
**Information technology — Service
management —**

**Part 14:
Guidance on the application of Service
Integration and Management to ISO/
IEC 20000-1**

Technologies de l'information — Gestion des services —

*Partie 14: Recommandations pour l'application de l'intégration et de
la gestion des services à l'ISO/IEC 20000-1*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 40, *IT service management and IT governance*.

A list of all parts in the ISO/IEC 20000 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

This document provides guidance for organizations wishing to include Service Integration and Management (SIAM™)¹⁾ in an existing service management system (SMS), or one in the process of being established, based on ISO/IEC 20000-1:2018. An SMS supports the management of the service lifecycle, including the planning, design, transition, delivery and improvement of services, which meet agreed requirements and deliver value for customers, users and the organization(s) delivering the services.

The adoption of SIAM is driven by strategic factors, including:

- increased complexity of sourcing models using multiple service providers;
- a desire to remove reliance on any particular service provider;
- the requirement for effective controls for managing a multi-provider ecosystem;
- a desire for the ability and flexibility available from specialized service providers in this field.

SIAM is an evolution of service management methodologies that includes services integrated across multiple service providers. It has developed as organizations have moved away from outsourced contracts with a single service provider to an environment with multiple service providers. SIAM has evolved out of the challenges associated with these more complex operating models. SIAM addresses the issue of "accidental multi-sourcing", where an organization engages in an ad hoc way with multiple service providers and services over time, with no consistent overall control.

SIAM incorporates the concept of a service integrator layer, which is a single, logical entity held accountable for the end-to-end delivery of services. The service integrator layer is where end-to-end service management, assurance, integration and coordination are performed. It focuses on implementing an effective cross-service provider capability and executes the requirements directed by the customer organization.

This document also provides a mapping between the requirements and guidance of ISO/IEC 20000-1 and the elements in the SIAM methodology.

1) SIAM™ is the trademark of a product supplied by EXIN. This information is given for the convenience of users of this document and does not constitute an endorsement by ISO or IEC of the product named. Equivalent products may be used if they can be shown to lead to the same results.

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Information technology — Service management —

Part 14:

Guidance on the application of Service Integration and Management to ISO/IEC 20000-1

1 Scope

This document provides guidance for organizations that are establishing or improving a service management system (SMS) by incorporating a service integrator. The incorporation of a service integrator is aimed at addressing an environment that includes services sourced from multiple service providers.

This document specifically focuses on Service Integration and Management (SIAM) in the context of an SMS.

The intended users of this document include:

- organizations that need to manage multiple service providers within a new or existing SMS according to SIAM; and
- consultants and advisors that support an organization during SMS implementation or improvement, where a SIAM approach is being adopted.

NOTE 1 This document is applicable for organizations implementing SIAM in conjunction with SMS. It does not limit organizations or individuals from implementing any other management and governance model for managing multivendor environments along with SMS.

This document is not applicable to organizations that have only one service provider.

NOTE 2 In SIAM, the term "supplier" is not used. Internal and external suppliers are both referred to as "service providers". See 4.2 for further comparison of terminology.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO/IEC 20000-10, *Information technology — Service management — Part 10: Overview and key concepts*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 20000-1, ISO/IEC 20000-10 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

cross-functional team

group of people with different functional expertise working toward a common goal

Note 1 to entry: It may include people from finance, marketing, operations and human resources departments. Typically, it includes employees from all levels of an organization or from different organizations.

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.2

function

organizational entity, typically characterized by a special area of knowledge or expertise

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.3

organizational change management

OCM

process used to manage changes to business processes, organizational structures and cultures within an organization

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.4

retained capabilities

functions within the customer organization that are responsible for strategic, architectural, business engagement and corporate governance activities

Note 1 to entry: The customer organization will include some retained capabilities that may include any accountabilities and responsibilities that remain with the customer for legislative or regulatory reasons.

Note 2 to entry: Some services may be delivered by the customer's staff. These staff are considered internal service providers and not part of the customer retained capabilities.

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.5

Service Integration and Management

SIAM

management methodology that can be applied in an environment that includes services sourced from multiple service providers

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.6

service integrator

single, logical entity held accountable for the end-to-end delivery of services and the business value that the customer receives

Note 1 to entry: Service integrator accountability includes end-to-end service governance, management, integration, assurance, coordination, visibility and transparency in performance.

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.7

service provider

internal or external organization that provides services

Note 1 to entry: Within a SIAM ecosystem, there are multiple service providers.

Note 2 to entry: External service providers can also be known as suppliers or vendors.

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.8**SIAM ecosystem**

network or interconnected system

Note 1 to entry: The SIAM ecosystem includes three layers: customer organization (including retained capabilities), service integrator and service providers.

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.9**SIAM governance**

framework of rules, policies, processes, and in some cases legislation, by which businesses are operated, regulated and controlled

Note 1 to entry: In a SIAM ecosystem, governance refers to the definition and application of policies and standards. These define and ensure the required levels of authority, decision-making and accountability performed by SIAM boards (see "structural element").

Note 2 to entry: ISO/IEC 38500 defines governance as "a system of directing, overseeing and accountability".

[SOURCE: SIAM Professional Body of Knowledge, 2021, modified — Note 2 to entry added.]^[8]

3.10**SIAM model**

customer organization-initiated structure consisting of practices, processes, functions, roles and structural elements described within the SIAM methodology and based on the layers in the SIAM ecosystem

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.11**SIAM practice**

actual application or use of an idea, belief or method, as opposed to the theories relating to it

Note 1 to entry: There are four types of practice: people, process, measurement, technology. These practice areas address governance, management, integration, assurance and co-ordination across the layers, and need to be considered when designing, operating or managing the transition to a SIAM model.

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

3.12**structural element**

teams that have members from different organizations and different SIAM layers

Note 1 to entry: These include boards, process forums and working groups.

[SOURCE: SIAM Professional Body of Knowledge, 2021]^[8]

4 ISO/IEC 20000-1 and Service Integration and Management**4.1 Introduction to ISO/IEC 20000-1**

ISO/IEC 20000-1 specifies requirements for establishing, implementing, maintaining and continually improving an SMS. An SMS supports the management of the service lifecycle, including the planning, design, transition, delivery and improvement of services, which meet agreed requirements and deliver value for customers, users and the organization delivering the services. The organization in the scope of the SMS can be a whole or part of a larger organization and can also be known as the service provider.

ISO/IEC 20000-1 is intentionally independent of specific guidance. The organization can use a combination of generally accepted methodologies (e.g. SIAM) and its own experience. Appropriate tools for service management can be used to support the SMS.

All requirements specified in ISO/IEC 20000-1 are generic and are intended to be applicable to all organizations, regardless of the organization's type or size, or the nature of the services delivered. While it can be used "regardless of the organization's type or size, or the nature of the services delivered," ISO/IEC 20000-1 has its roots in information technology (IT). It is intended for service management of services using technology and digital information. The examples given in this document illustrate a variety of uses of SIAM in the context of an SMS.

Exclusion of any of the requirements in ISO/IEC 20000-1:2018, Clauses 4 to 10, is not acceptable when the organization claims conformity to ISO/IEC 20000-1, irrespective of the nature of the organization.

The organization cannot demonstrate conformity to the requirements specified in ISO/IEC 20000-1 if it does not provide or operate at least some of the services, service components or processes within the scope of the SMS.

ISO/IEC 20000-10 includes the concepts for an SMS, the vocabulary used for the ISO/IEC 20000 series, and a description of each part of the series and related standards. Guidance is available in other parts of the ISO/IEC 20000 series including:

- ISO/IEC 20000-2: Guidance on the application of service management systems;
- ISO/IEC 20000-3: Guidance on scope definition and applicability of ISO/IEC 20000-1;
- ISO/IEC TS 20000-5: Implementation guidance for ISO/IEC 20000-1;
- ISO/IEC 20000-6: Requirements for bodies providing audit and certification of service management systems;
- ISO/IEC TS 20000-11: Guidance on the relationship between ISO/IEC 20000-1 and service management frameworks: ITIL®.

[Figure 1](#) illustrates an SMS showing the clause content of ISO/IEC 20000-1. Numbers in parentheses in Figure 1 indicate ISO/IEC 20000-1 clause numbers. See [Annex A](#) for a list of the ISO/IEC 20000-1 clause numbers and titles.

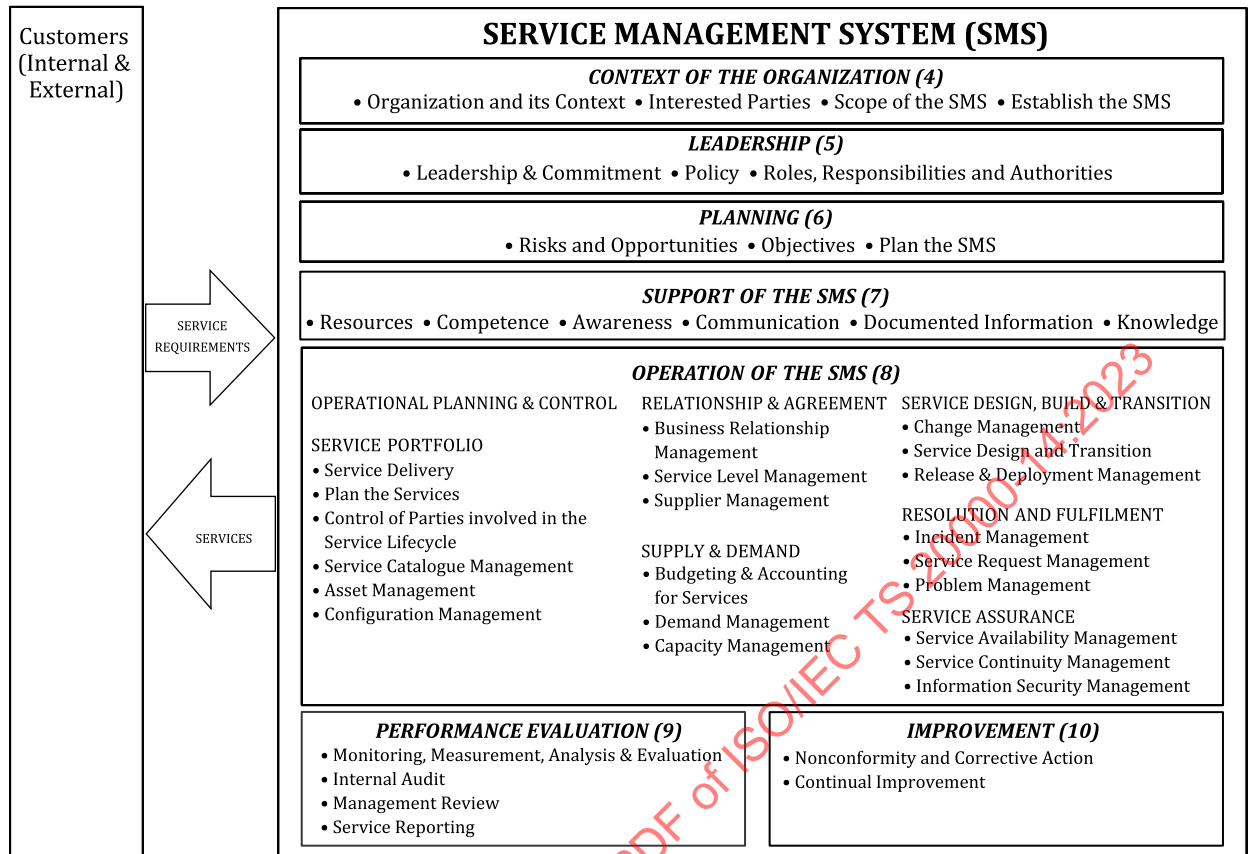


Figure 1 — Service management system

4.2 Terminology comparison

Table 1 compares terms that are found in either the ISO/IEC 20000 series or the SIAM Bodies of Knowledge (BoKs) to show their different uses. This document uses these terms from a SIAM perspective.

Table 1 — Comparison of key terminology between the ISO/IEC 20000 series and the SIAM BoKs

Term	ISO/IEC 20000 series definition	SIAM relationship (BoKs)
customer	organization or part of an organization that receives a service or services.	SIAM uses customer organization as the end client to denote the organization that commissions the SIAM ecosystem. They also contribute to and receive the integrated SIAM services.
external supplier	another party that is external to the organization that enters into a contract to contribute to the planning, design, transition, delivery or improvement of a service, service component or process.	The term "supplier" is not used in the SIAM BoKs. Internal and external suppliers are both referred to as "service providers".
internal supplier	part of a larger organization that is outside the scope of the SMS that enters into a documented agreement to contribute to the planning, design, transition, delivery or improvement of a service, service component or process.	

Table 1 (continued)

Term	ISO/IEC 20000 series definition	SIAM relationship (BoKs)
governance	group or body that has the ultimate responsibility and authority for an organization's activities, governance and policies and to which top management reports and by which top management is held accountable.	Governance refers to the rules, policies, processes (and in some cases, legislation) by which businesses are operated, regulated and controlled. There may be many layers of governance within a business such as enterprise, corporate and IT. In a SIAM ecosystem, governance refers to the definition and application of policies and standards. These define and ensure the required levels of authority, decision-making and accountability.
interested party	person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity related to the SMS or the services.	The term "interested party" is not used in the SIAM Boks. "Stakeholder" is used instead to convey a person or group of people that have a particular interest in, or are impacted by, something.
service integrator	entity that manages the integration of services and service components delivered by multiple suppliers Note 1 to entry: The role of the service integrator supports the promotion of end-to-end service management, particularly in complex supply chains, by ensuring all parties are aware of, enabled to perform and are held accountable for, their role in the supply chain.	The service integrator is a single, logical entity held accountable for the end-to-end delivery of services. The definition does not focus on suppliers or supply chain but rather the multiple service provider environment (see above: internal and external supplier).
service provider	organization that manages and delivers a service or services to customers.	Service provider refers to both internal and external service providers ("suppliers" in ISO/IEC 20000).
top management	person or group of people who directs and controls an organization at the highest level.	The term "top management" is not used in the SIAMs BoKs. Top management in an SMS within a SIAM ecosystem would be subject to the leadership and management review requirements in ISO/IEC 20000-1.

5 Introduction to the SIAM ecosystem

5.1 Brief overview of SIAM

SIAM is a well-known, globally adopted management methodology that can be applied in an environment that includes services sourced from multiple service providers. It describes the SIAM practices, structures, elements and principles associated with the discipline. It can be used with other methods, approaches and frameworks.

The SIAM Foundation and Professional Bodies of Knowledge (F-Bok, P-BoK respectively) are used as the source material for SIAM guidance. The BoKs are non-prescriptive and intended to provide principles to inform the workings of a multi-provider SIAM ecosystem.

5.2 SIAM model

5.2.1 General

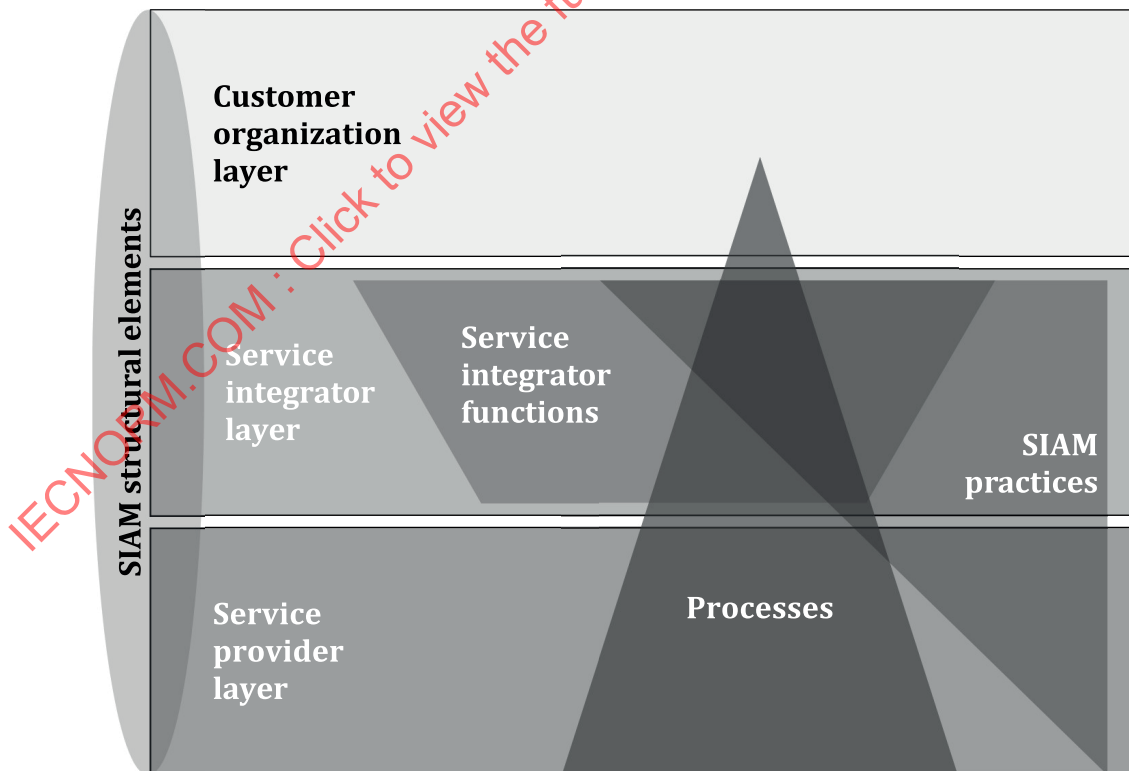
SIAM does not include a specific operating model. Instead, it explains that each organization needs to develop its own model according to its circumstances and based on the layers of the SIAM ecosystem. Because of this, there is no ideal SIAM model, although some ways of working can be more suitable to particular implementations than others. However the customer organization chooses to define its SIAM model, it will include common characteristics.

The SIAM model that an organization adopts can be influenced by several factors including:

- the services that are in scope of SIAM;
- the required outcomes related to specific drivers of the organization;
- the use of proprietary models by externally-sourced service integrators.

[Figure 2](#) shows a high-level SIAM model, including the relationships between SIAM layers, SIAM practices, processes, functions and structural elements. Each element of the model is further explained in subsequent clauses. The diagram is a representation of the many concepts involved in a SIAM model against the backdrop of the SIAM layers.

The three layers (e.g. customer organization, service integrator service provider) are shown with the structural elements on the left (structural elements are described in [5.2.4](#)). Within the three layers, other elements exist. The service integrator layer includes its specific functions and management of SIAM practices, as well as interfaces with processes. The service provider layer includes the processes that are undertaken largely by the providers and that are managed and coordinated by the service integrator. The service provider also interfaces with the SIAM practices.



SOURCE: Reference [7], reproduced with permission of the authors

Figure 2 — A high-level SIAM model

5.2.2 The customer organization

The customer organization is the end client that is incorporating SIAM as part of their operational model. Customer organizations typically contain business units such as human resources, finance, sales and their own internal IT functions. They can also have their own internal or external customers who use their products and services.

Within the customer organization, there are typically “retained capabilities” which are business resources performing activities such as strategy development, business engagement and corporate governance.

In the SIAM ecosystem, the customer organization commissions the service integrator to manage multiple service providers on their behalf and according to their requirements. The customer organization selects and retains ownership of the relationship with each service provider. The management of the service providers is carried out by the service integrator on behalf of the customer organization. The service integrator has a relationship with the customer organization and the service providers.

NOTE ISO/IEC 20000-3 provides numerous examples showing these different relationships.

5.2.3 Service integrator

The service integrator layer is a logical entity within the SIAM ecosystem which is positioned between the customer organization and the service providers, ensuring business value for the customer organization. The service integrator's role is to ensure all service providers are contributing effectively to the end-to-end services and providing seamless services to the organization's customers.

Activities within the service integrator layer include management, assurance, integration, coordination, visibility and transparency in performance between the customer organization and the service integrator and amongst the service providers. Whatever SIAM model is adopted, it should allow the service integrator to maintain impartiality.

The service integrator layer can be provided by one or more internal or external organizations, including the customer organization. If it is provided by more than one organization, it may still be considered as a single logical entity.

5.2.4 Service providers

A SIAM ecosystem has multiple service providers. Each service provider is categorized according to their importance to, and potential impact on, the customer organization. The identified service providers have the responsibility to manage their part of the contract or agreement, including processes and technology, to support end-to-end service delivery.

The service providers can be:

- internal to the customer organization and managed with internal agreements and targets;
- external to the customer organization and managed by contracts with the customer organization;
- or a combination of these two.

If the customer organization retains its own internal IT capability, IT becomes an internal service provider, to be managed by the service integrator. Regardless of the sourcing of the service integration function, its obligations, and those of any other internal or external service provider, should remain separate to avoid real or apparent conflict of interest.

5.2.5 SIAM structural elements

Structural elements are organizational entities that have specific responsibilities and work across multiple organizations and layers in the SIAM ecosystem. The objective of the structural elements is to

establish relationships between the various parties through collaboration and communication. Roles that participate within the structural elements include representatives from the service integrator, service provider and customer organization. These structural elements link the SIAM practices, processes and roles together to achieve a specific goal. The structural elements are:

- **boards** — formal decision-making bodies that are accountable for the decisions that they take, e.g. information security advisory board or integrated change advisory board;
- **process forums** — members work together on proactive development, innovations and improvements, e.g. continual improvement process forum. These are typically aligned to specific processes or practices;
- **working groups** — typically formed on a reactive, ad hoc or fixed term basis, e.g. major incident management working group. They are convened to address specific issues or projects. Often the process forums and working groups involve the same people but with a different focus, which may be proactive or reactive.

5.2.6 SIAM processes

SIAM itself is not a process and does not mandate the use of specific service management processes. To operate effectively, it relies on several processes which can be executed across different organizations in the same or different SIAM layers. Some processes will span multiple layers. All processes required by an SMS should consider the SIAM process models.

Many of the processes used within a SIAM ecosystem are familiar processes, like change management and business relationship management. Within a SIAM model, however, these processes require adaptation to support integration and coordination between the different parties. They also require alignment with the SIAM practices.

In a SIAM model, the execution of most processes will involve multiple service providers. Each service provider can carry out individual steps in a different way, but as part of an overall integrated process model. Each party in a SIAM ecosystem should ensure their own processes allow integration with the SIAM model.

The detail of the process models, and the allocation of activities to the different layers in the SIAM structure, will vary for each implementation of SIAM.

5.2.7 SIAM practices

SIAM includes specific practices that support the activities of the chosen SIAM model. The examples in this subclause give some illustrations of how to apply SIAM practices, principles and concepts to deliver value.

There are four types of SIAM practices:

- **people** — e.g. managing cross-functional teams, the integration of the teams involved in the structural elements;
- **process** — e.g. integration of processes across service providers to meet the performance requirements of the customer organization, ensuring process flow across all SIAM layers;
- **measurement** — e.g. ensuring the correct data and information are available to the customer and service providers, reporting on end-to-end service performance;
- **technology** — e.g. ensuring compatibility across all technology used by each entity to support the SIAM ecosystem, creating a tooling strategy to support the performance requirements, measurement and reporting requirements across all SIAM layers.

5.3 SIAM roles and responsibilities

Roles and responsibilities should be defined, established, monitored and improved within a SIAM ecosystem. Roles and responsibilities cross each layer, organization, activity and structural element. Roles that participate within the structural elements include representatives from the service integrator, service providers and customer organization.

Roles require careful planning as they will be applied in a multi-provider environment and duplication, or contradiction, of roles and responsibilities can reduce the effectiveness of the SIAM ecosystem.

Within the three layers of the SIAM model (see [Figure 2](#)), there are several major roles:

- within the **customer organization layer** — the customer organization is the end client that is incorporating SIAM as part of their operational model, who may also have their own customers for their products and services:
 - **retained capabilities** — roles performed within the customer organization, for example strategic planning, architectural design, business engagement and corporate governance;
 - **service owner** — accountable for the end-to-end delivery of a service;
 - **SIAM governance lead** — a senior role, primarily responsible for providing assurance regarding the implementation and operation of the SIAM strategy and operating model;
- within the **service integrator layer** — accountable for the end-to-end delivery of services and generation of business value for the customer organization:
 - **SIAM operational lead** — responsible for managing the overall operation of the SIAM ecosystem, providing direction and leadership, as well as acting as the 'escalation' point for any management issues;
 - **process owner** — accountable for the end-to-end process;
 - **process manager** — responsible for the end-to-end, day-to-day operation of a process;
 - **service manager** — responsible for an element of service delivery;
- within the **service provider layer** — responsible for delivery of one or more services or service elements to fulfil the needs of the customer organization through collaboration with other service providers:
 - **process owner** — accountable for the process within a service provider and the interfaces to the overall process model;
 - **process manager** — responsible for the process within a service provider and the interfaces to the overall process model.

NOTE For further information, refer to section 5, "SIAM roles and responsibilities" of the *SIAM Foundation Body of Knowledge*, 2nd edition. [\[7\]](#)

6 Deploying SIAM with an SMS

6.1 Deploying SIAM

6.1.1 Overview

The organization can be planning either to implement a SIAM model in an existing SMS, establishing an SMS within an existing SIAM environment or deploying SIAM concurrently with establishing an SMS. Each of these possible starting points brings its own opportunities and challenges. For example, changing an existing environment brings constraints related to any existing service provider

arrangements, agreements and processes. By comparison, a new environment does not have those constraints but cannot rely on existing mature processes.

An organization planning to implement a SIAM model needs to understand the customer's organizational drivers as well as the risks, opportunities and benefits of deploying a SIAM ecosystem.

A SIAM implementation can be undertaken as part of a wider programme, a series of stand-alone or integrated projects or on an incremental basis with different phases. An incremental approach should consider the risks and benefits realization of each intermediate state.

Requirements and guidance for deploying an SMS can be found in ISO/IEC 20000-1, ISO/IEC 20000-2 and ISO/IEC TS 20000-5. Additionally, ISO/IEC 20000-3:2019 covers the inclusion of a service integrator, particularly in subclause 6.7 and the scenarios in Annex A.

Clause A.2 of this document provides a cross-reference of SIAM concepts with documents from the ISO/IEC 20000 series.

Every party in a SIAM environment (e.g. the customer organization, service integrator and service providers) can develop its own SMS and scope for the services they offer. Each SMS can support one or more customers. Each party with its own SMS can be assessed for conformity against the requirements of ISO/IEC 20000-1.

6.1.2 Implementing SIAM in an existing SMS

An organization with a defined SMS will need to consider how the inclusion of a SIAM model will affect the SMS and any associated conformity assessments, contracts or agreements.

The customer organization should review its overall strategy, service management policy and objectives as required in ISO/IEC 20000-1. Where necessary, these should be revised to take the SIAM drivers into account.

6.1.3 Establishing an SMS within an existing SIAM environment

Establishing an SMS within an existing SIAM environment requires the same approach as any other environment. Care should be taken to ensure that the definition of the scope of the SMS includes consideration of the SIAM operational model. This ensures that there is clear delineation between the SIAM scope and that of any of the other service providers.

In a SIAM model, the contracts will be between the customer organization and the service providers, but the service integrator will maintain the operational relationships with those service providers.

6.1.4 Deploying SIAM concurrently with establishing an SMS

When a SIAM model is deployed at the same time as establishing an SMS, the projects or programmes may be co-ordinated or combined.

6.2 The SIAM roadmap

6.2.1 Introduction to the SIAM roadmap

The transition to a SIAM model is a significant undertaking and it should be managed as a project. The SIAM roadmap describes the high-level stages:

- 1) discovery and strategy;
- 2) plan and build;
- 3) implement;
- 4) run and improve.

Organizations can think the SIAM roadmap is a linear progression, but it is not and it can be necessary to repeat stages, or return to previous ones, based on stage outputs. The roadmap is not a predefined, prescriptive approach but a recommended, iterative and optimal one.

In a SIAM context, services are often aggregated services. An end-to-end customer service can be delivered by multiple internal and external service providers who provide parts of that service. This has implications for the development and implementation of the roadmap. The SIAM model should ensure measurement, management and accountability for the delivery of these aggregated services. These factors should be considered both from the perspective of each individual service provider and the aggregated end-to-end service.

Each organization will undertake the transition to a SIAM model in a manner that meets its needs and risk appetite. Moving to a SIAM model is a significant change for an organization and the effects and requirements in time, budget and effort should not be underestimated. Organizational change management (OCM) should be used to manage the impact of the transition to the SIAM environment.

Each stage of the roadmap is described in subsequent clauses by its inputs and outputs and its relationship to the requirements of ISO/IEC 20000-1. In addition to the inputs and outputs, the SIAM BoKs provide details on objectives, triggers and activities for each stage. For each SIAM input and output, [Tables 2 – 5](#) provide the related clauses in ISO/IEC 20000-1 which indicate where there needs to be collaboration in the establishment of the SMS and the SIAM model. [Annex B](#) provides further mapping.

The clause headings for all the clauses listed in [Tables 2 – 5](#) can be found in [Annex A](#). [Table B.1](#) lists the relationships of SIAM inputs and outputs to the requirements or guidance in the ISO/IEC 20000 series.

[Table B.2](#) cross-references SIAM artefacts with ISO/IEC 20000-1 mandatory documented information with comments on how to modify the SMS to fit with the SIAM environment.

NOTE For further information, refer to section 2 of the *SIAM Foundation Body of Knowledge*, 2nd edition^[7] and sections 2 – 5 of the *SIAM Professional Body of Knowledge*, 2nd edition.^[8]

6.2.2 Discovery and strategy

Most commissioning organizations already work with one or more service providers and have different objectives, priorities and resources. Some organizations may already have a sourcing strategy which aligns their purchasing strategy to business goals. Some may have mature supplier management capabilities, whereas others will need to create these as part of their SIAM roadmap. These factors, among others, will influence the decision to adopt SIAM and how to formulate the appropriate SIAM model.

The discovery and strategy stage initiates the transition to SIAM. At this stage, key strategies are formulated and a map of the current situation is created to enable the customer organization to determine its sourcing approach and outline model for SIAM. This stage will clarify the organization's current capability and maturity and allow the production of an outline governance framework, strategy and outline model for SIAM.

The exact nature of the different governance components will vary depending on the organizations, their governance requirements and the SIAM model being adopted. These can include considerations around sustainability and the environment. The framework or individual components should be revised to meet evolving requirements and the framework itself should provide the mechanism for doing this, through established strategic governance boards.

An important part of SIAM governance is being able to monitor, measure and understand how the SIAM ecosystem is performing. This can also promote collaboration amongst the service providers. Without relevant, accurate and up-to-date information, it is impossible to make timely and accurate decisions, trigger effective corrective actions and understand whether plans are successful.

Discovery and strategy is a critical stage, as each customer organization's maturity, services and level of SIAM readiness are different. If activities are missed, or are only partially completed, there could be a negative impact on the remainder of the project activities.

Discovery of the current state environment is an important step: assumed knowledge can represent a significant risk in the discovery stage. It is common for processes or procedures to be culturally embedded and not documented because individual work practices can cover gaps in processes or systems. When processes change, these undocumented work practices can fail or interfere with the required changes.

The management of service providers and contracts needs to be a core capability within any SIAM ecosystem. The aim is to build an overall culture of partnership, collaboration and innovation rather than reliance only on contractual terms.

Data and information strategy is important in any service management implementation. Within SIAM, data categorization and ownership, as well as interactions and integration with and between services, should be established. Detailed planning for the systems to support the data and required interfaces occurs in the plan and build stage.

The strategy should include an architectural view of the service model in addition to the contractual and operational models. The alignment of these three models can facilitate the efficient implementation of the end-to-end strategy.

For example, if the contract roles and responsibilities cause excessive fragmentation of responsibilities for delivering the end-to-end services to the customer organization, this can create issues in the implement and run stages and the improve stages when:

- communicating the roles and responsibilities to all parties;
- measuring the services and managing SLAs;
- diagnosing and rectifying incidents;
- managing complex problem remediation;
- managing changes and releases efficiently.

The extent to which fragmentation of services can be supported is dependent on several factors including:

- the capability of the people and processes in the SIAM environment;
- the level of automation, particularly in monitoring, event management, change management and release management.

As part of the discovery and strategy activities, the SIAM project should define the principles and policies that will guide the definition of roles and responsibilities during the plan and build stage.

Many of the outputs from discovery and strategy are refined and expanded in the plan and build stage, so an iterative approach is required. For example, designing the detailed SIAM model in the plan and build stage can lead to a review of the SIAM strategy. It is essential to revisit the activities regularly and reassess previous decisions when needed. To support this, it is helpful to document the strategic decisions and the underlying assumptions that led to those decisions. This means that during reassessment, reviewers are aware of the original reasons for each decision and do not have to repeat the original discovery and strategy steps. This stage will also end with the production of an outline business case detailing the customer organization's drivers for SIAM.

ISO/IEC 20000-1 refers to the necessity for commitment from top management. Management systems use the term top management to describe the leadership that is required to deliver end-to-end services (see ISO/IEC 20000-1:2018, 3.1.21). This implies that top management follows the governance defined by that organization. SIAM requires a similar commitment from top management and in both cases a lack of top management support will affect the outcomes.

The key clauses in ISO/IEC 20000-1:2018 which support the discovery and strategy stage are Clauses 4, 5 and 6.

Regardless of whether the SIAM deployment will be included in the establishment of an SMS or whether ISO/IEC 20000 is only used as guidance, it is important to understand:

- 1) the organization and its context;
- 2) the needs and expectations of the interested parties;
- 3) the scope of the SMS and SIAM deployment;
- 4) the requirements for the SMS and SIAM deployment.

Some examples include:

- organizational change that is required to implement a SIAM model;
- changes to engagement with some existing external service providers to align the requirements to the customer organization's standardized processes and service requirements;
- changes to requirements of some internal service providers to align to the SIAM strategy and requirements;
- changes to technical architectures to align services to the scope boundaries being planned within the SIAM model or the SMS.

ISO/IEC 20000-3 provides some examples of situations where an organization with an SMS plans to use a service integrator.

- Scenario 6 in ISO/IEC 20000-3:2019 shows an example of how an internal service integrator can meet the requirements of an SMS. The organization has decided to implement service integration because of their complex supply chain. The organization retains control of numerous processes such as supplier management, service reporting and planning for the SMS and services.
- Scenario 7 in ISO/IEC 20000-3:2019 shows an example of an external service integrator. This scenario is similar to scenario 6 but here the organization has also outsourced the service integration role. ISO/IEC 20000-1:2018, Clauses 4 and 5, cannot be outsourced and the external service integrator operates numerous other processes to support service offerings. It is still conformant with the requirements of ISO/IEC 20000-1.

[Table 2](#) presents the inputs and outputs of the discovery and strategy stage. These inputs and outputs have been mapped to the requirements in ISO/IEC 20000-1.

Table 2 — Discovery and strategy inputs and outputs

Discovery and strategy		ISO/IEC 20000-1:2018 clauses
Inputs		
	Enterprise, corporate and IT governance standards	4.1, 4.2, 4.3
	Current business, procurement and IT strategies	4.1, 4.2, 4.3, 5.1a
	Current organization structure, processes, products and practices	4.3, 4.4, 5.2.1, 5.3, 6.3c
	Existing service provider information, including existing contracts and agreements	4.3c, 5.1e, 7.5.4i, 7.5.4j, 8.3
	Understanding of market forces and technology trends	4.1, 4.2, 6.3g
Outputs		
	Management of risk	6.1
	An established SIAM transition project	6.2
	Strategic objectives	4.1, 6.2
	Governance requirements and high-level SIAM governance framework	5.1, 6.2.1
	Defined principles and policies for roles and responsibilities	5.3, 6.3e
	Map of existing services and sourcing environment	4.3c, 6.3a, 6.3f, 7.1, 7.2
	Current maturity and capability levels	5.1, 5.3, 6.2.2
	Market awareness	4.1, 5.1d
	Approved outline business case for SIAM	6.3, 8.4.1
	Strategy for SIAM	6.2
	Outline SIAM model	6.2

6.2.3 Plan and build

The plan and build stage is triggered formally on completion of the discovery and strategy stage when the organization confirms its intention to proceed with the implementation of the defined SIAM model. The governance requirements and high-level framework defined in the discovery and strategy stage provide the controlling principles for the plan and build stage.

The plan and build stage should consider the implementation stage. It is likely that there will be a series of intermediate states that should be able to operate at an agreed level to support customer requirements. It can be that lower service levels or partial delivery of services are acceptable for a time during these intermediate phases. Any such arrangement should be clearly documented and agreed. The risk of delay and the risk mitigations should be included in the plans.

Examples of scenarios for intermediate states follow.

EXAMPLE 1 A customer organization plans to change the contractual requirements for the existing service providers to match the desired SIAM model. Unless the changes to the contracts will change simultaneously for all the service providers, there needs to be a plan to manage the differing contractual requirements over time.

EXAMPLE 2 A customer plans to implement a new service management tool in multiple phases to support the system of record across all service providers. Each of the phases ought to allow the end-to-end environment to deliver the required services.

EXAMPLE 3 A customer plans to deploy automated workflow across different service providers in multiple phases to automate cross service provider delivery. It is recommended to have a plan to support customer delivery through the manual intermediate phases of interaction prior to full automation across all service providers.

The approaches and mechanisms that support the SMS (ISO/IEC 20000-1:2018, Clause 7) and operate the SMS (ISO/IEC 20000-1:2018, Clause 8) need to be planned and built in order to be ready for the implementation phase. The plan can include progressively building these capabilities as they are required through implementation but the events that trigger the build requirements should be included in the plan. Each phase of the progressive build plan should have a working operating capability for the SIAM model. The objective is to create an adaptable, scalable model that is responsive to the inevitable changes within the business and service provider environments.

This stage includes the completion and full approval for the design of the SIAM model. OCM commences at this stage and continues into the next.

Within the SIAM model, there are four distinct architectural considerations:

- 1) the organization structure for the retained capabilities, any internal service integrator and internal service providers;
- 2) the process model, showing roles and responsibilities, ownership and structural elements;
- 3) the service model, showing service groupings, sourcing strategy and the scope of services allocated to service providers;
- 4) the technology model (including data models), showing technologies that will be used to support the other three viewpoints, including toolsets.

ISO/IEC 20000-1:2018, Clause 9, will be a high focus area for SIAM planning. In a SIAM transition, performance evaluation should consider the evaluation of:

- end-to-end performance of the services delivered to the customer(s);
- performance of the services from each service provider;
- performance of each service provider with respect to process compliance and outcome.

Performance evaluation plans will need to ensure that data and reporting are available to support business relationships, including management of internal and external service providers (ISO/IEC 20000-1:2018, 8.3).

[Table 3](#) presents the inputs and outputs of the plan and build stage. These inputs and outputs have been mapped to the requirements in ISO/IEC 20000-1. Many of the requirements of ISO/IEC 20000-1 are necessary to SIAM planning, especially Clause 6, but are not necessarily sufficient for completing SIAM planning because of the need to set up the SIAM model and responsibilities of each SIAM layer.

Table 3 — Plan and build inputs and outputs

Plan and build		ISO/IEC 20000-1:2018 clauses
Inputs		
	Management of risk	6.1
	An established SIAM transition project	6.2
	Strategic objectives	4.1, 6.2
	Governance requirements and high-level SIAM governance framework	4.4, 5.1, 6.2.1
	Defined principles and policies for roles and responsibilities	5.1g, 5.3, 6.3e
	Map of existing services and sourcing environment	4.3c, 6.3a, 6.3f, 7.1, 7.2, 7.5.4, 8.2
	Current maturity and capability levels	5.1, 5.3, 6.2, 6.3b
	Market awareness	4.1, 5.1d
	Approved outline business case for SIAM	6.3, 8.4.1
	Strategy for SIAM	6.2
	Outline SIAM model	6.2, 8.2.2, 8.5.2
Outputs		
	Full design of the SIAM model including:	
	Services, service groups and service providers (the service model)	6.3a, 6.3b, 6.3c, 6.3e, 7.5.4, 8.2.1, 8.2.2, 8.2.3, 8.2.4, 8.3, 8.5.2.1
	Selected SIAM structure	7.2, 7.3, 8.2.1, 8.3.4
	Process models	7.5.4e, 8
	Practices [procedures]	7.5.4k, 8
	Structural elements [boards, forums, working groups]	6.3d, 7.2, 7.4, 8.1
	Roles and responsibilities	5.3, 7.1, 7.2
	Governance model	5.1, 5.2
	Performance management and reporting framework	6.3h, 7.6, 8.1, 9
	Collaboration model	6.3f, 8.2.3, 8.3.4
	Tooling strategy	6.3g, 7.1
	Ongoing improvement framework	6.3h, 10
	Approved business case	6.3, 8.5.2.1, 8.4.1
	Organizational change management	8.5.1
	Service integrator appointed; service providers appointed	8.2.3, 8.3.4
	Plan for service provider and service retirement	8.5.1.2, 8.5.2

NOTE For additional information, refer to section 2.2.4.1.6 *SIAM Foundation Body of Knowledge*, 2nd edition^[7] and section 3.1.7 *SIAM Professional Body of Knowledge*, 2nd edition.^[8]

6.2.4 Implement

During the implement stage, the strategy and plans are implemented. The approaches to defining and managing the transition to a new SIAM model should be considered, along with any specific associated factors affecting the customer organization. The organization should consider any identified risks that could affect the transition to the new SIAM ecosystem.

The risks in this phase can include:

- issues or constraints that were not identified in discovery and strategy;

- intermediate states that have not been identified in plan and build;
- project dependencies that were not previously identified or are not met during the implementation stage;
- delays in implementation;
- organizational change resistance.

The implement stage is the first stage that will impact customer delivery.

The performance and resulting delivery against the plan should be closely monitored to ensure that negative impacts are minimized and the planned positive impacts are realized.

The plan should consider contingencies to respond to deviations from the plan and to minimize negative impact. With any approach, it is important to ensure that there is limited disruption to the services being delivered; even in the smoothest running transition there will be impacts to services. A robust plan will include such contingencies.

The implement stage focuses on the management of transition, where all previously developed plans are implemented to enable the organization to move from the current state to the desired SIAM model.

Within the implement stage, OCM should manage the impact of the SIAM environment.

The SIAM implementation stage is aligned to the service design, build and transition requirements within ISO/IEC 20000-1:2018, 8.5. There are suggested approaches (e.g. big bang or phased) in the SIAM BoKs. The requirements of ISO/IEC 20000-1 remain applicable.

[Table 4](#) presents the inputs and outputs of the implement stage. These inputs and outputs have been mapped to the requirements in ISO/IEC 20000-1.

Table 4 — Implement inputs and outputs

Implement		ISO/IEC 20000-1:2018 clauses
Input		
	Transition the strategies and plans to the SIAM model	8.5
Outputs		
	SIAM model is in-place and operating, supported by appropriate contracts and agreements	8.5.1, 8.5.3

6.2.5 Run and improve

In the run and improve stage, the operating model focuses on providing consistent, agreed service outcomes to the business. The run and improve roadmap stage will usually commence when the implement stage is completed, although often some aspects of the transition will overlap with the implement stage. If the chosen implementation approach is "phased", the run and improve stage will take on elements of delivery in an incremental way as each phase, service, process or service provider enters the run and improve stage.

The structural elements are operated at this stage to provide stability, support and governance of the SIAM ecosystem, enabling and encouraging collaboration activities amongst service providers and focusing on continual improvement.

ISO/IEC 20000-1 views the run phase of a SIAM model to be the ongoing management and operation of an SMS as planned and built. This will focus primarily on ISO/IEC 20000-1:2018, Clause 8. It is important to note that within a SIAM model the execution of processes can involve multiple service providers. Each provider can carry out individual steps in a different way but as part of the integrated process model.

Performance evaluation (ISO/IEC 20000-1:2018, Clause 9) is relevant to the run phase:

- ISO/IEC 20000-1:2018, 9.1 – 9.2 ensure the ongoing monitoring, measurement, analysis, evaluation and internal audit of the SMS;
- ISO/IEC 20000-1:2018, 9.3 ensures that there is ongoing review by top management of the SMS and services. The results of these reviews should include identified improvement opportunities and any necessary changes to the SMS or services;
- ISO/IEC 20000-1:2018, 9.4 ensures that service reporting supports the decision-making requirements of top management as well as the performance evaluation needs.

ISO/IEC 20000-1:2018, Clause 10, includes both the management of nonconformity (and associated corrective actions) as well as continual improvement. In a SIAM context, continual improvements can include:

- improvements in the services from individual service providers, e.g. improvement in service availability;
- improvements in the process compliance or performance of individual service providers, e.g. reduction in failed changes for a supplier;
- improvements in the end-to-end performance of each process in the environment, e.g. more efficient change coordination between service providers;
- improvements in the performance of a service across multiple service providers, e.g. more robust recovery from incidents in a dependent service allowing more reliable service performance for the consuming service;
- cross process improvements, e.g. provision of relevant, detailed and timely incident management information to support problem management.

All these improvements are common in a SIAM environment and the SIAM management is responsible for ensuring that all improvements are considered and prioritized appropriately.

[Table 5](#) presents the inputs and outputs for the run and improve stage. These inputs and outputs have been mapped to the requirements in ISO/IEC 20000-1.

Table 5 — Run and improve inputs and outputs

Run and improve		ISO/IEC 20000-1:2018 clauses
Inputs		
	The SIAM model	4
	Process models	7.5.4e, 7.6, 8
	Performance management and reporting framework	9
	Collaboration model for service providers	8.2.3, 8.3.4
	Tooling strategy	Introduction, 1, 6.3g, 7.1
	Ongoing improvement framework	10
Outputs		
	Run outputs: business as usual outputs including reports, service data and process data	9.1, 9.3, 9.4
	Improve outputs: information used to evolve and continually improve the SIAM model	10

Annex A (informative)

Clauses of ISO/IEC 20000-1:2018

Table A.1 provides the ISO/IEC 20000-1:2018 clauses which have been referenced in [Tables 2 – 5](#) in [Clause 6](#). An 'X' indicates which table has a reference to which clause.

NOTE Where there is no reference in this table, the clause is not referenced in [Tables 2 – 5](#).

The columns in [Table A.1](#) represent:

- [Table 2](#) — Discovery and strategy;
- [Table 3](#) — Plan and build;
- [Table 4](#) — Implement;
- [Table 5](#) — Run and improve.

Table A.1 — Clause titles in ISO/IEC 20000-1:2018 referenced in [Tables 2 – 5](#) in [Clause 6](#)

ISO/IEC 20000-1:2018 clause	Title of ISO/IEC 20000-1:2018 clause	Table 2	Table 3	Table 4	Table 5
Introduction	Introduction				X
1	Scope				X
4	Context of the organization				X
4.1	Understanding the organization and its context	X	X		
4.2	Understanding the needs and expectations of interested parties	X			
4.3	Determining the scope of the service management system	X	X		
4.4	Service management system	X	X		
5.1	Leadership and commitment	X	X		
5.2	Policy		X		
5.2.1	Establishing the service management policy	X			
5.2.2	Communicating the service management policy				
5.3	Organizational roles, responsibilities and authorities	X	X		
6.1	Actions to address risks and opportunities	X	X		
6.2	Service management objectives and planning to achieve them	X	X		
6.2.1	Establish objectives	X	X		
6.2.2	Plan to achieve objectives	X	X		
6.3	Plan the service management system	X	X		X
7.1	Resources	X	X		X
7.2	Competence	X	X		
7.3	Awareness		X		

Table A.1 (continued)

ISO/IEC 20000-1:2018 clause	Title of ISO/IEC 20000-1:2018 clause	Table 2	Table 3	Table 4	Table 5
7.4	Communication		X		
7.5.4	Service management system documented information	X	X		X
7.6	Knowledge		X		X
8	Operation of the service management system		X		X
8.1	Operational planning and control		X		
8.2	Service portfolio		X		
8.2.1	Service delivery		X		
8.2.2	Plan the services		X		
8.2.3	Control of parties involved in the service lifecycle		X		X
8.2.4	Service catalogue management		X		
8.3	Relationship and agreement	X	X		
8.3.4	Supplier management		X		X
8.3.4.1	Management of external suppliers				
8.3.4.2	Management of internal suppliers and customer acting as a supplier		X		
8.4.1	Budgeting and accounting for services	X	X		
8.5	Service design, build and transition			X	
8.5.1	Change management		X	X	
8.5.1.1	Change management policy				
8.5.1.2	Change management initiation		X		
8.5.1.3	Change management activities		X		
8.5.2	Service design and transition		X		
8.5.2.1	Plan new or changed services		X		
8.5.3	Release and deployment management			X	
9	Performance evaluation		X		X
9.1	Monitoring, measurement, analysis and evaluation				X
9.3	Management review				X
9.4	Service reporting				X
10	Improvement		X		X

Annex B (informative)

Correlation of the ISO/IEC 20000 series with SIAM best practices

B.1 Relationships of SIAM inputs and outputs to the requirements or guidance in the ISO/IEC 20000 series

[Table B.1](#) shows the relationship of SIAM inputs and outputs to the requirements and guidance in parts the ISO/IEC 2000 series, specifically:

- ISO/IEC 20000-1:2018, *Information technology — Service management — Part 1: Service management system requirements*;
- ISO/IEC 20000-2:2019, *Information technology — Service management — Part 2: Guidance on the application of service management systems*;
- ISO/IEC 20000-3:2019, *Information technology — Service management — Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1*;
- ISO/IEC TS 20000-5:2022, *Information technology — Service management — Part 5: Implementation guidance for ISO/IEC 20000-1*.

When a whole number (e.g. 1, 2, 3, etc.) is listed as a clause reference, it includes all subclauses. Unless otherwise specifically documented, any subclause referenced includes its third-level subclauses.

Table B.1 — Relationship of SIAM inputs and outputs to requirements or guidance in ISO/IEC 20000 series

	ISO/IEC 20000-1:2018	ISO/IEC 20000-2:2019	ISO/IEC 20000-3:2019	ISO/IEC TS 20000-5:2022
Discovery and strategy				
Inputs				
Enterprise, corporate and IT governance standards	4.1, 4.2, 4.3	4.1	4, 6.2.4	4.1, 4.6
Current business, procurement and IT strategies	4.1, 4.2, 4.3, 5.1a	4.2, 4.3, 5.1	4, 6.2.4, 6.7	4.3, 4.5, 4.6
Current organization structure, processes, products and practices	4.3, 4.4, 5.2.1, 5.3, 6.3c	4.3, 4.4, 5.2, 6.3	5.3.5	4.4, 4.5
Existing service provider information, including existing contracts and agreements	4.3c, 5.1e, 7.5.4j, 8.3	4.3, 5.1, 7.5.4	5.2, 5.3, 6.3	
Understanding of market forces and technology trends	4.1, 4.2, 6.3g	4.2, 6.3		4.6
Outputs				
Management of risk	6.1			
An established SIAM transition project	6.2	4.2, 5.1, 6.1, 6.2		4.7, 4.8, 4.9, 5
Strategic objectives	4.1, 6.2	4.1, 6.2		
Governance requirements and high-level SIAM governance framework	5.1, 6.2.1	4.4, 5.6	4.2, 4.3, 5, 6	

Table B.1 (continued)

	ISO/IEC 20000-1:2018	ISO/IEC 20000-2:2019	ISO/IEC 20000-3:2019	ISO/IEC TS 20000-5:2022
Defined principles and policies for roles and responsibilities	5.3, 6.3e	5.1, 5.3, 6.3	4.3, 6.7	
Map of existing services and sourcing environment	4.3c, 6.3a, 6.3f, 7.1, 7.2,	4.3, 6.3, 7.1, 7.2	6.2.4, 6.3, 6.7	
Current maturity and capability levels	5.1, 5.3, 6.2.2	5.1, 5.3, 6.2		
Market awareness	4.1, 5.1d	4.1, 5.1		
Approved outline business case for SIAM	6.3	6.3		5.3
Strategy for SIAM	6.2	6.2	5.2, 5.3, 6	5
Outline SIAM model	6.2	6.2		5
Plan and build				
Inputs				
Management of risk	6.1			
An established SIAM transition project	6.2	4.2, 5.1, 6.1, 6.2		4.7, 4.8, 4.9, 5
Strategic objectives	4.1, 6.2	4.1, 6.2		
Governance requirements and high-level SIAM governance framework	4.4, 5.1, 6.2.1	4.4, 5.1, 6.2	4.2, 4.3, 5, 6	
Defined principles and policies for roles and responsibilities	5.1g, 5.3, 6.3e	5.1, 5.3, 6.3	4.3, 6.7	
Map of existing services and sourcing environment	4.3c, 6.3a, 6.3f, 7.1, 7.2, 7.5.4, 8.2	4.3, 6.3, 7.1, 7.2	6.2.4, 6.3, 6.7	
Current maturity and capability levels	5.1, 5.3, 6.2.2, 6.3b	5.1, 5.3, 6.2		
Market awareness	4.1, 5.1d	4.1, 5.1		
Approved outline business case for SIAM	6.3	6.3		5.3
Strategy for SIAM	6.2	6.2	5.2, 5.3, 6	5
Outline SIAM model	6.2, 8.2.2, 8.5.2	6.2		5
Outputs				
Full design of the SIAM model including:				
Services, service groups and service providers (the service model)	6.3a, 6.3b, 6.3c, 6.3e, 7.5.4, 8.2.1, 8.2.2, 8.2.3, 8.2.4, 8.3, 8.5.2.1,	6.3, 7.5, 8.2.1, 8.2.2, 8.2.3, 8.3, 8.5.2	5.3, 6.2.4, 6.3,	
Selected SIAM structure	7.2, 7.3, 8.2.1, 8.3.4.	7.2, 7.3, 8.3.4		
Process models	7.5.4e, 8	7.5.4		
Practices [procedures]	7.5.4k, 8	7.5.4		
Structural elements [boards, forums, working groups]	6.3d, 7.2, 7.4, 8.1	6.3, 7.2, 7.4, 8.1		
Roles and responsibilities	5.3, 7.1, 7.2	5.3, 7.1		
Governance model	5.1, 5.2	5.1, 5.2		
Performance management and reporting framework	6.3h, 7.6, 8.1, 9	6.3, 7.6, 8.1, 9		
Collaboration model	6.3f, 8.2.3, 8.3.4	6.3, 8.2.3, 8.3.4	5.3.3-.5	
Tooling strategy	6.3g 7.1	6.3, 7.1		4.10
Ongoing improvement framework	6.3h, 10	6.3, 10		
Approved business case	8.5.2.1	8.5.2		

Table B.1 (continued)

	ISO/IEC 20000-1:2018	ISO/IEC 20000-2:2019	ISO/IEC 20000-3:2019	ISO/IEC TS 20000-5:2022
Organizational change management activities	8.5.1	8.5.1		4.13
Service integrator appointed; service providers appointed	8.2.3, 8.3.4	8.2.3, 8.3.4		
Plan for service provider and service retirement	8.5.1.2, 8.5.2	8.5.1		
Implement				
Inputs				
All outputs from discovery and strategy, plan and build	8.5	8.5		5
Outputs				
New SIAM model is in-place and operating, supported by appropriate contracts and agreements	8.5.1, 8.5.3	8.5.1, 8.5.3	5.2, 5.3, 6.2, 6.3, 6.4, 6.6, 6.7	5
Run and improve				
Inputs				4.6, 4.7
The SIAM model	4			
Process models	7.5.4e, 7.6, 8	7.5, 7.6, 8		
Performance management and reporting framework	9	9		
Collaboration model for providers	8.2.3, 8.3.4	8.2.3, 8.3.4	5.3.2-5, 6.2.4, 6.3	
Tooling strategy	Introduction, 1, 6.3g, 7.1	6.3, 7.1		
Ongoing improvement framework	10	10	6.6	
Outputs				
Run outputs: business as usual outputs including reports, service data and process data	9.1, 9.3, 9.4	9.1, 9.4		7.1
Improve outputs: information used to evolve and continually improve the SIAM model	10	10		7.1, 7.3

B.2 Cross-referencing SIAM artefacts with ISO/IEC 20000-1 mandatory documented information

[Table B.2](#) lists the required documents from ISO/IEC 20000-1 and shows how they can be aligned with the best practices of SIAM. ISO/IEC 20000-2:2019, Annex A has a complete list of mandatory documented information for ISO/IEC 20000-1.