

8.0 Record [PA 2.1 Achievement c, d, e, f]

— States results achieved or provides evidence of activities performed in a process.

— Provides evidence of communication, meetings, reviews and corrective actions.

— Contains status information about corrective actions; schedule and work breakdown structure.

— Monitors identified risks.

8.0 Report [PA 2.1 Achievement b, c]

— Monitors process performance against defined objectives and plans.

— Identifies deviations in process performance.

— Describes results and status of the process.

— Provides evidence of management activities.

### 6.2.2   PA 2.2 Work product management attribute

*The work product management attribute is a measure of the extent to which the work products produced by the process are appropriately managed. As a result of full achievement of this attribute:*

a)   *requirements for the work products of the process are defined;*

b)   *requirements for documentation and control of the work products are defined;*

c)   *work products are appropriately identified, documented, and controlled;*

d)   *work products are reviewed in accordance with planned arrangements and adjusted as necessary to meet requirements.*

*NOTE 1:   Requirements for documentation and control of work products may include requirements for the identification of changes and revision status, approval and re-approval of work products, and the creation of relevant versions of applicable work products available at points of use.*

*NOTE 2:   The work products referred to in this clause are those that result from the achievement of the process outcomes.*

### 6.2.2.1   Generic Practices for PA 2.2

**GP 2.2.1 Define the requirements** for the work products.

The requirements for the outputs to be produced are defined. Requirements may include defining contents and structure.

Quality criteria of the outputs are identified.

Appropriate review and approval criteria for the outputs are defined.

**GP 2.2.2 Define the requirements for documentation and control** of the outputs.

Requirements for the documentation and control of the outputs are defined. Such requirements may include requirements for (1) distribution, (2) identification of outputs and their components (3) traceability.

Dependencies between outputs are identified and understood.

Requirements for the approval of outputs to be controlled are defined.

**GP 2.2.3 Identify, document and control** the outputs.

The outputs to be controlled are identified.

Change control is established for the outputs.

The outputs are documented and controlled in accordance with requirements.

Versions of outputs are assigned to product configurations as applicable.

The outputs are made available through appropriate access mechanisms.

The revision status of the outputs may readily be ascertained.

**GP 2.2.4 Review and adjust outputs** to meet the defined requirements.

Outputs are reviewed against the defined requirements in accordance with planned arrangements.

Issues arising from outputs reviews are resolved.

### 6.2.2.2 Generic Resources for PA 2.2

— Requirement management method / toolset; [PA 2.2 Achievement a, b, c]

— Configuration management system; [PA 2.2 Achievement b, c]

— Documentation elaboration and support tool; [PA 2.2 Achievement b, c]

— Output review methods and experiences; [PA 2.2 Achievement d]

— Intranets, extranets and/or other communication mechanisms; [PA 2.2 Achievement b, c]

— Problem and issue management mechanisms. [PA 2.2 Achievement d]

### 6.2.2.3 Generic Inputs/Outputs for PA 2.2

4.0 Plan [PA 2.2 Achievement b]

— Expresses selected policy or strategy to manage outputs.

— Describes requirements to develop, distribute, and maintain the outputs.

— Defines quality control actions needed to manage the quality of the outputs.

6.0 Procedure [PA 2.2 Achievement d]

— Output review methods and experiences.

— Review management method / toolset.

8.0 Record [PA 2.2 Achievement b,c,d]

— Demonstrates output reviews and contributes to traceability.

— Records the status of documentation or output.

— Contains and makes available outputs and/or configuration items.

— Supports monitoring of changes to outputs.

— Provides evidence that the changes are under control.

— Supports monitoring of changes to outputs.

12.0 Specification [PA 2.2 Achievement a,b]

— Defines the functional and non-functional requirements for outputs.

— Identifies outputs dependencies.

— Identifies approval criteria for documents.

— Defines the attributes associated with outputs to be created.

## 6.3   Level 3: Established process

The previously described *Managed process* is now implemented using a defined process capable of achieving its process outcomes.

The following attributes of the process demonstrate the achievement of this level:

### 6.3.1   PA 3.1 Process definition attribute

*The process definition attribute is a measure of the extent to which a standard process is maintained to support the deployment of the defined process. As a result of full achievement of this attribute:*

a)  *a standard process, including appropriate tailoring guidelines, is defined that describes the fundamental elements that must be incorporated into a defined process;*

b)  *the sequence and interaction of the standard process with other processes are determined;*

c)  *required competencies and roles for performing a process are identified as part of the standard process;*

d)  *required infrastructure and work environment for performing a process are identified as part of the standard process;*

e)  *suitable methods for monitoring the effectiveness and suitability of the process are determined.*

*NOTE:     A standard process may be used as-is when deploying a defined process, in which case tailoring guidelines would not be necessary.*

#### 6.3.1.1   Generic Practices for PA 3.1

**GP 3.1.1 Define the standard process** that will support the deployment of the defined process.

A standard process is developed that includes the fundamental process elements.

The standard process identifies the deployment needs and deployment context.

Guidance and/or procedures are provided to support implementation of the process as needed.

Appropriate tailoring guideline(s) are available as needed.

**GP 3.1.2 Determine the sequence and interaction** between processes so that they work as an integrated system of processes.

The standard process's sequence and interaction with other processes are determined.

Deployment of the standard process as a defined process maintains integrity of processes.

**GP 3.1.3 Identify the roles and competencies** for performing the standard process.

Process performance roles are identified.

Competencies for performing the process are identified.

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**GP 3.1.4 Identify the required infrastructure and work environment** for performing the standard process.

Process infrastructure components are identified (facilities, tools, networks, methods, etc).

Work environment requirements are identified.

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**GP 3.1.5 Determine suitable methods** to monitor the effectiveness and suitability of the standard process.

Methods for monitoring the effectiveness and suitability of the process are determined.

Appropriate criteria and data needed to monitor the effectiveness and suitability of the process are defined.

The need to establish the characteristics of the process is considered.

The need to conduct internal audit and management review is established.

Process changes are implemented to maintain the standard process.

### 6.3.1.2    Generic Resources for PA 3.1

— Process modeling methods / tools; [PA 3.1 Achievement a, b, c, d]

— Training material and courses; [PA 3.1 Achievement a, b, c]

— Resource management system; [PA 3.1 Achievement b, c]

— Process infrastructure; [PA 3.1 Achievement a, b]

— Audit and trend analysis tools; [PA 3.1 Achievement e]

— Process monitoring method. [PA 3.1 Achievement e]

### 6.3.1.3    Generic Inputs/Outputs for PA 3.1

3.0 Description [PA 3.1 Achievement a, b, c, e]

— Describes the standard process, including the fundamental process elements, interactions with other processes and appropriate tailoring guidelines.

— Addresses the performance, management and deployment of the process, as described by capability levels 1 and 2 and the PA 3.2 Process deployment attribute.

— Addresses methods to monitor process effectiveness and suitability.

— Identifies data and records to be collected when performing the defined process, in order to improve the standard process.

— Identifies and communicates the personnel competencies, roles and responsibilities for the standard and defined process.

— Identifies the personnel performance criteria for the standard and defined process.

— Identifies the tailoring guidelines for the standard process.

4.0 Plan [PA 3.1 Achievement c, d]

— Identifies approaches for defining, maintaining and supporting a standard process, including infrastructure, work environment, training, internal audit and management review.

6.0 Procedure [PA 3.1 Achievement a, b, c, d, e]

— Provides evidence of organizational commitment to maintain a standard process to support the deployment of the defined process.

— Identifies the method to execute a step or activity in the standard process to support the deployment of the defined process.

12.0 Specification [PA 3.1 Achievement a]

— Provides reference for the standards used by the standard process and identification about how they are used.

— Provides a basis to analyze data associated with the performance of the defined process.

**6.3.2   PA 3.2 Process deployment attribute**

*The process deployment attribute is a measure of the extent to which the standard process is effectively deployed as a defined process to achieve its process outcomes. As a result of full achievement of this attribute:*

a)  *a defined process is deployed based upon an appropriately selected and/or tailored standard process;*

b)  *required roles, responsibilities and authorities for performing the defined process are assigned and communicated;*

c)  *personnel performing the defined process are competent on the basis of appropriate education, training, and experience;*

d)  *required resources and information necessary for performing the defined process are made available, allocated and used;*

e)  *required infrastructure and work environment for performing the defined process are made available, managed and maintained;*

f)  *appropriate data are collected and analyzed as a basis for understanding the behaviour of, and to demonstrate the suitability and effectiveness of the process, and to evaluate where continuous improvement of the process can be made.*

*NOTE: Competency results from a combination of knowledge, skills and personal attributes that are gained through education, training and experience.*

**6.3.2.1   Generic Practices for PA 3.2**

**GP 3.2.1 Deploy a defined process** that satisfies the context specific requirements of the use of the standard process.

The defined process is appropriately selected and/or tailored from the standard process.

Conformance of defined process with standard process requirements is verified.

**GP 3.2.2 Assign and communicate roles, responsibilities and authorities** for performing the defined process.

The roles for performing the defined process are assigned and communicated.

The responsibilities and authorities for performing the defined process are assigned and communicated.

**GP 3.2.3 Ensure necessary competencies** for performing the defined process.

Appropriate competencies for assigned personnel are identified.

Suitable training is available for those deploying the defined process.

**GP 3.2.4 Provide resources and information** to support the performance of the defined process.

Required human resources are made available, allocated and used.

Required information to perform the process is made available, allocated and used.

**GP 3.2.5 Provide adequate process infrastructure** to support the performance of the defined process.

Required infrastructure and work environment is available.

Organizational support to effectively manage and maintain the infrastructure and work environment is available.

Infrastructure and work environment is used and maintained.

**GP 3.2.6 Collect and analyze data about performance of the process** to demonstrate its suitability and effectiveness.

Data required to understand the behaviour, suitability and effectiveness of the defined process are identified.

Data are collected and analyzed to understand the behaviour, suitability and effectiveness of the defined process.

Results of the analysis are used to identify where continual improvement of the standard and/or defined process can be made.

### 6.3.2.2 Generic Resources for PA 3.2

— Feedback mechanisms (customer, staff, other stakeholders); [PA 3.2 Achievement f]

— Process repository; [PA 3.2 Achievement a, b]

— Resource management system; [PA 3.2 Achievement b, c, d]

— Knowledge management system; [PA 3.2 Achievement d]

— Problem and change management system; [PA 3.2 Achievement f]

— Work environment and infrastructure; [PA 3.2 Achievement e]

— Data collection analysis system: [PA 3.2 Achievement f]

— Process assessment framework; [PA 4.1 Achievement f]

— Audit / review system. [PA 3.2 Achievement f]

#### 6.3.2.3    Generic Inputs/Outputs for PA 3.2

3.0 Description [PA 3.2 Achievement a]

— Describes the defined process for use by the service.

— Describes the verification activities needed to ensure the conformance of the service's defined process with the organization's standard process.

— Represents the interactions of the service's defined process with other processes.

4.0 Plan [PA 3.2 Achievement a, b, f]

— Expresses the strategy for the organizational support, allocation and use of the process infrastructure.

— Describes the service's resources and the elements of the infrastructure needed to deploy the defined process.

— Expresses the strategy to satisfy the service's training needs.

— Identifies process improvement proposal(s) based on analysis of suitability and effectiveness.

8.0 Record [PA 3.2 Achievement c,d,e,f]

— Is used to support and maintain the standard process assets.

— Provides evidence that the service's defined process performance data was collected.

— Provides evidence that the service personnel possess the required authorities, skills, experience and knowledge.

— Provides evidence that service personnel have received the required training to satisfy the needs of the service.

— Provides evidence that service infrastructure and working environment are made available and maintained for performing the defined process.

— Records the status of required corrective actions.

— Captures the service's work breakdown structure needed to define the tasks and their dependencies.

— Provides evidence that information is made available for performing the defined process.

9.0 Report [PA 3.2 Achievement f]

— Provides results of the analysis, recommended corrective action, feedback to the process owner and to the organization's standard process.

— Identifies improvement opportunities of the defined process.

— Provides evidence on the suitability and effectiveness of the defined process.

### 6.4    Level 4: Predictable process

The previously described *Established process* now operates within defined limits to achieve its process outcomes.

The following attributes of the process demonstrate the achievement of this level:

### 6.4.1 PA 4.1 Process measurement attribute

*The process measurement attribute is a measure of the extent to which measurement results are used to ensure that performance of the process supports the achievement of relevant process performance objectives in support of defined business goals. As a result of full achievement of this attribute:*

a) *process information needs in support of relevant business goals are established;*

b) *process measurement objectives are derived from identified process information needs;*

c) *quantitative objectives for process performance in support of relevant business goals are established;*

d) *measures and frequency of measurement are identified and defined in line with process measurement objectives and quantitative objectives for process performance;*

e) *results of measurement are collected, analyzed and reported in order to monitor the extent to which the quantitative objectives for process performance are met;*

f) *measurement results are used to characterize process performance.*

NOTE 1:   *Information needs may typically reflect management, technical, service, process or product needs.*

NOTE 2:   *Measures may be either process measures or product measures or both.*

#### 6.4.1.1    Generic Practices for PA 4.1

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**GP 4.1.1 Identify process information needs**, in relation with business goals.

Business goals relevant to establishing quantitative process measurement objectives for the process are identified.

Process stakeholders are identified and their information needs are defined.

Information needs support the relevant business goals.

---

**GP 4.1.2 Derive process measurement objectives** from process information needs.

Process measurement objectives to satisfy defined process information needs are defined.

---

**GP 4.1.3 Establish quantitative objectives** for the performance of the defined process, according to the alignment of the process with the business goals.

Process performance objectives are defined to explicitly reflect the business goals.

Process performance objectives are verified with organizational management and process owner(s) to be realistic and useful.

---

**GP 4.1.4 Identify product and process measures** that support the achievement of the quantitative objectives for process performance.

Detailed measures are defined to support monitoring, analysis and verification needs of process and product goals.

Measures to satisfy process measurement and performance objectives are defined.

Frequency of data collection is defined.

Algorithms and methods to create derived measurement results from base measures are defined, as appropriate.

Verification mechanism for base and derived measures is defined.

---

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**GP 4.1.5 Collect product and process measurement results** through performing the defined process.

Data collection mechanism is created for all identified measures.

Required data is collected in an effective and reliable manner.

Measurement results are created from the collected data within defined frequency.

Analysis of measurement results is performed within defined frequency.

Analysis results including assumptions are reported to those responsible for monitoring the extent to which qualitative objectives are met.

---

**GP 4.1.6 Use the results of the defined measurement** to monitor and verify the achievement of the process performance objectives.

Statistical or other techniques are used to quantitatively understand process performance and capability within defined control limits.

Trends of process behaviour are identified.

---

#### 6.4.1.2 Generic Resources for PA 4.1

— Management information (cost, time, reliability, profitability, customer benefits, risks etc.); [PA 4.1 Achievement a, c, d, e, f]

— Applicable measurement techniques; [PA 4.1 Achievement d]

— Service and process measurement tools and results databases; [PA 4.1 Achievement d, e, f]

— Process measurement framework; [PA 4.1 Achievement d, e, f]

— Tools for data analysis and measurement. [PA 4.1 Achievement b, c, d, e]

— Process measurement framework [PA 4.1 e]

#### 6.4.1.3 Generic Inputs/Outputs for PA 4.1

3.0 Description [PA 4.1 Achievement a, d]

— Defines information needs for the process.

— Specifies candidate measures and frequency of measurement.

4.0 Plan [PA 4.1 Achievement b, c]

— Defines quantitative objectives for process performance.

— Specifies measures for the process.

— Defines tasks and schedules to collect and analyze data.

— Allocates responsibilities and resources for measurement.

8.0 Record [PA 4.1 Achievement e]

— Defines data to be collected as specified in plans and measures.

9.0 Report [PA 4.1 Achievement e, f]

&mdash; Provides results of process data analysis to identify process performance parameters.

&mdash; Monitors process performance based on results of measurement.

12.0 Specification [PA 4.1 Achievement a, b, d]

&mdash; Describes information needs and performance objectives.

&mdash; Provides a basis for analyzing process performance.

&mdash; Defines explicit criteria for data validation.

&mdash; Defines frequency of data collection.

### 6.4.2 PA 4.2 Process control attribute

*The process control attribute is a measure of the extent to which the process is quantitatively managed to produce a process that is stable, capable, and predictable within defined limits. As a result of full achievement of this attribute:*

a) *suitable analysis and control techniques where applicable, are determined and applied;*

b) *control limits of variation are established for normal process performance;*

c) *measurement data are analyzed for special causes of variation;*

d) *corrective actions are taken to address special causes of variation;*

e) *control limits are re-established (as necessary) following corrective action.*

#### 6.4.2.1 Generic Practices for PA 4.2

| |
|---|
| **GP 4.2.1 Determine analysis and control techniques**, appropriate to control the process performance.<br><br>Process control analysis techniques are defined.<br><br>Selected techniques are validated against process control objectives. |
| **GP 4.2.2 Define parameters** suitable to control the process performance.<br><br>Standard process definition is modified to include selection of parameters for process control.<br><br>Control limits for selected base and derived measurement results are defined. |
| **GP 4.2.3 Analyze process and product measurement results** to identify variations in process performance.<br><br>Measures are used to analyze process performance.<br><br>All situations are recorded when defined control limits are exceeded.<br><br>Each out-of-control case is analyzed to identify potential cause(s) of variation.<br><br>Assignable causes of variation in performance are determined.<br><br>Results are provided to those responsible for taking action. |

---

**GP 4.2.4 Identify and implement corrective actions** to address assignable causes.

Corrective actions are determined to address each assignable cause.

Corrective actions are implemented to address assignable causes of variation.

Corrective action results are monitored.

Corrective actions are evaluated to determine their effectiveness.

---

**GP 4.2.5 Re-establish control limits** following corrective action.

Process control limits are re-calculated (as necessary) to reflect process changes and corrective actions.

---

#### 6.4.2.2    Generic Resources for PA 4.2

— Process control and analysis techniques; [PA 4.2 Achievement a, c]

— Statistical analysis tools; [PA 4.2 Achievement b, c, e]

— Process control tools. [PA 4.2 Achievement d, e]

#### 6.4.2.3    Generic Inputs/Outputs for PA 4.2

3.0 Description [PA 4.2 Achievement b, e]

— Defines parameters for process control.

— Defines and maintains control limits for selected base and derived measurement results.

4.0 Plan [PA 4.2 Achievement a]

— Defines analysis methods and techniques at detailed level.

8.0 Record [PA 4.2 Achievement a, b, c, d, e]

— Provides measurement data to identify special causes of variation.

— Provides information on defects and problems.

— Records the changes.

— Documents corrective actions to be implemented.

— Monitors the status of corrective actions.

— Collects the data and provides the basis for analysis, corrective actions and results reporting.

9.0 Report [PA 4.2 Achievement a, c, d, e]

— Provides analyzed measurement results of process performance.

— Identifies corrective actions to address assignable causes of variation.

— Ensures that selected techniques are effective and measures are validated.

## 6.5 Level 5: Optimizing process

The previously described *Predictable process* is continuously improved to meet relevant current and projected business goals.

The following attributes of the process demonstrate the achievement of this level:

### 6.5.1 PA 5.1 Process innovation attribute

*The process innovation attribute is a measure of the extent to which changes to the process are identified from analysis of common causes of variation in performance, and from investigations of innovative approaches to the definition and deployment of the process. As a result of full achievement of this attribute:*

a)  *process improvement objectives for the process are defined that support the relevant business goals;*

b)  *appropriate data are analyzed to identify common causes of variations in process performance;*

c)  *appropriate data are analyzed to identify opportunities for best practice and innovation;*

d)  *improvement opportunities derived from new technologies and process concepts are identified;*

e)  *an implementation strategy is established to achieve the process improvement objectives.*

#### 6.5.1.1 Generic Practices for PA 5.1

| |
|---|
| **GP 5.1.1 Define the process improvement objectives** for the process that support the relevant business goals.<br><br>Directions to process innovation are set.<br><br>New business visions and goals are analyzed to give guidance for new process objectives and potential areas of process change.<br><br>Quantitative and qualitative process improvement objectives are defined and documented. |
| **GP 5.1.2 Analyze measurement data** of the process to identify real and potential variations in the process performance.<br><br>Measurement data are analyzed and made available.<br><br>Causes of variation in process performance are identified and classified.<br><br>Common causes of variation are analyzed to get quantitative understanding of their impact. |
| **GP 5.1.3 Identify improvement opportunities** of the process based on innovation and best practices.<br><br>Industry best practices are identified and evaluated.<br><br>Feedback on opportunities for improvement is actively sought.<br><br>Improvement opportunities are identified. |
| **GP 5.1.4 Derive improvement opportunities** of the process from new technologies and process concepts.<br><br>Impact of new technologies on process performance is identified and evaluated.<br><br>Impact of new process concepts are identified and evaluated.<br><br>Improvement opportunities are identified.<br><br>Emergent risks are considered in identifying improvement opportunities. |

---

**GP 5.1.5 Define an implementation strategy** based on long-term improvement vision and objectives.

Commitment to improvement is demonstrated by organizational management and process owner(s).

Proposed process changes are evaluated and piloted to determine their benefits and expected impact on defined business objectives.

Changes are classified and prioritized based on their impact on defined improvement objectives.

Measures that validate the results of process changes are defined to determine expected effectiveness of the process change.

Implementation of the approved change(s) is planned as an integrated program or project.

Implementation plan and impact on business goals are discussed and reviewed by organizational management.

---

#### 6.5.1.2    Generic Resources for PA 5.1

— Process improvement framework; [PA 5.1 Achievement a, d, e]

— Process feedback and analysis system (measurement data, causal analysis results etc.); [PA 5.1 Achievement b, c]

— Piloting and trialing mechanism. [PA 5.1 Achievement c, d]

#### 6.5.1.3    Generic Inputs/Outputs for PA 5.1

3.0 Description [PA 5.1 Achievement c, d]

— Identifies potential areas of innovation and new technology.

— Incorporates approaches to perform root cause analysis.

4.0 Plan [PA 5.1 Achievement a, e]

— Defines improvement objectives for the process

— Allocates resources for improvement activities.

— Schedules activities for root cause analysis.

— Defines an approach to implementing selected improvements.

— Identifies scope of pilot improvement activities.

6.0 Procedure [PA 5.2 Achievement a]

— Establishes expectations for conduct and evaluation of pilot improvements.

8.0 Record [PA 5.1 Achievement b,c,d,e]

— Provides analytical data to identify common causes of variation.

— Provides analytical data to identify opportunities for best practice and innovation.

— Records data relevant to root cause analysis.

⎯ Identifies potential improvement opportunities.

⎯ Records information on new technology and techniques.

9.0 Report [PA 5.1 Achievement b, d]

⎯ Identifies potential innovations and process changes.

⎯ Provides information for an analysis to identify common causes of variation in performance.

⎯ Identifies common causes of defects and appropriate corrective actions.

12.0 Specification [PA 5.1 Achievement a]

⎯ Define and maintain business goals.

⎯ Provides evidence of management commitment.

### 6.5.2  PA 5.2 Process optimization attribute

*The process optimization attribute is a measure of the extent to which changes to the definition, management and performance of the process result in effective impact that achieves the relevant process improvement objectives. As a result of full achievement of this attribute:*

a)  *impact of all proposed changes is assessed against the objectives of the defined process and standard process;*

b)  *implementation of all agreed changes is managed to ensure that any disruption to the process performance is understood and acted upon;*

c)  *effectiveness of process change on the basis of actual performance is evaluated against the defined product requirements and process objectives to determine whether results are due to common or special causes.*

#### 6.5.2.1  Generic Practices of PA 5.2

**GP 5.2.1 Assess the impact of each proposed change** against the objectives of the defined and standard process.

Objective priorities for process improvement are established.

Specified changes are assessed against product quality and process performance requirements and goals.

Impact of changes to other defined and standard processes is considered.

**GP 5.2.2. Manage the implementation of agreed changes** to selected areas of the defined process and standard process according to the implementation strategy.

A mechanism is established for incorporating accepted changes into the defined process(es) and standard process(es) effectively and completely.

The factors that impact the effectiveness and full deployment of the process change are identified and managed, such as:

- Economic factors (productivity, profit, growth, efficiency, quality, competition, resources, and capacity);

- Human factors (job satisfaction, motivation, morale, conflict / cohesion, goal consensus, participation, training, span of control);

- Management factors (skills, commitment, leadership, knowledge, ability, organizational culture and risks);

- Technology factors (sophistication of system, technical expertise, development methodology, need of new technologies).

Training is provided to users of the process.

Process changes are effectively communicated to all affected parties**.**

Records of the change implementation are maintained.

**GP 5.2.3 Evaluate the effectiveness of process change** on the basis of actual performance against process performance and capability objectives and business goals.

Performance and capability of the changed process are measured and compared with historical data.

A mechanism is available for documenting and reporting analysis results to management and owners of standard and defined processes.

Measures are analyzed to determine whether results are due to common or special causes.

Other feedback is recorded, such as opportunities for further improvement of the standard process.

### 6.5.2.2  Generic Resources for PA 5.2

— Change management system; [PA 5.2 Achievement a, b, c]

— Process evaluation system (impact analysis, etc.). [PA 5.2 Achievement a, c]

### 6.5.2.3  Generic Inputs/Outputs for PA 5.2

3.0 Description [PA 5.2 Achievement b]

— Documents changes as a result of process improvement actions.

4.0 Plan [PA 5.2 Achievement a, b]

— Defines activities and schedule for pilot change implementation.

— Allocates resources for pilot implementation.

— Assigns responsibility for pilot implementation.

— Defines activities and schedule for organizational implementation of process change.

— Allocates resources and responsibilities for organizational implementation.

— Specifies scope of pilot implementation of proposed change.

8.0 Record [PA 5.2 Achievement b]

— Contains records of all completed and in-progress pilot implementations.

— Records history of and justification for changes.

9.0 Report [PA 5.2 Achievement a, b, c]

— Describes results of pilot implementation of process change.

— Evaluates effectiveness of process compared to process improvement objectives.

— Provides details on implementation of organizational changes.

— Describes proposed changes to standard and defined process.

12.0 Specification [PA 5.2 Achievement c]

— Specifies measures derived from process improvement objectives.

## 6.6 Related Processes for Process Attributes

Certain processes support achievement of the capabilities addressed by a process attribute. Table 2 lists those processes and indicates the processes that contribute to each Process Attribute (PA). This information can be used in planning process assessments and in analysis and validation of the assessment results.

**Table 2 — Related Processes for Process Attributes**

| Related processes | PA 2.1 | PA 2.2 | PA 3.1 | PA 3.2 | PA 4.1 | PA 4.2 | PA 5.1 | PA 5.2 |
|---|---|---|---|---|---|---|---|---|
| CON.1 Change management | | X | | | | | | |
| CON.2 Configuration management | | X | | | | | | |
| DTR.4 Service planning | X | | | | | | | |
| REL.1 Business relationship management | X | | | | | | | |
| SDE.7 Service reporting | X | | | | | | | |
| SMS.1 Audit | | X | | | | | | |
| SMS.2 Improvement | | | | X | | | | |
| SMS.3 Information item management | | X | | | | | | |
| SMS.4 Management review | | | | X | | | | |
| SMS.5 Resource management | X | | | X | | | | |
| SMS.6 Risk management | X | | | X | | | | |
| SMS.7 Service measurement | | | | X | X | | | |
| SMS.8 SMS Establishment and improvement | | | X | X | | | | |
| SMS.9 SMS Implementation and operation | | | | X | | | | |

# Annex A
(informative)

# Conformity of the exemplar Process Assessment Model

## A.1 Introduction

This part of ISO/IEC 15504 sets out a PAM that meets the requirements for conformance defined in ISO/IEC 15504-2. This PAM can be used in the performance of assessments that meet the requirements of ISO/IEC 15504. It may also be used as an example for a PAM developer.

This clause serves as the statement of conformance of the PAM to the requirements defined in ISO/IEC 15504-2. For ease of reference, the requirements from Clause 6.3 of ISO/IEC 15504-2 are embedded verbatim in the text of this clause. They should not be construed as normative elements of this part of ISO/IEC 15504.

Since this PAM has been explicitly constructed to be an elaboration of the PRM defined in ISO/IEC TR 20000-4, the conformance claim is relatively simple. For other models, particularly ones with a different architecture, the demonstration of conformance may be more difficult requiring more detail in the mapping.

## A.2 Requirements for Process Assessment Models (from ISO/IEC 15504-2)

### A.2.1 Introduction

*In order to assure that assessment results are translatable into an ISO/IEC 15504 process profile in a repeatable and reliable manner, Process Assessment Models shall adhere to certain requirements. A Process Assessment Model shall contain a definition of its purpose, scope and elements; its mapping to the Measurement Framework and specified Process Reference Model(s); and a mechanism for consistent expression of results.*

*A Process Assessment Model is considered suitable for the purpose of assessing process capability by conforming to 6.3.2, 6.3.3, and 6.3.4.*

*[ISO/IEC 15504-2, 6.3.1]*

The purpose of this PAM is to support assessment of process capability in accordance with the requirements of ISO/IEC 15504-2 (Refer Clause 1).

### A.2.2 Process Assessment Model scope

*6.3.2.1      A Process Assessment Model shall relate to at least one process from the specified Process Reference Model(s).*

*6.3.2.2      A Process Assessment Model shall address, for a given process, all, or a continuous subset, of the levels (starting at level 1) of the Measurement Framework for process capability for each of the processes within its scope.*

*NOTE:      It would be permissible for a model, for example, to address solely level 1, or to address levels 1, 2 and 3, but it would not be permissible to address levels 2 and 3 without level 1.*

> *6.3.2.3    A Process Assessment Model shall declare its scope of coverage in the terms of:*
>
> *a)   the selected Process Reference Model(s);*
>
> *b)   the selected processes taken from the Process Reference Model(s);*
>
> *c)   the capability levels selected from the Measurement Framework.*
>
> *[ISO/IEC 15504-2, 6.3.2]*

This PAM is based upon the PRM defined in ISO/IEC TR 20000-4.

In the capability dimension of this PAM, the model addresses all of the capability levels defined in the Measurement Framework in ISO/IEC 15504-2, clause 5.

## A.2.3  Process Assessment Model elements and indicators

> *A Process Assessment Model shall be based on a set of indicators that explicitly addresses the purposes and outcomes, as defined in the selected Process Reference Model, of all the processes within the scope of the Process Assessment Model; and that demonstrates the achievement of the process attributes within the capability level scope of the Process Assessment Model. The indicators focus attention on the implementation of the processes in the scope of the model.*
>
> *[ISO/IEC 15504-2, 6.3.3]*

The PAM provides a two-dimensional view of process capability for the processes in the PRM, through the inclusion of assessment indicators as shown in Figure 4. The Assessment Indicators used are:

⎯   base practices and inputs/outputs; and

⎯    generic practices, generic resources and generic inputs/outputs

as shown in Figure 4. They support the judgment of the performance and capability of an implemented process.

## A.2.4  Mapping Process Assessment Models to Process Reference Models

> *A Process Assessment Model shall provide an explicit mapping from the relevant elements of the model to the processes of the selected Process Reference Model and to the relevant process attributes of the Measurement Framework.*
>
> *The mapping shall be complete, clear and unambiguous. The mapping of the indicators within the Process Assessment Model shall be to:*
>
> *a)   the purposes and outcomes of the processes in the specified Process Reference Model;*
>
> *b)   the process attributes (including all of the results of achievements listed for each process attribute) in the Measurement Framework.*
>
> *This enables Process Assessment Models that are structurally different to be related to the same Process Reference Model.*
>
> *[ISO/IEC 15504-2, 6.3.4]*

The relationship between the processes in the PRM and in the PAM is indicated in Table A.1. Each Base Practice and Input/Output is cross-referenced to the Process Outcomes it addresses. All inputs/outputs relate to the Process as a whole - see mappings in clause 5 of this document.

**Table A.1 — Mapping of processes between the PAM and PRM**

| ISO/IEC TR 15504-8 Process | Relationship to processes in ISO/IEC TR 20000-4 |
|---|---|
| CON.1 Change management | Outcomes are identical to those in 5.06 Change management |
| CON.2 Configuration management | Outcomes are identical to those in 5.07 Configuration management |
| CON.3 Release and deployment management | Outcomes are identical to those in 5.17 Release and deployment management |
| DTR.1 Service requirements | Outcomes are identical to those in 5.24 Service requirements |
| DTR.2 Service design | Outcomes are identical to those in 5.20 Service design |
| DTR.3 Service transition | Outcome 1 replaces outcomes 1 to 8 from 5.25 Service transition.<br><br>Outcomes 2 to 4 match the equivalent outcomes 9 – 11 in 5.25 Service transition. |
| DTR.4 Service planning | Outcomes 1 to 5 match the equivalent outcomes 1 – 5 in 5.22 Service planning and monitoring |
| REL.1 Business relationship management | Outcomes are identical to those in 5.04 Business relationship management |
| REL.2 Supplier management | Outcomes are identical to those in 5.27 Supplier management |
| RES.1 Incident management | The intent of the outcomes are identical to those 5.10 Incident management and request fulfilment. The outcomes refer to Incident management only. |
| RES.2 Service request management | The intent of the outcomes are identical to those 5.10 Incident management and request fulfilment. The outcomes refer to Service request management only. |
| RES.3 Problem management | Outcomes are identical to those in 5.16 Problem management |
| SDE.1 Budgeting and accounting for IT services | Outcomes are identical to those in 5.03 Budgeting and accounting for IT services |
| SDE.2 Capacity management | SDE.2 Outcome 1 aligns to 5.05 (Capacity Management) Outcome 1.<br><br>SDE.2 Outcome 2 aligns to 5.05 Outcome 3.<br><br>SDE.2 Outcome 3 aligns to 5.05 Outcome 4.<br><br>SDE.2 Outcome 4 aligns to 5.05 Outcome 5.<br><br>The intent of 5.05 Outcome 2 is absorbed into SMS.9 Outcome 1.<br><br>The intent of 5.05 Outcome 6 is absorbed into SMS.3 Outcome 4. |
| SDE.3 Information security management | Outcomes are identical to those in 5.12 Information security management |

| ISO/IEC TR 15504-8 Process | Relationship to processes in ISO/IEC TR 20000-4 |
|---|---|
| SDE.4 Service availability management | SDE.4 Outcome 1 aligns to 5.19 (Service continuity and availability management) Outcome 1. |
| | SDE.4 Outcome 2 aligns to 5.19 Outcome 3. |
| | SDE.4 Outcome 3 aligns to 5.19 Outcome 5. |
| | SDE.4 Outcome 4 aligns to 5.19 Outcome 6. |
| | SDE.4 Outcome 5 aligns to 5.19 Outcome 7. |
| | SDE.4 Outcome 6 aligns to 5.19 Outcome 8. |
| | SDE.4 Outcome 7 aligns to 5.19 Outcome 10. |
| SDE.5 Service continuity management | SDE.5 Outcome 1 aligns to 5.19 (Service continuity and availability management) Outcome 1. |
| | SDE.5 Outcome 2 aligns to 5.19 Outcome 2. |
| | SDE.5 Outcome 3 aligns to 5.19 Outcome 4. |
| | SDE.5 Outcome 4 aligns to 5.19 Outcome 9. |
| SDE.6 Service level management | Outcomes are identical to those in 5.21 Service level management |
| SDE.7 Service reporting | Outcomes are identical to those in 5.23 Service reporting |
| SMS.1 Audit | Outcomes are identical to those in 5.02 Audit |
| SMS.2 Improvement | Outcomes are identical to those in 5.09 Improvement |
| SMS.3 Information item management | Outcomes are identical to those in 5.11 Information item management |
| SMS.4 Management review | Outcomes are identical to those in 5.13 Management review |
| SMS.5 Resource management | SMS.5 Outcome 1 aligns to 5.15 (Organisational management) Outcome 7. |
| | SMS.5 Outcome 2 aligns to 5.16 (SMS Establishment and maintenance) Outcome 2, 5.15 Outcome 5, and 5.08 (Human resource management) Outcomes 4. |
| | SMS.5 Outcome 3 aligns with 5.15 Outcome 6 and 5.08 (Human resource management) Outcome 1. |
| | SMS.5 Outcome 4 aligns with 5.08 Outcome 2. |
| SMS.6 Risk management | Outcomes are identical to those in 5.18 Risk management |
| SMS.7 Service measurement | Outcomes are identical to those in 5.14 Measurement |
| SMS.8 SMS Establishment and improvement | SMS.8 Outcome 1 aligns to 5.15 (Organisational management) Outcome 2. |
| | SMS.8 Outcome 2 aligns to 5.15 Outcome 2. |
| | SMS.8 Outcome 3 aligns to 5.16 (SMS Establishment and maintenance) Outcome 1. |
| | SMS.8 Outcome 4 aligns to 5.16 Outcome 2. |
| | SMS.8 Outcome 5 aligns to 5.16 Outcome 3.. |

| ISO/IEC TR 15504-8 Process | Relationship to processes in ISO/IEC TR 20000-4 |
|---|---|
| SMS.9  SMS Implementation and operation | SMS.9 Outcome 1 aligns to 5.15 (Organisational management) Outcome 4. |
| | SMS.9 Outcome 2 aligns to 5.15 Outcome 10. |
| | SMS.9 Outcome 3 aligns to 5.15 Outcome 11 and 5.22 (Service planning and monitoring) Outcome 7. |
| | SMS.9 Outcome 4 aligns to 5.22 Outcome 8. |
| | SMS.9 Outcome 5 aligns to 5.15 Outcome 13. |

Each of the Process Attributes in this PAM is identical to the Process Attribute defined in the Measurement Framework. The Generic Practices address the characteristics from each Process Attribute. The Generic Resources and Generic Inputs/Outputs relate to the Process Attribute as a whole.

Table A.2 lists the mappings of the GPs to the achievements associated with each Process Attribute.

**Table A.2 — Mapping of Generic Practices**

| GP | Practice Name | Maps To |
|---|---|---|
| **PA 1.1: Process performance attribute** | | |
| GP 1.1.1 | Achieve the process outcomes. | PA.1.1.a |
| **PA 2.1: Performance management attribute** | | |
| GP 2.1.1 | Identify the objectives for the performance of the process. | PA.2.1.a |
| GP 2.1.2 | Plan and monitor the performance of the process to fulfil the identified objectives. | PA.2.1.b |
| GP 2.1.3 | Control the performance of the process. | PA.2.1.c |
| GP 2.1.4 | Define responsibilities and authorities for performing the process. | PA.2.1.d |
| GP 2.1.5 | Identify and make available resources to perform the process according to plan. | PA.2.1.e |
| GP 2.1.6 | Manage the interfaces between involved parties. | PA.2.1.f |
| **PA 2.2: Work Products management attribute** | | |
| GP 2.2.1 | Define the requirements for the outputs. | PA.2.2.a |
| GP 2.2.2 | Define the requirements for documentation and control of the outputs. | PA.2.2.b |
| GP 2.2.3 | Identify, document and control the outputs. | PA.2.2.c |
| GP 2.2.4 | Review and adjust outputs to meet the defined requirements. | PA.2.2.d |
| **PA 3.1: Process definition attribute** | | |
| GP 3.1.1 | Define the standard process that will support the deployment of the defined process. | PA.3.1.a |
| GP 3.1.2 | Determine the sequence and interaction between processes so that they work as an integrated system of processes. | PA.3.1.b |
| GP 3.1.3 | Identify the roles and competencies for performing the process. | PA.3.1.c |
| GP 3.1.4 | Identify the required infrastructure and work environment for performing the process. | PA.3.1.d |
| GP 3.1.5 | Determine suitable methods to monitor the effectiveness and suitability of the process. | PA.3.1.e |

| GP | Practice Name | Maps To |
|---|---|---|
| **PA 3.2: Process deployment attribute** | | |
| GP 3.2.1 | Deploy a defined process that satisfies the context specific requirements of the use of the standard process. | PA.3.2.a |
| GP 3.2.2 | Assign and communicate roles, responsibilities and authorities for performing the defined process. | PA.3.2.b |
| GP 3.2.3 | Ensure necessary competencies for performing the defined process. | PA.3.2.c |
| GP.3.2.4 | Provide resources and information to support the performance of the defined process. | PA.3.2.d |
| GP 3.2.5 | Provide process infrastructure to support the performance of the defined process. | PA.3.2.e |
| GP 3.2.6 | Collect and analyze data about performance of the process to demonstrate its suitability and effectiveness. | PA.3.2.f |
| **PA 4.1 Process measurement attribute** | | |
| GP 4.1.1 | Identify process information needs, in relation with business goals. | PA.4.1.a |
| GP.4.1.2 | Derive process measurement objectives from process information needs. | PA.4.1.b |
| GP 4.1.3 | Establish quantitative objectives for the performance of the defined process, according to the alignment of the process with the business goals. | PA.4.1.c |
| GP 4.1.4 | Identify product and process measures that support the achievement of the quantitative objectives for process performance. | PA.4.1.d |
| GP 4.1.5 | Collect product and process measurement results through performing the defined process. | PA.4.1.e |
| GP 4.1.6 | Use the results of the defined measurement to monitor and verify the achievement of the process performance objectives. | PA.4.1.f |
| **PA 4.2 Process control attribute** | | |
| GP 4.2.1 | Determine analysis and control techniques, appropriate to control the process performance. | PA.4.2.a |
| GP 4.2.2 | Define parameters suitable to control the process performance. | PA.4.2.b |
| GP 4.2.3 | Analyze process and product measurement results to identify variations in process performance. | PA.4.2.c |
| GP 4.2.4 | Identify and implement corrective actions to address assignable causes. | PA.4.2.d |
| GP.4.2.5 | Re-establish control limits following corrective action. | PA.4.2.e |
| **PA 5.1 Process innovation attribute** | | |
| GP 5.1.1 | Define the process improvement objectives for the process that support the relevant business goals. | PA.5.1.a |
| GP 5.1.2 | Analyze measurement data of the process to identify real and potential variations in the process performance. | PA.5.1.b |
| GP 5.1.3 | Identify improvement opportunities of the process based on innovation and best practices. | PA.5.1.c |
| GP.5.1.4 | Derive improvement opportunities from new technologies and process concepts. | PA.5.1.d |
| GP 5.1.5 | Define an implementation strategy based on long-term improvement vision and objectives. | PA.5.1.e |

| GP | Practice Name | Maps To |
|----|---------------|---------|
| **PA 5.2 Process optimization attribute** | | |
| GP 5.2.1 | Assess the impact of each proposed change against the objectives of the defined and standard process. | PA.5.2.a |
| GP 5.2.2 | Manage the implementation of agreed changes according to the implementation strategy. | PA.5.2.b |
| GP 5.2.3 | Evaluate the effectiveness of process change on the basis of actual performance against process objectives and business goals. | PA.5.2.c |

## A.2.5 Expression of assessment results

*A Process Assessment Model shall provide a formal and verifiable mechanism for representing the results of an assessment as a set of process attribute ratings for each process selected from the specified Process Reference Model(s).*

*NOTE:      The expression of results may involve a direct translation of Process Assessment Model ratings into a process profile as defined in this international standard, or the conversion of the data collected during the assessment (with the possible inclusion of additional information) through further judgment on the part of the assessor.*

*[ISO/IEC 15504-2, 6.3.5]*

The processes in this PAM are identical to those defined in the PRM. The Process Attributes and the Process Attributes Rating in this PAM are identical to those defined in the Measurement Framework. As a consequence, results of Assessments based upon this PAM are expressed directly as a set of process attribute ratings for each process within the scope of the assessment. No form of translation or conversion is required.

# Annex B
(informative)

# Input and output characteristics

## B.1  General

Characteristics of inputs and outputs listed in this Annex can be used when reviewing potential inputs and outputs of process implementation. The characteristics are provided as guidance for the attributes to look for to provide objective evidence supporting the assessment of a particular process. A documented process and assessor judgment is needed to ensure that the process context (application domain, business purpose, development methodology, size of the organization, etc.) is considered when using this information. Inputs and outputs are defined using the schema in Table B.1. Inputs and outputs and their characteristics should be considered as a starting point for considering whether, given the context, they are contributing to the intended purpose of the process.

**Table B.1 —Input / Output identification**

| Input / Output identifier # | An identifier number for the input / output which is used to reference the input / output. |
|---|---|
| Input / Output name | Provides an example of a typical name associated with the input / output characteristics. This name is provided as an identifier of the type of input / output the practice or process might produce. Organizations may call these input / outputs by different names. The name of the input / output in the organization is not significant. Similarly, organizations may have several equivalent input / outputs which contain the characteristics defined in one input / output type. The formats for the input / outputs can vary. It is up to the assessor and the organizational unit coordinator to map the actual input / outputs produced in their organization to the examples given here. |
| Category | A group with which an item is associated. |
| Input / Output characteristics | Provides examples of the potential characteristics associated with the input / output types. The assessor may look for these in the samples provided by the organizational unit. |

## B.2  Generic input and outputs

The Generic Work Product Indicators are sets of characteristics that would be expected to be evident in input / outputs of a generic type as a result of achievement of an attribute. The generic input / outputs support the class structure of the input / outputs defined as process performance indicators. These input / output types are basic input types to process owners of all types of processes.

**Table B.2 — Generic inputs and outputs**

| Reference | Category | Purpose | Typical Input / Output Characteristics |
|---|---|---|---|
| 1.0 | Contract | A contract is the formal agreement between an acquirer and a supplier.<br><br>[ISO/IEC 15289:2011] | It addresses the following:<br><br>a) identification of the performing organizations<br><br>b) statement of work to be performed, with tasks based on a service management process or a system or software life-cycle model, and scope of tasks<br><br>c) system requirements and software requirements definition and analysis results<br><br>d) negotiated price and payment schedule<br><br>e) deliverables, including off-the-shelf products identified<br><br>f) schedule for suppliers to deliver the product or service<br><br>g) proprietary rights to systems and technical data and software intellectual property rights: usage, ownership, warranty and licensing rights<br><br>h) provisions for monitoring; reporting, verification, validation, and acceptance criteria<br><br>i) procedures for contract changes, exceptions, resolving disputes, and closeout, such as supplier responsibilities in the event of expected or early termination of the contract or formal agreement and the transfer of services to another party.<br><br>The contract may specify best practices, to include standards and strategies for processes, activities and tasks.<br><br>Informally, commitments or agreements may be specified between parts of the same organization (sometimes called a memorandum of understanding). |
| 2.0 | Data | Ordered informational content | – Result of applying a measure<br><br>– Available to those who need to know within defined timeframe |

| Reference | Category | Purpose | Typical Input / Output Characteristics |
|---|---|---|---|
| 3.0 | description | Information item that represents a planned or actual concept, function, design, or object.<br><br>[ISO/IEC 15289:2011] | A description includes the following elements:<br>a) Date of issue and status<br>b) Scope<br>c) Issuing organization<br>d) References<br>e) Context<br>f) Notation for description<br>g) Body<br>h) Summary<br>i) Glossary<br>j) Change history |
| 4.0 | plan | Information item that presents a systematic course of action for achieving a declared purpose, including when, how, and by whom specific activities are to be performed.<br><br>[ISO/IEC 15289:2011] | A plan includes the following elements<br>a) Date of issue and status<br>b) Scope<br>c) Issuing organization<br>d) References (applicable policies, laws, standards, contracts, requirements, and other plans and procedures)<br>e) Approval authority<br>f) Approach for technical and management review and reporting<br>g) Other plans (plans or task descriptions that expand on the details of a plan)<br>h) Planned activities and tasks<br>i) Identification of tools, methods, and techniques<br>j) Schedules<br>k) Budgets and cost estimates<br>l) Resources and their allocation<br>m) Responsibilities and authority, including the senior responsible owner and immediate process owner<br>n) Interfaces among parties involved<br>o) Risks and risk identification, assessment and mitigation activities<br>p) Quality assurance and control measures<br>q) Environment, infrastructure, security, and safety<br>r) Training<br>s) Glossary<br>t) Change procedures and history<br>u) Termination process |

| Reference | Category | Purpose | Typical Input / Output Characteristics |
|---|---|---|---|
| 5.0 | policy | clear and measurable statement of preferred direction and behavior to condition the decisions made within an organization<br><br>[ISO/IEC 15289:2011] | A policy includes the following elements:<br><br>a) Date of issue, effective date, and status<br>b) Scope<br>c) Issuing organization<br>d) Approval authority and identification of those accountable for enforcing the policy<br>e) Authoritative references for compliance or conformance (such as policies, laws and regulations, standards, contracts, requirements, and vision or mission statements)<br>f) Body, including objectives<br>g) Glossary<br>h) Change history |
| 6.0 | procedure | Specified way to carry out an activity or a process.<br><br>[ISO 9000:2005] | A procedure includes the following elements:<br><br>a) Date of issue and status<br>b) Scope<br>c) Issuing organization<br>d) Approval authority<br>e) Relationship to plans and other procedures<br>f) Authoritative references<br>g) Inputs and outputs<br>h) Ordered description of steps to be taken by each participant<br>i) Error and problem resolution<br>j) Glossary<br>k) Change history |
| 7.0 | product | Result of a process<br><br>[ISO 9000:2005] | There are four generic product categories, as follows:<br><br>— services (e.g. transport);<br><br>— software (e.g. computer program, dictionary);<br><br>— hardware (e.g. engine mechanical part);<br><br>— processed materials (e.g. lubricant).<br><br>Service is the result of at least one activity necessarily performed at the interface between the supplier and customer and is generally intangible. Provision of a service can involve, for example, the following:<br><br>— an activity performed on a customer-supplied tangible product;<br><br>— an activity performed on a customer-supplied intangible product;<br><br>— the delivery of an intangible product;<br><br>— the creation of ambience for the customer. |

| Reference | Category | Purpose | Typical Input / Output Characteristics |
|---|---|---|---|
| 8.0 | record | Organize the data an organizational entity retains.<br><br>NOTE: Consistent with the ISO 9000 series, the purpose of a record is to state results achieved or to provide evidence of activities performed by an organizational entity. | A record includes the following elements:<br><br>a) Date of record, date recorded, and status<br>b) Scope<br>c) Subject or category<br>d) Issuing organization<br>e) References<br>f) Body<br>g) Unique record identifier |
| 9.0 | report | Information item that describes the results of activities such as investigations, observations, assessments, or tests.<br><br>[ISO/IEC 15289:2011] | A report includes the following elements:<br><br>a) Date of issue and status<br>b) Scope<br>c) Issuing organization<br>d) Contributors<br>e) Summary<br>f) Introduction<br>g) Context (assumptions)<br>h) Body (including methods of obtaining results)<br>i) Conclusions and recommendations<br>j) References<br>k) Bibliography<br>l) Glossary<br>m) Change history |
| 10.0 | repository | Storage facility for data | – Repository for components<br>– Storage and retrieval capabilities<br>– Ability to browse content<br>– Listing of contents with description of attributes<br>– Sharing and transfer of components between affected groups<br>– Effective controls over access<br>– Maintain component descriptions<br>– Recovery of archive versions of components<br>– Ability to report component status<br>– Changes to components are tracked to change / user requests |
| 11.0 | request | Information item that initiates a defined course of action or change to fulfill a need.<br><br>[ISO/IEC 15289:2011] | A request includes the following elements:<br><br>a) Date of initiation<br>b) Scope<br>c) Subject<br>d) Originator of request<br>e) Identification of requested item, service, or response<br>f) Detailed description of requested item, service, or response, including due date<br>g) Justifications |

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| Reference | Category | Purpose | Typical Input / Output Characteristics |
|---|---|---|---|
| 12.0 | specification | Information item that identifies, in a complete, precise, and verifiable manner, the requirements, design, behavior, or other expected characteristics of a system, service, or process.<br><br>[ISO/IEC 15289:2011] | A specification includes the following elements:<br><br>a) Date of issue and status<br>b) Scope<br>c) Issuing organization<br>d) References<br>e) Approval authority<br>f) Body<br>g) Assurance requirements<br>h) Conditions, constraints, and characteristics<br>i) Glossary<br>j) Change history |

## B.3  Specific inputs and outputs

Specific outputs are typically created by process owners and applied by process deployers in order to satisfy an outcome of a particular process purpose.

NOTE 1    The reference scheme for the specific inputs and outputs associates the item to the first reference (direct or implied) to an informational element in a sub-clause of ISO/IEC 20000-1. This reference is identified in square brackets. The set of items in a category is ordered alphabetically.

NOTE 2    The term 'normative' that appears under the Characteristics column refers to a requirement in ISO/IEC 20000-1 to create an item that contains at least the defined informational characteristics. Where the term 'informative' appears, it implies that the defined characteristics are recommended good practice.

**Table B.3 — Specific inputs and outputs**

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 01-00 | Contract | Contract | Informative: A contract includes the following elements: a) Identifies time frame for delivery or contracted service dates; b) Identifies any statutory requirements;  c) Identifies monetary considerations; d) Identifies any warranty information; e) Identifies any copyright and licensing information (patent, copyright, confidentiality, proprietary, usage, ownership, warranty and licensing rights; associated with all relevant work products); f) Identifies any customer service requirements; g) Identifies service level requirements; h) References to any performance and quality expectations / constraints / monitoring; i) Standards and procedures to be used; j) Evidence of review and approval by authorised signatories. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 01-01 | Service level agreement | Contract | Informative: (27K:2005, A.10.6.2) Security features, service levels, and management requirements of all network services shall be identified and included in any network services agreement, whether these services are provided in-house or outsourced. |
| 01-01 | Service level agreement | Contract | Normative: [6.1] SLAs take into consideration the service requirements and contain service level targets, workload characteristics and agreed exceptions. |
| 01-02 | Supplier agreement | Contract | Normative: [7.2] The contract contains or include a reference to: a) scope of the services to be delivered by the supplier; b) dependencies between services, processes and the parties; c) requirements to be fulfilled by the supplier; d) service targets; e) interfaces between service management processes operated by the supplier and other parties; f) integration of the supplier's activities within the SMS; g) workload characteristics; h) exceptions; i) authorities and responsibilities of the service provider and the supplier; j) reporting and communication to be provided by the supplier; k) basis for charging; l) activities and responsibilities for the expected or early termination of the contract and the transfer of services to a different party. |
| 02-00 | Data | Data | Informative: Ordered informational content. |
| 02-01 | Access rights list | Data | Informative: List of access rights |
| 02-02 | Issue log | Data | Informative: A listing of data that identifies issues that need to be resolved. |
| 02-03 | Performance data | Data | Informative: Data arising from measurement of performance of some aspect of service. |
| 02-06 | Audit results communication list | Data | Informative: [4.5.4.1] A list to support communication of results and actions to interested parties. |
| 02-07 | Auditor list | Data | Normative: [4.5.4.2] A list of available auditors to assist with ensuring the objectivity and impartiality of audits. |
| 02-08 | Budgeting and accounting communication list | Data | Informative: [6.4] List of those stakeholders who are receive - The service provider reports costs against the budget. |
| 02-09 | Capacity usage data | Data | Informative: [6.5] The data associated with the need for the service provider to monitor capacity usage and analyse data. |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 02-10 | Change schedule communication list | Data | Informative: [9.2] A list of stakeholders for communications regarding the schedule of change containing details of the approved changes and their proposed deployment dates. |
| 02-11 | Configuration item change log | Data | Normative: [9.1] Changes to CIs are traceable and auditable to ensure integrity of the CIs and the data in the CMDB. |
| 02-12 | Configuration item report user communication list | Data | Informative: [9.1] [CI] information shall be provided to those who require it. |
| 02-13 | Configuration management DB repository access rights list | Data | Informative: [9.1] Implied in The CMDB is managed to ensure its reliability and accuracy, including control of update access. |
| 02-14 | Customer satisfaction data | Data | Informative: [7.1] Data extracted from the assessment instrument. |
| 02-15 | Implemented changes log | Data | Normative: [9.2] A consequence of executing the schedule of change containing details of the approved changes and their proposed deployment dates. |
| 02-16 | Improvement communication list | Data | Normative: [4.5.5.2] List of those to whom the service provider supplies a report on implemented improvements. |
| 02-17 | Improvement opportunity disposition log | Data | Normative: [4.5.5.1] Nonconformity to the requirements in this International Standard or the requirements in the SMS is remedied. 4.5.5.2 The service provider manages improvement activities. |
| 02-18 | Improvement opportunity implementation log | Data | Normative: [4.5.5.2] Log of actions taken in terms of approved improvement opprtunities. |
| 02-19 | Information item list | Data | Normative: [4.3.1] Implied by the service provider establishing documents and records to ensure effective planning, operation and control of the SMS. |
| 02-20 | Information security communication list | Data | Informative: [6.6.2] The service provider reports on the actions taken. |
| 02-21 | Information security controls effectiveness issue log | Data | Informative: [6.6.2] The issue log is an indicator of actions taken. |
| 02-22 | Information security requirements (3rd party access) access rights list | Data | Normative: [6.6.2] The service provider identifies information security controls with these external organizations. |
| 02-23 | Information security risk data | Data | Informative: [6.6.3] Data that supports analyses of the types, volumes and impacts of information security incidents. |
| 02-24 | Management review communication list | Data | Informative: [4.5.4.1] A list used to communicate the results and actions to interested parties. |
| 02-25 | Management review issue log | Data | Normative: [4.5.4.3] A log to record issues arising from management reviews. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 02-26 | New or changed service design issue log | Data | Normative: [5.1] A log of issues raised in the review of outputs from the planning and design activities for new or changed services against the agreed service requirements and the relevant requirements given in Clauses 5.2 and 5.3. |
| 02-27 | Problem management known error log | Data | Normative: [8.2] Up-to-date information on known errors and problem resolutions is provided to the incident and service request management process. |
| 02-28 | Problem report user communication list | Data | Normative: [8.2] A list of those stakeholders to whom the effectiveness of problem resolution is reported. |
| 02-29 | Release log | Data | Informative: [9.3] Implied in information about the success or failure of releases and future release dates is provided to the change management process, and incident and service request management process. |
| 02-30 | Release performance data | Data | Informative: [9.3] Implied in measurements include incidents related to a release in the period following deployment of a release. |
| 02-31 | Release stakeholder communication list | Data | Informative: [9.3] List of interested parties. |
| 02-32 | Risk log | Data | Informative: [5.1] A log of identified risks, their categorisation, prioritisation, and analysis. |
| 02-33 | Service availability log | Data | Informative: [6.3.3] Availability of services is monitored, the results recorded. |
| 02-34 | Service data | Data | Informative: [6.2] Provides the content for service reports produced for services using information from the delivery of services and the SMS activities, including the service management processes. |
| 02-35 | Service level management stakeholder communication list | Data | Informative: [6.1] List of customer contacts in the SLA review. |
| 02-36 | Service level performance data | Data | Informative: [6.1] Data that supports analysis of service level performance. |
| 02-37 | Service provider role assignments list | Data | Normative: [7.1] For each customer, the service provider has a designated individual who is responsible for managing the customer relationship and customer satisfaction. |
| 02-38 | Service provision complaint log | Data | Normative: [7.1] A log of the he service provider actions to record, investigate, [act upon, report and close service complaints. |
| 02-39 | Service provision issue log | Data | Normative: [6.2] Log of service provider decisions and actions based on the findings in service reports. |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 02-40 | Service report communication list | Data | Informative: [6.2] List of interested parties that receive service reports. |
| 02-41 | Service stakeholder list | Data | Normative: [7.1] List identifying the customer, users and interested parties of the services. |
| 02-42 | Services stakeholder communication list | Data | Informative: [5.4] List of interested parties. |
| 02-43 | Supplier performance data | Data | Informative: [6.2] Data relating to the performance by the supplier against agreed service level targets and other contractual commitments. |
| 02-44 | Supplier performance issue log | Data | Informative: [6.2] Log of issues raised in the reviews/ evaluations of supplier against agreed service level targets and other contractual commitments. |
| 02-45 | Supplier role assignments list | Data | Normative: [7.2] The service provider ensures that roles of, and relationships between, lead and sub-contracted suppliers are defined. |
| 03-00 | Description | Description | Informative: A description includes the following elements: a) Date of issue and status; b) Scope; c) Issuing organization; d) References; e) Context; f) Notation for description; g) Body; h) Summary; i) Glossary; j) Change history. |
| 03-01 | Audit objectives | Description | Normative: [4.5.4.1] The objectives of all internal audits are identified. |
| 03-02 | Change improvement opportunity | Description | Normative: [9.2] Identified opportunities for improvement. |
| 03-03 | Change request classification criteria | Description | Normative: [9.2] Request for change classification criteria. |
| 03-04 | Change request evaluation criteria | Description | Informative: [9.2] Implied in requests for change are assessed. |
| 03-05 | Customer needs and expectations | Description | Normative: [7.1] Gathers an understanding of the business environment in which the services operate and requirements for new or changed services. |
| 03-06 | Customer satisfaction assessment instrument | Description | Informative: [7.1] The means (i.e. tool, paper-based or automated) to measure customer satisfaction using sample from the customer and users of the services. |
| 03-07 | Customer technology roadmap | Description | Informative: [6.5] Customer supplied information, identifying the technology stream changes over time. Includes elements of: requirements for new services, and revised requirements for existing services. |
| 03-09 | Emergency change definition | Description | Normative: [9.2] The service provider defines an emergency change. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 03-10 | Emergency release definition | Description | Normative: [9.3] The service provider defines the definition of an emergency release. |
| 03-11 | Improvement opportunity | Description | Informative: [4.5.5.1] An improvement opportunity before it is recorded an prioritised. |
| 03-12 | Improvement opportunity evaluation criteria | Description | Normative: [4.5.5.2] The evaluation criteria for the opportunities for improvement. |
| 03-13 | Improvement target | Description | Normative: [4.5.5.2] The service provider determined targets for improvements in one or more of quality, value, capability, cost, productivity, resource utilization and risk reduction. |
| 03-14 | Information security change request evaluation criteria | Description | Informative: [6.6.3] Such criteria include:: a) new or changed information security risks; b) potential impact on the existing information security policy and controls. |
| 03-15 | Information security improvement opportunity | Description | Normative: [6.6.3] Information security incidents are reviewed to identify opportunities for improvement. |
| 03-16 | Information security objectives | Description | Normative: [6.6.1] Management ensures that information security management objectives are established. |
| 03-17 | Information security risk assessment criteria | Description | Informative: [6.6.1] Management defines the criteria for accepting risks. |
| 03-18 | Information security risk measure | Description | Informative: [6.6.3] Measures that supports the capture of data used in analyses of the types, volumes and impacts of information security incidents. |
| 03-19 | Major incident classification scheme | Description | Normative: [8.1] Implied in major incidents are classified. |
| 03-20 | Major incident definition | Description | Normative: [8.1] The service provider defines the definition of a major incident. |
| 03-21 | Major incident improvement opportunity | Description | Normative: [8.1] Identified opportunities for improvement. |
| 03-22 | Management review improvement opportunity | Description | Normative: [4.5.4.1] The input to management reviews includes information on opportunities for improvement. |
| 03-23 | Management review objectives | Description | Normative: [4.5.4.1] The objectives of management reviews are identified. |
| 03-24 | Management review resource forecast | Description | Normative: [4.5.4.1] Includes information regarding current and forecast human, technical, information and financial resource levels. |
| 03-25 | Measurement objectives | Description | Informative: Objectives for measurement. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 03-26 | New or changed service design | Description | Normative: [5.3] The service provider ensures that the design enables the new or changed services to fulfill agreed service requirements. The new or changed services are designed to include at least: a) authorities and responsibilities for delivery of the new or changed services; b) activities to be performed by the service provider, customer and other parties for delivery of the new or changed services; c) new or changed human resource requirements, including requirements for appropriate education, training, skills and experience; d) financial resource requirements for delivery of the new or changed services; e) new or changed technology to support the delivery of the new or changed services; f) new or changed plans and policies as required by this part of ISO/IEC 20000; g) new or changed contracts and other documented agreements to align with changes in service requirements; h) changes to the SMS; i) new or changed SLAs; j) updates to the catalogue of services; k) procedures, measures and information to be used for the delivery of the new or changed services. |
| 03-27 | New or changed services impact evaluation criteria | Description | Normative: [5.2] The criteria to be taken into consideration the potential financial, organizational, and technical impact of delivering the new or changed services, including the potential impact of the new or changed services on the SMS. |
| 03-28 | New or changed services test criteria | Description | Informative: [5.4] The new or changed services are tested to verify that they fulfil the service requirements and the documented design. |
| 03-29 | Performance criteria | Description | Informative: Measurement performance criteria. |
| 03-30 | Problem classification scheme | Description | Informative: [8.2] The steps involved are to determine category, impact, urgency and priority.;Categorise problems as appropriate into related groups or domains (e.g., hardware, software, support software). |
| 03-31 | Release acceptance test criteria | Description | Informative: [9.3] Implied in the release is deployed into the live environment so that the integrity of hardware, software and other service components is maintained during deployment of the release. |
| 03-32 | Release notes | Description | Informative: [9.3] Notes regarding a release. Purpose of Release Notes; Release Scope; Release Contents; Release Installation / Rollback Procedure; References. |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 03-33 | Release performance criteria | Description | Informative: [9.3] Implied in measurements include incidents related to a release in the period following deployment of a release. |
| 03-34 | Release performance improvement opportunity | Description | Normative: [9.3] The results and conclusions drawn from the analysis are used to identify opportunities for improvement. |
| 03-35 | Service availability measurement objectives | Description | Normative: [6.3.3] What service availability measurements will be made |
| 03-36 | Service availability risk evaluation criteria | Description | Informative: [6.3.1] The criteria that supports the service provider assessment of the risks to availability of services. |
| 03-37 | Service catalogue | Description | Normative: [6.1] The service provider catalogues the services and their dependencies. |
| 03-38 | Service complaint definition | Description | Normative: [7.1] The definition of a service complaint. |
| 03-39 | Service continuity risk evaluation criteria | Description | Informative: [6.3.1] The criteria that supports the service provider assessment of the risks to continuity of services. |
| 03-40 | Service level agreement improvement opportunity | Description | Normative: [6.1] Record of an improvement opportunity arising from a change to the SLA. |
| 03-41 | Service level performance improvement opportunity | Description | Informative: [6.1] Improvement opportunity arising from a review of service level performance. |
| 03-42 | Service management objectives | Description | Normative: [4.1.1] Service management objectives include, but are not limited to: a) fulfilling service requirements; b) statutory and regulatory requirements, and c) contractual obligations. |
| 03-43 | Service management resource needs | Description | Normative: [4.4.1] The service provider determines the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. |
| 03-44 | Service management roles and responsibilities | Description | Normative: [4.5.2] The Service Management Plan refers to: e) framework of authorities, responsibilities and process roles; f) authorities and responsibilities for plans, service management processes and services. |
| 03-45 | Service management system scope definition | Description | Normative: [4.5.2] The service provider defines and includes the scope of the SMS in the service management plan. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 03-46 | Service provider roles and responsibilities | Description | Normative: [4.1.4] Top management appoints a member of the service provider's management who, irrespective of other responsibilities, has authorities and responsibilities that include: a) designating process owners for each service management process; b) ensuring that service management processes within the SMS are established and operated; c) ensuring that service management processes and services are integrated with the other cxomponents of the SMS;d) reporting to top management on the performance and opportunities for improvement for the SMS and the services. |
| 03-47 | Service provision improvement opportunity | Description | Normative: [7.1] The opportunities for improvement arising from treated customer complaints. |
| 03-48 | Service report content definition | Description | Normative: [6.2] Service reporting includes at least: a) performance against service targets; b) relevant information about significant events including at least major incidents, deployment of new or changed services and the service continuity plan being invoked; c) workload characteristics including volumes and periodic changes in workload; d) detected nonconformities against the requirements in this part of ISO/IEC 20000, the SMS requirements or the service requirements and their identified causes; e) trend information; f) customer satisfaction measurements, service complaints and results of the analysis of satisfaction measurements and complaints. |
| 03-49 | Service reporting needs definition | Description | Informative: [6.2] Definition of stakeholder needs for report content. |
| 03-50 | Service risk evaluation criteria | Description | Normative: [4.1.3] Implied in the requirement that risks to services are assessed. |
| 03-51 | Sub-contracted supplier roles and responsibilities | Description | Normative: [7.2] The service provider ensures that roles of, and relationships between, lead and sub-contracted suppliers [are documented]. |
| 03-52 | Supplier - sub-contractor process interfaces definition | Description | Normative: [7.2] Interfaces between service management processes operated by the supplier and other parties; f) integration of the supplier's activities within the SMS. |
| 03-53 | Supplier performance evaluation criteria | Description | Informative: [6.2] Criteria for the evaluation of the performance by the supplier against agreed service level targets and other contractual commitments. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 03-54 | Supplier performance improvement opportunity | Description | Normative: [7.2] Identified opportunities for improvement. |
| 03-55 | Unsuccessful release improvement opportunity | Description | Normative: [9.3] Opportunities for improvement arising from unsuccessful releases. |
| 04-00 | Plan | Plan | Informative: A plan includes the following elements a) Date of issue and status; b) Scope; c) Issuing organization; d) References (applicable policies, laws, standards, contracts, requirements, and other plans and procedures); e) Approval authority; f) Approach for technical and management; review and reporting; g) Other plans (plans or task descriptions that expand on the details of a plan); h) Planned activities and tasks; i) Identification of tools, methods, and techniques; j) Schedules; k) Budgets and cost estimates; l) Resources and their allocation; m) Responsibilities and authority, including the senior responsible owner and immediate process owner; n) Interfaces among parties involved; o) Risks and risk identification, assessment and mitigation activities; p) Quality assurance and control measures; q) Environment, infrastructure, security, and safety; r) Training; s) Glossary; t) Change procedures and history; u) Termination process. |
| 04-01 | Acceptance test environment plan | Plan | Informative: [9.3] A controlled acceptance test environment is used for the building and testing of releases. |
| 04-02 | Audit plan | Plan | Normative: [4.5.4.2] The audit plan takes into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. |
| 04-03 | Audit schedule | Plan | Normative: [4.5.4.2] A schedule that indicates the status and importance of the processes and areas to be audited. |
| 04-04 | Audit strategy | Plan | Normative: [4.5.4.2] The audit criteria, scope, frequency and methods are defined. |
| 04-05 | Capacity plan | Plan | Normative: [6.5] The service provider creates a capacity plan taking into consideration human, technical, information and financial resources. |
| 04-06 | Change of services provision cost estimates | Plan | Normative: [6.4] Information is provided to the change management process to support the costing of requests for change. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 04-07 | Change schedule | Plan | Normative: [9.2] A schedule of change containing details of the approved changes and their proposed deployment dates is established. |
| 04-08 | Configuration item audit schedule | Plan | Normative: [9.1] Audits of configuration items shall be carried out at planned intervals |
| 04-09 | Customer satisfaction sampling schedule | Plan | Informative: [7.1] The customer satisfaction survey sampling schedule. |
| 04-10 | Improvement implementation schedule | Plan | Normative: [4.5.5.2] The schedule of planned, approved, improvements. |
| 04-11 | Improvement plan | Plan | Normative: [4.5.5.2] Planned actions for an approved improvement opportunity. |
| 04-12 | Information security audit schedule | Plan | Informative: [6.6.1] Management ensures that internal information security audits are conducted. |
| 04-13 | Information security risk assessment schedule | Plan | Informative: [6.6.1] Assessment of information security risks are conducted at planned intervals. |
| 04-14 | Management review schedule | Plan | Normative: [4.5.4.3] Schedule for management review meetings |
| 04-15 | New or changed service plan | Plan | Normative: [5.2] Planning for the design, development and transition of new or changed services includes but is not limited to: a) the authorities and responsibilities for the design, development and transition activities; b) the activities to be performed for the design, development and transition of the new or changed services;c) the activities to be performed by customers, internal groups or suppliers including activities across interfaces from the service provider to other parties;d) communication to interested parties; e) human, technical, information and financial resources;f) timescales for all planned activities; g) identification, assessment and management of risks; h) consideration of dependencies on other services; i) testing required for the new or changed services; j) agreed service acceptance criteria; k) the expected outcomes from delivering the new or changed services, expressed in measurable terms. |
| 04-16 | Release plan | Plan | Normative: [9.3] The service provider plans with the customer and interested parties the deployment of new or changed services and service components into the live environment. |
| 04-17 | Release reversal arrangements plan | Plan | Normative: [9.3] The activities required to reverse or remedy an unsuccessful deployment of a release are planned. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 04-18 | Release schedule | Plan | Normative: [9.3] Planning includes the dates for deployment of each release, deliverables and methods of deployment. |
| 04-19 | Removal of services plan | Plan | Normative: [5.2] For services that are to be removed, the service provider plans the date, the archiving, disposal or transfer of data, documentation and service components including but not limited to infrastructure and applications with associated licenses. |
| 04-20 | Reversing unsuccessful changes plan | Plan | Normative: [9.2] The activities required to reverse or remedy an unsuccessful change are planned. |
| 04-21 | Risk treatment strategy | Plan | Informative: [5.1] Proposed treatments for analysed risks. |
| 04-22 | Service availability plan | Plan | Normative: [6.3.2] The availability plan(s) shall include at least availability requirements and targets. |
| 04-23 | Service continuity plan | Plan | Normative: [6.3.2] The service provider creates a service continuity plan(s). |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 04-24 | Service management plan | Plan | Normative: [4.5.2] Planning takes into consideration the service management policy, service requirements and requirements in this part of ISO/IEC 20000. The service management plan contains or includes a reference to at least the following: a) service management objectives that are to be achieved by the service provider; b) service requirements; c) known limitations which can impact the SMS; d) policies, standards, statutory and regulatory requirements, and contractual obligations; e) framework of authorities, responsibilities and process roles; f) authorities and responsibilities for plans, service management processes and services; g) human, technical, information and financial resources necessary to achieve the service management objectives; h) approach to be taken for working with other parties involved in the design and transition of new or changed services process; i) approach to be taken for the interfaces between service management processes and their integration with the other components of the SMS; j) approach to be taken for the management of risks and the criteria for accepting risks; k) technology used to support the SMS; l) how the effectiveness of the SMS and the services will be measured, audited, reported and improved. The service provider identifies all processes, or parts of processes, for which requirements are specified in Clauses 5 to 9, that are operated by other parties. Other parties can be an internal group, a customer or a supplier. |
| 04-25 | Service provision review schedule | Plan | Normative: [7.1] The schedule associated with the review of the performance of the services at planned intervals, with the customer. |
| 04-26 | Services provision budget | Plan | Normative: [6.4] Costs are budgeted to enable effective financial control and decision-making for services delivered. |
| 04-27 | Services provision costs | Plan | Normative: [6.4] The service provider monitors costs against the budget. |
| 04-28 | Supplier agreement review schedule | Plan | Normative: [6.2] Schedule of the review of the services and SLA's between service provider and customer. |
| 05-00 | Policy | Policy | Normative requirements: [4.3.1] These documents shall include: a) documented policy and objectives for service management; |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 05-01 | Budgeting and accounting for IT services policy | Policy | Normative: [6.4] There is a policy for: a) budgeting and accounting for service components including at least: 1) assets, including licences, used to provide the services; 2) shared resources; 3) overheads; 4) capital and operating expenses; 5) externally supplied services; 6) personnel; 7) facilities. b) apportioning indirect costs and allocating direct costs to services, to provide an overall cost for each service; c) effective financial control and approval. |
| 05-02 | Budgeting and accounting interface to Financial Management policy | Policy | Normative: [6.4] There is a defined interface between the budgeting and accounting for services process and other financial management processes. |
| 05-03 | Change Management policy | Policy | Normative: [9.2] A change management policy is established that defines: a) CIs which are under the control of change management; b) criteria to determine changes with potential to have a major impact on services or the customer. |
| 05-04 | CM interface to financial management policy | Policy | Normative: [9.1] There is a defined interface between the configuration management process and financial asset management process. |
| 05-05 | Configuration item definition policy | Policy | Normative: [9.1] There is a definition of each type of CI. |
| 05-06 | Improvement policy | Policy | Normative: [4.5.5.1] There is a policy on continual improvement of the SMS and the services. |
| 05-07 | Information security policy | Policy | Normative: [6.6.1] Management with appropriate authority defines an information security policy taking into consideration the service requirements, statutory and regulatory requirements, and contractual obligations. |
| 05-08 | Release policy | Policy | Normative: [9.3] The service provider stablishes with the customer a release policy stating the frequency and type of releases. |
| 05-09 | Service management policy | Policy | The service management policy: [4.1.1] a) is appropriate to the purpose of the service provider; b) includes a commitment to fulfil service requirements; c) includes a commitment to continually improve the effectiveness of the SMS and the services through the policy on continual improvement in Clause 4.5.5.1; d) provides a framework for establishing and reviewing service management objectives; e) is communicated and understood by the service provider's personnel; f) is reviewed for continuing suitability. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 06-00 | Procedure | Procedure | Normative: [4.3.1] These documents shall include: g) documented procedures [and records] required by this part of ISO/IEC 20000; |
| 06-01 | Audit procedure | Procedure | Normative: [4.5.4.2] A procedure that includes the authorities and responsibilities for planning and conducting audits, reporting results and maintaining audit records. |
| 06-02 | Auditor selection procedure | Procedure | Informative: [4.5.4.2] To support the selection of auditors to ensure objectivity and impartiality of audits. |
| 06-03 | Budgeting and accounting for IT services procedure | Procedure | Normative: [6.4] There is a procedure for: a) budgeting and accounting for service components including at least: 1) assets, including licences, used to provide the services; 2) shared resources; 3) overheads; 4) capital and operating expenses; 5) externally supplied services; 6) personnel; 7) facilities. b) apportioning indirect costs and allocating direct costs to services, to provide an overall cost for each service; c) effective financial control and approval. |
| 06-04 | Capacity management procedure | Procedure | Normative: [6.5] Procedures that enable predictive analysis, or reference to them. |
| 06-05 | Change procedure | Procedure | Normative: [9.2] There is a procedure to record, classify, assess and approve requests for change. |
| 06-06 | Communication procedure | Procedure | Normative: [4.1.3] That communication procedures are established |
| 06-07 | Configuration item control procedure | Procedure | Normative: [9.1] Configuration control procedures ensure that the integrity of services and service components is maintained. The CIs affected by new or changed services in the scope of Clause 5 are controlled by the configuration management process. The degree of control takes into consideration the service requirements and risks associated with the CIs. There is a procedure for recording, controlling and tracking versions of CIs. |
| 06-08 | Customer liaison procedure | Procedure | Normative: [7.1] The service provider establishes a communication mechanism with the customer. 7.2 For each supplier, the service provider has a designated individual who is responsible for managing the relationship, the contract and performance of the supplier. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 06-09 | Document management procedure | Procedure | Normative: [4.3.2] A procedure including authorities and responsibilities is established to define the controls needed:a) to create and approve documents prior to issue;b) to communicate to interested parties about new or changed documents;c) to review and maintain documents as necessary;d) to ensure that changes and the current revision status of documents are identified;e) to ensure that relevant versions of applicable documents are available at points of use;f) to ensure that documents are readily identifiable and legible;g) to ensure that documents of external origin are identified and their distribution controlled; h) to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained. |
| 06-10 | Emergency change management procedure | Procedure | Normative: [9.2] There is a procedure for managing emergency changes. |
| 06-11 | Emergency releases procedure | Procedure | Normative: [9.3] Emergency releases are managed according to a procedure that interfaces to the emergency change procedure. |
| 06-12 | Improvement procedure | Procedure | Normative: [4.5.5.1] There is a procedure including the authorities and responsibilities for identifying, documenting, evaluating, approving, prioritizing, managing, measuring and reporting of improvements. |
| 06-13 | Incident management procedure | Procedure | Normative: [8.1] There is a procedure for all incidents to define: a) Recording; b) allocation of priority; c) classification; d) updating of records; e) escalation; f) resolution; g) closure. |
| 06-14 | Major incident management procedure | Procedure | Normative: [8.1] Major incidents are managed according to a procedure. |
| 06-15 | Problem management procedure | Procedure | Normative: [8.2] The procedure for problems defines: a) identification; b) recording; c) allocation of priority; d) classification; e) updating of records; f) escalation; g) resolution; h) closure. |
| 06-16 | Records management procedure | Procedure | Normative: [4.3.3] A procedure is established to define the controls needed for the identification, storage, protection, retrieval, retention and disposal of records. |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 06-17 | Service continuity procedure | Procedure | Normative: [6.3.2] The service continuity plan(s) include at least: a) procedures to be implemented in the event of a major loss of service, or reference to them; b) availability targets when the plan is invoked; c) recovery requirements; d) approach for the return to normal working conditions. |
| 06-18 | Service provision complaint procedure | Procedure | Normative: [7.1] A procedure to manage service complaints from the customer. |
| 06-19 | Service request procedure | Procedure | Normative: [8.1] There is a procedure for managing the fulfilment of service requests from recording to closure. |
| 06-20 | Sub-contracted supplier management procedure | Procedure | Normative: [7.2] The service provider verifies that lead suppliers are managing their sub-contracted suppliers to fulfil contractual obligations. |
| 06-21 | Supplier agreement dispute procedure | Procedure | Normative: [7.2] There is a procedure to manage contractual disputes between the service provider and the supplier. |
| 07-00 | Product | Product | Informative: Service is the result of at least one activity necessarily performed at the interface between the supplier and customer and is generally intangible. Provision of a service can involve, for example, the following: — an activity performed on a customer supplied tangible product; — an activity performed on a customer supplied intangible product; — the delivery of an intangible product; — the creation of ambience for the customer. |
| 07-01 | Information item | Product | Normative: [4.3.2] May be a document, record, or a database record |
| 07-02 | New or changed service realisation | Product | Normative: [5.3] The new or changed services is developed in accordance with the design |
| 08-00 | Record | Record | Informative: A record includes the following elements: a) Date of record, date recorded, and status; b) Scope; c) Subject or category; d) Issuing organization; e) References; f) Body; g) Unique record identifier. |
| 08-01 | Amendment record | Record | Informative: Record of an amendment of a document. |
| 08-02 | Approval record | Record | Normative: [4.3.2] Record of approval - typically supporting a document. |
| 08-03 | Audit nonconformance communication record | Record | Normative: [4.5.4.2] Record of nonconformities are communicated, prioritized and responsibility allocated for actions. |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 08-04 | Audit nonconformity disposition record | Record | Normative: [4.5.4.2] A record of the corrections and corrective actions taken to eliminate nonconformities and their causes. |
| 08-05 | Audit nonconformity record | Record | Normative: A record of the non-conformities, prioritized and responsibility allocated for actions. |
| 08-06 | Audit result | Record | Normative: [4.5.4.2] A record of conducted audits and non-conformities raised. |
| 08-07 | Budgeting and accounting communication record | Record | Normative: [6.4] The stakeholders that receive the report - the service provider reports costs against the budget. |
| 08-08 | Capacity plan status record | Record | Normative: [6.5] The service provider maintains a capacity plan. |
| 08-09 | Capacity requirements approval record | Record | Informative: [6.5] The service provider agrees capacity and performance requirements with the customer and interested parties. |
| 08-10 | Change request approval record | Record | Normative: [9.2] Approved changes are developed and tested. |
| 08-11 | Change request record | Record | Normative: [9.2] Information content related to all aspects of information captured in relation to a change request. |
| 08-12 | Change schedule communication record | Record | Normative: [9.2] A record of communication regarding the schedule of change containing details of the approved changes and their proposed deployment dates. |
| 08-13 | Communication record | Record | Normative: [4.3.2] b) communicate to interested parties about new or changed documents; |
| 08-14 | Configuration item archive | Record | Normative: [9.1] A configuration baseline of the affected CIs is taken before deployment of a release into the live environment. Master copies of CIs recorded in the CMDB shall be stored in secure physical or electronic libraries referenced by the configuration records. This includes at least documentation, licence information, software and, where available, images of the hardware configuration. |
| 08-15 | Configuration item record | Record | Normative: [9.1] The information recorded for each CI ensures effective control and include at least: a) description of the CI; b) relationship(s) between the CI and other CIs; c) relationship(s) between the CI and service components; d) status; e) version; f) location; g) associated requests for change; h) associated problems and known errors. 9.1 4 CIs shall be uniquely identified [and recorded in a CMDB.] |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 08-16 | Configuration item status communication record | Record | Normative: [9.1] [The configuration item status, versions, locations, approved changes, problems, known errors and associated information] shall be provided to those who require it. |
| 08-17 | Customer satisfaction review record | Record | Normative: [7.1] Record of the results of a review of customer satisfaction survey results. |
| 08-18 | Emergency change definition approval record | Record | Normative: [9.2] The service provider agrees with the customer the definition of an emergency change. |
| 08-19 | Emergency release definition approval record | Record | Normative: [9.3] The service provider agrees with the customer the definition of an emergency release. |
| 08-20 | Improvement communication record | Record | Normative: [4.5.5.2] The service provider report on implemented improvements. |
| 08-21 | Improvement opportunity record | Record | Normative: [4.5.5.1] Record of opportunities for improvement to the SMS and the services identified during the operation of service management processes and the delivery of services, including corrective and preventive actions, shall be recorded. |
| 08-22 | Incident | Record | Informative: [8.1] Implied in Incidents and service requests are managed according to the procedures. |
| 08-23 | Incident disposition record | Record | Informative: [8.1] Implied in the support for incidents being managed according to the procedures. |
| 08-24 | Incident record | Record | Normative: [8.1] Incidents and service requests shall be managed according to the procedures. |
| 08-25 | Incident stakeholder communication record | Record | Normative: [8.1] The service provider keeps the customer informed of the progress of their reported incident or service request. |
| 08-26 | Information security audit review record | Record | Normative: [6.6.1] Management ensures that audit results are reviewed to identify opportunities for improvement. |
| 08-27 | Information security controls approval record | Record | Normative: [6.6.1] The service provider agrees on information security controls with these external organizations. |
| 08-28 | Information security incident communication record | Record | Normative: [6.6.3] A record of the communication of an information security incident to interested parties. |
| 08-29 | Information security incident record | Record | Normative: [6.6.3] Record of an information security incident. |
| 08-30 | Information security incident request disposition record | Record | Normative: [6.6.3] Record of the disposition of information security incidents. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 08-31 | Information security incident request record | Record | Normative: [6.6.3] Record of the disposition of information security incidents, as lodged in the incident management process. |
| 08-32 | Information security policy approval record | Record | Normative: [6.6.1] Management with appropriate authority approves an information security policy. |
| 08-33 | Information security policy communication record | Record | Normative: [6.6.1] Management communicates the information security policy and the importance of conforming to the policy to appropriate personnel within the service provider, customer and suppliers. |
| 08-34 | Information security requirements (3rd party access) approval record | Record | Normative: [6.6.2] The service provider agrees information security controls with these external organizations. |
| 08-35 | Major incident definition approval record | Record | Normative: [8.1] The service provider agrees with the customer the definition of a major incident. |
| 08-36 | Major incident review record | Record | Normative: [8.1] After the agreed service has been restored, major incidents are reviewed. |
| 08-37 | Management review communication record | Record | Normative: [4.5.4.1] A record of the results and actions communicated to interested parties. |
| 08-38 | Management review record | Record | Normative: A record of management reviews. |
| 08-39 | New or changed service design review record | Record | Normative: [5.1] A record of the reviews of outputs from the planning and design activities for new or changed services against the agreed service requirements and the relevant requirements given in Clauses 5.2 and 5.3. |
| 08-40 | New or changed service plan approval record | Record | Normative: [5.2] A record of the agreement reached with the customer and interested parties regarding the provision of new or changed services. |
| 08-41 | New or changed service request record | Record | Normative: [5.1] A record of a requests for change. |
| 08-42 | New or changed services acceptance record | Record | Normative: [5.4] A record of a acceptance arising from when service acceptance criteria are not met, the service provider and interested parties take a decision on necessary actions and deployment. |
| 08-43 | New or changed services test verification record | Record | Normative: [5.4] The new or changed services are verified against agreed service acceptance criteria by the service provider and interested parties. |
| 08-44 | Problem record | Record | Normative: [8.2] A record of a problem. |
| 08-45 | Problem report user communication record | Record | Informative: [8.2] A record of reporting to stakeholders regarding resolution of problems. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 08-46 | Problem review record | Record | Normative: [8.2] A record of the review of the effectiveness of problem resolution . |
| 08-47 | Release acceptance approval record | Record | Normative: [9.3] The release is approved before deployment. |
| 08-48 | Release acceptance criteria approval record | Record | Normative: [9.3] Record of approval of the release acceptance criteria. |
| 08-49 | Release acceptance review record | Report | Informative: [9.3] Record of the review of the service provider taking a decision on necessary actions and deployment with interested parties. |
| 08-50 | Release policy approval record | Record | Normative: [9.3] The service provider agrees with the customer a release policy stating the frequency and type of releases. |
| 08-51 | Release stakeholder communication record | Record | Normative: [9.3] The service provider plans with the customer and interested parties the deployment of new or changed services and service components into the live environment. |
| 08-52 | Review record | Record | Normative: [4.3.2] Record of review performed on an aspect of service monitoring or delivery. |
| 08-53 | Service availability plan amendment record | Record | Normative: [6.3.2] The service provider maintains a service availability plan(s). |
| 08-54 | Service availability plan status record | Record | Normative: [6.3.2] Implied in maintaining the service availability plan. |
| 08-55 | Service availability plan test result review record | Record | Normative: [6.3.3] Unplanned non-availability is investigated. |
| 08-56 | Service availability requirements approval record | Record | Normative: [6.3] The service provider agrees with the customer and interested parties service availability requirements. |
| 08-57 | Service catalogue approval record | Record | Normative: [6.1] The service provider and customer agree on the services to be delivered. |
| 08-58 | Service catalogue review record | Record | Normative: [6.1] The service provider reviews services and SLAs with customers and interested parties. |
| 08-59 | Service catalogue status record | Record | Informative: [6.1] The catalogue of services is maintained following any changes to services and SLAs to ensure it is up to date and effective. |
| 08-60 | Service complaint definition approval record | Record | Normative: [7.1] The definition of a service complaint is agreed with the customer. |
| 08-61 | Service continuity plan amendment record | Record | Normative: [6.3.2] The service provider maintains a service continuity plan(s). |
| 08-62 | Service continuity plan status record | Record | Normative: [6.3.2] Implied in maintaining the service continuity plan. |
| 08-63 | Service continuity plan test result review record | Record | Normative: [6.3.3] Reviews are conducted after each test and after the service continuity plan has been invoked. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 08-64 | Service continuity requirements approval record | Record | Normative: [6.3.1] The service provider agrees with the customer and interested parties service continuity requirements. |
| 08-65 | Service level agreement approval record | Record | Normative: [6.1] Record of approval of the SLA. |
| 08-66 | Service level agreement review record | Record | Normative: [6.1] Record of a review of the SLA. |
| 08-67 | Service level agreement status record | Record | Normative: [6.1] Record of amendments to the SLA. |
| 08-68 | Service level management stakeholder communication record | Record | Normative: [6.1] record of communication with the customer following the SLA review. |
| 08-69 | Service level performance review record | Record | Normative: [6.1] Record of reviews of service level performance. |
| 08-70 | Service management personnel communication record | Record | Normative: [4.4.2.2] The service provider ensures that its personnel are aware of how they contribute to the achievement of service management objectives and the fulfilment of service requirements. |
| 08-71 | Service management plan status record | Record | Normative: [4.5.2] The service provider maintains a service management plan. |
| 08-72 | Service management roles and responsibilities status record | Record | Normative: [4.5.2] The service provider maintains a service management plan - that refers to the roles and responsibilities. |
| 08-73 | Service management training record | Record | Normative: [4.4.2.2] The service provider maintains appropriate records of education, training, skills and experience. |
| 08-74 | Service performance record | Record | Normative: [4.5.4.3] A record of service performance |
| 08-75 | Service provision complaint record | Record | Normative: [7.1] A record of the lodged customer complaint. |
| 08-76 | Service provision nonconformance review record | Record | Informative: [7.1] A record of the review of a service provision non-conformance. |
| 08-77 | Service provision review record | Record | Normative: [7.1] The service provider reviews the performance of the services with the customer. |
| 08-78 | Service report communication record | Record | Normative: [6.2] Record of service reports and agreed actions. |
| 08-79 | Service report content definition approval record | Record | Normative: [6.2] Record of approval of service report content definition between service provider and interested parties. |
| 08-80 | Service request disposition record | Record | Informative: [8.1] Implied in the support for service requests being managed according to the procedures. |
| 08-81 | Service request record | Record | Normative: [8.1] Incidents and service requests shall be managed according to the procedures. |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 08-82 | Service request stakeholder communication record | Record | Normative: [8.1] The service provider keeps the customer informed of the progress of their reported incident or service request. |
| 08-83 | Service unplanned non-availability corrective action disposition record | Record | Informative: [6.3.3] Unplanned non-availability is investigated and necessary actions taken. |
| 08-84 | Services stakeholder communication record | Record | Normative: [5.4] Following the completion of the transition activities, the service provider reports to interested parties on the outcomes achieved against the expected outcomes for the new or changed services. 6.2.7 The agreed actions (i.e. arising from issues in servicer reports) are communicated to interested parties. |
| 08-85 | Status record | Record | Normative: [4.3.2] Provides evidence of status of an item. |
| 08-86 | Supplier agreement approval record | Record | Normative: [7.2] Changes to the contract, formal agreement or other documents are agreed by the interested parties, including changes to service commitments. |
| 08-87 | Supplier agreement review record | Record | Normative: [7.2] A record of the review conducted to determine that contractual obligations are being met and that the contract reflects current requirements. |
| 08-88 | Supplier capability assessment record | Record | Informative: [7.2] Record of action taken by the service provider verify that lead suppliers are managing their sub-contracted suppliers to fulfil contractual obligations. |
| 08-89 | Supplier performance review record | Record | Normative: [7.2] A record of the review conducted by the service provider of the supplier's performance against the contract. |
| 08-90 | Unsuccessful release review record | Record | Normative: [9.3] Unsuccessful releases are investigated and agreed actions taken. |
| 09-00 | Report | Report | Informative: A report includes the following elements: a) Date of issue and status; b) Scope; c) Issuing organization; d) Contributors; e) Summary; f) Introduction; g) Context (assumptions); h) Body (including methods of obtaining results); i) Conclusions and recommendations; j) References; k) Bibliography; l) Glossary; m) Change history. |
| 09-01 | Analysis report | Report | Informative: An analysis of data. |
| 09-02 | Alternative parties performance evaluation report | Report | Normative: [4.2] Supports the management of the internal group or the customer. |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 09-03 | Capacity future needs assessment report | Report | Normative: [6.5] The capacity plan refers forecast demand for services. |
| 09-04 | Capacity usage analysis report | Report | Informative: [6.5] The service provider monitors capacity usage and analyses data. |
| 09-05 | Change effectiveness evaluation report | Report | Informative: [9.2] Implied in the service provider reviewing changes for effectiveness. |
| 09-06 | Change request evaluation report | Report | Normative: [9.2] Implied in requests for change are assessed using information from the change management process and other processes. |
| 09-07 | Configuration item audit report | Report | Normative: [9.1] The service provider audits the records stored in the CMDB, [at planned intervals.] |
| 09-08 | Configuration item status report | Report | Normative: [9.1] The information recorded for each CI ensures effective control and include at least: a) description of the CI; b) relationship(s) between the CI and other CIs; c) relationship(s) between the CI and service components; d) status; e) version; f) location; g) associated requests for change; h) associated problems and known errors. |
| 09-09 | Customer satisfaction analysis report | Report | Normative: [7.1] The results of a customer satisfaction survey are analysed to identify opportunities for improvement. |
| 09-10 | Implemented improvement evaluation report | Report | Normative: [4.5.5.2] Measuring implemented improvements against the targets set and where targets are not achieved. |
| 09-11 | Improvement opportunity evaluation report | Report | Normative: [4.5.5.2] Record of the application of evaluation criteria to an improvement opportunity. |
| 09-12 | Information security audit report | Report | Normative: [6.6.1] Management ensure that internal information security audits are conducted. |
| 09-14 | Information security change request evaluation report | Report | Normative: [6.6.3] Result of evaluation agains the criteria: a) new or changed information security risks; b) potential impact on the existing information security policy and controls. |
| 09-15 | Information security controls effectiveness evaluation report | Report | Normative: [6.6.2] The service provider reports on the actions taken. See also: 27K 4.2.3 The organization shall: c) Measure the effectiveness of controls to verify that security requirements have been met |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 09-16 | Information security controls report | Report | Normative: [6.6.2] The service provider operates appropriate information security controls to: a) fulfil the requirements of the information security policy; b) achieve information security management objectives; c) manage risks related to information security. |
| 09-17 | Information security incident analysis report | Report | Normative: [6.6.3] The service provider analyses the types, volumes and impacts of information security incidents. |
| 09-18 | Information security risk analysis report | Report | Normative: [6.6.2] Report on managing risks related to information security. |
| 09-19 | Information security risk assessment report | Report | Normative: [6.6.1] Result of assessing security risks. |
| 09-20 | Management review process assessment report | Report | Normative: [4.5.4.3] Record of management review of service and process performance and conformity. |
| 09-21 | New or changed service evaluation report | Report | Normative: [5.1] A report of an evaluation against the criteria in the Change Management Policy that identifies criteria to determine changes with potential to have a major impact on services or the customer. |
| 09-22 | New or changed services impact evaluation report | Report | Normative: [5.2] Result of an evaluation of the impact arising from the application of the criteria to determine changes with potential to have a major impact on services or the customer |
| 09-23 | New or changed services test report | Report | Normative: [5.4] The new or changed services are tested to verify that they fulfil the service requirements and the documented design. |
| 09-24 | Problem analysis report | Report | Normative: [8.2] The service provider analyses data and trends on incidents and problems to identify root causes and their potential preventive action. |
| 09-25 | Problem disposition report | Report | Normative: [8.2] This record contains all the data of actions taken to address and resolve the problem, including the root cause analysis. |
| 09-26 | Problem mitigation report | Report | Informative: [8.2] Where the root cause has been identified, but the problem has not been permanently resolved, the service provider identifies actions to reduce or eliminate the impact of the problem on the services. |
| 09-27 | Release acceptance test report | Report | Informative: [9.3] The release is verified against the agreed acceptance criteria. |
| 09-28 | Release performance analysis report | Report | Informative: [9.3] Implied in the success or failure of releases is analysed. |
| 09-30 | Service availability analysis report | Report | Normative: [6.3.3] Availability of services is monitored, the results recorded and compared with agreed targets. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 09-31 | Service availability plan test report | Report | Normative: [6.3.3] The results of the tests are reported. |
| 09-32 | Service availability risk evaluation report | Report | Normative: [6.3.1] The result of the service provider assessing the risks to availability of services. |
| 09-33 | Service continuity plan test report | Report | Normative: [6.3.2] The results of tests are reported. |
| 09-34 | Service continuity plan test result finding report | Report | Informative: [6.3.3] Where deficiencies are found during the test, the service provider takes necessary actions. |
| 09-35 | Service continuity risk evaluation report | Report | Normative: [6.3.1] The result of the service provider assessing the risks to continuity of services. |
| 09-36 | Service level performance analysis report | Report | Normative: [6.1] The service provider monitors trends and performance against service targets. |
| 09-37 | Service management system performance analysis report | Report | Normative: [4.5.4.1] The service provider uses suitable methods for measuring the SMS and the services. These methods include internal audits and management reviews. |
| 09-38 | Service management training evaluation report | Report | Normative: [4.4.2.2] The service provider evaluates the effectiveness of actions taken (regarding the provision of competency). |
| 09-39 | Service provision complaint disposition report | Report | Informative: [7.1] Steps take to deal with a customer complaint. |
| 09-40 | Services provision costs against budget variance report | Report | Normative: [6.4] The service provider reports costs against the budget. |
| 09-40 | Service report | Report | Normative: [6.2] Service reports produced that conform to the service report content definition. |
| 09-41 | Service risk assessment report | Report | Normative: [4.1.3] That risks to services are assessed. |
| 09-43 | Successful change analysis report | Report | Normative: [9.2] Implied in requests for change are analysed to detect trends. |
| 09-44 | Unsuccessful change analysis report | Report | Normative: [9.2] Implied in unsuccessful changes are investigated. |
| 09-45 | Unsuccessful release analysis evaluation report | Report | Informative: [9.3] The results and conclusions drawn from the analysis are reported. |
| 09-46 | Supplier performance evaluation report | Report | Normative: [7.2] The result of actions taken by the service provider to monitor performance of the supplier against service targets and other contractual obligations. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 10-00 | Repository | Repository | Informative: – Repository for components; Storage and retrieval capabilities; Ability to browse content; Listing of contents with description of attributes; Sharing and transfer of components between affected groups; Effective controls over access; Maintain component descriptions; Recovery of archive versions of components; Ability to report component status; Changes to components are tracked to change / user requests. |
| 10-01 | Configuration management DB repository | Repository | Normative: [9.1] CIs are recorded in a CMDB. |
| 10-02 | Information item repository | Repository | Normative: [4.3.3] Implied in the need to control documents and records. |
| 10-03 | Service management system process repository | Repository | Normative: [4.5.3] A repository of the SMS processes. |
| 11-00 | Request | Request | Informative: A request includes the following elements: a) Date of initiation; b) Scope; c) Subject; d) Originator of request; e) Identification of requested item, service, or response; f) Detailed description of requested item, service, or response, including due date; g) Justifications. |
| 11-01 | Change request | Request | Normative: Requests for change shall have a documented scope. [9.2] Requests for change shall have a defined scope. |
| 11-02 | Capacity plan change request | Request | Informative: [6.5] Changes to the capacity plan are controlled by the change management process. |
| 11-03 | Configuration item change request | Request | Normative: [9.1] All other requests for change to CIs defined in the change management policy are managed using the change management process. |
| 11-04 | Improvement opportunity approved request | Request | Normatve: [4.5.5.2] Record of approval for the opportunity for improvement. |
| 11-05 | Information security change request | Request | Informative: [6.6.3] Requests for change are assessed to identify: a) new or changed information security risks; b) potential impact on the existing information security policy and controls. |
| 11-06 | Information security incident request | Request | Normative: [6.6.3] Information security incidents are managed using the incident management procedures, with a priority appropriate to the information security risks. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 11-07 | New or changed service request | Request | Informative: [5.1] A request for a new service or a change to a service can originate from the customer, the service provider, an internal group or a supplier in order to satisfy business needs or to improve the effectiveness of the services. |
| 11-08 | Problem change request | Request | Informative: [8.2] The request for change to make a change to a CI. |
| 11-09 | Release plan change request | Request | Normative: [9.3] Request for change on releases and plans for deployment. |
| 11-10 | Service availability plan change request | Request | Informative: [6.3.2] Request for change on the service availability plan(s). |
| 11-11 | Service catalogue change request | Request | Informative: [6.1] The catalogue of services is maintained following any changes to services and SLAs to ensure it is up to date and effective. |
| 11-12 | Service continuity plan change request | Request | Informative: [6.3.2] Request for change on the service continuity plan(s). |
| 11-13 | Service level agreement change request | Request | Informative: [6.1] Request for change to SLA. |
| 11-14 | Service provision change request | Request | Informative: [7.1] Changes to the service requirements are controlled by the change management process. |
| 11-15 | Service request | Request | Informative: [8.1] Implied in Incidents and service requests are managed according to the procedures. |
| 11-16 | Supplier agreement change request | Request | Informative: [7.2] Changes to the contract, formal agreement or other documents are managed by the change Management process. |
| 12-00 | Specification | Specification | Informative requirements: A specification shall include the following elements: a) Date of issue and status; b) Scope; c) Issuing organization; d) References; e) Approval authority; f) Body; g) Assurance requirements; h) Conditions, constraints, and characteristics; i) Glossary; j) Change history. |
| 12-01 | Alternative party process requirements | Specification | Normative: [4.2] Where the service provider has requested other parties, either an internal group, a customer or a supplier, to operate some parts of the service management processes specified in Clauses 5 to 9, the service provider ensures governance of processes by: a) demonstrating accountability for the processes and authority to require adherence to the processes; b) controlling the definition of the processes and interfaces to other processes; c) determining process performance and compliance; d) controlling the planning and prioritizing of process improvements. |

| Reference | Name | Category | Characteristics |
|-----------|------|----------|-----------------|
| 12-02 | Capacity requirements | Specification | Informative: [6.5] The result of an assessment based on customer needs. |
| 12-03 | Information security requirements | Specification | Normative: [6.6.2] The service provider identifies external organizations that have a need to access, use or manage the service provider's information or services. |
| 12-04 | New or changed service requirements | Specification | Normative: [5.1] The service provider establishes the new or changed service requirements. |
| 12-05 | New or changed service specification | Specification | Normative: [5.3] The new or changed services are designed including but not limited to:a) the authorities and responsibilities for delivery of the new or changed services;b) activities to be performed by the service provider, customers, internal groups or suppliers for delivery of the new or changed services;c) new or changed human resource requirements including requirements for skills and training; d) financial resource requirements for the delivery of the new or changed services e) new or changed technical resources and tools; f) new or changed plans for availability, service continuity, capacity and information security;g) new or changed contracts and formal agreements with internal groups and suppliers to align with the changes in service requirements;h) changes to the SMS;i) new or changed SLAs;j) updates to the catalogue of services;k) procedures, measures and information to be used for the operation of the new or changed services. |
| 12-06 | Release acceptance test case | Specification | Informative: [9.3] Implied in releases are built and tested prior to deployment. |
| 12-07 | Service availability requirements | Specification | Normative: [6.3.1] The service availability requirements include at least: a) access rights to the services; b) service response times; c) end to end availability of services. |
| 12-08 | Service continuity requirements | Specification | Normative: [6.3.1] The service continuity requirements include at least: a) access rights to the services; b) service response times; c) end to end availability of services. |
| 12-09 | Service management competency requirements | Specification | Normative: [4.4.2.2] The service provider determines the necessary competence for personnel. |

| Reference | Name | Category | Characteristics |
|---|---|---|---|
| 12-10 | Service management process interface requirements | Specification | Normative: [4.2] The service provider shall demonstrate governance of processes operated by other parties by: a) demonstrating accountability for the processes and authority to require adherence to the processes; b) controlling the definition of the processes, and interfaces to other processes; c) determining process performance and compliance with process requirements; d) controlling the planning and prioritizing of process improvements. |
| 12-11 | Service requirements | Specification | Normative: [4.1.3] That service requirements are established. |

## B.4  Alignment with information items from ISO/IEC 15289

The following table provides a cross-reference to the information items in ISO/IEC 15289 that are similar in intent to the specific items presented in Table B.2.

**Table B.4 — Alignment of information items with ISO/IEC 15289**

| ISO/IEC 15289 | | ISO/IEC TS 15504-8 | |
|---|---|---|---|
| Audit acknowledgement report | 10.06 | 08-05 | Audit nonconformity record |
| Audit plan | 10.07 | 04-02 | Audit plan |
| Audit procedure | 10.08 | 06-01 | Audit procedure |
| | | 04-04 | Audit strategy |
| Audit report | 10.09 | 08-06 | Audit result |
| Change request | 10.12 | 11-02 | Capacity plan change request |
| | | 11-10 | Service availability plan change request |
| | | 11-11 | Service catalogue change request |
| | | 11-12 | Service continuity plan change request |
| | | 11-13 | Service level agreement change request |
| Complaint procedure | 10.13 | 06-18 | Service provision complaint procedure |
| Configuration management plan and policy (change/release management) | 10.15 | 05-04 | CM interface to financial management policy |
| Configuration management procedure (change/release management) | 10.16 | 06-07 | Configuration item control procedure |
| Configuration status report | 10.17 | 09-08 | Configuration item status report |
| Contract | 10.18 | 01-02 | Supplier agreement |
| Evaluation report | 10.25 | 09-02 | Alternative parties performance evaluation report |
| | | 09-05 | Change effectiveness evaluation report |
| | | 09-06 | Change request evaluation report |
| | | 09-10 | Implemented improvement evaluation report |
| | | 09-11 | Improvement opportunity evaluation report |
| | | 09-15 | Information security controls effectiveness evaluation report |
| | | 09-38 | Service management training evaluation report |
| | | 09-46 | Supplier performance evaluation report |

| ISO/IEC 15289 | | | ISO/IEC TS 15504-8 |
|---|---|---|---|
| | | 09-45 | Unsuccessful release analysis evaluation report |
| Improvement plan | 10.27 | 04-11 | Improvement plan |
| | | 04-15 | New or changed service plan |
| Improvement policy | 10.28 | 05-06 | Improvement policy |
| | | 06-12 | Improvement procedure |
| Incident management procedure | 10.29 | 06-13 | Incident management procedure |
| | | 06-14 | Major incident management procedure |
| | | 06-19 | Service request procedure |
| Incident report | 10.30 | 08-23 | Incident disposition record |
| | | 08-24 | Incident record |
| | | 08-30 | Information security incident request disposition record |
| | | 08-31 | Information security incident request record |
| | | 08-80 | Service request disposition record |
| | | 08-81 | Service request record |
| Information security plan | 10.32 | | |
| Information security policy | 10.33 | 03-16 | Information security objectives |
| | | 05-07 | Information security policy |
| | | 03-17 | Information security risk assessment criteria |
| Interface description | 10.38 | 05-09 | Service management policy |
| | | 12-10 | Service management process interface requirements |
| Monitoring and control report | 10.43 | 09-04 | Capacity usage analysis report |
| | | 09-09 | Customer satisfaction analysis report |
| | | 09-16 | Information security controls report |
| | | 09-17 | Information security incident analysis report |
| | | 09-18 | Information security risk analysis report |
| | | 09-24 | Problem analysis report |
| | | 09-28 | Release performance analysis report |
| | | 09-36 | Service level performance analysis report |
| | | 09-40 | Services provision costs against budget variance report |
| | | 09-43 | Successful change analysis report |
| | | 09-44 | Unsuccessful change analysis report |
| Problem management procedure | 10.45 | 06-15 | Problem management procedure |
| Problem report | 10.46 | 09-25 | Problem disposition report |
| Release plan | 10.57 | 04-01 | Acceptance test environment plan |
| | | 04-16 | Release plan |
| | | 04-17 | Release reversal arrangements plan |
| Service availability and continuity plan | 10.64 | 04-22 | Service availability plan |
| | | 04-23 | Service continuity plan |
| Service catalog | 10.65 | 03-37 | Service catalogue |
| Service level agreement (SLA) | 10.66 | 01-01 | Service level agreement |
| Service management plan | 10.67 | 04-24 | Service management plan |
| Service report | 10.68 | 09-40 | Service report |
| Supplier management procedure | 10.75 | 06-21 | Supplier agreement dispute procedure |

# Annex C
(informative)

# Process Capability for ISO/IEC 20000-1 requirements

This International Standard provides a Process Assessment Model for assessing the process capability of processes associated with information technology service management (ITSM). ISO/IEC 20000-1 provides requirements for the establishment of an ITSM System. This Annex identifies a Process Capability Profile that is implied by the requirements associated with a Management System conformant to ISO/IEC 20000-1.

## C.1  Associations of base practices with requirements

The following table identifies each base practice with the associated singular requirements from ISO/IEC 20000-1, and the implied information item.

NOTE        Not all the base practices identified in Section 5 will correspond to an entry in Table C.1. Table C.3 identifies the base practices associated with outcomes that were added to the PRM in order to represent well-formed processes.

**Table C.1 — Association of base practices with singular requirements of ISO/IEC 20000-1**

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| **CON.1 Change management** | | | | |
| CON.1.BP1 | **Record change requests** Changes to the services, service components, service requirements, catalogue of services, service level agreements and other documented agreements are recorded and classified. | 8.2.6 | Problems requiring changes to a CI shall be resolved by raising a request for change. | 08-11 Change request record |
| CON.1.BP1 | **Record change requests** Changes to the services, service components, service requirements, catalogue of services, service level agreements and other documented agreements are recorded and classified. | 9.2.10 | All changes to a service or service component shall be raised using a request for change. | 08-11 Change request record |
| CON.1.BP1 | **Record change requests** Changes to the services, service components, service requirements, catalogue of services, service level agreements and other documented agreements are recorded and classified. | 9.2.13 | All requests for change shall be [recorded and] classified | 08-11 Change request record |
| CON.1.BP2 | **Assess change requests** Requests for change are assessed to identify: a) new or changed information security risks; b) potential impact on the existing information security policy and controls, and the impact of requests for change on releases and plans for deployment. | 9.2.16 | Requests for change shall be assessed using information from the change management process and other processes. | 09-06 Change request evaluation report |
| CON.1.BP3 | **Make decisions on change requests** The service provider and interested parties make decisions on the acceptance of requests for change. Decision-making takes into consideration the risks, the potential impacts to services and the customer, service requirements, business benefits, technical feasibility and financial impact. | 9.2.17 | The service provider and interested parties shall make decisions on the acceptance of requests for change. | 08-10 Change request approval record |
| CON.1.BP3 | **Make decisions on change requests** The service provider and interested parties make decisions on the acceptance of requests for change. Decision-making takes into consideration the risks, the potential impacts to services and the customer, service requirements, business benefits, technical feasibility and financial impact. | 9.2.18 | Decision-making shall take into consideration the risks, the potential impacts to services and the customer, service requirements, business benefits, technical feasibility and financial impact. | 08-10 Change request approval record |
| CON.1.BP4 | **Establish an implementation schedule of changes and releases** Establish a schedule of change containing details of the approved changes and their proposed deployment dates. Planning is coordinated with the change management process and includes references to the related requests for change, known errors and problems which are being closed through this release. | 9.2.20 | A schedule of change containing details of the approved changes and their proposed deployment dates shall be established [and communicated to interested parties]. | 04-07 Change schedule |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Requirement reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| CON.1.BP4 | **Establish an implementation schedule of changes and releases** Establish a schedule of change containing details of the approved changes and their proposed deployment dates. Planning is coordinated with the change management process and includes references to the related requests for change, known errors and problems which are being closed through this release. | 9.3.4 | Planning shall be coordinated with the change management process and include references to the related requests for change, known errors and problems which are being closed through the release. | 04-18 Release schedule |
| CON.1.BP5 | **Communicate an implementation schedule of changes and releases** Communicate a schedule containing details of the approved changes and their proposed deployment dates to interested parties. | 9.2.21 | A schedule of change containing details of the approved changes and their proposed deployment dates shall be [established and] communicated to interested parties. | 08-12 Change schedule communication record |
| CON.1.BP6 | **Develop and test approved changes** Approved changes are developed and tested. | 9.2.19 | Approved changes shall be developed and tested. | 02-15 Implemented changes log |
| CON.1.BP7 | **Reverse or remedy unsuccessful changes** The change is reversed or remedied if unsuccessful. | 9.2.24 | The change shall be reversed or remedied if unsuccessful. | 09-44 Unsuccessful change analysis report |
| **CON.2 Configuration management** | | | | |
| CON.2.BP1 | **Identify configuration items** Configuration items are uniquely identified. | 9.1.4 | CIs shall be uniquely identified [and recorded in a CMDB.] | 08-15 Configuration item record |
| CON.2.BP2 | **Record configuration item status** The information recorded for each configuration item (CI) ensures effective control and includes at least: a) description of the CI; b) relationship(s) between the CI and other CIs; c) relationship(s) between the CI and service components; d) status; e) version; f) location; g) associated requests for change; h) associated problems and known errors. | 9.1.14 | Information from the CMDB shall be provided to the change management process, to support the assessment of requests for change. | 08-16 Configuration item status communication record |
| CON.2.BP3 | **Changes to configuration items are controlled** All requests for change to configuration items defined in the change management policy are managed using the change management process. The configuration management database records are updated following the successful deployment of changes. | 9.1.15 | Changes to CIs shall be traceable and auditable to ensure integrity of the CIs and the data in the CMDB. | 02-11 Configuration item change log |
| CON.2.BP3 | **Changes to configuration items are controlled** All requests for change to configuration items defined in the change management policy are managed using the change management process. The configuration management database records are updated following the successful deployment of changes. | 9.2.15 | All other requests for change to CIs defined in the change management policy shall be managed using the change management process. | 02-11 Configuration item change log |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| CON.2.BP3 | **Changes to configuration items are controlled** All requests for change to configuration items defined in the change management policy are managed using the change management process. The configuration management database records are updated following the successful deployment of changes. | 9.2.26 | The CMDB records shall be updated following the successful deployment of changes. | 02-11 Configuration item change log |
| CON.2.BP4 | **Assure the integrity of systems, services and service components** Configuration control procedures ensure that the integrity of services and service components is maintained. The service provider audits the records stored in the configuration management database. Changes to configuration items are traceable and auditable to ensure integrity of the configuration items and the data in the configuration management database. | 9.1.6 | The CMDB shall be managed to ensure its reliability and accuracy, including control of update access. | 02-13 Configuration management DB repository access rights list |
| CON.2.BP4 | **Assure the integrity of systems, services and service components** Configuration control procedures ensure that the integrity of services and service components is maintained. The service provider audits the records stored in the configuration management database. Changes to configuration items are traceable and auditable to ensure integrity of the configuration items and the data in the configuration management database. | 9.1.9 | The degree of control shall maintain the integrity of services and service components taking into consideration the service requirements and the risks associated with the CIs. | 09-07 Configuration item audit report |
| CON.2.BP4 | **Assure the integrity of systems, services and service components** Configuration control procedures ensure that the integrity of services and service components is maintained. The service provider audits the records stored in the configuration management database. Changes to configuration items are traceable and auditable to ensure integrity of the configuration items and the data in the configuration management database. | 9.1.10 | The service provider shall audit the records stored in the CMDB, [at planned intervals.] | 09-07 Configuration item audit report |
| CON.2.BP4 | **Assure the integrity of systems, services and service components** Configuration control procedures ensure that the integrity of services and service components is maintained. The service provider audits the records stored in the configuration management database. Changes to configuration items are traceable and auditable to ensure integrity of the configuration items and the data in the configuration management database. | 9.1.12 | Where deficiencies are found, the service provider shall take necessary actions [and report on the actions taken.] | 09-07 Configuration item audit report |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| CON.2.BP4 | **Assure the integrity of systems, services and service components** Configuration control procedures ensure that the integrity of services and service components is maintained. The service provider audits the records stored in the configuration management database. Changes to configuration items are traceable and auditable to ensure integrity of the configuration items and the data in the configuration management database. | 9.1.15 | Changes to CIs shall be traceable and auditable to ensure integrity of the CIs and the data in the CMDB. | 02-11 Configuration item change log |
| CON.2.BP4 | **Assure the integrity of systems, services and service components** Configuration control procedures ensure that the integrity of services and service components is maintained. The service provider audits the records stored in the configuration management database. Changes to configuration items are traceable and auditable to ensure integrity of the configuration items and the data in the configuration management database. | 9.2.15 | All other requests for change to CIs defined in the change management policy shall be managed using the change management process. | 02-11 Configuration item change log |
| CON.2.BP4 | **Assure the integrity of systems, services and service components** Configuration control procedures ensure that the integrity of services and service components is maintained. The service provider audits the records stored in the configuration management database. Changes to configuration items are traceable and auditable to ensure integrity of the configuration items and the data in the configuration management database. | 9.2.26 | The CMDB records shall be updated following the successful deployment of changes. | 02-11 Configuration item change log |
| CON.2.BP5 | **Control the configuration of released items** A configuration baseline of the affected configuration items is taken before deployment of a release into the live environment. Master copies of the configuration items recorded in the configuration management database are stored in secure physical or electronic libraries referenced by the configuration records. This includes at least documentation, licence information, software and, where available, images of the hardware configuration. | 9.1.16 | A configuration baseline of the affected CIs shall be taken before deployment of a release into the live environment. | 08-14 Configuration item archive |
| CON.2.BP5 | **Control the configuration of released items** A configuration baseline of the affected configuration items is taken before deployment of a release into the live environment. Master copies of the configuration items recorded in the configuration management database are stored in secure physical or electronic libraries referenced by the configuration records. This includes at least documentation, licence information, software and, where available, images of the hardware configuration. | 9.1.17 | Master copies of CIs recorded in the CMDB shall be stored in secure physical or electronic libraries referenced by the configuration records. | 08-14 Configuration item archive |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| CON.2.BP5 | **Control the configuration of released items** A configuration baseline of the affected configuration items is taken before deployment of a release into the live environment. Master copies of the configuration items recorded in the configuration management database are stored in secure physical or electronic libraries referenced by the configuration records. This includes at least documentation, licence information, software and, where available, images of the hardware configuration | 9.1.18 | This shall include at least documentation, licence information, software and, where available, images of the hardware configuration. | 08-14 Configuration item archive |
| **CON.3 Release and deployment management** | | | | |
| CON.3.BP1 | **Establish requirements for releases** Requirements for releases are established and agreed with interested parties. | 9.3.13 | Acceptance criteria for the release shall [be agreed] with the customer and interested parties. | 03-31 Release acceptance test criteria |
| CON.3.BP2 | **Plan releases of services or service components** Plan releases of services and service components. | 9.3.3 | The service provider shall plan with the customer and interested parties the deployment of new or changed services and service components into the live environment. | 04-16 Release plan |
| CON.3.BP2 | **Plan releases of services or service components** Plan releases of services and service components. | 9.3.4 | Planning shall be coordinated with the change management process and include references to the related requests for change, known errors and problems which are being closed through the release. | 04-18 Release schedule |
| CON.3.BP2 | **Plan releases of services or service components** Plan releases of services and service components. | 9.3.5 | Planning shall include the dates for deployment of each release, deliverables and methods of deployment. | 04-16 Release plan |
| CON.3.BP2 | **Plan releases of services or service components** Plan releases of services and service components. | 9.3.12 | A controlled acceptance test environment shall be used for the building and testing of releases. | 04-01 Acceptance test environment plan |
| CON.3.BP2 | **Plan releases of services or service components** Plan releases of services and service components. | 9.3.19 | The activities required to reverse or remedy an unsuccessful deployment of a release shall be planned and, where possible, tested. | 04-17 Release reversal arrangements plan |
| CON.3.BP4 | **Test releases** Releases are tested prior to deployment. | 9.3.11 | Releases shall be built and tested prior to deployment. | 09-27 Release acceptance test report |
| CON.3.BP4 | **Test releases** Releases are tested prior to deployment. | 9.3.15 | The release shall be verified against the agreed acceptance criteria [and approved before deployment]. | 09-27 Release acceptance test report |
| CON.3.BP4 | **Test releases** Releases are tested prior to deployment. | 9.3.16 | The release shall be [verified against the agreed acceptance criteria and] approved before deployment. | 08-47 Release acceptance approval record |
| CON.3.BP4 | **Test releases** Releases are tested prior to deployment. | 9.3.17 | If the acceptance criteria are not met, the service provider shall make a decision on necessary actions and deployment with interested parties. | 08-47 Release acceptance approval record |
| CON.3.BP5 | **Deploy releases** Approved releases are deployed. | 9.3.16 | The release shall be [verified against the agreed acceptance criteria and] approved before deployment. | 08-47 Release acceptance approval record |
| CON.3.BP5 | **Deploy releases** Approved releases are deployed. | 9.3.17 | If the acceptance criteria are not met, the service provider shall make a decision on necessary actions and deployment with interested parties. | 08-47 Release acceptance approval record |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Requirement reference | Associated singular requirement | Information item |
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| CON.3.BP6 | **Assure integrity of hardware, software, and other service components during deployment of the release** The release is deployed into the live environment so that the integrity of hardware, software and other service components is maintained during deployment of the release. | 9.2.22 | The schedule of change shall be used as the basis for planning the deployment of releases. | 02-29 Release log |
| CON.3.BP6 | **Assure integrity of hardware, software, and other service components during deployment of the release** The release is deployed into the live environment so that the integrity of hardware, software and other service components is maintained during deployment of the release. | 9.3.18 | The release shall be deployed into the live environment so that the integrity of hardware, software and other service components is maintained during deployment of the release. | 02-29 Release log |
| CON.3.BP6 | **Assure integrity of hardware, software, and other service components during deployment of the release** The release is deployed into the live environment so that the integrity of hardware, software and other service components is maintained during deployment of the release. | 9.3.20 | The deployment of the release shall be reversed or remedied if unsuccessful. | 02-29 Release log |
| CON.3.BP7 | **Reverse or remedy unsuccessful releases** Unsuccessfully deployed releases are reversed or remedied. | 9.2.22 | The schedule of change shall be used as the basis for planning the deployment of releases. | 02-29 Release log |
| CON.3.BP7 | **Reverse or remedy unsuccessful releases** Unsuccessfully deployed releases are reversed or remedied. | 9.3.18 | The release shall be deployed into the live environment so that the integrity of hardware, software and other service components is maintained during deployment of the release. | 02-29 Release log |
| CON.3.BP7 | **Reverse or remedy unsuccessful releases** Unsuccessfully deployed releases are reversed or remedied. | 9.3.20 | The deployment of the release shall be reversed or remedied if unsuccessful. | 02-29 Release log |
| **DTR.1 Service requirements** | | | | |
| DTR.1.BP3 | **Define the requirements for the new or changed service** The requirements for the new or changed service are defined. | 5.2.4 | As input to planning, the service provider shall take into consideration the potential financial, organizational, and technical impact of delivering the new or changed services. | 12-04 New or changed service requirements |
| DTR.1.BP3 | **Define the requirements for the new or changed service** The requirements for the new or changed service are defined. | 5.2.5 | The service provider shall also take into consideration the potential impact of the new or changed services on the SMS. | 12-04 New or changed service requirements |
| **DTR.2 Service design** | | | | |

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| Base practice reference | Base practice description | ISO/IEC 20000-1 Requirement reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| DTR.2.BP1 | **Design new or changed service** New or changed services are designed to meet agreed business needs and customer requirements. | 5.3.1 | The new or changed services shall be designed [and documented] to include at least: a) authorities and responsibilities for delivery of the new or changed services; b) activities to be performed by the service provider, customer and other parties for delivery of the new or changed services; c) new or changed human resource requirements, including requirements for appropriate education, training, skills and experience; d) financial resource requirements for delivery of the new or changed services; e) new or changed technology to support the delivery of the new or changed services; f) new or changed plans and policies as required by this part of ISO/IEC 20000; g) new or changed contracts and other documented agreements to align with changes in service requirements; h) changes to the SMS; i) new or changed SLAs; j) updates to the catalogue of services; k) procedures, measures and information to be used for delivery of the new or changed services. | 03-26 New or changed service design |
| DTR.2.BP1 | **Design new or changed service** New or changed services are designed to meet agreed business needs and customer requirements. | 5.3.3 | The service provider shall ensure that the design enables the new or changed services to fulfil the service requirements. | 03-26 New or changed service design |
| DTR.2.BP4 | **Develop new or changed service** New or changed services are developed that satisfy the criteria identified in the service specification. | 5.3.4 | The new or changed services shall be developed in accordance with the documented design. | 07-02 New or changed service realisation |
| **DTR.3 Service transition** | | | | |
| DTR.3.BP2 | **Deploy new or changed service** The new or changed service is deployed and tested according to the service specification. | 5.4.1 | The new or changed services shall be tested to verify that they fulfil the service requirements and documented design. | 09-23 New or changed services test report |
| DTR.3.BP2 | **Deploy new or changed service** The new or changed service is deployed and tested according to the service specification. | 5.4.2 | The new or changed services shall be verified against service acceptance criteria agreed in advance by the service provider and interested parties. | 08-43 New or changed services test verification record |
| DTR.3.BP3 | **Accept new or changed service** The new or changed service is accepted in accordance with the service acceptance criteria. | 5.4.3 | If the service acceptance criteria are not met, the service provider and interested parties shall make a decision on necessary actions and deployment. | 08-42 New or changed services acceptance record |
| DTR.3.BP4 | **Communicate outcomes of transitioning of new or changed service** Communicate information regarding the outcome of the transitioning of new or changed service to interested parties. | 5.4.5 | Following the completion of the transition activities, the service provider shall report to interested parties on the outcomes achieved against the expected outcomes. | 08-84 Services stakeholder communication record |
| DTR.3.BP4 | **Communicate outcomes of transitioning of new or changed service** Communicate information regarding the outcome of the transitioning of new or changed service to interested parties. | 6.2.7 | The agreed actions shall be communicated to interested parties. | 08-84 Services stakeholder communication record |
| **DTR.4 Service planning** | | | | |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| DTR.4.BP1 | **Define the scope of the work for provision of new or changed services** The scope of the work for provision of new or changed services is defined. | 5.2.1 | The service provider shall identify the service requirements for the new or changed services. | 12-11 Service requirements |
| DTR.4.BP3 | **Estimate the tasks and resources** The tasks and resources necessary to complete the work are sized and estimated. | 4.1.1.8 | Top management shall: e) ensuring the provision of resources; | 03-43 Service management resource needs |
| DTR.4.BP3 | **Estimate the tasks and resources** The tasks and resources necessary to complete the work are sized and estimated. | 4.4.1.1 | The service provider shall determine [and provide] the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. | 03-43 Service management resource needs |
| DTR.4.BP3 | **Estimate the tasks and resources** The tasks and resources necessary to complete the work are sized and estimated. | 4.4.1.2 | The service provider shall [determine and] provide the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. | 03-43 Service management resource needs |
| DTR.4.BP4 | **Identify the interfaces between organizational units and external parties** Interfaces between organizational units and external parties are identified. | 7.1.1 | The service provider shall identify [and document] the customers, users and interested parties of the services. | 02-41 Service stakeholder list |
| DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 4.5.2.5 | Plans created for specific processes shall be aligned with the service management plan. | 04-15 New or changed service plan |
| DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 4.5.4.2.5 | An audit programme shall be planned. This shall take into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | 04-03 Audit schedule |
| DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 5.2.2 | New or changed services shall be planned to fulfil the service requirements. | 04-15 New or changed service plan |
| DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 5.2.6 | Planning for the new or changed services shall contain or include a reference to at least the following: a) authorities and responsibilities for design, development and transition activities; b) activities to be performed by the service provider and other parties including activities across interfaces from the service provider to other parties; c) communication to interested parties; d) human, technical, information and financial resources; e) timescales for planned activities; f) identification, assessment and management of risks; g) dependencies on other services; h) testing required for the new or changed services; i) service acceptance criteria; j) expected outcomes from delivering the new or changed services, expressed in measurable terms. | 04-15 New or changed service plan |
| DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 5.2.7 | For services that are to be removed, the service provider shall plan for the removal of the service(s). | 04-19 Removal of services plan |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
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| DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 5.2.8 | Planning shall include the date(s) for the removal, archiving, disposal or transfer of data, documentation and service components. | 04-19 Removal of services plan |
| DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 5.2.9 | The service components can include infrastructure and applications with associated licences. | 04-15 New or changed service plan |
| DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 6.3.3.7 | Service continuity [and availability] plans shall be re-tested after major changes to the service environment in which the service provider operates. | 04-28 Supplier agreement review schedule |
| **REL.1 Business relationship management** | | | | |
| REL.1.BP1 | **Identify customers and interested parties** The service provider identifies the customer, users and interested parties of the services. | 7.1.1 | The service provider shall identify [and document] the customers, users and interested parties of the services. | 02-41 Service stakeholder list |
| REL.1.BP2 | **Identify and monitor the needs and expectations of customers** Promote the understanding of the business environment in which the services operate and requirements for new or changed services by establishing a communication mechanism. This information enables the service provider to prepare to respond to these requirements. | 7.1.5 | The communication mechanism shall promote understanding of the business environment in which the services operate and requirements for new or changed services. | 03-05 Customer needs and expectations |
| REL.1.BP2 | **Identify and monitor the needs and expectations of customers** Promote the understanding of the business environment in which the services operate and requirements for new or changed services by establishing a communication mechanism. This information enables the service provider to prepare to respond to these requirements. | 7.1.6 | This information shall enable the service provider to respond to these requirements. | 03-05 Customer needs and expectations |
| REL.1.BP3 | **Plan and implement communication with the customer** For each customer, the service provider has a designated individual who is responsible for managing the customer relationship and customer satisfaction. | 7.1.3 | For each customer, the service provider shall have a designated individual who is responsible for managing the customer relationship and customer satisfaction. | 02-37 Service provider role assignments list |
| REL.1.BP4 | **Monitor service performance** The service provider monitors performance of the service against agreed service targets and other agreed commitments. | 6.1.14 | Results shall be [recorded and] reviewed to identify the causes of nonconformities [and opportunities for improvement]. | 08-76 Service provision nonconformance review record |
| REL.1.BP4 | **Monitor service performance** The service provider monitors performance of the service against agreed service targets and other agreed commitments. | 6.1.15 | Results shall be [recorded and] reviewed to identify the causes of nonconformities] and opportunities for improvement. | 03-47 Service provision improvement opportunity |
| REL.1.BP4 | **Monitor service performance** The service provider monitors performance of the service against agreed service targets and other agreed commitments. | 6.1.20 | The service provider shall monitor performance of the internal group or the customer against agreed service targets and other agreed commitments, [at planned intervals]. | 08-77 Service provision review record |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| REL.1.BP4 | **Monitor service performance** The service provider monitors performance of the service against agreed service targets and other agreed commitments. | 6.1.23 | Results shall be recorded and reviewed to identify the causes of nonconformities and opportunities for improvement. | 08-77 Service provision review record |
| REL.1.BP4 | **Monitor service performance** The service provider monitors performance of the service against agreed service targets and other agreed commitments. | 7.1.7 | The service provider shall review the performance of the services [at planned intervals], with the customer. | 08-66 Service level agreement review record |
| REL.1.BP4 | **Monitor service performance** The service provider monitors performance of the service against agreed service targets and other agreed commitments. | 7.1.8 | The service provider shall review [the performance of the services] at planned intervals, with the customer. | 08-17 Customer satisfaction review record |
| REL.1.BP5 | **Identify changes to the scope of the services, service level agreements and contracts** Identify changes to the scope of services, service level agreements and contracts. | 7.1.10 | Changes to the SLAs shall be co-ordinated with the service level management process. | 11-14 Service provision change request |
| REL.1.BP6 | **Record and manage service complaints through their life cycle to closure** The service provider records, investigates, acts upon, reports and closes service complaints. | 7.1.15 | The service provider shall record, investigate, [act upon, report and close] service complaints. | 02-38 Service provision complaint log |
| REL.1.BP6 | **Record and manage service complaints through their life cycle to closure** The service provider records, investigates, acts upon, reports and closes service complaints. | 7.1.16 | The service provider shall [record, investigate], act upon, report and close service complaints. | 02-38 Service provision complaint log |
| REL.1.BP7 | **Escalate service complaints which are not resolved through normal channels** Where a service complaint is not resolved through the normal channels, escalation is provided to the customer. | 7.1.17 | Where a service complaint is not resolved through the normal channels, escalation shall be provided to the customer. | 09-39 Service provision complaint disposition report |
| REL.1.BP8 | **Measure and analyse customer satisfaction** The service provider measures customer satisfaction based on a representative sample from the customer and users of the services. | 7.1.18 | The service provider shall measure customer satisfaction [at planned intervals] based on a representative sample of the customers and users of the services. | 09-09 Customer satisfaction analysis report |
| **REL.2 Supplier management** | | | | |
| REL.2.BP1 | **Identify contributors to service provision** The service provider identifies other parties who will contribute to the provision of service components for the new or changed services. | 5.2.10 | The service provider shall identify other parties who will contribute to the provision of service components for the new or changed services. | 02-45 Supplier role assignments list |
| REL.2.BP1 | **Identify contributors to service provision** The service provider identifies other parties who will contribute to the provision of service components for the new or changed services. | 7.2.2 | For each supplier, the service provider shall have a designated individual who is responsible for managing the relationship, the contract and performance of the supplier. | 02-45 Supplier role assignments list |
| REL.2.BP1 | **Identify contributors to service provision** The service provider identifies other parties who will contribute to the provision of service components for the new or changed services. | 7.2.9 | The service provider shall ensure that roles of, and relationships between, lead and sub-contracted suppliers [are documented]. | 02-45 Supplier role assignments list |

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| Base practice reference | Base practice description | ISO/IEC 20000-1 Requirement reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| REL.2.BP2 | **Negotiate services with each supplier** Services to be provided are negotiated with each supplier. | 7.2.3 | The service provider and the supplier shall [agree] a [documented] contract. | 01-02 Supplier agreement |
| REL.2.BP2 | **Negotiate services with each supplier** Services to be provided are negotiated with each supplier. | 7.2.6 | The contract shall contain or include a reference to: a) scope of the services to be delivered by the supplier; b) dependencies between services, processes and the parties; c) requirements to be fulfilled by the supplier; d) service targets; e) interfaces between service management processes operated by the supplier and other parties; f) integration of the supplier's activities within the SMS; g) workload characteristics; h) contract exceptions and how these will be handled; i) authorities and responsibilities of the service provider and the supplier; j) reporting and communication to be provided by the supplier; k) basis for charging; l) activities and responsibilities for the expected or early termination of the contract and the transfer of services to a different party. | 01-02 Supplier agreement |
| REL.2.BP2 | **Negotiate services with each supplier** Services to be provided are negotiated with each supplier. | 7.2.7 | The service provider shall [agree] with the supplier service levels to support and align with the SLAs between the service provider and the customer. | 01-02 Supplier agreement |
| REL.2.BP3 | **Determine roles and relationships** Roles and relationships between suppliers are determined. | 5.2.10 | The service provider shall identify other parties who will contribute to the provision of service components for the new or changed services. | 02-45 Supplier role assignments list |
| REL.2.BP3 | **Determine roles and relationships** Roles and relationships between suppliers are determined. | 7.2.2 | For each supplier, the service provider shall have a designated individual who is responsible for managing the relationship, the contract and performance of the supplier. | 02-45 Supplier role assignments list |
| REL.2.BP3 | **Determine roles and relationships** Roles and relationships between suppliers are determined. | 7.2.9 | The service provider shall ensure that roles of, and relationships between, lead and sub-contracted suppliers [are documented]. | 02-45 Supplier role assignments list |
| REL.2.BP4 | **Confirm capability of subcontracted suppliers** The capability of subcontracted suppliers to meet obligations is confirmed. | 5.2.11 | The service provider shall evaluate their ability to fulfil the service requirements. | 08-88 Supplier capability assessment record |
| REL.2.BP4 | **Confirm capability of subcontracted suppliers** The capability of subcontracted suppliers to meet obligations is confirmed. | 5.2.12 | The results of the evaluation shall be recorded and necessary actions taken. | 08-88 Supplier capability assessment record |
| REL.2.BP4 | **Confirm capability of subcontracted suppliers** The capability of subcontracted suppliers to meet obligations is confirmed. | 7.2.11 | The service provider shall verify that lead suppliers are managing their sub-contracted suppliers to fulfil contractual obligations. | 08-88 Supplier capability assessment record |
| REL.2.BP5 | **Monitor supplier obligations to meet service requirements** Supplier obligations to meet service requirements are monitored. | 7.2.12 | The service provider shall review the supplier's performance against the contract. | 08-87 Supplier agreement review record |
| REL.2.BP5 | **Monitor supplier obligations to meet service requirements** Supplier obligations to meet service requirements are monitored. | 7.2.13 | The review shall be conducted [at planned intervals,] to determine that contractual obligations are being met and that the contract reflects current requirements. | 08-87 Supplier agreement review record |
| REL.2.BP6 | **Monitor supplier performance** Supplier performance against agreed criteria is monitored. | 7.2.19 | The performance shall be measured against service targets and other contractual obligations. | 09-46 Supplier performance evaluation report |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| REL.2.BP6 | **Monitor supplier performance** Supplier performance against agreed criteria is monitored. | 7.2.21 | Results shall be [recorded and] reviewed [to identify the causes of nonconformities and opportunities for improvement]. | 09-46 Supplier performance evaluation report |

**RES.1 Incident management**

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| RES.1.BP1 | **Record and classify incidents** Incidents are recorded and classified with an appropriate priority. Major incidents are distinguished from other types of incidents by the appropriate assignment of status. | 8.1.5 | Incidents and service requests shall be managed according to the procedures. | 08-24 Incident record |
| RES.1.BP1 | **Record and classify incidents** Incidents are recorded and classified with an appropriate priority. Major incidents are distinguished from other types of incidents by the appropriate assignment of status. | 8.1.18 | Major incidents shall be [classified and] managed [according to a documented procedure]. | 08-24 Incident record |
| RES.1.BP1 | **Record and classify incidents** Incidents are recorded and classified with an appropriate priority. Major incidents are distinguished from other types of incidents by the appropriate assignment of status. | 8.1.20 | Major incidents shall be [classified and] managed according to a documented procedure. | 08-24 Incident record |
| RES.1.BP2 | **Prioritize and analyse incidents** Incidents are prioritised and analysed, taking into account the impact and urgency of the incident or service request. | 8.1.6 | When prioritizing incidents and service requests, the service provider shall take into consideration the impact and urgency of the incident or service request. | 08-23 Incident disposition record |
| RES.1.BP2 | **Prioritize and analyse incidents** Incidents are prioritised and analysed, taking into account the impact and urgency of the incident or service request. | 8.1.11 | If service targets cannot be met, [the service provider shall inform the customer and interested parties] and escalate according to the procedure. | 08-23 Incident disposition record |
| RES.1.BP3 | **Resolve and close incidents** Incidents are resolved and closed. | 8.1.6 | When prioritizing incidents and service requests, the service provider shall take into consideration the impact and urgency of the incident or service request. | 08-23 Incident disposition record |
| RES.1.BP3 | **Resolve and close incidents** Incidents are resolved and closed. | 8.1.11 | If service targets cannot be met, [the service provider shall inform the customer and interested parties] and escalate according to the procedure. | 08-23 Incident disposition record |
| RES.1.BP4 | **Escalate incidents as appropriate** Escalate incidents which are not progressed according to agreed service levels. | 8.1.6 | When prioritizing incidents and service requests, the service provider shall take into consideration the impact and urgency of the incident or service request. | 08-23 Incident disposition record |
| RES.1.BP4 | **Escalate incidents as appropriate** Escalate incidents which are not progressed according to agreed service levels. | 8.1.11 | If service targets cannot be met, [the service provider shall inform the customer and interested parties] and escalate according to the procedure. | 08-23 Incident disposition record |
| RES.1.BP5 | **Report incident status and progress** Communicate information regarding the status and progress of incidents to interested parties. | 8.1.10 | The service provider shall keep the customer informed of the progress of their reported incident or service request. | 08-25 Incident stakeholder communication record |
| RES.1.BP5 | **Report incident status and progress** Communicate information regarding the status and progress of incidents to interested parties. | 8.1.12 | If service targets cannot be met, the service provider shall inform the customer and interested parties [and escalate according to the procedure.] | 08-25 Incident stakeholder communication record |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Requirement reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| RES.1.BP5 | **Report incident status and progress** Communicate information regarding the status and progress of incidents to interested parties. | 8.1.19 | Top management shall be informed of major incidents. | 08-25 Incident stakeholder communication record |
| **RES.2 Service request management** | | | | |
| RES.2.BP1 | **Record and classify service requests** Service requests are recorded and classified with an appropriate priority. | 8.1.5 | Incidents and service requests shall be managed according to the procedures. | 08-81 Service request record |
| RES.2.BP2 | **Prioritize and analyse service requests** Service requests are prioritised and analysed, taking into account the impact and urgency of the service request. | 8.1.6 | When prioritizing incidents and service requests, the service provider shall take into consideration the impact and urgency of the incident or service request. | 08-80 Service request disposition record |
| RES.2.BP2 | **Prioritize and analyse service requests** Service requests are prioritised and analysed, taking into account the impact and urgency of the service request. | 8.1.11 | If service targets cannot be met, [the service provider shall inform the customer and interested parties] and escalate according to the procedure. | 08-80 Service request disposition record |
| RES.2.BP3 | **Resolve and close service requests** Service requests are resolved and closed. | 8.1.6 | When prioritizing incidents and service requests, the service provider shall inform the impact and urgency of the incident or service request. | 08-80 Service request disposition record |
| RES.2.BP3 | **Resolve and close service requests** Service requests are resolved and closed. | 8.1.11 | If service targets cannot be met, [the service provider shall inform the customer and interested parties] and escalate according to the procedure. | 08-80 Service request disposition record |
| RES.2.BP4 | **Escalate service requests as appropriate** Escalate service requests which are not progressed according to agreed service levels. | 8.1.6 | When prioritizing incidents and service requests, the service provider shall take into consideration the impact and urgency of the incident or service request. | 08-80 Service request disposition record |
| RES.2.BP4 | **Escalate service requests as appropriate** Escalate service requests which are not progressed according to agreed service levels. | 8.1.11 | If service targets cannot be met, [the service provider shall inform the customer and interested parties] and escalate according to the procedure. | 08-80 Service request disposition record |
| RES.2.BP5 | **Report service request status and progress** Communicate information regarding the status and progress of service requests to interested parties. | 8.1.10 | The service provider shall keep the customer informed of the progress of their reported incident or service request. | 08-82 Service request stakeholder communication record |
| RES.2.BP5 | **Report service request status and progress** Communicate information regarding the status and progress of service requests to interested parties. | 8.1.12 | If service targets cannot be met, the service provider shall inform the customer and interested parties [and escalate according to the procedure.] | 08-82 Service request stakeholder communication record |
| **RES.3 Problem management** | | | | |
| RES.3.BP1 | **Identify problems** Problems are identified, recorded and classified. | 8.2.4 | Problems shall be managed according to the procedure. | 09-25 Problem disposition report |
| RES.3.BP5 | **Minimise the effects of unresolved problems** The effect of unresolved problems is minimised. | 8.2.7 | Where the root cause has been identified, but the problem has not been permanently resolved, the service provider shall identify actions to reduce or eliminate the impact of the problem on the services. | 09-26 Problem mitigation report |
| RES.3.BP5 | **Minimise the effects of unresolved problems** The effect of unresolved problems is minimised. | 8.2.8 | Known errors shall be recorded. | 02-27 Problem management known error log |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| RES.3.BP5 | **Minimise the effects of unresolved problems** The effect of unresolved problems is minimised. | 8.2.12 | Up-to-date information on known errors and problem resolutions shall be provided to the incident and service request management process. | 09-26 Problem mitigation report |
| RES.3.BP6 | **Communicate problem status to interested parties** Communicate the status and progress of the resolution of problems to interested parties | 8.2.11 | The effectiveness of problem resolution shall be [monitored, reviewed] and reported. | 08-45 Problem report user communication record |
| **SDE.1 Budgeting and accounting for IT services** | | | | |
| SDE.1.BP1 | **Estimate costs of service provision** Information is provided to support the costing of service provision. | 6.4.10 | Information shall be provided to the change management process to support the costing of requests for change. | 04-06 Change of services provision cost estimates |
| SDE.1.BP2 | **Produce budgets using cost estimates** Costs are budgeted to enable effective financial control and decision-making for services delivered. | 4.5.3.2 | .. through activities including at least: a) allocation and management of funds and budgets; | 04-26 Services provision budget |
| SDE.1.BP2 | **Produce budgets using cost estimates** Costs are budgeted to enable effective financial control and decision-making for services delivered. | 6.4.6 | Costs shall be budgeted to enable effective financial control and decision-making for services delivered. | 04-26 Services provision budget |
| SDE.1.BP3 | **Control costs and deviations from the budget** The service provider monitors costs against the budget and reviews the financial forecasts. | 6.4.7 | The service provider shall monitor [and report] costs against the budget, review the financial forecasts [and manage costs]. | 09-40 Services provision costs against budget variance report |
| SDE.1.BP3 | **Control costs and deviations from the budget** The service provider monitors costs against the budget and reviews the financial forecasts. | 6.4.8 | The service provider shall [monitor and report costs against the budget, review the financial forecasts and] manage costs. | 09-40 Services provision costs against budget variance report |
| SDE.1.BP4 | **Resolve deviations from the budget** The service provider manages costs. | 6.4.7 | The service provider shall monitor [and report] costs against the budget, review the financial forecasts [and manage costs]. | 09-40 Services provision costs against budget variance report |
| SDE.1.BP4 | **Resolve deviations from the budget** The service provider manages costs. | 6.4.8 | The service provider shall [monitor and report costs against the budget, review the financial forecasts and] manage costs. | 09-40 Services provision costs against budget variance report |
| SDE.1.BP5 | **Communicate to interested parties deviations from the budget and costs** The service provider reports costs against the budget. | 6.4.7 | The service provider shall monitor [and report] costs against the budget, review the financial forecasts [and manage costs]. | 09-40 Services provision costs against budget variance report |
| SDE.1.BP5 | **Communicate to interested parties deviations from the budget and costs** The service provider reports costs against the budget. | 6.4.8 | The service provider shall [monitor and report costs against the budget, review the financial forecasts and] manage costs. | 09-40 Services provision costs against budget variance report |
| SDE.1.BP5 | **Communicate to interested parties deviations from the budget and costs** The service provider reports costs against the budget. | 6.4.9 | The service provider shall [monitor and] report costs against the budget, [review the financial forecasts and manage costs]. | 08-07 Budgeting and accounting communication record |
| **SDE.2 Capacity management** | | | | |
| SDE.2.BP1 | **Identify current and future capacity and performance requirements** The service provider identifies the current and future capacity and performance requirements with the customer and interested parties. | 6.5.1 | The service provider shall identify [and agree] capacity and performance requirements with the customer and interested parties. | 12-02 Capacity requirements |

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| Base practice reference | Base practice description | ISO/IEC 20000-1 Requirement reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SDE.2.BP2 | **Provide capacity** The service provider provides capacity to meet current capacity and performance requirements. | 6.5.3 | The service provider shall create, implement [and maintain] a capacity plan taking into consideration human, technical, information and financial resources. | 04-05 Capacity plan |
| SDE.2.BP2 | **Provide capacity** The service provider provides capacity to meet current capacity and performance requirements. | 6.5.6 | The capacity plan shall include at least: a) current and forecast demand for services; b) expected impact of agreed requirements for availability, service continuity and service levels; c) time-scales, thresholds and costs for upgrades to service capacity; d) potential impact of statutory, regulatory, contractual or organizational changes; e) potential impact of new technologies and new techniques; f) procedures to enable predictive analysis, or reference to them. | 04-05 Capacity plan |
| SDE.2.BP2 | **Provide capacity** The service provider provides capacity to meet current capacity and performance requirements. | 6.5.10 | The service provider shall provide sufficient capacity to fulfil agreed capacity and performance requirements. | 04-05 Capacity plan |
| SDE.2.BP3 | **Monitor capacity usage** The service provider monitors capacity usage, analyses capacity data and tunes performance. | 6.5.7 | The service provider shall monitor capacity usage, [analyse capacity data and tune performance. ] | 09-04 Capacity usage analysis report |
| SDE.2.BP3 | **Monitor capacity usage** The service provider monitors capacity usage, analyses capacity data and tunes performance. | 6.5.8 | The service provider shall [monitor capacity usage], analyse capacity data [and tune performance]. | 09-04 Capacity usage analysis report |
| SDE.2.BP3 | **Monitor capacity usage** The service provider monitors capacity usage, analyses capacity data and tunes performance. | 6.5.9 | The service provider shall [monitor capacity usage, analyse capacity data and] tune performance. | 09-04 Capacity usage analysis report |
| SDE.2.BP4 | **Prepare capacity to meet future capacity needs** The service provider provides sufficient capacity to fulfil agreed capacity and performance requirements. | 6.5.5 | Changes to the capacity plan shall be controlled by the change management process. | 11-02 Capacity plan change request |
| **SDE.3 Information security management** | | | | |
| SDE.3.BP1 | **Identify information security requirements** The service provider identifies all parties that have a need to access, use or manage the service provider's information or services. | 6.6.2.8 | The service provider shall identify external organizations that have a need to access, use or manage the service provider's information or services. | 02-22 Information security requirements (3rd party access) access rights list |
| SDE.3.BP1 | **Identify information security requirements** The service provider identifies all parties that have a need to access, use or manage the service provider's information or services. | 6.6.2.11 | The service provider shall [document, agree and] implement information security controls with these external organizations. | 02-22 Information security requirements (3rd party access) access rights list |
| SDE.3.BP4 | **Assess information security risk** Management ensures that information security risk assessments are conducted at planned intervals. | 6.6.1.6 | Management shall: d) ensure that information security risk assessments are conducted [at planned intervals]; | 09-19 Information security risk assessment report |
| SDE.3.BP5 | **Define information security risk measures and controls** The information security controls describe the risks to which the controls relate, their operation and maintenance. | 6.6.2.3 | These information security controls [shall be documented and] shall describe the risks to which the controls relate, their operation and maintenance. | 09-16 Information security controls report |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SDE.3.BP6 | **Implement information security risk measures and controls** The service provider operates appropriate information security controls to: a) fulfil the requirements of the information security policy; b) achieve information security management objectives; c) manage risks related to information security. The service provider also implements information security controls with external organizations. | 6.6.2.8 | The service provider shall identify external organizations that have a need to access, use or manage the service provider's information or services. | 02-22 Information security requirements (3rd party access) access rights list |
| SDE.3.BP6 | **Implement information security risk measures and controls** The service provider operates appropriate information security controls to: a) fulfil the requirements of the information security policy; b) achieve information security management objectives; c) manage risks related to information security. The service provider also implements information security controls with external organizations. | 6.6.2.11 | The service provider shall [document, agree and] implement information security controls with these external organizations. | 02-22 Information security requirements (3rd party access) access rights list |
| SDE.3.BP6 | **Implement information security risk measures and controls** The service provider operates appropriate information security controls to: a) fulfil the requirements of the information security policy; b) achieve information security management objectives; c) manage risks related to information security. The service provider also implements information security controls with external organizations. | 9.1.6 | The CMDB shall be managed to ensure its reliability and accuracy, including control of update access. | 02-13 Configuration management DB repository access rights list |
| SDE.3.BP7 | **Record security incidents** Security incidents are quantified and recorded. | 6.6.3.2 | Information security incidents shall be managed using the incident management procedures, with a priority appropriate to the information security risks. | 08-29 Information security incident record |
| SDE.3.BP8 | **Communicate information security concerns** Communicate information security concerns to interested parties. | 6.6.1.3 | Management shall: a) communicate the information security policy and the importance of conforming to the policy to appropriate personnel within the service provider, customer and suppliers; | 08-33 Information security policy communication record |
| SDE.3.BP8 | **Communicate information security concerns** Communicate information security concerns to interested parties. | 6.6.1.3 | Management shall: a) communicate the information security policy and the importance of conforming to the policy to appropriate personnel within the service provider, customer and suppliers; | 08-28 Information security incident communication record |
| SDE.3.BP8 | **Communicate information security concerns** Communicate information security concerns to interested parties. | 6.6.3.4 | Information security incidents shall be reported [and reviewed to identify opportunities for improvement.] | 08-28 Information security incident communication record |
| **SDE.4 Service availability management** | | | | |
| SDE.4.BP1 | **Identify service availability requirements** The service provider identifies with the customer and interested parties service availability requirements. The agreed requirements take into consideration applicable business plans, service requirements, service level agreements and risks. | 6.3.1.5 | The service provider shall identify [and agree] with the customer and interested parties service [continuity and] availability requirements. | 12-07 Service availability requirements |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Requirement reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SDE.4.BP1 | **Identify service availability requirements** The service provider identifies with the customer and interested parties service availability requirements. The agreed requirements take into consideration applicable business plans, service requirements, service level agreements and risks. | 6.3.1.9 | The agreed service [continuity and] availability requirements shall include at least: a) access rights to the services; b) service response times; c) end to end availability of services. | 12-07 Service availability requirements |
| SDE.4.BP2 | **Develop a service availability plan** The service provider creates and implements a service availability plan. | 6.3.2.3 | The service provider shall create, implement [and maintain] a service [continuity plan(s) and] an availability plan(s). | 04-22 Service availability plan |
| SDE.4.BP2 | **Develop a service availability plan** The service provider creates and implements a service availability plan. | 6.3.2.8 | The availability plan(s) shall include at least availability requirements and targets. | 04-22 Service availability plan |
| SDE.4.BP3 | **Test service availability** Service availability is tested against the service availability requirements to validate the plan. | 6.3.3.6 | Availability plans shall be tested against the availability requirements. | 09-31 Service availability plan test report |
| SDE.4.BP3 | **Test service availability** Service availability is tested against the service availability requirements to validate the plan. | 6.3.3.8 | Service [continuity and] availability plans shall be re-tested after major changes to the service environment in which the service provider operates. | 09-31 Service availability plan test report |
| SDE.4.BP4 | **Monitor service availability** Service availability is monitored. | 6.3.3.1 | Availability of services shall be monitored, the results recorded [and compared with agreed targets]. | 02-33 Service availability log |
| SDE.4.BP5 | **Identify underlying causes of service non-availability** Underlying causes of unplanned service non-availability are identified and analysed. | 6.3.3.3 | Unplanned non-availability shall be investigated [and necessary action(s) taken]. | 09-30 Service availability analysis report |
| SDE.4.BP6 | **Take action to address underlying causes** Take corrective actions to address identified underlying causes for unplanned non-availability. | 6.3.3.4 | [Unplanned non-availability shall be investigated and] necessary actions taken. | 08-83 Service unplanned non-availability corrective action disposition record |
| SDE.4.BP7 | **Reflect changes in requirements in the service availability plan** Changes to service availability requirements are reflected in the service availability plan. | 6.3.2.10 | The service provider shall assess the impact of requests for change on the service [continuity plan(s) and the] availability plan(s) | 11-10 Service availability plan change request |
| **SDE.5 Service continuity management** | | | | |
| SDE.5.BP1 | **Identify service continuity requirements** The service provider identifies with the customer and interested parties service continuity requirements. The agreed requirements take into consideration applicable business plans, service requirements, service level agreements and risks. | 6.3.1.3 | The service provider shall identify [and agree] with the customer and interested parties service continuity [and availability] requirements. | 12-08 Service continuity requirements |
| SDE.5.BP1 | **Identify service continuity requirements** The service provider identifies with the customer and interested parties service continuity requirements. The agreed requirements take into consideration applicable business plans, service requirements, service level agreements and risks. | 6.3.1.7 | The agreed requirements shall take into consideration applicable business plans, service requirements, SLAs and risks. | 12-08 Service continuity requirements |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SDE.5.BP1 | **Identify service continuity requirements** The service provider identifies with the customer and interested parties service continuity requirements. The agreed requirements take into consideration applicable business plans, service requirements, service level agreements and risks. | 6.3.1.8 | The agreed service continuity [and availability] requirements shall include at least: a) access rights to the services; b) service response times; c) end to end availability of services. | 12-08 Service continuity requirements |
| SDE.5.BP1 | **Identify service continuity requirements** The service provider identifies with the customer and interested parties service continuity requirements. The agreed requirements take into consideration applicable business plans, service requirements, service level agreements and risks. | 6.3.2.7 | The service continuity plan(s), contact lists and the CMDB shall be accessible when access to normal service locations is prevented. | 12-08 Service continuity requirements |
| SDE.5.BP2 | **Develop a service continuity plan** The service provider creates and implements a service continuity plan. | 6.3.2.1 | The service provider shall create, implement [and maintain] a service continuity plan(s) [and an availability plan(s).] | 04-23 Service continuity plan |
| SDE.5.BP2 | **Develop a service continuity plan** The service provider creates and implements a service continuity plan. | 6.3.2.6 | The service continuity plan(s) shall include at least: a) procedures to be implemented in the event of a major loss of service, or reference to them; b) availability targets when the plan is invoked; c) recovery requirements; d) approach for the return to normal working conditions. | 04-23 Service continuity plan |
| SDE.5.BP3 | **Test service continuity** Service continuity is tested against the service continuity requirements to validate the plan. | 6.3.3.5 | Service continuity plans shall be tested against the service continuity requirements. | 09-33 Service continuity plan test report |
| SDE.5.BP3 | **Test service continuity** Service continuity is tested against the service continuity requirements to validate the plan. | 6.3.3.7 | Service continuity [and availability] plans shall be re-tested after major changes to the service environment in which the service provider operates. | 09-33 Service continuity plan test report |
| SDE.5.BP3 | **Test service continuity** Service continuity is tested against the service continuity requirements to validate the plan. | 6.3.3.9 | The results of the tests shall be recorded. | 09-33 Service continuity plan test report |
| SDE.5.BP4 | **Reflect changes in requirements in the service continuity plan** Changes to service continuity requirements are reflected in the service continuity plan. | 6.3.2.5 | Changes to these plans shall be controlled by the change management process. | 11-12 Service continuity plan change request |
| SDE.5.BP4 | **Reflect changes in requirements in the service continuity plan** Changes to service continuity requirements are reflected in the service continuity plan. | 6.3.2.9 | The service provider shall assess the impact of requests for change on the service continuity plan(s) [and the availability plan(s)]. | 11-12 Service continuity plan change request |
| SDE.5.BP4 | **Reflect changes in requirements in the service continuity plan** Changes to service continuity requirements are reflected in the service continuity plan. | 6.3.3.11 | Where deficiencies are found, the service provider shall take necessary actions [and report on the actions taken]. | 08-61 Service continuity plan amendment record |
| **SDE.6 Service level management** | | | | |
| SDE.6.BP1 | **Identify services and dependencies** Services and dependencies are identified. | 6.1.2 | The service provider shall [agree] a catalogue of services with the customer. | 03-37 Service catalogue |
| SDE.6.BP1 | **Identify services and dependencies** Services and dependencies are identified. | 6.1.3 | The catalogue of services shall include the dependencies between services and service components. | 03-37 Service catalogue |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
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| SDE.6.BP2 | **Define service level agreements** Service level targets and workload characteristics for services are defined in service level agreements established with internal group or the customer. | 6.1.4 | For each service delivered, one or more SLAs shall be agreed with the customer. | 01-01 Service level agreement |
| SDE.6.BP2 | **Define service level agreements** Service level targets and workload characteristics for services are defined in service level agreements established with internal group or the customer. | 6.1.6 | SLAs shall include agreed service targets, workload characteristics and exceptions. | 01-01 Service level agreement |
| SDE.6.BP2 | **Define service level agreements** Service level targets and workload characteristics for services are defined in service level agreements established with internal group or the customer. | 6.1.16 | [For service components provided by an internal group or the customer, the service provider shall develop, agree, review and maintain] a documented agreement to define the activities and interfaces between the two parties. | 01-01 Service level agreement |
| SDE.6.BP2 | **Define service level agreements** Service level targets and workload characteristics for services are defined in service level agreements established with internal group or the customer. | 6.1.17 | For service components provided by an internal group or the customer, the service provider shall develop, [agree, review and maintain a documented] agreement to define the activities and interfaces between the two parties. | 01-01 Service level agreement |
| SDE.6.BP3 | **Monitor services against service level agreements** Services are monitored against service level agreements. | 6.1.11 | The service provider shall monitor trends and performance against service targets [at planned intervals.] | 09-36 Service level performance analysis report |
| SDE.6.BP3 | **Monitor services against service level agreements** Services are monitored against service level agreements. | 6.1.13 | Results shall be recorded [and reviewed to identify the causes of noncomformities and opportunities for improvement.] | 09-36 Service level performance analysis report |
| SDE.6.BP3 | **Monitor services against service level agreements** Services are monitored against service level agreements. | 6.1.22 | Results shall be recorded [and reviewed to identify the causes of noncomformities and opportunities for improvement.] | 09-36 Service level performance analysis report |
| SDE.6.BP3 | **Monitor services against service level agreements** Services are monitored against service level agreements. | 7.1.20 | The results shall be analysed and reviewed [to identify opportunities for improvement.] | 09-36 Service level performance analysis report |
| SDE.6.BP5 | **Manage changes to service level agreements** Changes to service requirements are reflected in the service level agreements. | 6.1.9 | Changes to the documented service requirements, catalogue of services, SLAs and other documented agreements shall be controlled by the change management process. | 11-11 Service catalogue change request |
| SDE.6.BP5 | **Manage changes to service level agreements** Changes to service requirements are reflected in the service level agreements. | 6.1.9 | Changes to the documented service requirements, catalogue of services, SLAs and other documented agreements shall be controlled by the change management process. | 11-13 Service level agreement change request |
| **SDE.7 Service reporting** | | | | |
| SDE.7.BP2 | **Define service report content** Service report content is defined in terms of identified service reporting needs and requirements. | 6.2.1 | The description of each service report, including its identity, purpose, audience, frequency and details of the data source(s), shall be documented [and agreed between the service provider and interested parties.] | 03-48 Service report content definition |
| SDE.7.BP3 | **Produce service reports** Service reports are produced according to the service report requirements. | 6.2.3 | Service reports shall be produced for services using information from the delivery of services and the SMS activities, including the service management processes. | 09-40 Service report |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SDE.7.BP3 | **Produce service reports** Service reports are produced according to the service report requirements. | 6.2.4 | Service reporting shall include at least: a) performance against service targets; b) relevant information about significant events including at least major incidents, deployment of new or changed services and the service continuity plan being invoked; c) workload characteristics including volumes and periodic changes in workload; d) detected nonconformities against the requirements in this part of ISO/IEC 20000, the SMS requirements or the service requirements and their identified causes; e) trend information; f) customer satisfaction measurements, service complaints and results of the analysis of satisfaction measurements and complaints. | 09-40 Service report |
| **SMS.1 Audit** | | | | |
| SMS.1.BP1 | **Define the audit scope and purpose** The scope of each audit is defined taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | 4.5.4.2.5 | An audit programme shall be planned. This shall take into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | 04-03 Audit schedule |
| SMS.1.BP1 | **Define the audit scope and purpose** The scope of each audit is defined taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | 4.5.4.2.5 | An audit programme shall be planned. This shall take into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | 04-02 Audit plan |
| SMS.1.BP2 | **Assure the objectivity and impartiality of audit conduct** The selection of auditors and conduct of audits ensures objectivity and impartiality of the audit. Auditors do not audit their own work. | 4.5.4.2.8 | The selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit. | 02-07 Auditor list |
| SMS.1.BP2 | **Assure the objectivity and impartiality of audit conduct** The selection of auditors and conduct of audits ensures objectivity and impartiality of the audit. Auditors do not audit their own work. | 4.5.4.2.9 | Auditors shall not audit their own work. | 02-07 Auditor list |
| SMS.1.BP3 | **Conduct audits** Audits are conducted to determine the conformity of selected services, products and processes with requirements, plans and agreements. | 4.5.4.2.1 | The service provider shall conduct internal audits, [at planned intervals], to determine whether the SMS and the services: a) fulfil the service requirements in this part of ISO/IEC 20000; b) fulfil the service requirements and the SMS requirements identified by the service provider; c) are effectively implemented and maintained. | 08-06 Audit result |
| SMS.1.BP4 | **Record nonconformities** Nonconformities are identified against the management system requirements, the requirements identified by the service provider or the service requirements. The results of internal audits including nonconformities, concerns and actions identified, are recorded. | 4.5.4.1.8 | Nonconformities shall be identified against the requirements in this part of ISO/IEC 20000, the SMS requirements identified by the service provider or the service requirements. | 08-05 Audit nonconformity record |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.1.BP4 | **Record nonconformities** Nonconformities are identified against the management system requirements, the requirements identified by the service provider or the service requirements. The results of internal audits including nonconformities, concerns and actions identified, are recorded. | 4.5.4.1.10 | The results of internal audits [and management reviews], including nonconformities, concerns and actions identified, shall be recorded. | 08-05 Audit nonconformity record |
| SMS.1.BP5 | **Communicate nonconformities to those responsible for corrective action and resolution** Results and actions are prioritized and responsibility allocated for actions, and communicated to interested parties. | 4.5.4.2.10 | Nonconformities shall be communicated, prioritized and responsibility allocated for actions. | 08-03 Audit nonconformance communication record |
| SMS.1.BP5 | **Communicate nonconformities to those responsible for corrective action and resolution** Results and actions are prioritized and responsibility allocated for actions, and communicated to interested parties. | 4.5.4.2.13 | [Follow-up activities shall include the verification of the actions taken and] the reporting of results. | 08-03 Audit nonconformance communication record |
| SMS.1.BP6 | **Verify corrective actions for nonconformities** Management responsible for the area being audited ensures that any corrections and corrective actions are taken without undue delay to eliminate nonconformities and their causes. Follow-up activities include the verification of the actions taken. | 4.5.4.2.11 | The management responsible for the area being audited shall ensure that any corrections and corrective actions are taken without undue delay to eliminate nonconformities and their causes. | 08-04 Audit nonconformity disposition record |
| SMS.1.BP6 | **Verify corrective actions for nonconformities** Management responsible for the area being audited ensures that any corrections and corrective actions are taken without undue delay to eliminate nonconformities and their causes. Follow-up activities include the verification of the actions taken. | 4.5.4.2.12 | Follow-up activities shall include the verification of the actions taken [and the reporting of results]. | 08-04 Audit nonconformity disposition record |
| **SMS.2 Improvement** | | | | |
| SMS.2.BP1 | **Identify opportunities for improvement** Opportunities for improvement, including corrective and preventive actions, are documented. | 4.5.5.1.5 | Opportunities for improvement (including corrective and preventive actions, shall be documented. | 08-21 Improvement opportunity record |
| SMS.2.BP1 | **Identify opportunities for improvement** Opportunities for improvement, including corrective and preventive actions, are documented. | 6.1.15 | Results shall be [recorded and] reviewed to identify [the causes of nonconformities] and opportunities for improvement. | 03-47 Service provision improvement opportunity |
| SMS.2.BP2 | **Evaluate opportunities for improvement** The service provider uses the evaluation criteria in the policy on continual improvement, when making decisions on opportunities for improvement. | 4.5.5.2.2 | The service provider shall use the evaluation criteria in the policy on continual improvement, when making decisions on opportunities for improvement. | 09-11 Improvement opportunity evaluation report |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.2.BP3 | **Plan approved improvements** Opportunities for improvement are prioritized. Approved improvements are planned. The service provider manages improvement activities including setting targets for improvements in one or more of quality, value, capability, cost, productivity, resource utilization and risk reduction. | 4.5.5.2.1 | Opportunities for improvement shall be prioritized. | 04-11 Improvement plan |
| SMS.2.BP3 | **Plan approved improvements** Opportunities for improvement are prioritized. Approved improvements are planned. The service provider manages improvement activities including setting targets for improvements in one or more of quality, value, capability, cost, productivity, resource utilization and risk reduction. | 4.5.5.2.3 | Approved improvements shall be planned. | 04-11 Improvement plan |
| SMS.2.BP4 | **Implement approved improvements** The service provider manages improvement activities including ensuring that approved improvements are implemented. | 4.5.5.2.5 | The service provider shall manage improvement activities that include at least: b) ensuring that approved improvements are implemented; | 09-10 Implemented improvement evaluation report |
| SMS.2.BP5 | **Communicate results of improvement actions** The service provider reports on implemented improvements. | 4.5.5.2.8 | The service provider shall manage improvement activities that include at least: e) reporting on implemented improvements. | 08-20 Improvement communication record |
| **SMS.3 Information item management** | | | | |
| SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 4.3.1.1 | The service provider shall establish [and maintain] documents, including records, to ensure effective planning, operation and control of the SMS. | 07-01 Information item |
| SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 4.5.4.2.1 | The service provider shall conduct internal audits, [at planned intervals], to determine whether the SMS and the services: a) fulfil the requirements in this part of ISO/IEC 20000; b) fulfil the service requirements and the SMS requirements identified by the service provider; c) are effectively implemented and maintained. | 08-06 Audit result |
| SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 5.3.1 | The new or changed services shall be designed [and documented] to include at least: a) authorities and responsibilities for delivery of the new or changed services; b) activities to be performed by the service provider, customer and other parties for delivery of the new or changed services; c) new or changed human resource requirements, including requirements for appropriate education, training, skills and experience; d) financial resource requirements for delivery of the new or changed services; e) new or changed technology to support the delivery of the new or changed services; f) new or changed plans and policies as required by this part of ISO/IEC 20000; g) new or changed contracts and other documented agreements to align with changes in service requirements; h) changes to the SMS; i) new or changed SLAs; j) updates to the catalogue of services; k) procedures, measures and information to be used for delivery of the new or changed services. | 03-26 New or changed service design |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 5.3.3 | The service provider shall ensure that the design enables the new or changed services to fulfil the service requirements. | 03-26 New or changed service design |
| SMS.3.BP2 | **Control and issue information items** Information items are controlled and issued according to defined criteria. Note: The evidence in ISO/IEC 20000-1 is the verb 'approve' and 'agree'. | 4.3.1.2 | The service provider shall [establish and] maintain documents, including records, to ensure effective planning, operation and control of the SMS. | 08-85 Status record |
| SMS.3.BP2 | **Control and issue information items** Information items are controlled and issued according to defined criteria. Note: The evidence in ISO/IEC 20000-1 is the verb 'approve' and 'agree'. | 4.3.2.1 | Documents required by the SMS shall be controlled. | 08-85 Status record |
| SMS.3.BP2 | **Control and issue information items** Information items are controlled and issued according to defined criteria. Note: The evidence in ISO/IEC 20000-1 is the verb 'approve' and 'agree'. | 4.3.2.2 | Records are a special type of document and shall be controlled according to the requirements given in Clause 4.3.3. | 08-85 Status record |
| SMS.3.BP3 | **Communicate information items** Communicate information items to interested parties. Note: The keyword in ISO/IEC 20000-1 is 'communicate'. | 6.6.1.3 | Management shall: a) communicate the information security policy and the importance of conforming to the policy to appropriate personnel within the service provider, customer and suppliers; | 08-28 Information security incident communication record |
| SMS.3.BP3 | **Communicate information items** Communicate information items to interested parties. Note: The keyword in ISO/IEC 20000-1 is 'communicate'. | 6.6.3.4 | Information security incidents shall be reported [and reviewed to identify opportunities for improvement.] | 08-28 Information security incident communication record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.1.1.2 | Top management shall provide evidence of its commitment to [planning, establishing,] implementing, operating, monitoring, reviewing, maintaining, [and improving] the SMS and the services. | 08-38 Management review record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.1.1.9 | Top management shall: f) conducting management reviews at planned intervals; | 08-38 Management review record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.3.1.2 | The service provider shall [establish and] maintain documents, including records, to ensure effective planning, operation and control of the SMS. | 08-85 Status record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.3.1.3 | These documents shall include: a) documented policy and objectives for service management; b) documented service management plan; c) documented policies and plans created for specific processes as required by this part of ISO/IEC 20000; d) documented catalogue of services; e) documented SLAs; f) documented service management processes; g) documented procedures and records required by this part of ISO/IEC 20000; h) additional documents, including those of external origin, determined by the service provider as necessary to ensure effective operation of the SMS and delivery of the services. | 10-02 Information item repository |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.3.2.1 | Documents required by the SMS shall be controlled. | 08-85 Status record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.3.2.2 | Records are a special type of document and shall be controlled according to the requirements given in Clause 4.3.3. | 08-85 Status record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.3.3.1 | Records shall be kept to demonstrate conformity to requirements and the effective operation of the SMS. | 10-02 Information item repository |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.5.2.6 | The service management plan and plans created for specific processes shall be reviewed at planned intervals and, if applicable, updated. | 08-38 Management review record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.5.3.4 | .. through activities including at least: c) management of human, technical and information resources; | 08-38 Management review record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.5.3.6 | .. through activities including at least: e) management of service management processes; | 08-38 Management review record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.5.3.7 | .. through activities including at least: f) monitoring and reporting on performance of service management activities. | 08-38 Management review record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.5.4.1.1 | The service provider shall use suitable methods for monitoring [and measuring] the SMS and the services. These methods shall include internal audits and management reviews. | 08-38 Management review record |
| SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 4.5.4.1.2 | The service provider shall use suitable methods for [monitoring and] measuring the SMS and the services. These methods shall include internal audits and management reviews. | 08-38 Management review record |
| SMS.3.BP5 | **Assure the integrity of information items** Documents required by the SMS are controlled. Records are legible, readily identifiable and retrievable. | 4.3.1.2 | The service provider shall [establish and] maintain documents, including records, to ensure effective planning, operation and control of the SMS. | 08-85 Status record |
| SMS.3.BP5 | **Assure the integrity of information items** Documents required by the SMS are controlled. Records are legible, readily identifiable and retrievable. | 4.3.2.1 | Documents required by the SMS shall be controlled. | 08-85 Status record |
| SMS.3.BP5 | **Assure the integrity of information items** Documents required by the SMS are controlled. Records are legible, readily identifiable and retrievable. | 4.3.2.2 | Records are a special type of document and shall be controlled according to the requirements given in Clause 4.3.3. | 08-85 Status record |
| **SMS.4 Management review** | | | | |

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| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 4.5.4.1.3 | The objectives of [all internal audits and] management reviews [shall be documented.] | 03-23 Management review objectives |
| SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 4.5.4.1.5 | The objectives of [all internal audits and] management reviews shall be documented. | 03-23 Management review objectives |
| SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 4.5.4.1.7 | The internal audits and management reviews shall demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. | 03-23 Management review objectives |
| SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 4.5.4.3.3 | This review shall include assessing opportunities for improvement [and the need for changes to the SMS, including the policy and objectives for service management.] | 03-23 Management review objectives |
| SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 4.5.4.3.4 | This review shall include assessing [opportunities for improvement and] the need for changes to the SMS, including the policy and objectives for service management. | 03-23 Management review objectives |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.1.1.2 | Top management shall provide evidence of its commitment to [planning, establishing,] implementing, operating, monitoring, reviewing, maintaining, [and improving] the SMS and the services. | 08-38 Management review record |
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.1.1.9 | Top management shall: f) conducting management reviews at planned intervals; | 08-38 Management review record |
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.1.1.10 | Top management shall: g) ensuring that risks to services are assessed and managed. | 02-25 Management review issue log |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.2.6 | The service management plan and plans created for specific processes shall be reviewed at planned intervals and, if applicable, updated. | 08-38 Management review record |
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.3.4 | .. through activities including at least: c) management of human, technical and information resources; | 08-38 Management review record |
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.3.5 | .. through activities including at least: d) identification, assessment and management of risks to the services; | 02-25 Management review issue log |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.3.6 | .. through activities including at least: e) management of service management processes; | 08-38 Management review record |
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.3.7 | .. through activities including at least: f) monitoring and reporting on performance of service management activities. | 08-38 Management review record |
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.4.1.1 | The service provider shall use suitable methods for monitoring [and measuring] the SMS and the services. These methods shall include internal audits and management reviews. | 08-38 Management review record |

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| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.4.1.2 | The service provider shall use suitable methods for [monitoring and] measuring the SMS and the services. These methods shall include internal audits and management reviews. | 08-38 Management review record |
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.4.1.9 | The results of [internal audits and] management reviews, [including nonconformities], concerns and actions identified, shall be recorded. | 02-25 Management review issue log |
| SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 4.5.4.3.1 | Top management shall review the SMS and the services [at planned intervals] to ensure their continued suitability and effectiveness. | 02-25 Management review issue log |
| SMS.4.BP3 | **Identify risks, problems and opportunities for improvement** The results of management reviews, concerns and actions identified, are recorded. | 4.1.1.10 | Top management shall: g) ensuring that risks to services are assessed and managed. | 02-25 Management review issue log |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.4.BP3 | **Identify risks, problems and opportunities for improvement** The results of management reviews, concerns and actions identified, are recorded. | 4.5.3.5 | .. through activities including at least: d) identification, assessment and management of risks to the services; | 02-25 Management review issue log |
| SMS.4.BP3 | **Identify risks, problems and opportunities for improvement** The results of management reviews, concerns and actions identified, are recorded. | 4.5.4.1.9 | The results of [internal audits and] management reviews, [including nonconformities], concerns and actions identified, shall be recorded. | 02-25 Management review issue log |
| SMS.4.BP3 | **Identify risks, problems and opportunities for improvement** The results of management reviews, concerns and actions identified, are recorded. | 4.5.4.3.1 | Top management shall review the SMS and the services [at planned intervals] to ensure their continued suitability and effectiveness. | 02-25 Management review issue log |
| SMS.4.BP4 | **Communicate review results to interested parties** Communicate the results and actions to interested parties. | 4.5.4.1.11 | The results and actions shall be communicated to interested parties. | 08-37 Management review communication record |
| SMS.4.BP5 | **Track action items resulting from reviews to closure** The records from the management review include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. | 4.1.1.10 | Top management shall: g) ensuring that risks to services are assessed and managed. | 02-25 Management review issue log |
| SMS.4.BP5 | **Track action items resulting from reviews to closure** The records from the management review include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. | 4.5.3.5 | .. through activities including at least: d) identification, assessment and management of risks to the services; | 02-25 Management review issue log |
| SMS.4.BP5 | **Track action items resulting from reviews to closure** The records from the management review include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. | 4.5.4.1.9 | The results of [internal audits and] management reviews, [including nonconformities], concerns and actions identified, shall be recorded. | 02-25 Management review issue log |
| SMS.4.BP5 | **Track action items resulting from reviews to closure** The records from the management review include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. | 4.5.4.3.1 | Top management shall review the SMS and the services [at planned intervals] to ensure their continued suitability and effectiveness. | 02-25 Management review issue log |
| **SMS.5 Resource management** | | | | |
| SMS.5.BP1 | **Determine and provide resources and infrastructure** Determine and provide resources and infrastructure to support SMS processes and service provision. | 4.1.1.8 | Top management shall: e) ensuring the provision of resources; | 03-43 Service management resource needs |
| SMS.5.BP1 | **Determine and provide resources and infrastructure** Determine and provide resources and infrastructure to support SMS processes and service provision. | 4.4.1.1 | The service provider shall determine [and provide] the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. | 03-43 Service management resource needs |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.5.BP1 | **Determine and provide resources and infrastructure** Determine and provide resources and infrastructure to support SMS processes and service provision. | 4.4.1.2 | The service provider shall [determine and] provide the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. | 03-43 Service management resource needs |
| SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 4.1.3.1 | Top management shall ensure that: a) service management authorities and responsibilities are defined [and maintained]; | 03-44 Service management roles and responsibilities |
| SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 4.4.2.1 | The service provider's personnel performing work affecting conformity to service requirements shall be competent on the basis of appropriate education, training, skills and experience. | 12-09 Service management competency requirements |
| SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 4.4.2.2 | The service provider shall: a) determine the necessary competence for personnel; | 12-09 Service management competency requirements |
| SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 4.4.2.5 | The service provider shall: d) ensure that its personnel are aware of how they contribute to the achievement of service management objectives and the fulfilment of service requirements; | 08-70 Service management personnel communication record |
| SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 4.5.3.3 | .. through activities including at least: b) assignment of authorities, responsibilities and process roles; | 03-44 Service management roles and responsibilities |
| SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 5.2.10 | The service provider shall identify other parties who will contribute to the provision of service components for the new or changed services. | 02-45 Supplier role assignments list |
| SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 7.2.2 | For each supplier, the service provider shall have a designated individual who is responsible for managing the relationship, the contract and performance of the supplier. | 02-45 Supplier role assignments list |
| SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 7.2.9 | The service provider shall ensure that roles of, and relationships between, lead and sub-contracted suppliers [are documented]. | 02-45 Supplier role assignments list |
| SMS.5.BP3 | **Appoint individuals with the necessary competencies** Individuals with the necessary competencies are appointed to the roles needed to perform service management activities. | 4.1.4.1 | Top management shall appoint a member of the service provider's management who, irrespective of other responsibilities, has the authorities and responsibilities that include: a) ensuring that activities are performed to identify, document and fulfil service requirements; b) assigning authorities and responsibilities for ensuring that service management processes are designed, implemented and improved in accordance with the policy and objectives for service management; c) ensuring that service management processes are integrated with the other components of the SMS; d) ensuring that assets, including licences, used to deliver services are managed according to statutory and regulatory requirements and contractual obligations; e) reporting to top management on the performance and opportunities for improvement to the SMS and the services. | 03-46 Service provider roles and responsibilities |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Requirement reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.5.BP3 | **Appoint individuals with the necessary competencies** Individuals with the necessary competencies are appointed to the roles needed to perform service management activities. | 4.4.2.5 | The service provider shall: d) ensure that its personnel are aware of how they contribute to the achievement of service management objectives and the fulfilment of service requirements; | 08-70 Service management personnel communication record |
| SMS.5.BP4 | **Fill competency gaps through training or recruitment** The service provider where applicable, provides training or takes other actions to achieve the necessary competence. | 4.4.2.3 | The service provider shall: b) where applicable, provide training or take other actions to achieve the necessary competence; | 08-73 Service management training record |
| SMS.5.BP4 | **Fill competency gaps through training or recruitment** The service provider where applicable, provides training or takes other actions to achieve the necessary competence. | 4.4.2.6 | The service provider shall: e) maintain appropriate records of education, training, skills and experience. | 08-73 Service management training record |
| **SMS.6 Risk management** | | | | |
| SMS.6.BP1 | **Identify risks** Identify risks during the establishment of a process or a service. | 6.3.1.1 | The service provider shall assess [and document] the risks to continuity and availability of services. | 09-32 Service availability risk evaluation report |
| SMS.6.BP1 | **Identify risks** Identify risks during the establishment of a process or a service. | 6.3.1.1 | The service provider shall assess [and document] the risks to continuity and availability of services. | 09-35 Service continuity risk evaluation report |
| SMS.6.BP2 | **Categorise and assess risks** Identified risks are categorised, assessed and the priority in which to apply resources to treatment of these risks is determined. | 4.5.4.3.5 | The input to management reviews shall include at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 02-32 Risk log |
| SMS.6.BP2 | **Categorise and assess risks** Identified risks are categorised, assessed and the priority in which to apply resources to treatment of these risks is determined. | 6.6.2.2 | The service provider shall operate appropriate information security controls to: a) fulfil the requirements of the information security policy; b) achieve information security management objectives; c) manage risks related to information security. | 02-32 Risk log |
| SMS.6.BP4 | **Monitor risks** Assessed risks are monitored. | 4.5.4.3.5 | The input to management reviews shall include at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 02-32 Risk log |
| SMS.6.BP4 | **Monitor risks** Assessed risks are monitored. | 6.6.2.2 | The service provider shall operate appropriate information security controls to: a) fulfil the requirements of the information security policy; b) achieve information security management objectives; c) manage risks related to information security. | 02-32 Risk log |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.6.BP5 | **Take appropriate treatment to avoid unacceptable risks** Appropriate treatment is taken to correct or avoid unacceptable assessed risks. | 5.1.7 | The service provider shall take necessary actions to ensure that the development and transition of new or changed services can be performed effectively, using the accepted outputs. | 04-21 Risk treatment strategy |
| **SMS.7 Service measurement** | | | | |
| SMS.7.BP1 | **Identify the prioritised information needs related to provided services** Identify the prioritised information needs related to provided services and implemented processes. | 6.3.3.2 | Availability of services shall be [monitored, the results recorded and] compared with agreed targets. | 03-35 Service availability measurement objectives |
| SMS.7.BP3 | **Collect and verify the required data** The success or failure of releases is monitored. Measurements include incidents related to a release in the period following deployment of a release. | 9.3.24 | Measurements shall include incidents related to a release in the period following deployment of a release. | 02-30 Release performance data |
| SMS.7.BP4 | **Analyse the required data** The service provider analyses the types, volumes and impacts of information security incidents. The service provider analyses data and trends on incidents and problems. Requests for change are analysed at to detect trends. The success or failure of releases is analysed. Analysis includes assessment of the impact of the release on the customer. | 6.1.11 | The service provider shall monitor trends and performance against service targets [at planned intervals.] | 09-36 Service level performance analysis report |
| SMS.7.BP4 | **Analyse the required data** The service provider analyses the types, volumes and impacts of information security incidents. The service provider analyses data and trends on incidents and problems. Requests for change are analysed at to detect trends. The success or failure of releases is analysed. Analysis includes assessment of the impact of the release on the customer. | 6.1.13 | Results shall be recorded [and reviewed to identify the causes of nonconformities and opportunities for improvement.] | 09-36 Service level performance analysis report |
| SMS.7.BP4 | **Analyse the required data** The service provider analyses the types, volumes and impacts of information security incidents. The service provider analyses data and trends on incidents and problems. Requests for change are analysed at to detect trends. The success or failure of releases is analysed. Analysis includes assessment of the impact of the release on the customer. | 6.1.22 | Results shall be recorded [and reviewed to identify the causes of nonconformities and opportunities for improvement.] | 09-36 Service level performance analysis report |
| SMS.7.BP4 | **Analyse the required data** The service provider analyses the types, volumes and impacts of information security incidents. The service provider analyses data and trends on incidents and problems. Requests for change are analysed at to detect trends. The success or failure of releases is analysed. Analysis includes assessment of the impact of the release on the customer. | 7.1.20 | The results shall be analysed and reviewed [to identify opportunities for improvement.] | 09-36 Service level performance analysis report |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.7.BP5 | **Support decisions and communication** Support decisions and provide an objective basis for communication with measurement information. | 4.5.4.1.11 | The results and actions shall be communicated to interested parties. | 08-37 Management review communication record |
| **SMS.8 SMS** Establishment and improvement | | | | |
| SMS.8.BP1 | **Establish service requirements in response to business needs, customer requirements and customer requests** The service provider identifies the service requirements for the new or changed services. | 5.2.1 | The service provider shall identify the service requirements for the new or changed services. | 12-11 Service requirements |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.1.1.1 | Top management shall provide evidence of its commitment to planning, establishing, [implementing, operating, monitoring, reviewing, maintaining, and improving] the SMS and the services. | 05-09 Service management policy |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.1.1.4 | Top management shall: a) establishing and communicating the scope, policy and objectives for service management; | 05-09 Service management policy |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.1.1.6 | Top management shall: c) communicating the importance of fulfilling service requirements; | 03-42 Service management objectives |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.1.1.7 | Top management shall: d) communicating the importance of fulfilling statutory and regulatory requirements, and contractual obligations; | 03-42 Service management objectives |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.1.2.1 | Top management shall ensure that the service management policy: a) is appropriate to the purpose of the service provider; b) includes a commitment to fulfil service requirements; c) includes a commitment to continually improve the effectiveness of the SMS and the services through the policy on continual improvement in Clause 4.5.5.1; d) provides a framework for establishing and reviewing service management objectives; e) is communicated and understood by the service provider's personnel; f) is reviewed for continuing suitability. | 05-09 Service management policy |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.2.1 | For the processes in Clauses 5 to 9, The service provider shall identify all processes, or parts of processes which are operated by other parties. Other parties can be an internal group, a customer or a supplier. | 12-01 Alternative party process requirements |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.2.3 | When a supplier is operating parts of the processes, the service provider shall manage the supplier through the supplier management process. | 12-01 Alternative party process requirements |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.5.1.1 | The service provider shall define and include the scope of the SMS in the service management plan. | 03-45 Service management system scope definition |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.5.1.2 | The scope shall be defined by the name of the organizational unit providing the services, and the services to be delivered. | 03-45 Service management system scope definition |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 4.5.1.3 | The service provider shall also take into consideration other factors affecting the services to be delivered including: a) geographical location(s) from which the service provider delivers the services; b) the customer and their location(s); c) technology used to provide the services. | 03-45 Service management system scope definition |
| SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 6.6.2.1 | The service provider shall implement physical, administrative and technical security controls in order to preserve confidentiality, integrity and accessibility of information assets. | 12-10 Service management process interface requirements |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 4.5.4.1.3 | The objectives of [all internal audits and] management reviews [shall be documented.] | 03-23 Management review objectives |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 4.5.4.1.4 | The objectives of all internal audits [and management reviews shall be documented.] | 03-01 Audit objectives |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 4.5.4.1.5 | The objectives of [all internal audits and] management reviews shall be documented. | 03-23 Management review objectives |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 4.5.4.1.6 | The objectives of all internal audits [and management reviews] shall be documented. | 03-01 Audit objectives |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 4.5.4.1.7 | The internal audits and management reviews shall demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. | 03-23 Management review objectives |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 4.5.4.3.3 | This review shall include assessing opportunities for improvement [and the need for changes to the SMS, including the policy and objectives for service management.] | 03-23 Management review objectives |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 4.5.4.3.4 | This review shall include assessing [opportunities for improvement and] the need for changes to the SMS, including the policy and objectives for service management. | 03-23 Management review objectives |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 6.1.4 | For each service delivered, one or more SLAs shall be agreed with the customer. | 01-01 Service level agreement |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 6.1.6 | SLAs shall include agreed service targets, workload characteristics and exceptions. | 01-01 Service level agreement |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 6.1.16 | [For service components provided by an internal group or the customer, the service provider shall develop, agree, review and maintain] a documented agreement to define the activities and interfaces between the two parties. | 01-01 Service level agreement |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 6.1.17 | For service components provided by an internal group or the customer, the service provider shall develop, [agree, review and maintain a documented] agreement to define the activities and interfaces between the two parties. | 01-01 Service level agreement |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 6.1.20 | The service provider shall monitor performance of the internal group or the customer against agreed service targets and other agreed commitments [at planned intervals]. | 08-77 Service provision review record |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 6.1.23 | Results shall be recorded and reviewed to identify the causes of nonconformities and opportunities for improvement. | 08-77 Service provision review record |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 6.6.2.3 | These information security controls [shall be documented and] shall describe the risks to which the controls relate, their operation and maintenance. | 09-16 Information security controls report |
| SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 7.1.4 | The service provider shall establish a communication mechanism with the customer. | 06-08 Customer liaison procedure |
| SMS.8.BP4 | **Improve effectiveness and efficiency** Take action to improve the effectiveness and efficiency of the SMS to meet the service management objectives and requirements. | 4.1.1.3 | Top management shall provide evidence of its commitment to [planning, establishing, implementing, operating, monitoring, reviewing, maintaining, and] improving the SMS and the services. | 09-37 Service management system performance analysis report |
| **SMS.9 SMS Implementation and operation** | | | | |
| SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 4.1.1.5 | Top management shall: b) ensuring that the service management plan is created, implemented and maintained in order to adhere to the policy, achieve the objectives for service management and fulfil the service requirements; | 04-24 Service management plan |
| SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 4.5.2.1 | The service provider shall create, [implement and maintain] a service management plan. | 04-24 Service management plan |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require-ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 4.5.2.2 | The service provider shall [create], implement [and maintain] a service management plan. | 04-24 Service management plan |
| SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 4.5.2.4 | Planning shall take into consideration the service management policy, service requirements and requirements in this part of ISO/IEC 20000. The service management plan shall contain or include a reference to at least the following: a) service management objectives that are to be achieved by the service provider; b) service requirements; c) known limitations which can impact the SMS; d) policies, standards, statutory and regulatory requirements, and contractual obligations; e) framework of authorities, responsibilities and process roles; f) authorities and responsibilities for plans, service management processes and services; g) human, technical, information and financial resources necessary to achieve the service management objectives; h) approach to be taken for working with other parties involved in the design and transition of new or changed services process; i) approach to be taken for the interfaces between service management processes and their integration with the other components of the SMS; j) approach to be taken for the management of risks and the criteria for accepting risks; k) technology used to support the SMS; l) how the effectiveness of the SMS and the services will be measured, audited, reported and improved. | 04-24 Service management plan |
| SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 4.5.3.1 | The service provider shall implement and operate the SMS for the design, transition, delivery and improvement of services according to the service management plan. | 04-24 Service management plan |
| SMS.9.BP2 | **Manage services provided by other suppliers** Services supplied by other parties are managed to meet the service requirements. | 4.2.1 | For the processes in Clauses 5 to 9, The service provider shall identify all processes, or parts of processes which are operated by other parties. Other parties can be an internal group, a customer or a supplier. | 12-01 Alternative party process requirements |
| SMS.9.BP2 | **Manage services provided by other suppliers** Services supplied by other parties are managed to meet the service requirements. | 4.2.2 | The service provider shall demonstrate governance of processes operated by other parties by: a) demonstrating accountability for the processes and authority to require adherence to the processes; b) controlling the definition of the processes, and interfaces to other processes; c) determining process performance and compliance with process requirements; d) controlling the planning and prioritizing of process improvements. | 09-02 Alternative parties performance evaluation report |
| SMS.9.BP2 | **Manage services provided by other suppliers** Services supplied by other parties are managed to meet the service requirements. | 4.2.3 | When a supplier is operating parts of the processes, the service provider shall manage the supplier through the supplier management process. | 12-01 Alternative party process requirements |

| Base practice reference | Base practice description | ISO/IEC 20000-1 Require- ment reference | Associated singular requirement | Information item |
|---|---|---|---|---|
| SMS.9.BP2 | **Manage services provided by other suppliers** Services supplied by other parties are managed to meet the service requirements. | 4.2.4 | When an internal group or a customer is operating parts of the processes, the service provider shall manage the internal group or the customer through the service level management process. | 09-02 Alternative parties performance evaluation report |
| SMS.9.BP3 | **Monitor service delivery against planned arrangements** Performance and progress against the planned arrangements is monitored. | 6.1.20 | The service provider shall monitor performance of the internal group or the customer against agreed service targets and other agreed commitments, [at planned intervals]. | 08-77 Service provision review record |
| SMS.9.BP3 | **Monitor service delivery against planned arrangements** Performance and progress against the planned arrangements is monitored. | 6.1.23 | Results shall be recorded and reviewed to identify the causes of nonconformities and opportunities for improvement. | 08-77 Service provision review record |
| SMS.9.BP3 | **Monitor service delivery against planned arrangements** Performance and progress against the planned arrangements is monitored. | 6.6.1.3 | Management shall: a) communicate the information security policy and the importance of conforming to the policy to appropriate personnel within the service provider, customer and suppliers; | 08-26 Information security audit review record |
| SMS.9.BP3 | **Monitor service delivery against planned arrangements** Performance and progress against the planned arrangements is monitored. | 6.6.2.5 | The service provider shall review the effectiveness of information security controls. | 09-15 Information security controls effectiveness evaluation report |
| SMS.9.BP4 | **Take action to correct deviations from planned arrangements when targets are not achieved** Take action to correct deviations from planned arrangements when targets are not achieved. | 5.4.5 | Following the completion of the transition activities, the service provider shall report to interested parties on the outcomes achieved against the expected outcomes. | 08-84 Services stakeholder communication record |
| SMS.9.BP4 | **Take action to correct deviations from planned arrangements when targets are not achieved** Take action to correct deviations from planned arrangements when targets are not achieved. | 6.1.15 | Results shall be [recorded and] reviewed to identify [the causes of nonconformities] and opportunities for improvement. | 03-47 Service provision improvement opportunity |
| SMS.9.BP4 | **Take action to correct deviations from planned arrangements when targets are not achieved** Take action to correct deviations from planned arrangements when targets are not achieved. | 6.2.7 | The agreed actions shall be communicated to interested parties. | 08-84 Services stakeholder communication record |
| SMS.9.BP4 | **Take action to correct deviations from planned arrangements when targets are not achieved** Take action to correct deviations from planned arrangements when targets are not achieved. | 7.1.7 | The service provider shall review the performance of the services [at planned intervals], with the customer. | 08-66 Service level agreement review record |
| SMS.9.BP5 | **Manage organisational risks** Organizational risks are continually identified, analysed, treated and monitored. | 5.1.7 | The service provider shall take necessary actions to ensure that the development and transition of new or changed services can be performed effectively, using the accepted outputs. | 04-21 Risk treatment strategy |

## C.2  Associations of requirements with base practices

The following table identifies sub-clauses and singular requirements, associated base practices and implied information items. The base practices are ordered according the implied capability levels and process attributes.

NOTE 1    There are no process capability implications for CL 5, or for CL4 PA 4.2.

NOTE 2    Different process attributes (PA's) are associated with each singular requirement in Table C.2. PA 1.1 implies that a requirement is associated with an aspect of the performance of the associated process. PA 2.1 implies that the requirement is associated an aspect of the management of the performance of the process. PA 2.2 implies that the requirement is associated with an aspect of the management of the work products associated with the process. PA 3.1 implies that the requirement is associated with the establishment of the definition of the standard process. PA 3.2 implies that the requirement is associated with the deployment of the standard process as a defined process. PA 4.1 implies that the requirement is associated with measurement of the defined process.

EXAMPLE  In order to interpret the data provided in the columns in Table C.2, a compound requirement from ISO/IEC 20000-1 sub-clause 4.1.3 is provided as an example Top management shall ensure that: a) service management authorities and responsibilities are defined and maintained. This requirements has been subdivided into two singular requirements:

1.  Top management shall ensure that: a) service management authorities and responsibilities are defined [and maintained]: This singular requirement is mapped to CL1 (PA 1.1) as the requirement is associated with an aspect of the performance of the associated process

2.  Top management shall ensure that: a) service management authorities and responsibilities are [defined and] maintained: This singular requirement is mapped to CL2 ( PA 2.2) as the requirement is associated with an aspect of the management of the work products associated with the process.

**Table C.2 — Association of ISO/IEC 20000-1 requirements with capability levels and base practices**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| **4.1.1 Management commitment** | | | | | | |
| 1 | Top management shall provide evidence of its commitment to planning, establishing, [implementing, operating, monitoring, reviewing, maintaining, and improving] the SMS and the services. | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 05-09 Service management policy |
| 2 | Top management shall provide evidence of its commitment to [planning, establishing,] implementing, operating, monitoring, reviewing, maintaining, [and improving] the SMS and the services. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |
| 2 | Top management shall provide evidence of its commitment to [planning, establishing,] implementing, operating, monitoring, reviewing, maintaining, [and improving] the SMS and the services. | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 08-38 Management review record |
| 3 | Top management shall provide evidence of its commitment to [planning, establishing, implementing, operating, monitoring, reviewing, maintaining, and] improving the SMS and the services. | CL1 | PA 1.1 | SMS.8.BP4 | **Improve effectiveness and efficiency** Take action to improve the effectiveness and efficiency of the SMS to meet the service management objectives and requirements. | 09-37 Service management system performance analysis report |
| 4 | Top management shall: a) establishing and communicating the scope, policy and objectives for service management; | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 05-09 Service management policy |
| 5 | Top management shall: b) ensuring that the service management plan is created, implemented and maintained in order to adhere to the policy, achieve the objectives for service management and fulfil the service requirements; | CL1 | PA 1.1 | SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 04-24 Service management plan |

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| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 6 | Top management shall: c) communicating the importance of fulfilling service requirements; | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 03-42 Service management objectives |
| 7 | Top management shall: d) communicating the importance of fulfilling statutory and regulatory requirements, and contractual obligations; | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 03-42 Service management objectives |
| 8 | Top management shall: e) ensuring the provision of resources; | CL1 | PA 1.1 | DTR.4.BP3 | **Estimate the tasks and resources** The tasks and resources necessary to complete the work are sized and estimated. | 03-43 Service management resource needs |
| 8 | Top management shall: e) ensuring the provision of resources; | CL1 | PA 1.1 | SMS.5.BP1 | **Determine and provide resources and infrastructure** Determine and provide resources and infrastructure to support SMS processes and service provision. | 03-43 Service management resource needs |
| 9 | Top management shall: f) conducting management reviews at planned intervals; | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |
| 9 | Top management shall: f) conducting management reviews at planned intervals; | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 08-38 Management review record |
| 10 | Top management shall: g) ensuring that risks to services are assessed and managed. | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 02-25 Management review issue log |
| 10 | Top management shall: g) ensuring that risks to services are assessed and managed. | CL1 | PA 1.1 | SMS.4.BP3 | **Identify risks, problems and opportunities for improvement** The results of management reviews, concerns and actions identified, are recorded. | 02-25 Management review issue log |

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| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 10 | Top management shall: g) ensuring that risks to services are assessed and managed. | CL1 | PA 1.1 | SMS.4.BP5 | **Track action items resulting from reviews to closure** The records from the management review include at least decisions and actions related to resources, improvement of the SMS and improvement of the services. | 02-25 Management review issue log |

**4.1.2 Service management policy**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | Top management shall ensure that the service management policy: a) is appropriate to the purpose of the service provider; b) includes a commitment to fulfil service requirements; c) includes a commitment to continually improve the effectiveness of the SMS and the services through the policy on continual improvement in Clause 4.5.1; d) provides a framework for establishing and reviewing service management objectives; e) is communicated and understood by the service provider's personnel; f) is reviewed for continuing suitability. | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 05-09 Service management policy |

**4.1.3 Authority, responsibility and communication**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | Top management shall ensure that: a) service management authorities and responsibilities are defined [and maintained]; | CL1 | PA 1.1 | SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 03-44 Service management roles and responsibilities |
| 2 | Top management shall ensure that: a) service management authorities and responsibilities are [defined and] maintained; | CL2 | PA 2.2 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-72 Service management roles and responsibilities status record |
| 3 | Top management shall ensure that: b) [documented] communication procedures are established and implemented. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 06-06 Communication procedure |
| 4 | [Top management shall ensure that: b)] documented [ communication procedures are established and implemented.] | CL2 | PA 2.2 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 06-06 Communication procedure |

**4.1.4 Management representative**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | Top management shall appoint a member of the service provider's management who, irrespective of other responsibilities, has the authorities and responsibilities that include: a) ensuring that activities are performed to identify, document and fulfil service requirements; b) assigning authorities and responsibilities for ensuring that service management processes are designed, implemented and improved in accordance with the policy and objectives for service management; c) ensuring that service management processes are integrated with the other components of the SMS; d) ensuring that assets, including licences, used to deliver services are managed according to statutory and regulatory requirements and contractual obligations; e) reporting to top management on the performance and opportunities for improvement to the SMS and the services. | CL1 | PA 1.1 | SMS.5.BP3 | **Appoint individuals with the necessary competencies** Individuals with the necessary competencies are appointed to the roles needed to perform service management activities. | 03-46 Service provider roles and responsibilities |

**4.2 Governance of processes operated by other parties**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | For the processes in Clauses 5 to 9, The service provider shall identify all processes, or parts of processes which are operated by other parties. Other parties can be an internal group, a customer or a supplier. | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 12-01 Alternative party process requirements |
| 1 | For the processes in Clauses 5 to 9, The service provider shall identify all processes, or parts of processes which are operated by other parties. Other parties can be an internal group, a customer or a supplier. | CL1 | PA 1.1 | SMS.9.BP2 | **Manage services provided by other suppliers** Services supplied by other parties are managed to meet the service requirements. | 12-01 Alternative party process requirements |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 2 | The service provider shall demonstrate governance of processes operated by other parties by: a) demonstrating accountability for the processes and authority to require adherence to the processes; b) controlling the definition of the processes, and interfaces to other processes; c) determining process performance and compliance with process requirements; d) controlling the planning and prioritizing of process improvements. | CL1 | PA 1.1 | SMS.9.BP2 | **Manage services provided by other suppliers** Services supplied by other parties are managed to meet the service requirements. | 09-02 Alternative parties performance evaluation report |
| 3 | When a supplier is operating parts of the processes, the service provider shall manage the supplier through the supplier management process. | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 12-01 Alternative party process requirements |
| 3 | When a supplier is operating parts of the processes, the service provider shall manage the supplier through the supplier management process. | CL1 | PA 1.1 | SMS.9.BP2 | **Manage services provided by other suppliers** Services supplied by other parties are managed to meet the service requirements. | 12-01 Alternative party process requirements |
| 4 | When an internal group or a customer is operating parts of the processes, the service provider shall manage the internal group or the customer through the service level management process. | CL1 | PA 1.1 | SMS.9.BP2 | **Manage services provided by other suppliers** Services supplied by other parties are managed to meet the service requirements. | 09-02 Alternative parties performance evaluation report |
| **4.3.1 Establish and maintain documents** | | | | | | |
| 1 | The service provider shall establish [and maintain] documents, including records, to ensure effective planning, operation and control of the SMS. | CL1 | PA 1.1 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 07-01 Information item |
| 2 | The service provider shall [establish and] maintain documents, including records, to ensure effective planning, operation and control of the SMS. | CL1 | PA 1.1 | SMS.3.BP2 | **Control and issue information items** Information items are controlled and issued according to defined criteria. Note: The evidence in ISO/IEC 20000-1 is the verb 'approve' and 'agree'. | 08-85 Status record |
| 2 | The service provider shall [establish and] maintain documents, including records, to ensure effective planning, operation and control of the SMS. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-85 Status record |
| 2 | The service provider shall [establish and] maintain documents, including records, to ensure effective planning, operation and control of the SMS. | CL1 | PA 1.1 | SMS.3.BP5 | **Assure the integrity of information items** Documents required by the SMS are controlled. Records are legible, readily identifiable and retrievable. | 08-85 Status record |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 3 | These documents shall include: a) documented policy and objectives for service management; b) documented service management plan; c) documented policies and plans created for specific processes as required by this part of ISO/IEC 20000; d) documented catalogue of services; e) documented service SLAs; f) documented service management processes; g) documented procedures and records required by this part of ISO/IEC 20000; h) additional documents, including those of external origin, determined by the service provider as necessary to ensure effective operation of the SMS and delivery of the services. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 10-02 Information item repository |

**4.3.2 Control of documents**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | Documents required by the SMS shall be controlled. | CL1 | PA 1.1 | SMS.3.BP2 | **Control and issue information items** Information items are controlled and issued according to defined criteria. Note: The evidence in ISO/IEC 20000-1 is the verb 'approve' and 'agree'. | 08-85 Status record |
| 1 | Documents required by the SMS shall be controlled. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-85 Status record |
| 1 | Documents required by the SMS shall be controlled. | CL1 | PA 1.1 | SMS.3.BP5 | **Assure the integrity of information items** Documents required by the SMS are controlled. Records are legible, readily identifiable and retrievable. | 08-85 Status record |
| 2 | Records are a special type of document and shall be controlled according to the requirements given in Clause 4.3.3. | CL1 | PA 1.1 | SMS.3.BP2 | **Control and issue information items** Information items are controlled and issued according to defined criteria. Note: The evidence in ISO/IEC 20000-1 is the verb 'approve' and 'agree'. | 08-85 Status record |
| 2 | Records are a special type of document and shall be controlled according to the requirements given in Clause 4.3.3. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-85 Status record |
| 2 | Records are a special type of document and shall be controlled according to the requirements given in Clause 4.3.3. | CL1 | PA 1.1 | SMS.3.BP5 | **Assure the integrity of information items** Documents required by the SMS are controlled. Records are legible, readily identifiable and retrievable. | 08-85 Status record |
| 2 | Records are a special type of document and shall be controlled according to the requirements given in Clause 4.3.3. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 06-16 Records management procedure |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 3 | A [documented] procedure, including the authorities and responsibilities, shall be established to define the controls needed to: a) create and approve documents prior to issue; b) communicate to interested parties about new or changed documents as necessary; c) review and maintain documents as necessary; d) ensure that changes and the current revision status of documents are identified; e) ensure that relevant versions of applicable documents are available at points of use; f) ensure that documents are readily identifiable and legible; g) ensure that documents of external origin are identified and their distribution controlled; h) prevent the unintended use of obsolete documents and apply suitable identification to them if they are retained. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 06-09 Document management procedure |
| 4 | A documented [procedure, including the authorities and responsibilities, shall be established to define the controls needed to: a) create and approve documents prior to issue; b) communicate to interested parties about new or changed documents as necessary; c) review and maintain documents as necessary; d) ensure that changes and the current revision status of documents are identified; e) ensure that relevent versions of applicable documents are available at points of use; f) ensure that documents are readily identifiable and legible; g) ensure that documents of external origin are identified and their distribution controlled; h) prevent the unintended use of obsolete documents and apply suitable identification to them if they are retained.] | CL2 | PA 2.2 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 06-09 Document management procedure |

**4.3.3 Control of records**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | Records shall be kept to demonstrate conformity to requirements and the effective operation of the SMS. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 10-02 Information item repository |
| 2 | A [documented] procedure shall be established to define the controls needed for the identification, storage, protection, retrieval, retention and disposal of records. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 06-16 Records management procedure |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 3 | A documented [procedure shall be established to define the controls needed for the identification, storage, protection, retrieval, retention and disposal of records.] | CL2 | PA 2.2 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 06-16 Records management procedure |
| 4 | Records shall be legible, readily identifiable and retrievable. | CL2 | PA 2.2 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 08-85 Status record |

**4.4.1 Provision of resources**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | The service provider shall determine [and provide] the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. | CL1 | PA 1.1 | DTR.4.BP3 | **Estimate the tasks and resources** The tasks and resources necessary to complete the work are sized and estimated. | 03-43 Service management resource needs |
| 1 | The service provider shall determine [and provide] the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. | CL1 | PA 1.1 | SMS.5.BP1 | **Determine and provide resources and infrastructure** Determine and provide resources and infrastructure to support SMS processes and service provision. | 03-43 Service management resource needs |
| 2 | The service provider shall [determine and] provide the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. | CL1 | PA 1.1 | DTR.4.BP3 | **Estimate the tasks and resources** The tasks and resources necessary to complete the work are sized and estimated. | 03-43 Service management resource needs |
| 2 | The service provider shall [determine and] provide the human, technical, information and financial resources needed to: a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness; b) enhance customer satisfaction by delivering services that fulfil service requirements. | CL1 | PA 1.1 | SMS.5.BP1 | **Determine and provide resources and infrastructure** Determine and provide resources and infrastructure to support SMS processes and service provision. | 03-43 Service management resource needs |

**4.4.2 Human resources**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | The service provider's personnel performing work affecting conformity to service requirements shall be competent on the basis of appropriate education, training, skills and experience. | CL1 | PA 1.1 | SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 12-09 Service management competency requirements |
| 2 | The service provider shall: a) determine the necessary competence for personnel; | CL1 | PA 1.1 | SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 12-09 Service management competency requirements |
| 3 | The service provider shall: b) where applicable, provide training or take other actions to achieve the necessary competence; | CL1 | PA 1.1 | SMS.5.BP4 | **Fill competency gaps through training or recruitment** The service provider where applicable, provides training or takes other actions to achieve the necessary competence. | 08-73 Service management training record |
| 4 | The service provider shall: c) evaluate the effectiveness of actions taken; | CL2 | PA 2.1 | SMS.9.BP3 | **Monitor service delivery against planned arrangements** Performance and progress against the planned arrangements is monitored. | 09-38 Service management training evaluation report |
| 5 | The service provider shall: d) ensure that its personnel are aware of how they contribute to the achievement of service management objectives and the fulfilment of service requirements; | CL1 | PA 1.1 | SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 08-70 Service management personnel communication record |
| 5 | The service provider shall: d) ensure that its personnel are aware of how they contribute to the achievement of service management objectives and the fulfilment of service requirements; | CL1 | PA 1.1 | SMS.5.BP3 | **Appoint individuals with the necessary competencies** Individuals with the necessary competencies are appointed to the roles needed to perform service management activities. | 08-70 Service management personnel communication record |
| 6 | The service provider shall: e) maintain appropriate records of education, training, skills and experience. | CL1 | PA 1.1 | SMS.5.BP4 | **Fill competency gaps through training or recruitment** The service provider where applicable, provides training or takes other actions to achieve the necessary competence. | 08-73 Service management training record |

**4.5.1 Define scope**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | The service provider shall define and include the scope of the SMS in the service management plan. | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 03-45 Service management system scope definition |
| 2 | The scope shall be defined by the name of the organizational unit providing the services, and the services to be delivered. | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 03-45 Service management system scope definition |

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| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 3 | The service provider shall also take into consideration other factors affecting the services to be delivered including: a) geographical location(s) from which the service provider delivers the services; b) the customer and their location(s); c) technology used to provide the services. | CL1 | PA 1.1 | SMS.8.BP2 | **Identify the objectives and requirements for service management** The objectives and requirements for service management are identified and established to satisfy business needs, the service provider's financial processes, regulatory, contractual and statutory requirements. | 03-45 Service management system scope definition |
| **4.5.2 Plan the SMS (Plan)** | | | | | | |
| 1 | The service provider shall create, [implement and maintain] a service management plan. | CL1 | PA 1.1 | SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 04-24 Service management plan |
| 2 | The service provider shall [create], implement [and maintain] a service management plan. | CL1 | PA 1.1 | SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 04-24 Service management plan |
| 3 | The service provider shall [create, implement and] maintain a service management plan. | CL2 | PA 2.2 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-71 Service management plan status record |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 4 | Planning shall take into consideration the service management policy, service requirements and requirements in this part of ISO/IEC 20000. The service management plan shall contain or include a reference to at least the following: a) service management objectives that are to be achieved by the service provider; b) service requirements; c) known limitations which can impact the SMS; d) policies, standards, statutory and regulatory requirements, and contractual obligations; e) framework of authorities, responsibilities and process roles; f) authorities and responsibilities for plans, service management processes and services; g) human, technical, information and financial resources necessary to achieve the service management objectives; h) approach to be taken for working with other parties involved in the design and transition of new or changed services process; i) approach to be taken for the interfaces between service management processes and their integration with the other components of the SMS; j) approach to be taken for the management of risks and the criteria for accepting risks; k) technology used to support the SMS; l) how the effectiveness of the SMS and the services will be measured, audited, reported and improved. | CL1 | PA 1.1 | SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 04-24 Service management plan |
| 5 | Plans created for specific processes shall be aligned with the service management plan. | CL1 | PA 1.1 | DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 04-15 New or changed service plan |
| 6 | The service management plan and plans created for specific processes shall be reviewed at planned intervals and, if applicable, updated. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 6 | The service management plan and plans created for specific processes shall be reviewed at planned intervals and, if applicable, updated. | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 08-38 Management review record |
| **4.5.3 Implement and operate the SMS (Do)** | | | | | | |
| 1 | The service provider shall implement and operate the SMS for the design, transition, delivery and improvement of services according to the service management plan. | CL1 | PA 1.1 | SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 04-24 Service management plan |
| 2 | .. through activities including at least: a) allocation and management of funds and budgets; | CL1 | PA 1.1 | SDE.1.BP2 | **Produce budgets using cost estimates** Costs are budgeted to enable effective financial control and decision-making for services delivered. | 04-26 Services provision budget |
| 3 | .. through activities including at least: b) assignment of authorities, responsibilities and process roles; | CL1 | PA 1.1 | SMS.5.BP2 | **Define roles, responsibilities and competencies** Define the roles, responsibilities and competencies needed to support SMS processes. | 03-44 Service management roles and responsibilities |
| 4 | .. through activities including at least: c) management of human, technical and information resources; | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |
| 4 | .. through activities including at least: c) management of human, technical and information resources; | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 08-38 Management review record |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 5 | .. through activities including at least: d) identification, assessment and management of risks to the services; | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 02-25 Management review issue log |
| 5 | .. through activities including at least: d) identification, assessment and management of risks to the services; | CL1 | PA 1.1 | SMS.4.BP3 | **Identify risks, problems and opportunities for improvement** The results of management reviews, concerns and actions identified, are recorded. | 02-25 Management review issue log |
| 5 | .. through activities including at least: d) identification, assessment and management of risks to the services; | CL1 | PA 1.1 | SMS.4.BP5 | **Track action items resulting from reviews to closure** The records from the management review include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. | 02-25 Management review issue log |
| 6 | .. through activities including at least: e) management of service management processes; | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |
| 6 | .. through activities including at least: e) management of service management processes; | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 08-38 Management review record |
| 7 | .. through activities including at least: f) monitoring and reporting on performance of service management activities. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note:The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |

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| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 7 | .. through activities including at least: f) monitoring and reporting on performance of service management activities. | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 08-38 Management review record |
| **4.5.4.1 General** | | | | | | |
| 1 | The service provider shall use suitable methods for monitoring [and measuring] the SMS and the services. These methods shall include internal audits and management reviews. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |
| 1 | The service provider shall use suitable methods for monitoring [and measuring] the SMS and the services. These methods shall include internal audits and management reviews. | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 08-38 Management review record |
| 2 | The service provider shall use suitable methods for [monitoring and] measuring the SMS and the services. These methods shall include internal audits and management reviews. | CL1 | PA 1.1 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |
| 2 | The service provider shall use suitable methods for [monitoring and] measuring the SMS and the services. These methods shall include internal audits and management reviews. | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 08-38 Management review record |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 3 | The objectives of [all internal audits and] management reviews [shall be documented.] | CL1 | PA 1.1 | SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 03-23 Management review objectives |
| 3 | The objectives of [all internal audits and] management reviews [shall be documented.] | CL1 | PA 1.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 03-23 Management review objectives |
| 4 | The objectives of all internal audits [and management reviews shall be documented.] | CL1 | PA 1.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 03-01 Audit objectives |
| 5 | The objectives of [all internal audits and] management reviews shall be documented. | CL1 | PA 1.1 | SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 03-23 Management review objectives |
| 5 | The objectives of [all internal audits and] management reviews shall be documented. | CL1 | PA 1.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 03-23 Management review objectives |
| 6 | The objectives of all internal audits [and management reviews] shall be documented. | CL1 | PA 1.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 03-01 Audit objectives |
| 7 | The internal audits and management reviews shall demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. | CL1 | PA 1.1 | SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 03-23 Management review objectives |
| 7 | The internal audits and management reviews shall demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. | CL1 | PA 1.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 03-23 Management review objectives |
| 8 | Nonconformities shall be identified against the requirements in this part of ISO/IEC 20000, the SMS requirements identified by the service provider or the service requirements. | CL1 | PA 1.1 | SMS.1.BP4 | **Record nonconformities** Nonconformities are identified against the management system requirements, the requirements identified by the service provider or the service requirements. The results of internal audits including nonconformities, concerns and actions identified, are recorded. | 08-05 Audit nonconformity record |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 9 | The results of [internal audits and] management reviews, [including nonconformities], concerns and actions identified, shall be recorded. | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 02-25 Management review issue log |
| 9 | The results of [internal audits and] management reviews, [including nonconformities], concerns and actions identified, shall be recorded. | CL1 | PA 1.1 | SMS.4.BP3 | **Identify risks, problems and opportunities for improvement** The results of management reviews, concerns and actions identified, are recorded. | 02-25 Management review issue log |
| 9 | The results of [internal audits and] management reviews, [including nonconformities], concerns and actions identified, shall be recorded. | CL1 | PA 1.1 | SMS.4.BP5 | **Track action items resulting from reviews to closure** The records from the management review include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. | 02-25 Management review issue log |
| 10 | The results of internal audits [and management reviews], including nonconformities, concerns and actions identified, shall be recorded. | CL1 | PA 1.1 | SMS.1.BP4 | **Record nonconformities** Nonconformities are identified against the management system requirements, the requirements identified by the service provider or the service requirements. The results of internal audits including nonconformities, concerns and actions identified, are recorded. | 08-05 Audit nonconformity record |
| 11 | The results and actions shall be communicated to interested parties. | CL1 | PA 1.1 | SMS.4.BP4 | **Communicate review results to interested parties** Communicate the results and actions to interested parties. | 08-37 Management review communication record |
| 11 | The results and actions shall be communicated to interested parties. | CL1 | PA 1.1 | SMS.7.BP5 | **Support decisions and communication** Support decisions and provide an objective basis for communication with measurement information. | 08-37 Management review communication record |
| **4.5.4.2 Internal audit** | | | | | | |
| 1 | The service provider shall conduct internal audits, [at planned intervals], to determine whether the SMS and the services: a) fulfil the requirements in this part of ISO/IEC 20000; b) fulfil the service requirements and the SMS requirements identified by the service provider; c) are effectively implemented and maintained. | CL1 | PA 1.1 | SMS.1.BP3 | **Conduct audits** Audits are conducted to determine the conformity of selected services, products and processes with requirements, plans and agreements. | 08-06 Audit result |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | The service provider shall conduct internal audits, [at planned intervals], to determine whether the SMS and the services: a) fulfil the requirements in this part of ISO/IEC 20000; b) fulfil the service requirements and the SMS requirements identified by the service provider; c) are effectively implemented and maintained. | CL1 | PA 1.1 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 08-06 Audit result |
| 2 | The service provider shall conduct internal audits, at planned intervals, [to determine whether the SMS and the services: a) fulfil the requirements in this part of ISO/IEC 20000; b) fulfil the service requirements and the SMS requirements identified by the service provider; c) are effectively implemented and maintained.] | CL2 | PA 2.1 | DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 04-03 Audit schedule |
| 2 | The service provider shall conduct internal audits, at planned intervals, [to determine whether the SMS and the services: a) fulfil the requirements in this part of ISO/IEC 20000; b) fulfil the service requirements and the SMS requirements identified by the service provider; c) are effectively implemented and maintained.] | CL2 | PA 2.1 | SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 04-03 Audit schedule |
| 3 | There shall be a [documented] procedure including the authorities and responsibilities for planning and conducting audits, reporting results and maintaining audit records. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 06-01 Audit procedure |
| 4 | There shall be a documented procedure [including the authorities and responsibilities for planning and conducting audits, reporting results and maintaining audit records.] | CL2 | PA 2.2 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 06-01 Audit procedure |
| 5 | An audit programme shall be planned. This shall take into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | CL1 | PA 1.1 | DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 04-03 Audit schedule |
| 5 | An audit programme shall be planned. This shall take into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | CL1 | PA 1.1 | SMS.1.BP1 | **Define the audit scope and purpose** The scope of each audit is defined taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | 04-02 Audit plan |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 5 | An audit programme shall be planned. This shall take into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | CL1 | PA 1.1 | SMS.1.BP1 | **Define the audit scope and purpose** The scope of each audit is defined taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. | 04-03 Audit schedule |
| 6 | The audit criteria, scope, frequency and methods [shall be documented.] | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 04-04 Audit strategy |
| 7 | [The audit criteria, scope, frequency and methods] shall be documented. | CL2 | PA 2.2 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 04-04 Audit strategy |
| 8 | The selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit. | CL1 | PA 1.1 | SMS.1.BP2 | **Assure the objectivity and impartiality of audit conduct** The selection of auditors and conduct of audits ensures objectivity and impartiality of the audit. Auditors do not audit their own work. | 02-07 Auditor list |
| 9 | Auditors shall not audit their own work. | CL1 | PA 1.1 | SMS.1.BP2 | **Assure the objectivity and impartiality of audit conduct** The selection of auditors and conduct of audits ensures objectivity and impartiality of the audit. Auditors do not audit their own work. | 02-07 Auditor list |
| 10 | Nonconformities shall be communicated, prioritized and responsibility allocated for actions. | CL1 | PA 1.1 | SMS.1.BP5 | **Communicate nonconformities to those responsible for corrective action and resolution** Results and actions are prioritized and responsibility allocated for actions, and communicated to interested parties. | 08-03 Audit nonconformance communication record |
| 11 | The management responsible for the area being audited shall ensure that any corrections and corrective actions are taken without undue delay to eliminate nonconformities and their causes. | CL1 | PA 1.1 | SMS.1.BP6 | **Verify corrective actions for nonconformities** Management responsible for the area being audited ensures that any corrections and corrective actions are taken without undue delay to eliminate nonconformities and their causes. Follow-up activities include the verification of the actions taken. | 08-04 Audit nonconformity disposition record |
| 12 | Follow-up activities shall include the verification of the actions taken [and the reporting of results]. | CL1 | PA 1.1 | SMS.1.BP6 | **Verify corrective actions for nonconformities** Management responsible for the area being audited ensures that any corrections and corrective actions are taken without undue delay to eliminate nonconformities and their causes. Follow-up activities include the verification of the actions taken. | 08-04 Audit nonconformity disposition record |
| 13 | [Follow-up activities shall include the verification of the actions taken and] the reporting of results. | CL1 | PA 1.1 | SMS.1.BP5 | **Communicate nonconformities to those responsible for corrective action and resolution** Results and actions are prioritized and responsibility allocated for actions, and communicated to interested parties. | 08-03 Audit nonconformance communication record |

**4.5.4.3 Management review**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | Top management shall review the SMS and the services [at planned intervals] to ensure their continued suitability and effectiveness. | CL1 | PA 1.1 | SMS.4.BP2 | **Assess the status and performance of an activity or process** Top management reviews the SMS and the services to ensure their continued suitability and effectiveness. The input to management reviews includes at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | 02-25 Management review issue log |
| 1 | Top management shall review the SMS and the services [at planned intervals] to ensure their continued suitability and effectiveness. | CL1 | PA 1.1 | SMS.4.BP3 | **Identify risks, problems and opportunities for improvement** The results of management reviews, concerns and actions identified, are recorded. | 02-25 Management review issue log |
| 1 | Top management shall review the SMS and the services [at planned intervals] to ensure their continued suitability and effectiveness. | CL1 | PA 1.1 | SMS.4.BP5 | **Track action items resulting from reviews to closure** The records from the management review include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. | 02-25 Management review issue log |
| 2 | Top management shall review the SMS and the services at planned intervals [to ensure their continued suitability and effectiveness.] | CL2 | PA 2.1 | SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 04-14 Management review schedule |
| 3 | This review shall include assessing opportunities for improvement [and the need for changes to the SMS, including the policy and objectives for service management.] | CL1 | PA 1.1 | SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 03-23 Management review objectives |
| 3 | This review shall include assessing opportunities for improvement [and the need for changes to the SMS, including the policy and objectives for service management.] | CL1 | PA 1.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 03-23 Management review objectives |
| 4 | This review shall include assessing [opportunities for improvement and] the need for changes to the SMS, including the policy and objectives for service management. | CL1 | PA 1.1 | SMS.4.BP1 | **Establish review objectives** The management reviews demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. This review includes assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management. | 03-23 Management review objectives |
| 4 | This review shall include assessing [opportunities for improvement and] the need for changes to the SMS, including the policy and objectives for service management. | CL1 | PA 1.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 03-23 Management review objectives |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 5 | The input to management reviews shall include at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | CL1 | PA 1.1 | SMS.6.BP2 | **Categorise and assess risks** Identified risks are categorised, assessed and the priority in which to apply resources to treatment of these risks is determined. | 02-32 Risk log |
| 5 | The input to management reviews shall include at least information on: a) customer feedback; b) service and process performance and conformity; c) current and forecast human, technical, information and financial resource levels; d) current and forecast human and technical capabilities; e) risks; f) results and follow-up actions from audits; g) results and follow-up actions from previous management reviews; h) status of preventive and corrective actions; i) changes that could affect the SMS and the services; j) opportunities for improvement. | CL1 | PA 1.1 | SMS.6.BP4 | **Monitor risks** Assessed risks are monitored. | 02-32 Risk log |
| 6 | Records of management reviews shall be maintained. | CL2 | PA 2.2 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |
| 7 | The records from the management review shall include at least decisions and actions related to resources, improvement of the effectiveness of the SMS and improvement of the services. | CL2 | PA 2.2 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 08-38 Management review record |

**4.5.5.1 General**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | There shall be a policy on continual improvement of the SMS and the services. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 05-06 Improvement policy |
| 2 | The policy shall include evaluation criteria for the opportunities for improvement. | CL2 | PA 2.2 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 05-06 Improvement policy |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 3 | There shall be a [documented] procedure including the authorities and responsibilities for identifying, documenting, evaluating, approving, prioritizing, managing, measuring and reporting of improvements. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 06-12 Improvement procedure |
| 4 | There shall be a documented procedure [including the authorities and responsibilities for identifying, documenting, evaluating, approving, prioritizing, managing, measuring and reporting of improvements.] | CL2 | PA 2.2 | SMS.3.BP1 | **Identify information items** Information items are identified in accordance with defined criteria. Note: This practice identifies every instance in ISO/IEC 20000-1 where the verb 'document' or 'record' is used. | 06-12 Improvement procedure |
| 5 | Opportunities for improvement, including corrective and preventive actions, shall be documented. | CL1 | PA 1.1 | SMS.2.BP1 | **Identify opportunities for improvement** Opportunities for improvement, including corrective and preventive actions, are documented. | 08-21 Improvement opportunity record |
| 6 | The cause of identified nonconformities shall be corrected. | CL3 | PA 3.2 | SMS.9.BP4 | **Take action to correct deviations from planned arrangements when targets are not achieved** Take action to correct deviations from planned arrangements when targets are not achieved. | 02-17 Improvement opportunity disposition log |
| 7 | Corrective actions shall be taken to eliminate the cause of identified nonconformities in order to prevent recurrence. | CL3 | PA 3.2 | SMS.9.BP4 | **Take action to correct deviations from planned arrangements when targets are not achieved** Take action to correct deviations from planned arrangements when targets are not achieved. | 02-17 Improvement opportunity disposition log |
| 8 | Preventive actions shall be taken in order to eliminate the cause of potential nonconformities in order to prevent occurrence. | CL3 | PA 3.2 | SMS.9.BP4 | **Take action to correct deviations from planned arrangements when targets are not achieved** Take action to correct deviations from planned arrangements when targets are not achieved. | 02-17 Improvement opportunity disposition log |

**4.5.5.2 Management of improvements**

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | Opportunities for improvement shall be prioritized. | CL1 | PA 1.1 | SMS.2.BP3 | **Plan approved improvements** Opportunities for improvement are prioritized. Approved improvements are planned. The service provider manages improvement activities including setting targets for improvements in one or more of quality, value, capability, cost, productivity, resource utilization and risk reduction. | 04-11 Improvement plan |
| 2 | The service provider shall use the evaluation criteria in the policy on continual improvement, when making decisions on opportunities for improvement. | CL1 | PA 1.1 | SMS.2.BP2 | **Evaluate opportunities for improvement** The service provider uses the evaluation criteria in the policy on continual improvement, when making decisions on opportunities for improvement. | 09-11 Improvement opportunity evaluation report |
| 3 | Approved improvements shall be planned. | CL1 | PA 1.1 | SMS.2.BP3 | **Plan approved improvements** Opportunities for improvement are prioritized. Approved improvements are planned. The service provider manages improvement activities including setting targets for improvements in one or more of quality, value, capability, cost, productivity, resource utilization and risk reduction. | 04-11 Improvement plan |

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| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 4 | The service provider shall manage improvement activities including at least: a) setting targets for improvements in one or more of quality, value, capability, cost, productivity, resource utilization and risk reduction; | CL2 | PA 2.1 | SMS.9.BP1 | **Service management is planned and implemented** Service management is planned and implemented with the intent of achieving the service management objectives and satisfying customers. | 04-11 Improvement plan |
| 5 | The service provider shall manage improvement activities that include at least: b) ensuring that approved improvements are implemented; | CL1 | PA 1.1 | SMS.2.BP4 | **Implement approved improvements** The service provider manages improvement activities including ensuring that approved improvements are implemented. | 09-10 Implemented improvement evaluation report |
| 6 | The service provider shall manage improvement activities that include at least: c) revising the service management policies, plans, processes and procedures, where necessary; | CL2 | PA 2.2 | SMS.3.BP4 | **Maintain information items** information items are maintained in accordance with planned arrangements. Note: The keyword in ISO/IEC 20000-1 is 'maintain'. | 02-18 Improvement opportunity implementation log |
| 7 | The service provider shall manage improvement activities that include at least: d) measuring implemented improvements against the targets set and where targets are not achieved, taking necessary actions; | CL4 | PA 4.1 | SMS.7.BP4 | **Analyse the required data** The service provider analyses the types, volumes and impacts of information security incidents. The service provider analyses data and trends on incidents and problems. Requests for change are analysed at to detect trends. The success or failure of releases is analysed. Analysis includes assessment of the impact of the release on the customer. | 09-36 Service level performance analysis report |
| 8 | The service provider shall manage improvement activities that include at least: e) reporting on implemented improvements. | CL1 | PA 1.1 | SMS.2.BP5 | **Communicate results of improvement actions** The service provider reports on implemented improvements. | 08-20 Improvement communication record |

### 5.1 General

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 1 | The service provider shall use this process for all new services and changes to services with the potential to have a major impact on services or the customer. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 05-03 Change Management policy |
| 2 | The changes that are in the scope of Clause 5 shall be determined by the change management policy agreed as part of the change management process. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 05-03 Change Management policy |
| 3 | Assessment, approval, scheduling and reviewing of new or changed services in the scope of Clause 5 shall be controlled by the change management process.. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 05-03 Change Management policy |
| 4 | The CIs affected by new or changed services in the scope of Clause 5 shall be controlled by the configuration management process. | CL3 | PA 3.1 | SMS.8.BP3 | **Establish SMS processes** SMS processes are established to support service management objectives. | 06-07 Configuration item control procedure |

| Reference Number | Singular requirement | CL | PA | BP Reference | Base practice | Information item implied |
|---|---|---|---|---|---|---|
| 5 | The service provider shall review outputs from the planning and design activities for new or changed services against the agreed service requirements and the relevant requirements given in Clauses 5.2 and 5.3. | CL2 | PA 2.1 | SMS.9.BP3 | **Monitor service delivery against planned arrangements** Performance and progress against the planned arrangements is monitored. | 08-39 New or changed service design review record |
| 6 | Based on the review, the service provider shall accept or reject the outputs. | CL2 | PA 2.1 | SMS.9.BP4 | **Take action to correct deviations from planned arrangements when targets are not achieved** Take action to correct deviations from planned arrangements when targets are not achieved. | 02-26 New or changed service design issue log |
| 7 | The service provider shall take necessary actions to ensure that the development and transition of new or changed services can be performed effectively, using the accepted outputs. | CL1 | PA 1.1 | SMS.6.BP5 | **Take appropriate treatment to avoid unacceptable risks** Appropriate treatment is taken to correct or avoid unacceptable assessed risks. | 04-21 Risk treatment strategy |
| 7 | The service provider shall take necessary actions to ensure that the development and transition of new or changed services can be performed effectively, using the accepted outputs. | CL1 | PA 1.1 | SMS.9.BP5 | **Manage organisational risks** Organizational risks are continually identified, analysed, treated and monitored. | 04-21 Risk treatment strategy |
| **5.2 Plan new or changed services** | | | | | | |
| 1 | The service provider shall identify the service requirements for the new or changed services. | CL1 | PA 1.1 | DTR.4.BP1 | **Define the scope of the work for provision of new or changed services** The scope of the work for provision of new or changed services is defined. | 12-11 Service requirements |
| 1 | The service provider shall identify the service requirements for the new or changed services. | CL1 | PA 1.1 | SMS.8.BP1 | **Establish service requirements in response to business needs, customer requirements and customer requests** The service provider identifies the service requirements for the new or changed services. | 12-11 Service requirements |
| 2 | New or changed services shall be planned to fulfil the service requirements. | CL1 | PA 1.1 | DTR.4.BP5 | **Develop plans for the provision of the new or changed services** Plans for the provision of the new or changed service are developed. | 04-15 New or changed service plan |
| 3 | Planning for the new or changed services shall be agreed with the customer and interested parties. | CL2 | PA 2.2 | SMS.3.BP2 | **Control and issue information items** Information items are controlled and issued according to defined criteria. Note: The evidence in ISO/IEC 20000-1 is the verb 'approve' and 'agree'. | 08-40 New or changed service plan approval record |
| 4 | As input to planning, the service provider shall take into consideration the potential financial, organizational, and technical impact of delivering the new or changed services. | CL1 | PA 1.1 | DTR.1.BP3 | **Define the requirements for the new or changed service** The requirements for the new or changed service are defined. | 12-04 New or changed service requirements |
| 5 | The service provider shall also take into consideration the potential impact of the new or changed services on the SMS. | CL1 | PA 1.1 | DTR.1.BP3 | **Define the requirements for the new or changed service** The requirements for the new or changed service are defined. | 12-04 New or changed service requirements |