An introduction to Service Integration and Management and ITIL®

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Foreword

ITIL® has always, quite rightly, promoted the primary importance of managing the end to end service that IT delivers to their customers. The increasing complexity of the IT value chain and the rise of multi-vendor supplier eco-systems has led to the rise of Service Integration and Management (SIAM) as a new approach.

SIAM is a relatively new and fast evolving concept, but it is far from being theoretical. SIAM teams are being established as part of some of the largest strategic sourcing initiatives around the world and across many different sectors.

In this White Paper, Kevin Holland cogently argues that a successful implementation of SIAM rests upon the guidance provided by ITIL while also highlighting the need to adopt and adapt the guidance it contains to reflect the multi-tenant model. He also provides an overview of the drivers for developing a SIAM strategy and the specific challenges that it generates. A second White Paper, *An example model for effective Service Integration and Management* describes one example model for SIAM.

As Kevin states in this White Paper the IT industry has yet to develop an authoritative model for describing SIAM, and the objective evidence does not yet exist to reliably assess whether any specific option for SIAM is more or less effective.

However, the two White Papers are a major step forward in the global, industry-wide dialogue that needs to precede the development of an authoritative set of SIAM guidance.

James Finister, Tata Consultancy Services

1 Introduction

The purpose of this White Paper is to introduce the concepts for an effective way of managing services in a multi-supplier environment. It identifies the benefits of adopting a Service Integration and Management (SIAM) based approach, and how ITIL provides the foundations for best practice.

This paper is intended for:

- IT service management (ITSM) professionals already using ITIL in a multi-supplier environment
- ITSM professionals who understand ITIL and its benefits, and want to adopt ITIL for their multi-supplier management requirements
- IT service providers (internal and external to a business)
- SIAM providers
- SIAM consultants
- ITSM consultants.

There are a number of challenges to planning and designing for SIAM, including:

- A general lack of published detailed best practice for SIAM
- No common understanding of what SIAM is and is not
- No common terminology (SIAM, MSI, SI, SI&M, etc.)
- Lack of understanding of the application of ITIL to SIAM
- Misconceptions about when SIAM is required
- A selection of the most appropriate sourcing model for SIAM
- A lack of available models for managing SIAM performance
- Ensuring improvements in service quality, while at the same time reducing costs
- A historic tendency to manage suppliers activities instead of outcomes.

These challenges result in:

- Some businesses who could benefit from SIAM are missing the opportunity
- Some businesses are adopting SIAM but are failing to achieve the benefits.

This White Paper will help to address these challenges by providing an introduction to the subject and some practical guidance on how to make SIAM work.

The accompanying White Paper *An example model for effective Service Integration and Management* will build on this by describing an example SIAM model, with examples of adaptations of ITIL including specific SIAM functions and techniques.

There are also challenges with implementing, operating, and improving SIAM. These will be covered in a future publication.

1.1 KEY DEFINITIONS

The following terms are used throughout this publication.

Service management is responsible for managing the delivery of IT services from within a Service Provider, as described in the core ITIL publications. Within this publication, this is also referred to as Operational Service Management.

Service provider is an organisation or team providing one or more specific IT based services to the business. It can be either internal or external to the business organisation. The term supplier is used synonymously in this publication for brevity. This also re-enforces the concept that within SIAM models a supplier can be an organisational unit within a business, not just an external service provider.

Service integration is a set of practices and an accompanying model and approach that adapt and augment the guidance in the ITIL publications for managing, governing, and co-ordinating the delivery of services provided by multiple suppliers (internal and external to the business organisation).

Service integration and management has the same meaning as Service Integration.

SIAM is a term that is used as an abbreviation for Service Integration and Management, and is also used to describe a service capability for Service Integration and Management, or a function providing that capability.

Governance in this publication is the application of techniques for evaluating, directing and monitoring to deliver the agreed levels of service and meet business and corporate requirements.

Systems integration is responsible for getting solutions, differing technologies, applications and infrastructure to work together, with a focus on technology integration. Implementation of SIAM models often requires some element of Systems Integration, but it is important to understand the differences between the two definitions. Techniques for Systems Integration are not described in this publication.

Tower is a term often used to describe a set of services typically determined by technology type or by specific applications, provided by one or more suppliers, for example, a Mainframe Tower which provides applications that run on a particular mainframe technology. It is preferable in a SIAM context to use the term 'service' rather than Tower, as SIAM models can be applied to any grouping of services, irrespective of any technology.

Service line is a term used to describe a grouping of services under SIAM management and governance, grouped by either business function type (Business service line) or technology type (Technology service line). Defining and maintaining services, service boundaries and service lines is part of the key to effective SIAM.

Business in this publication is the organisation that commissions the SIAM. The ITIL term 'customer' is deliberately not used, as in SIAM models the customer who buys an IT service may be a different organisation to the one that pays for the SIAM.

1.2 WHAT IS SERVICE INTEGRATION AND MANAGEMENT?

SIAM is an adaptation of ITIL that focuses on managing the delivery of services provided by multiple suppliers.

SIAM is not a process. SIAM is a service capability and set of practices in a model and approach that build on, elaborate, and complement every part of the ITIL practices.

Effective SIAM seeks to combine the benefits of best-of-breed based multi-sourcing of services with the simplicity of single sourcing, minimising the risks inherent in multi-sourced approaches and masking the supply chain complexity from the consumers of the services. SIAM assists in the situation where policy and execution can no longer be defined absolutely by a single authority, supporting the development of supply chains into supply networks.

The primary focus of SIAM is on providing the necessary consistent governance, assurance, and management of these multiple suppliers and services, whether these suppliers are external, internal, or a combination of. It includes approaches for supplier co-ordination, integration, collaboration, interoperability and delivery. This creates an environment where all parties know their role, responsibilities, context and are empowered to deliver – and are then also held accountable for the outcomes.

Businesses that use or wish to use multiple suppliers to deliver integrated services can benefit from a re-interpretation and re-focusing of core ITIL principles, methods and techniques, adapting and augmenting them as the basis for effective SIAM. This provides a different perspective from the situation where the majority of services are provided from within the same organisation, and brings out ITIL's 'multi-tenant' capabilities.

The need for a specific SIAM approach is exacerbated by the increasing complexity and diversity of the IT value network, supply chain, and service provider characteristics. An example is where the overall service delivered to users is dependent on underpinning services that are a mix of utility/commodity services and value-added services provided by a number of different suppliers.

The aim of SIAM is to provide a single point of visibility and control for the service management and delivery of all services provided by suppliers, by:

- Taking end-to-end accountability for the performance and delivery of IT services to the users, irrespective of the number and nature of suppliers
- Co-ordinating delivery, integration, and interoperability across multiple services and suppliers
- Assuring suppliers performance
- Ensuring that the services effectively and efficiently meet the business need
- Providing the necessary governance over suppliers on behalf of the business.

SIAM can be provided from within the business organisation, outsourced to an external provider, or using a combination. Chapter 5 discusses potential sourcing strategies. Irrespective of the sourcing strategy for SIAM, business strategy, corporate governance, and the associated management of commercial relationships should not be outsourced. Effective SIAM is dependent on the co-operation and involvement of the suppliers and the business. SIAM cannot be imposed. Because a SIAM model includes all of these parties, moving to a SIAM approach will involve changes to their ways of working.

Many of the ITIL principles, methods and techniques can be, and have been, applied to non-IT service landscapes. Precisely the same is true for SIAM, but the focus of this White Paper is the application of SIAM to IT services.

1.3 DRIVERS FOR ADOPTING SIAM

The initial service and supplier landscapes that many service management functions were set up to manage are now subject to significant change. This necessitates a shift in the way that these services and their suppliers are managed.

Drivers for adopting SIAM focused models include the following:

- The move to the use of disaggregated multi-supplier contracts instead of using a single-sourced prime contractor approach necessitates effective service integration
- The increasing use of commodity services such as IaaS and SaaS results in limitations to achieving consistency through imposing ways of working on suppliers
- Within larger businesses, the existence of several services, often similar in nature, managed in different ways by different teams in the business
- Tensions between suppliers who want to commoditise and optimise their services and customers who want services personalised to their requirements, but integrated with other services that they consume
- The requirement to make best use of a business's skilled resources by using standardised models with a focus on adding value
- Increasing quality expectations from users within continuing budget constraints.
- The need to integrate selected services selected by business users while maintaining overall quality and performance
- Mismatches between the service target achievement of individual component services and the customers' perception of the overall service that they receive
- The flexibility required to support changing business models and IT supply models
- The emerging customer/supplier landscape of more specialised service providers and technologies, multiple delivery channels, diversity of customer communities, and a rapid rate of change to requirements
- A move from supply chains to supply networks for the delivery of services.

2 Models for SIAM

2.1 HIGH-LEVEL SIAM MODEL

Operating models for SIAM need to reflect the particular requirements of businesses and the particular nature of their supplier landscapes, so the precise models can vary. However, at a high level, the models all fit the same conceptual structure and share some common characteristics.

The following figure provides a high level model with the Service Integrator in the centre between the service consumers and the service suppliers. Having a homogeneous SIAM provides consistency for the governance, management, and co-ordination for all services, irrespective of the type of services, organisational relationships with the suppliers, type of supplier, type of service consumers or number of different parties.

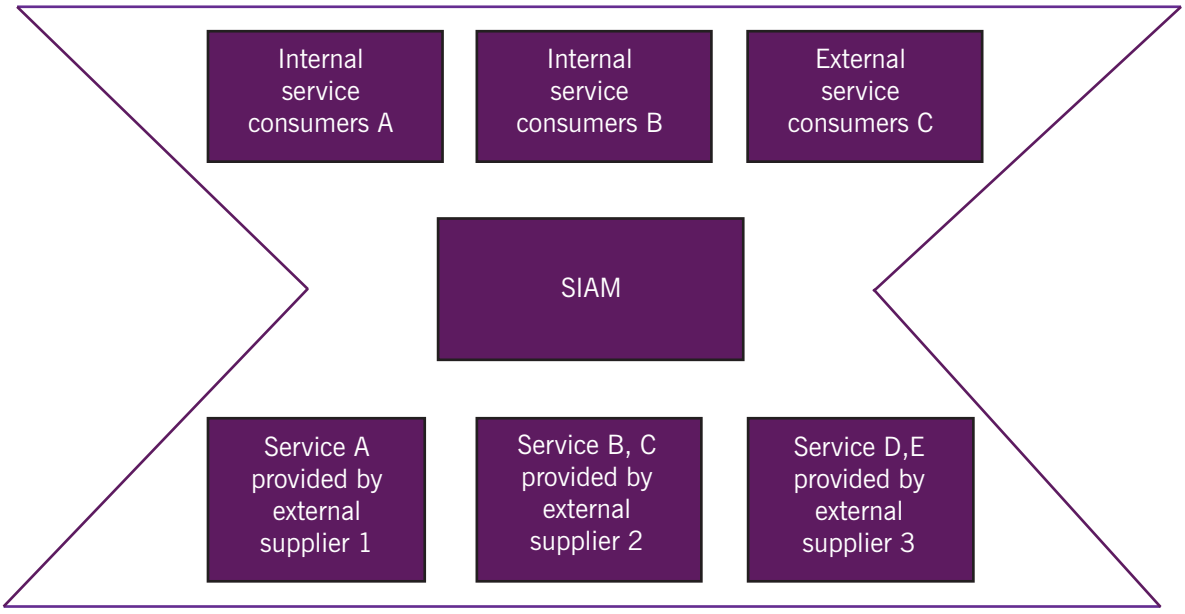

Figure 2.1 High-level SIAM model

2.2 BREAKING SIAM DOWN INTO COMPONENTS

SIAM should always be broken down into a logical grouping of different but interrelated components, process areas, capabilities, functions, activities and principles.

If a business uses a SIAM model without fully understanding and validating against requirements precisely what is provided by the SIAM, the following risks will exist:

- Costs of SIAM outweigh the available benefits
- Benefits of SIAM cannot be realised
- Service quality is adversely affected
- Incorrect sourcing approach for SIAM
- SIAM model does not fit the needs of the business
- SIAM model cannot be applied to the suppliers
- High cost of changing to a different SIAM provider
- Paying for unnecessary capabilities
- The SIAM does not provide what was expected
- Costs exceed any market rate for specific activities
- Inability to add new suppliers into the SIAM model
- Increased resources in the business to manage the SIAM and fill any gaps in provision.

This is due to:

- Different interpretations of what activities are done within SIAM
- Challenges in comparing the offerings from different potential SIAM providers
- No common approach to SIAM, resulting in many proprietary models
- No consistency of application
- Perceived high costs of provision as non-SIAM activities are buried in SIAM
- Challenges of moving from one SIAM provider to another
- Inability to benchmark SIAM provision.

Breaking SIAM down into a standardised component model supports:

- Better understanding of SIAM
- Informed decisions to outsource/insource all of part of SIAM
- Ability to apply consistent terminology and approaches
- Flexibility to accommodate a variety of different services
- Flexibility for change to the model
- Capability to be applied to a variety of sizes and shapes of business organisations, supplier, and consumer landscapes
- Cost–benefit comparisons across different SIAM providers
- Increased agility to accommodate new and changed services and service providers.

SIAM cannot operate in isolation. As well as the suppliers of the IT services, SIAM also needs specific support from the business organisation in areas that should include:

- Enterprise architecture
- Programme and project management
- Systems integration
- Commercial procurement.

Figure 2.2 illustrates an example of a SIAM model that has been broken down into components. This is based on the UK Public Sector's SIAM Enterprise Model. It should be used when designing or reviewing specific SIAM models to initiate detailed review and discussion, and to ensure that all of the aspects included are considered.

More information on this example model, its components and how to use it are provided in the related White Paper, *An example model for effective Service Integration and Management*.

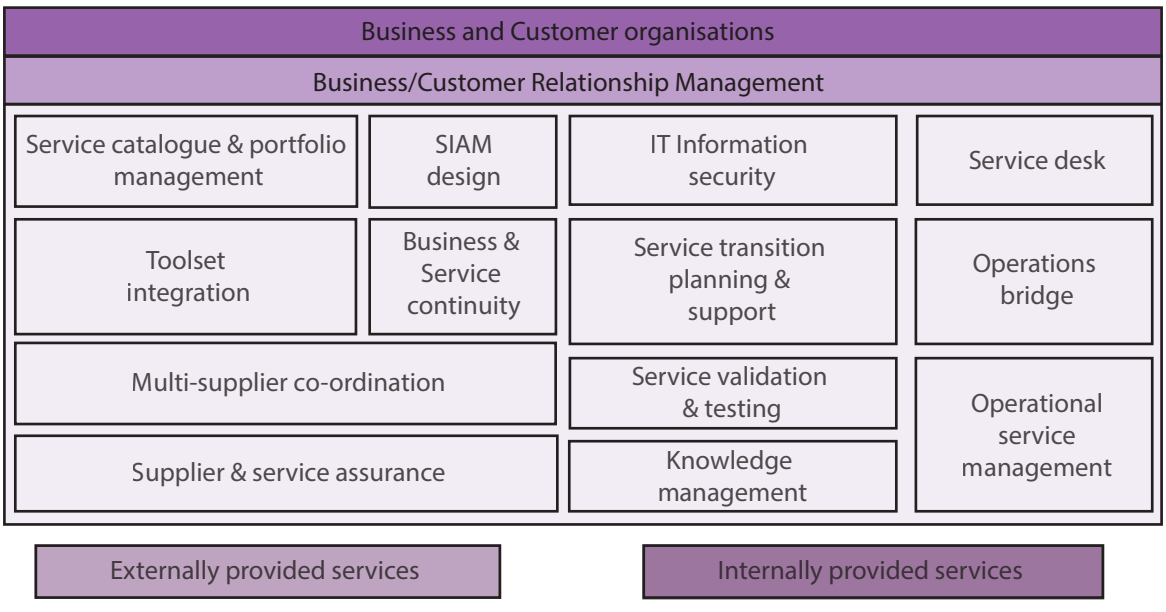

Figure 2.2 SIAM component model

2.3 PROCESS AREAS AND CAPABILITIES

Effective models for SIAM include the following process areas and capabilities:

- Process integration across multiple suppliers
- Multi-supplier co-ordination (change/release/capacity/incident/problem, etc.)
- Supplier performance management against SLAs and OLAs
- Supplier management against contract requirements
- Business Relationship Management
- Service level management of individual and end-to-end services
- Supplier and service assurance (audits, assessments, KPIs, etc.)
- Collaboration between multiple suppliers
- Common standards/policies/templates definition and application
- Service introduction on-boarding of new and changed services and suppliers, and the related off-boarding of previous services and suppliers
- Service reporting consolidation of service quality and performance reports
- SIAM design of changes to the SIAM model and for new services coming under the SIAM model
- Service catalogue and service portfolio creation and management
- Toolset integration between suppliers and SIAM toolsets
- Testing of integrated solution
- IT information security support assuring and managing security
- Release management of integrated solution
- Strategy for services and sourcing
- Innovation culture and management.

Some SIAM models also include a centralised Service desk function (incident, service request, access management), recognising that this can also be considered as a service that could be provided by a separate service provider.

SIAM models can also include other functions where the business can gain from standardisation and economies of scale, for example, a centralised procurement function. There is value in this approach, but the core purpose of SIAM is multi-supplier integration, not organisational consolidation.

3 Principles and considerations

Focusing on processes and technology alone will not deliver the expected benefits. Effective SIAM requires consideration of People, Process, Partners and Products.

The following sections will provide an overview of the considerations that are required for effective SIAM.

3.1 PEOPLE

People make SIAM work, not just processes. There is need to embed a supportive culture in the business organisation, the SIAM function, and in the suppliers, building effective people relationships at all levels.

The key staff engaged in SIAM, particularly the process owners and service owners, need to be at least as qualified and knowledgeable in ITSM and related techniques as the staff in the suppliers. Without that, they will not be able to effectively design and govern the necessary processes and activities. That does not mean that all staff have to be at this level, but a SIAM organisation that relies on a very small number of qualified and experienced staff is unlikely to succeed.

Effective SIAM needs soft skills as well as technical/process skills. Key soft skills are:

- Relationship management
- Conflict management
- Persuasion
- Negotiation
- Stakeholder management.

This is because many of the SIAM staff will spend most of their time dealing with staff outside of their direct management control. They may come from other parts of their own organisation, or from external suppliers who may even be contracted to a different organisation.

The existence and maturity of these soft skills is critical to effective SIAM. SIAM requires an evolution in approach and thinking from the situation where solely contractual statements and obligations can be used to define action and behaviour in any given situation. Just like any marriage, the initial vows can only define some general principles that can then be used to guide the relationship.

Establish and maintain trust, at every level; between peers in the SIAM organisation, between the SIAM function and the business organisation outside SIAM, and critically between the SIAM and the suppliers. If this trust is not established, there is a risk that the business will have an overhead of staff checking and sometimes re-doing the work that they have contracted an external SIAM provider to do. Trust is built by building good personal working relationships and by empowerment; allowing each party to do what they are responsible for in order to deliver the agreed outputs.

All of the functions in SIAM need to be seen to work as one. They should always act as the agent of the business regardless of the SIAM sourcing arrangements, with good working relationships between all parties.

One of the ways to achieve this is to build leveraged teams within SIAM that perform a specific set of SIAM activities across all suppliers. For example, the SIAM Change Management team should co-ordinate changes across all services, and not just a specific set such as changes to a particular set of applications. Apart from designated Service Owner roles, do not assign staff to one particular application or technology, as this will result in silo working and go against the principle of leveraging key skills. These working relationships can be further strengthened by the lead from the SIAM facilitating cross-supplier process groups to drive continuous service improvement.

Always focus on the business outcomes; the SIAM must act as the ‘informed customer’, representing them to the suppliers, and representing the suppliers to the business. Every member of staff in the SIAM function should be able to articulate how they individually support the business, and provide specific examples of where they have done that.

Maintain flexibility in the SIAM organisational structure, in order to avoid creating a monolithic inflexible SIAM function that is not in touch with the business. Services will change over time, some will require more attention than others, and the structure needs to be able to flex to accommodate. Multi-skilling SIAM staff is a good way to support this, allowing the movement of staff at short notice to support specific hotspots.

3.2 PROCESS

An adoption of SIAM should always start by developing a service portfolio and service catalogue. Without this the operating model cannot be fully designed and adopted. The portfolio and catalogue must include the business services, IT services, and the individual SIAM components, all mapped with clear dependencies and service characteristics. Care should be taken to ensure that this is done in a consistent way, using a common template, definitions and classifications for all of the services. This will help in building a full understanding of the service landscape, and enable effective use of the knowledge held in the service portfolio and catalogue, for example, when designing changes to services.

The key to effective SIAM is to clearly understand the boundaries and dependencies between each of the services. There should be a visual map of the service hierarchy, especially any technical interdependences between services, as well as services that have no dependencies. The majority of services will have dependencies on at least one of the other services.

When documenting the necessary processes for SIAM, the scope must be constrained to be within the SIAM provider and the interfaces with the suppliers, the business, and the service consumers. Management of these process interfaces is essential.

Be aware that documenting detailed 'End to end transparent processes' that encompass the SIAM and all suppliers is largely unachievable in many organisations, and will create an inflexible model that will stifle continual improvement. This is particularly the case where suppliers are large-scale cloud providers who are unlikely to share their processes, or where a supplier has a number of subcontractors.

The critical area of focus for process documentation should be the boundary where information needs to be exchanged between suppliers and the SIAM – and between suppliers and users. The focus should be on mapping inputs to outputs and ensuring the flow across the boundaries. The level of detail should enable consistency of approach without prescribing the detailed working procedures that each supplier needs to adopt.

To support the above, the standards for exchanging service management information must be defined, for example, a minimum dataset for incident records. Where possible, suppliers should be encouraged to adopt these standards, either using contractual clauses, or through persuasion and an articulation of the benefits to all parties coupled with a precise definition of the interface requirements.

The SIAM must recognise though that it may not be possible to get all suppliers to comply, and that the SIAM will need to be competent in translating and managing multiple standards.

The SIAM must be capable of responding to variations in inputs, while at the same time **maintaining** consistency of its own internal processes, in order to avoid the additional costs and resources to maintain and operate multiple process variants. This requires the transformation of information where necessary into a consistent format by the SIAM at point of entry. A SIAM must recognise that one size will not fit all, while at the same time recognising the value of maintaining consistency as much as possible and maintaining the flexibility to be able to interface with a wide range of different suppliers. An example would be a Request for Change, where a supplier supplies the necessary information, but not in the standard template developed by the SIAM.

Knowledge management techniques from ITIL can be used effectively to support the design and development of processes and the necessary information exchanges, as they will ensure the necessary focus on providing the correct data, information and knowledge.

3.3 PARTNERS

Good processes alone will not guarantee success in SIAM. Effective SIAM is heavily dependent on:

- Understanding the capabilities and responsibilities of each supplier
- For suppliers where this is possible, building good working relationships between SIAM process owners and supplier process owners, and across the supplier process owners
- Building a network of suppliers who will work with and support each other.

3.3.1 SIAM accountability

In a SIAM environment, the SIAM is as good as their weakest supplier. Because the SIAM has overall accountability for providing the required quality of services to the business, any failures by a supplier automatically become the responsibility of the SIAM provider to a) explain and b) ensure resolution.

That puts healthy pressure onto the SIAM provider to:

- Perform appropriate assurance during the introduction of new and changed services
- Assess to an appropriate level the performance and capability of the suppliers
- Establish the necessary processes for managing and governing the suppliers
- Understand the business and their requirements and language.

It also requires the SIAM provider to build constructive working relationships with each supplier – a SIAM should not have to reach for the contract every time there is a failure. The best results are also obtained through building good personal relationships between peers in the SIAM and in the suppliers.

3.3.2 Flow down of responsibilities

The SIAM is accountable to the business for the overall performance and delivery of the IT services. External suppliers are accountable for their own delivery, and hence the execution of the necessary service management processes. The SIAM should as far as possible flow down the responsibilities for process execution to the suppliers responsible for the individual services. The role of the SIAM is to assure that the correct outputs are achieved.

3.3.3 Understanding different types of supplier

A SIAM provider must recognise the different types of supplier, apply appropriate levels of management, and where necessary take on more work themselves.

For example, it is highly unlikely that a SIAM will get a provider of a commodity service that is used by hundreds of customers worldwide to adopt its definition of incident severities. The SIAM still needs consistency so that its staff can understand what a severity 2 incident is as opposed to a severity 1, but in this case the SIAM will have to map the providers severity levels to its own.

The same is true for templates, such as an RFC template. The SIAM provider needs to understand suppliers who will happily adopt their standard template, ones that won't, and ones that will not directly advise the SIAM of an impending change, but do publish it somewhere on their website.

An example model considers four types of supplier. Note that this applies to suppliers that are internal to the business organisation as well as external suppliers:

1. Integration services: a supplier that provides technical integration of multiple services into a single coherent supported service to meet the business requirements, for example, integration of multiple applications into a single product
2. Bespoke services: a supplier who provides a service that has been uniquely developed by them for the customer. For example, a custom software application developed to the customer's specification. Agile developments fall into this category
3. Standard services: a service based on a configurable standard application where the supplier provides support. For example, a payroll application
4. Commodity services: a service that is standard in the market and that is not configurable, for example, infrastructure as a service.

The first two types require a close relationship between the SIAM and the supplier. This needs good communication and collaboration to ensure agility and innovation as well as good service delivery.

The third type requires a good relationship to support service delivery, recognising that this is almost a commodity service.

The fourth type is likely to have a purely contractual relationship, without any ability to build a close relationship.

3.3.4 Build good personal relationships

Where the supplier type allows, create an environment and a culture to build good personal relationships between process owners in the SIAM and process owners in the suppliers, and also across the suppliers.

In some businesses the relationships with suppliers are often largely the responsibility of the service level manager. While this relationship is important, the experience is that SIAM is most effective when relationships are also built between ITIL process owner peers across the different organisations. This supports joint development of interface standards, such as common minimum incident datasets, and also supports the resolution of issues with process capability and maturity without continually reaching for the contract. The model looks like this:

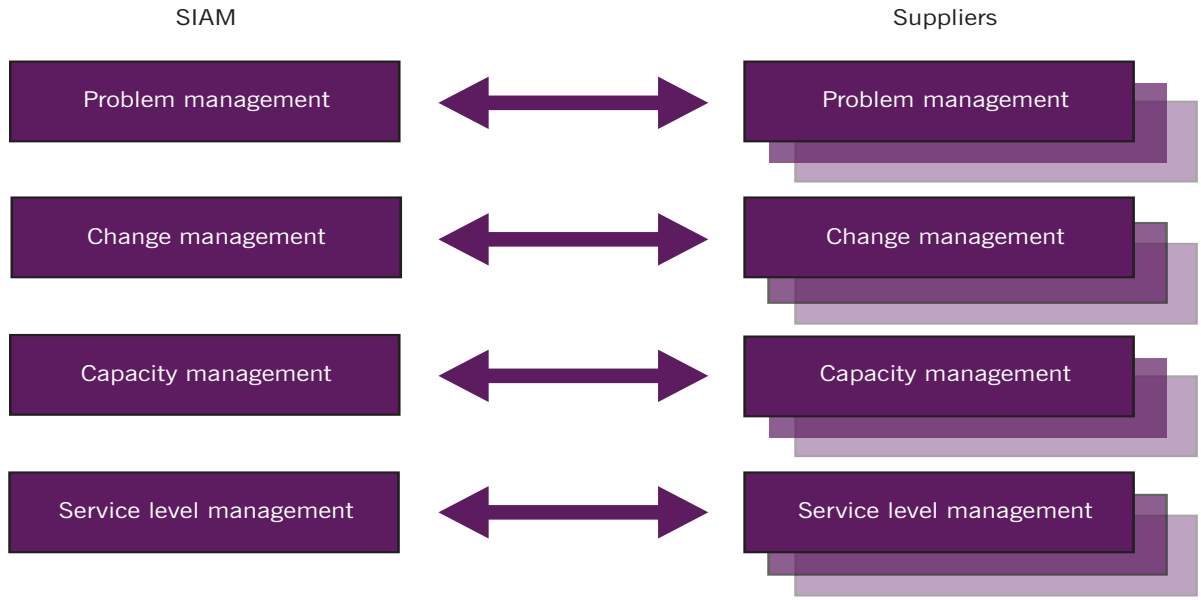

Figure 3.3 Example SIAM and peer-to-peer relationships

Each process owner within SIAM should have regular one-to-one meetings with their peers in each of the suppliers. These can be informal, which supports the building of the necessary mutual trust, but should also be supplemented by formal meetings to document and manage to resolution any issues or concerns with the process. This approach is reciprocal – it is viable for a supplier process owner to raise concerns over the effectiveness of a SIAM process or interface, as well as the SIAM process owner raising concerns with the supplier.

The peer-to-peer relationships should be supported by creating special interest groups for specific ITIL practices, with wider membership from the SIAM and the individual suppliers. For example, a special interest group for IT service continuity management. For their process area, these groups can work jointly on:

- Development of common standards (for example, severity level definitions)
- Development of effective policies (for example, change management policy)
- Development of templates (for example, capacity forecast template)
- Development of toolset integration standards (for example, a common XML schema for the exchange of incidents between suppliers)
- Development and improvement of Key Performance Indicators
- Service improvements that apply across all suppliers
- Development of benchmarking approaches for capability and maturity assessment and improvement.

This approach also supports building supportive and collaborative communities across the suppliers, and aids in building a value network where suppliers engage with and support each other. Joint working and gaining mutual agreement on the ways of working and the associated responsibilities of each party form the foundations of such collaboration. This approach also provides a platform for the process area specialists in one supplier to assist another supplier in improving their capability and maturity. This is

much more important than the contractual and legal constructs, which for some supplier types may not even be practical to implement.

A related approach is to build the same community from the service management executives from each supplier and the SIAM. They can focus on strategic initiatives, and act as a steering group for the special interest groups.

3.4 PRODUCTS

The primary products for effective SIAM are supportive tools. In the smallest business organisations with a simple service landscape it is possible to perform SIAM with minimal tool support, but as the size, complexity and scale grow, it is challenging to maintain the necessary efficiencies.

The same is true for service management in general, but SIAM adds the extra complication of having to integrate inputs and outputs to/from external suppliers.

Particular areas where a SIAM needs the support that tools can provide include:

- Service reporting
- Operational service management, including incident management, problem management, and service request management
- Service monitoring
- Capacity modelling
- Workflow management
- Service portfolio
- Service catalogue
- Interchanges with suppliers.

As explained elsewhere, ITIL processes require adaptation and augmentation for effective SIAM, so any selected toolset must be configurable.

3.4.1 Toolset integration

The tools used by the SIAM provider and the suppliers require integration to provide effective information exchange without the overhead and risks of rekeying.

The challenges and complexities of integrating all suppliers' toolsets with a SIAM toolset are significant, due to the diversity of tools, lack of standards, information security requirements and data protection legislation. It is highly likely that bespoke configuration of the integration will be required, as there are currently no commonly used interface standards for the exchange of service management information.

Integration may also require providing external suppliers with access to the SIAM toolset, with the associated complexities of user management, access control, security and training for the supplier's staff.

Mandating that every supplier uses the same tool as the SIAM provider many not be viable. This may seem to aid integration between the SIAM and the suppliers but, in reality, it can drive increased costs and complexities of governance and administration, for example, in license management. Suppliers who have their own toolsets may also be unwilling to adopt this approach, as it would increase their costs and be of limited value to them. However, because of the lack of standards for integration, this may be the only option.

The SIAM must therefore be prepared to integrate different tools used by the suppliers with their toolset.

It may also be challenging to get the suppliers to adapt their toolsets to achieve the necessary integration. Once again, if the supplier can be influenced to do this, then it is worth doing, but it is more likely that the SIAM provider will have to do some or all of the integration work, using existing feeds from the suppliers toolsets.

The technical integration of different toolsets should be relatively straightforward, using techniques such as Application Programming Interfaces (APIs), batch input, batch output and XML file exchange. However, the challenge is in defining the information standard for the interchange.

For example, to exchange incident information between the SIAM and two different suppliers, all with different toolsets:

- Do all parties share a common definition and characteristics of each service, and the related configuration items?
- Do all parties use exactly the same severity definitions?
- What if the SIAM uses severity 1 to 5, with 1 highest, but the supplier uses 3 to 1 with 3 highest?
- What method does each provider's tool support for incident closure? Single step, where it is closed as soon as the service desk say it is resolved? Two step where a user has to confirm resolution before it can be closed?
- What method does each provider's tool use if a 'resolved' incident isn't actually resolved?
- Do they allow an incident to be re-opened, or does a new one have to be created?

These are just a few examples to illustrate the challenges of integrating with different suppliers. A SIAM implementation must initially focus on the business rules for integration of each process, using standards, templates and policies, before focusing on the much easier technical integration.

When investing in toolset integration, attempt to automate as much as possible. This assists in getting operational efficiencies. An integration that relies on cutting and pasting from emails or manually checking that an interchange has been successful, adds very little value.

Toolset implementation plans should look to bring the more strategic process areas of Service Portfolio Management and the associated Service Design processes in early. This will ensure that the broader management of services is maintained at the centre of the SIAM delivery function and aid the drive for best value and performance across the estate.

This is another area where knowledge management techniques from ITIL can be used effectively to support the design and development of toolset integration and the related information exchanges, as they will ensure the necessary focus on providing the correct data, information, and knowledge. For example, capturing and sharing relevant incident and restoration information across all suppliers, to prevent re-occurrence irrespective of which service was initially affected. In essence, considering all suppliers to be part of the same enterprise.

4 The benefits and investment objectives of SIAM

4.1 BENEFITS

Adapting to a SIAM approach is a business change. The benefits of this change are precisely the same as the benefits of any other business change that provides a consistent approach for a particular set of activities, e.g. consolidation of finance teams across a diverse business, standardising to use the same processes and tools.

These include:

- Optimised overall costs of providing the services to the business
- Reduced risks to the business
- Economies of scale
- Improved customer satisfaction
- Consistency of management, governance, and controls
- Improved quality of service to users
- A single point of ownership, visibility, and control of services
- Clearly defined roles and responsibilities
- Consistent use of quality processes
- Best use of skilled (and often scarce) resources
- Removed duplication of effort
- Ability to support changes to the supplier landscape

- Improved organisational capability and capacity
- Improved value of the services
- Increased responsiveness to change.

For SIAM, these benefits are most evident in areas including:

- Supplier contract optimisation
- Consistent supplier performance management
- Robust cost management
- Clear ownership of incidents and problems
- Improved incident resolution times
- Improved service availability
- Consolidated service reporting
- Multi-supplier governance
- Multi-supplier co-ordination
- Effective introduction of new and changed services.

These are achieved through outcomes including the following:

- The creation of a homogeneous SIAM service capability
- Design, implementation, and use of a consistent SIAM operating model
- Designing for flexibility in the ability to manage a variety of existing and new services
- Delivering best balance between quality and lowest total cost of ownership.

Specific examples of additional benefits include:

- An improved understanding and overall reduction in service related risks to the business
- Clear ownership of major incidents and problems where the causing supplier is unclear (the well-known 'bouncing problem', where no supplier accepts responsibility)
- A holistic model for capacity planning, linking business demand with supply from all suppliers
- The ability to compare and contrast the performance of services against service levels across multiple suppliers
- Mechanisms to highlight potential impacts of one suppliers release on another suppliers service before any user impacts are experienced
- One place for users to understand in a consistent format the projected availability and status of all of the services, irrespective of who is the supplier.

In any supply chain value can be added at every interaction. Effective SIAM builds supply networks rather than supply chains (see section 7 for considerations on how to do this). This supports a move to value networks instead of value chains, as the number of interactions between parties and hence opportunities to add value increase. These networks can lower the cost for developing and maintaining services, increase the ability to innovate, and increase agility and flexibility. SIAM therefore increases value much more than traditional methods of supplier management.

As SIAM models move to a standard approach, suppliers are also likely to see many of the same benefits as they no longer have to customise their ways of working to comply with customer's unique operating model requirements.

4.2 INVESTMENT OBJECTIVES

The objectives of any investment in SIAM should include:

- To improve the quality of all services
- To provide best value for money for the management and delivery of all services
- To avoid 'lock-in' to any supplier, including any suppliers of SIAM services

- To establish a capability and capacity to support the successful introduction of new services and suppliers, and transition from previous arrangements
- To enable multiple providers to integrate together to deliver end-to-end services that meet or exceed the expectations of IT customers and consumers
- To ensure the flexibility and scalability of the SIAM function.

5 When should you consider using a SIAM model?

As models for IT delivery move from full outsourcing or full insourcing to a mixed sourcing economy, correctly designed and implemented SIAM models can provide a solution to the complexities of managing multiple suppliers, while providing the flexibility to change providers in a rapidly evolving service marketplace.

SIAM is therefore appropriate for businesses that are moving to or already have a multi-sourced environment. The benefits of a well-designed, planned and executed SIAM model can be realised by businesses that use multiple external suppliers, a mix of internal and external suppliers, or several internal suppliers. SIAM is therefore appropriate for most of today's businesses.

The following sections provide examples of service management models that are often seen in business organisations that would benefit from adapting to a SIAM model and approach.

5.1 EXAMPLE 1: SILOED SERVICE MANAGEMENT

In this example, the business has service management resources and capabilities embedded into different internal functions that support specific technologies or applications, or dedicated to specific projects. These are 'silos' of service management.

For example, a business may have one service management team dedicated to a particular applications that run on a mainframe, with separate teams dedicated to website support, and to email support, each with different service desks, different ways of reviewing and approving changes, and each with different levels of maturity and capability.

In this type of business organisation there is no consistency of how service management is executed, and no sharing of skilled resource across the different teams. This leads to increased costs to the business, inconsistent quality of service, inconsistent controls, and poor user experience due to:

- No single point of accountability for the services
- No consistent view of how services are performing
- Users are unsure who to call when the service fails
- A change to one service unexpectedly affects another service
- No clear ownership of problems leading to extended resolution times
- Some teams are over-resourced while others are under-resourced
- Best practice in one function is not shared with other functions
- Widely varying levels of capability and maturity.

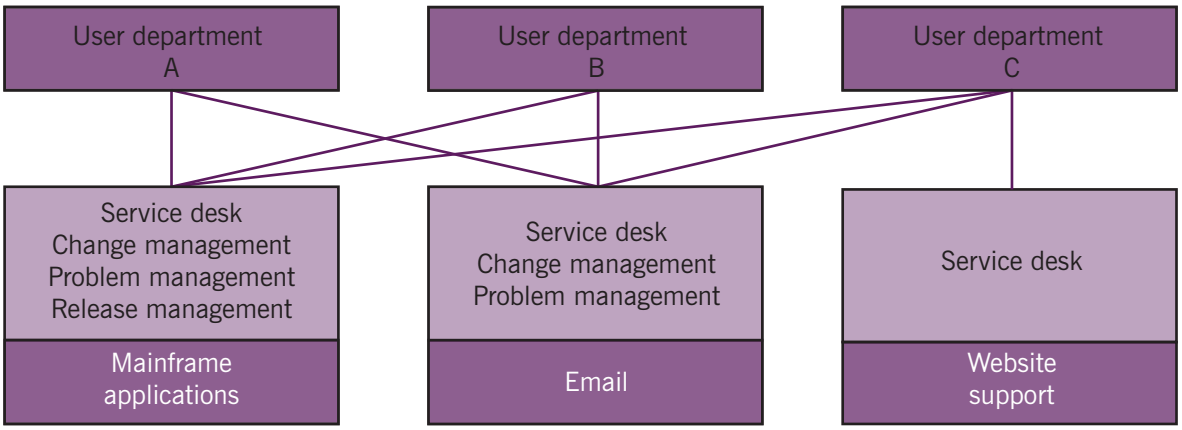

Figure 5.1 Silos of service management

5.2 EXAMPLE 2: SILOED SUPPLIER MANAGEMENT

In this example the business uses external suppliers to deliver services to its users. These are typically 'managed services', where the supplier is accountable for delivery to specific service levels using their own service management processes.

Different suppliers are managed from within different functions in the business organisation, typically by specialism, with no consistency of approach or co-ordination across dependent services. In some businesses, it is also possible that different functions manage the same supplier, as they each obtain services from them. These are 'silos' of supplier management.

For example, the supplier of network services is managed by the corporate services function, who also get telephony services from the same supplier. The supplier of payroll services, which depend on the network services, is managed by the Human Resources department. The supplier of the businesses website development and hosting is managed by the corporate communications department. The IT department manages a supplier who provides infrastructure as a service hosting. Service management only have responsibility for internally provided services.

In this type of business organisation there is no consistency of how supplier management is executed, and no sharing of skilled supplier management resources across the different teams. The symptoms and issues are the same as those experienced by siloed service management, with the addition of:

- No consistency of governance over suppliers, risking the requirements for corporate governance
- Customer dissatisfaction even when all suppliers are achieving service levels due to no multi-supplier management
- Suppliers who have multiple contact points with the business have conflicting requirements and priorities leading to increased costs and delivery failures.

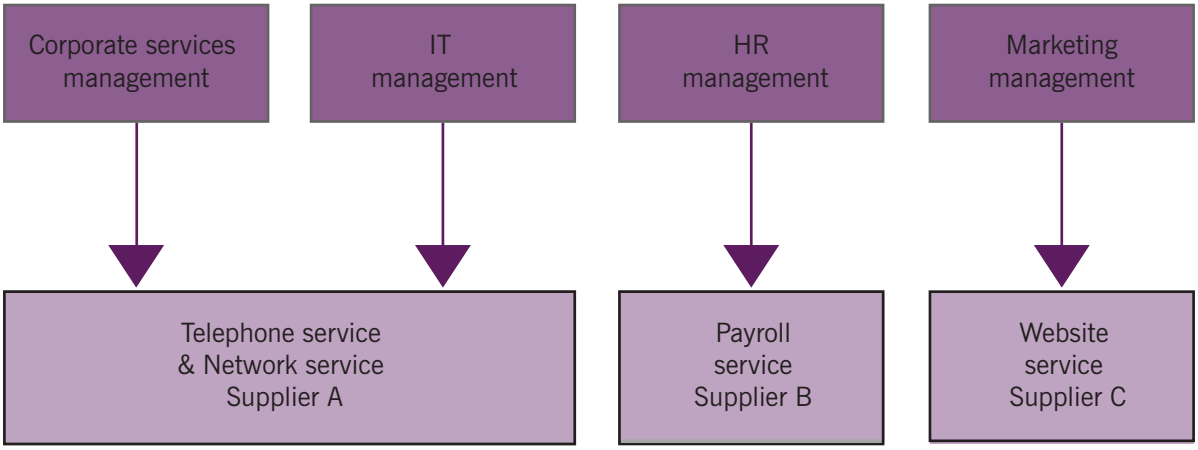

Figure 5.2 Silos of supplier management

6 Sourcing strategy for SIAM

Traditionally, many businesses have outsourced the provision of services to a single company who provided service integration capabilities as part of their role as a prime contractor. These are often referred to as System Integrators or SIs. These SIs typically also had responsibility for design and operation of the end to end services, including systems integration, development and support. They also appointed and had contracts with any subcontractors and sub-suppliers. It was often assumed, sometimes incorrectly that the SIs had strong service integration capabilities. This single sourcing approach has contributed to many of the current challenges around SIAM, as:

- Each of the SIs used their own models for service integration
- Models were often tailored for each customer
- The SIs tended to provide the majority of the individual services, either with their own staff or using subcontractors, with unclear boundaries between SIAM, systems integration and service management.

The customer businesses became used to high-cost and long-term (typically 10 years) arrangements with these SIs. Typical challenges experienced from some of these single-sourced arrangements include:

- High costs and difficulties of making any changes to operating models
- Limited flexibility to add/remove/change services and ways of working
- Ineffective management of services provided by suppliers other than the SI or their subcontractors
- Challenges in incentivising the SI to make continual improvements
- Lack of trust in the SI, sometimes leading to the business retaining large numbers of staff to manage the SI
- Unclear and overlapping roles and responsibilities between the SI, the business organisation, and the suppliers
- Management overhead in the business organisation to manage the SI
- Difficulties in achieving service reporting that reflected the user experience
- Ineffective toolset integration between all suppliers, the SI, and the business organisation
- Difficulties at end of contract to change from one SI to another.

Many businesses have also found that outsourcing service integration does not, and cannot, outsource all of the risks, contrary to the claims from some SIs. Critically, the business always retains the risk to its reputation from major service failures. This needs to be born in mind when determining the appropriate SIAM sourcing strategy for a business.

Recognition of all of these experiences has challenged the traditional approach to outsourcing, and with the development and availability of effective SIAM models, different sourcing approaches are now possible.

Some of the different approaches for providing SIAM capability include:

1. Outsource to an external provider of SIAM services
2. Use internal resources only
3. Use internal resources supplemented by one or more external providers of SIAM services.

For option 1, the business should always have the capability to manage an outsourced provider of SIAM services, as they cannot outsource overall accountability. Hence they will need the skills and resources to manage the SIAM.

Options 2 and 3 are only valid where there is an existing internal capability or where it can be created through training or recruitment.

It is worth noting that an outsourced external provider of SIAM services may also be a supplier of one or more IT services to the same business. If this is the case, there must be clear separation of roles and responsibilities in order to ensure that the SIAM retains independence and provides the same level of governance over its own organisation as it does over other suppliers.

Selecting the best approach for providing SIAM capability requires careful consideration and clear understanding of SIAM, the business organisation and potential providers of SIAM services.

For all of the options, the business should retain the rights over the overall SIAM process model and associated tooling design and ownership. This will avoid any 'lock in' to any particular approach, service supplier or SIAM provider.

The following table describes these example options:

Option	Description
Option 1: Outsourced SIAM	Procure a single external SIAM provider to carry out required SIAM activities across all services.
Option 2: Internal resources only	Build on existing capability and, if necessary, increase staff numbers to provide additional capacity.
Option 3: Internal resources supplemented with flexible co-source	Build on existing capability and if necessary increase staff numbers to provide additional capacity and train to increase capability. Complement by co-sourcing with one or more external SIAM providers working alongside the businesses own staff to provide flexibility and support for specific SIAM activities.

The following table is provided as an example of an options analysis.

Option	Example benefits	Example risks and issues
Option 1: Outsourced SIAM	• Attractive to large SIAM providers • Lowest increase to business organisations headcount • Uses established capability in SIAM provider • Uses established SIAM model • Can minimise impact to the business if a good fit to current business model • Supports use of commercial levers for SIAM performance • SIAM may already have model integrated with external suppliers • Potentially easier to implement if a good for to current business model.	• Dependent on maturity of businesses current models, but can be 6 to 12 months to implement after appointment • High costs to tailor suppliers model for specific service requirements, for example, an IaaS service • Potentially inflexible for future changes • Risk of high costs for future change • Cost of tailoring model to fit with business organisations ways of working • Challenges with managing any in-house suppliers through outsourced provision • Tension between quality and profit • Only recently maturing market for SIAM providers • Few effective and mature models for managing SIAM providers' performance • Risk of 'lock in' to SIAM provider with high costs of change.
Option 2: Internal resources only	• Potentially lowest cost • Builds on existing capability and capacity • Flexible for future changes • Facilitates tailoring for specific service requirements, for example, an IaaS service • Quality driven by commitment, not profit • Lowest cost for future change.	• Highest increase in business organisations headcount • If limited existing capability, greatest change to the business • If limited existing capability, highest risk to the business • Limited capability to meet changes in demand • Constrained availability of skills • Requires a well defined process model • No commercial levers for SIAM performance.
Option 3: Internal resources supplemented with flexible co-source	• Potentially lowest cost • Builds on existing capability and capacity • Flexible for future changes • Facilitates tailoring for specific service requirements, for example, an IaaS service • Quality driven by commitment, not profit • Can flex to meet changes in demand • Low cost for future change • Provides access to proven SIAM partners to assist in transfer of skills/knowledge • Supports use of smaller SIAM providers • Potentially easier to implement.	• Constrained availability of skills • Only recently maturing market for SIAM providers • If limited existing capability, significant change to the business • Limited commercial levers for SIAM performance • Requires a well-defined process model. • Some commercial levers for elements of SIAM performance.

7 Governance of SIAM

Arrangements for the governance of SIAM must be established irrespective of how the SIAM capability is sourced. These should include the following aspects:

7.1 EVALUATE

The selection of a SIAM provider is a significant undertaking for any business. A robust approach should be used for evaluating the capability of potential SIAM providers against the specific requirements for the business. These can be established using the information in this White Paper as the basis, adapted for the specific service and business landscape.

7.2 DIRECT

The responsibilities of the SIAM and of the business and the expected outcomes must be clearly defined and formally agreed between both parties. These should define the level of SIAM autonomy, where they act as an agent of the business. They must include agreed measures of SIAM effectiveness and performance. A formal governance structure should be established with a nominated role in the business with accountability for directing the SIAM. The precise nature of the direction must be allowed for in the documented responsibilities.

7.3 MONITOR

The effectiveness and performance of the SIAM must be measured, reported, and reviewed at regular planned intervals with the business. The review should also include ensuring that all of the documented outcomes are being met. The measures must be directly related to the performance of the SIAM against the agreed responsibilities. Then, unless the SIAM has the authority to enforce a supplier to meet their service level targets, for example, by making any necessary supplier process improvements, the effectiveness of the SIAM cannot be measured using the service level achievement of that supplier.

8 Transition to new SIAM operating models

Adapting to a SIAM model is not a trivial exercise. As for any major change, this must be treated as a business change, using the appropriate techniques for managing organisational change. Strong and visible executive sponsorship is essential.

8.1 TRANSITION APPROACH

The following high-level sequenced approach is an example for how to move to a SIAM model:

- Review and fully understand potential detailed SIAM models
- Assess any gaps in the models for the specific business organisation and adapt the model accordingly
- Document the current service landscape into a service portfolio and service catalogue (see the ITIL publication on Service Design for advice on how to approach this)
- Ensure a full understanding of the characteristics of each service and the dependencies between each service
- Conduct an assessment to understand the current process and resource capabilities, process maturity, governance and controls, tooling, capacity in the business organisation against each of the component SIAM service areas, and identify and quantify any gaps
- Conduct an assessment to understand the current process maturity, capability, controls and tooling of each supplier, internal and external, and identify and quantify any gaps
- Assess the ability to grow the in-house capability and capacity in the SIAM component services (see the ITIL publication on Service Strategy for advice on how to approach this)

- Determine the sourcing strategy for SIAM services, one component SIAM service at a time:
  - Fully in-house
  - Outsource
  - In-house with co-sourced support
- Procure additional internal/external resources as required
- Establish the necessary SIAM capabilities, including any necessary functions and techniques
- Use a phased approach to transition services to come under the SIAM operating model, either one at a time, or in logical groups of services (see the ITIL publication on Service Transition for advice on how to approach this)
- Review and if necessary amend the SIAM model, under change control, in line with continual service improvement (see the ITIL publication on Continual Service Improvement for advice on how to approach this).

8.2 IMPACT TO EXISTING WAYS OF WORKING

The impact to existing ways of working when adapting to a SIAM model differ by role and by the SIAM sourcing approach. There will always be some impact, the amount and nature is dependent on several factors, including:

- The extent and maturity of existing service management capability and processes in the organisation that will be the SIAM
- The extent and maturity of existing service management capability and processes in the parts of the business that will be the internal suppliers
- The level of commonality already in place between processes used by internal suppliers
- The extent and maturity of existing service management capability and processes in the external suppliers
- The willingness and capability of external suppliers to change their processes to interface with the SIAM and with other suppliers.

8.2.1 Impact on an external supplier

The core service management processes used by these suppliers are likely to remain the same, as they will still be required to operate them. They will require adaptation and associated training to provide the necessary interfaces to the SIAM and to comply with any necessary policies and templates.

8.2.2 Impact on an internal supplier

These are likely to see a major change, as the SIAM will take over responsibility for operating any service management processes previously done within any siloed function. Service management staff may transfer into the SIAM.

Where an internal supplier is adapting to be an internal SIAM, the staff will require re-training on the adaptations to the processes necessary for effective SIAM. This should not be a challenge, as they are based on ITIL.

8.2.3 Impact on the business

Business functions may see a significant change as they pass over responsibilities for supplier management and any service management to the SIAM. They will also need to establish resources and processes on providing governance over the SIAM.

The related White Paper, ‘An example model for effective Service Integration and Management’, provides examples of possible impacts to ways of working.

About the author

Kevin Holland is an experienced service management practitioner with a reputation for practical advice that extends the theory. For the last 10 years, he has been actively involved in designing, implementing, improving, and advising on Service Integration and Management for a wide range of organisations in the public and private sectors. He is also active in developing service management qualifications.

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