What processes should I have in my SIAM Process Model?

Background

There continues to be a lot of discussion about the processes that should be incorporated within a SIAM model, in part this is born from the fact that the SIAM model itself may drive different process requirements and that organisations may have already adopted and developed their own process frameworks as part of their organisational evolution.

Available process frameworks include CoBiT, CMMI, ISO 20000, and ITIL. Each has its own terminology and taxonomy that can be readily adapted and adopted to meet organisation's business and operational requirements. Whilst these existing process frameworks offer substantive guidance, they do not specifically address SIAM requirements. For example, CoBit focuses on governance and is exploitative of existing processes to extend their scope rather than defining new ones. This gap has led to the publication of white papers and consultancy services that have identified and modelled new processes that need to be considered.

Introduction

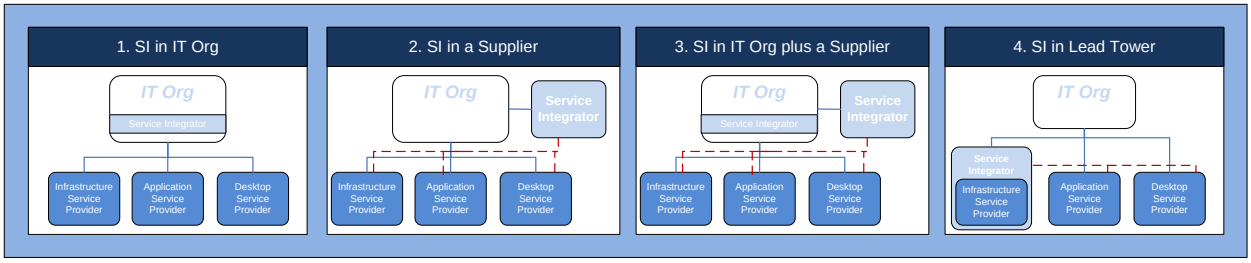
The onus generally falls on the design of a SIAM project to figure out a process model and produce it. This paper aims to identify resources that would be useful for designers to reference and offers some compass direction setting tips.

This paper identifies those processes already "out there" as observed in literature of various forms from frameworks to white papers. It then lists what is potentially new and specific to a SIAM scenario. Ultimately the process framework implemented for your SIAM scenario will be based on your business requirements, so this paper is for advice and guidance only. Any descriptions or diagrams within it should not be interpreted as a definitive solution.

Avoiding Ambiguity

There are four mainstream SIAM models, as depicted in Fig. 1. These are primarily differentiated by the organisational position of the entity acting as service integrator.

Fig. 1. Mainstream SIAM Models



A characteristic of a SIAM model is that an equivalent process could be deployed within each stakeholder organisation. This characteristic usually manifests where the stakeholders are utilising their own service management toolsets. To illustrate this point, consider incident management as an example. Where all stakeholders (integrator and suppliers) are sharing the same toolset, there may be a single incident management process that everyone adopts. However, where stakeholders have implemented and matured their own incident management processes, each incident management process maybe interfaced to produce an end-to-end - process and it this end-to-end process that the SIAM model needs to reflect.

When identifying incident management in a process model, we are not specifying how the process is mapped out (as this will be relatively customised for each SIAM model scenario), we are focused on identifying that incident management needs to be considered and implemented in some form or another.

As there are many different process frameworks, there is a degree of variation in terminology for the same subject matter. For example, table 1.0 below shows how incident management is referred to within a selection of these frameworks.

Table 1. Framework References to Incident Management

ITIL	Incident Management
ISO 20000	Incident and Service Request Management
CoBiT	DSS02 - Manage Service Requests and Incidents
CMMI for Services	IRP - Incident Resolution and Prevention

When constructing your SIAM process model, you may pull in processes from various frameworks or industry white papers. Ideally look to standardise on a single taxonomy but where your organisation has adopted one or more frameworks, it would be good practice to reference the framework(s)/white paper(s) your version of the process originated from and include a glossary to mitigate against confusion.

Process Reference Model

ISO 12207 identifies a number of requirements for developing a process reference model, including but not limited to, having unique descriptions, names, and numbering.

Whilst you would absolutely complete process descriptions, this paper is focused on identifying the names of the processes required. Some of the examples at the end of this paper show the potential groupings and numbering of these processes. Nonetheless, this is incidental to our aim of identifying the names of the processes required. For further details and instructions on process descriptions, ISO 12207 and ISO 15504 should be consulted.

When implemented, the SIAM processes in your model should be accompanied with detailed flow diagrams of the end to end process that will most likely exist across the multiple stakeholders. They should also include detailed explanations of the touchpoints or interaction points where the end to end processes overlap organisational boundaries.

The remainder of this paper adopts ISO 12207 terminology where the SIAM Process Model is referred to as a Process Reference Model.

Frameworks and White Papers: Identifying Recourses to Leverage

In order to establish your organisation's specific process reference model as part of the SIAM design you will need to understand what processes are available to draw from.

The following tables list a set of processes that have been offered by frameworks and SIAM white papers. These tables are not exhaustive and others may be in existence, so please do your research. They are also included in the spreadsheet below for convenience.

Process lists for inclusion in white p

Table 2. Process Lists per framework/white paper

Process listed in SIAM Body of Knowledge document	ISO 20000	ITIL V3	CMMI for Services 1.3
Audit and Control Audit and Control	Budgeting and accounting for IT Services	Access Management	CAM - Capacity and Availability Management
Business Relationship Management	Business relationship management	Availability Management	CAR - Causal Analysis and Resolution
Capacity and Availability Management	Capacity management	Capacity Management	CM - Configuration Management
Change Management	Change management	Change Management	DAR - Decision Analysis and Resolution
Commercial/Contract Management	Configuration management	Demand management	IRP - Incident Resolution and Prevention
Continual Service Improvement	Design and Transition of new or changed services	Evaluation	IWM - Integrated Work Management
Event Management	Incident and service request management	Event Management	MA - Measurement and Analysis
Financial Management	Information security management	Financial management	OPD - Organizational Process Definition
Incident Management	Problem management	Incident Management	OPF - Organizational Process Focus
Information Security Management	Release and deployment management	Information Security Management	OPM - Organizational Performance Management
Knowledge Management	Service continuity and availability management	IT service Continuity Management	OPP - Organizational Process Performance
Monitoring, Measuring and Reporting	Service level management	Knowledge Management	OT - Organizational Training
Portfolio Management	Service reporting	Problem Management	PPQA - Process and Product Quality Assurance
Problem Management	Supplier Management	Release and Deployment Management	QPM - Quantitative Work Management
Project Management		Request Fulfilment	REQM - Requirements Management
Release Management		Service Asset and Configuration Management	RSKM - Risk Management
Request Fulfilment	Service Management System	Service Catalogue Management	SAM - Supplier Agreement Management
Service Catalogue Management		Service Level Management	SCON - Service Continuity
Service Continuity Management		Service Measurement	SD - Service Delivery
Service Introduction, retirement and replacement		Service Portfolio management	SSD - Service System Development
Service Level Management		Service Reporting	SST - Service System Transition
Software asset and Configuration Management		Service Validation and Testing	STSM - Strategic Service Management
Supplier Management		Strategy Generation	WMC - Work Monitoring and Control
Toolset and Information Management		Supplier Management	WP - Work Planning
		The 7 Step improvement process	
		Transition Planning and Support	

Process listed in SIAM Body of Knowledge document	ISO 20000	ITIL V3	CMMI for Services 1.3
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Service Level Management		Service Reporting	SST - Service System Transition
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Supplier Management		Strategy Generation	WMC - Work Monitoring and Control
Toolset and Information Management		Supplier Management	WP - Work Planning
		The 7 Step improvement process	
		Transition Planning and Support	

Kevin Holland's White Paper (SIAM Model)	MoF
Access management	Service Level Management
Availability management	Financial Management
Business continuity management.	Capacity Management
Business/customer relationship management	Availability Management
Capacity management	IT Service Continuity Management
Change management	Workforce Management
Continual service improvement	Infrastructure Engineering
Event management	Security Management
Financial management	Change Management
Incident management	Configuration Management
Innovation culture and management	Release Management
IT information security	System Administration
IT operations control	Security Administration
IT service continuity management.	Service Monitoring and Control
Knowledge management	Directory Services Administration
Major incident management	Network Administration
Operations bridge	Storage Management
Problem management	Job Scheduling
Release and deployment management	Service Desk
Release planning and release conflict resolution	Incident Management
Request fulfilment	Problem Management
Service asset and configuration management	
Service catalogue management	
Service desk	
Service level management	
Service portfolio management	
Service reporting	
Service transition planning and support	
Service validation and testing:	

SIAM design	
Strategy for services and sourcing	
Supplier and service assurance	
Supplier and service assurance	
Supplier management	
Technical management	

CoBiT 5	**ISO 12207**	**SIAM SIG recommendations**
EDM01 - Ensure Governance Framework Setting and Maintenance	6 System Life Cycle Processes	Addition and Transfer of Providers into the eco system
EDM02 - Ensure Benefits Delivery	6.1 Agreement Processes	Access Management
EDM03 - Ensure Risk Optimisation	6.1.1 Acquisition Process	Asset Management
EDM04 - Ensure Resource Optimisation	6.1.2 Supply Process	Availability Management
EDM05 - Ensure Stakeholder Transparency	6.2 Organizational Project-Enabling Processes	Business Relationship Management
AP01 - Manage the IT Management Framework	6.2.1 Life Cycle Model Management Process	Capacity Management
AP02 - Manage Strategy	6.2.2 Infrastructure Management Process	Change Management
AP03 - Manage Enterprise Architecture	6.2.3 Project Portfolio Management Process	Complaints and Escalations Process
AP04 - Manage Innovation	6.2.4 Human Resource Management Process	Configuration Management
AP05 - Manage Portfolio	6.2.5 Quality Management Process	Continual Service Improvement
AP06 - Manage Budget and Costs	6.3 Project Processes	Enterprise architecture design
AP07 - Manage Human Resources	6.3.1 Project Planning Process	Governance
AP08 - Manage Relationships	6.3.2 Project Assessment and Control Process	Event Management
AP09 - Manage Service Agreements	6.3.3 Decision Management Process	Financial Management
AP10 - Manage Suppliers	6.3.4 Risk Management Process	Incident Management
AP11 - Manage Quality	6.3.5 Configuration Management Process	Major Incident Management
AP12 - Manage Risk	6.3.6 Information Management Process	IT Continuity Management

AP13 - Manage Security	6.3.7 Measurement Process	IT Security Management
BA01 - Manage Programmes and Projects	6.4 Technical Processes	Knowledge Management
BA02- Manage Requirements Definition	6.4.1 Stakeholder Requirements Definition Process	Problem Management
BA03 - Manage Solutions Identification and Build	6.4.2 System Requirements Analysis Process	Programme and Project Management
BA04 - Manage Availability and Capacity	6.4.3 System Architectural Design Process	Release Management
BA05 - Manage Organisational Change	6.4.4 Implementation Process	Request Management
BA06 - Manage Changes	6.4.5 System Integration Process	Risk Management
BA07 - Manage Change Acceptance and Transitioning	6.4.6 System Qualification Testing Process	Service Desk/Bridge (Function)
BA08 - Manage Knowledge	6.4.7 Software Installation Process	Service Portfolio
BA09 - Manage Assets	6.4.8 Software Acceptance Support Process	Service Catalog
BA10 - Manage Configuration	6.4.9 Software Operation Process	Service Level Management
DSS01 - Manage Operations	6.4.10 Software Maintenance Process	Service Provider Management
DSS02 - Manage Service Requests and Incidents	6.4.11 Software Disposal Process	Service Reporting
DSS03 - Manage Problems	7 Software Specific Processes	Service Validation and Testing
DSS04 - Manage Continuity	7.1 Software Implementation Processes	SIAM Architecture and Design
DSS05 - Manage Security Services	7.1.1 Software Implementation Process	Standards and Policies
DSS06 - Manage Business Process Controls	7.1.2 Software Requirements Analysis Process	Supplier management
MEA01 - Monitor, Evaluate and Assess Performance and Conformance	7.1.3 Software Architectural Design Process	Systems Integration
MEA02 - Monitor, Evaluate and Assess the System of Internal Control	7.1.4 Software Detailed Design Process	
MEA03 - Monitor, Evaluate and Assess Compliance with External Requirements	7.1.5 Software Construction Process	
	7.1.6 Software Integration Process	
	7.1.7 Software Qualification Testing Process	
	7.2 Software Support Processes	
	7.2.1 Software Documentation Management Process	
	7.2.2 Software Configuration Management Process	

	7.2.3 Software Quality Assurance Process	
	7.2.4 Software Verification Process	
	7.2.5 Software Validation Process	
	7.2.6 Software Review Process	
	7.2.7 Software Audit Process	
	7.2.8 Software Problem Resolution Process	
	7.3 Software Reuse Processes	
	7.3.1 Domain Engineering Process	
	7.3.2 Reuse Asset Management Process	
	7.3.3 Reuse Program Management Process	

Whilst this list is a good starting point, white papers have extended these established frameworks. The following bullet points reflect the author's interpretation of what those white papers offer (the reader may have another view on what should have been added to or omitted from this list). The author acknowledges that perceptions will differ as the implementation of certain processes varies to adapt to an integrated services scenario.

- SIAM Architecture and Design (itSMF SIAM SIG)
- SIAM Design (Kevin Holland)
- Addition and Transfer of Providers into the Ecosystem (itSMF SIAM SIG)
- Service Introduction, retirement and replacement (SIAM Body of Knowledge)
- Commercial/Contract Management (SIAM Body of Knowledge)
- Supplier and Service Assurance (Kevin Holland)
- Strategy for Services and Sourcing (Kevin Holland)
- Toolset and Information Management (SIAM Body of Knowledge)
- Systems Integration (itSMF SIAM SIG)
- Innovation Culture and Management (Kevin Holland)

There would appear to be some duplication, this is mainly due to inconsistency in terminology, so the author believes we could group the above in to 4 areas

(1) Design Activities for SIAM

- SIAM Architecture and Design
- SIAM design

(2) Management of Providers

- Addition and Transfer of Providers into the Ecosystem
- Service introduction, retirement and replacement
- Commercial/Contract Management
- Supplier and service assurance

(3) Technical Integration between Providers and Customer/Integrator

- Toolset and Information Management
- Systems Integration

(4) Strategic Activities

- Innovation culture and management
- Strategy for services and sourcing

Design Activities for SIAM

There is a requirement to design for SIAM on all levels whether they are process, technical, people or organisational related. The author suggests that a bespoke process be implemented that can ensure all integration activities are identified and addressed.

Management of Providers

The four processes suggested here refer to the approach required to manage suppliers in the integrated landscape. Whilst it could be argued that supplier management could be expanded to encapsulate provider management, the author believes the integration of providers has enough variation against traditional ITO supplier management or supplier sub-contracting to warrant a process consideration of itself.

Technical Integration

The integration of toolsets across the ecosystem is most likely to be a new activity for those moving to a SIAM scenario and will need consideration.

Strategic Activities

In order to achieve the benefits of the application of SIAM to an organisational scenario there may need to be a cultural shift in how issues and improvements are addressed. The necessary cultural end state is derived from a need to meet contractual obligations collaboratively where clarity of accountability is a strong enabler of shared accountability across stakeholders.

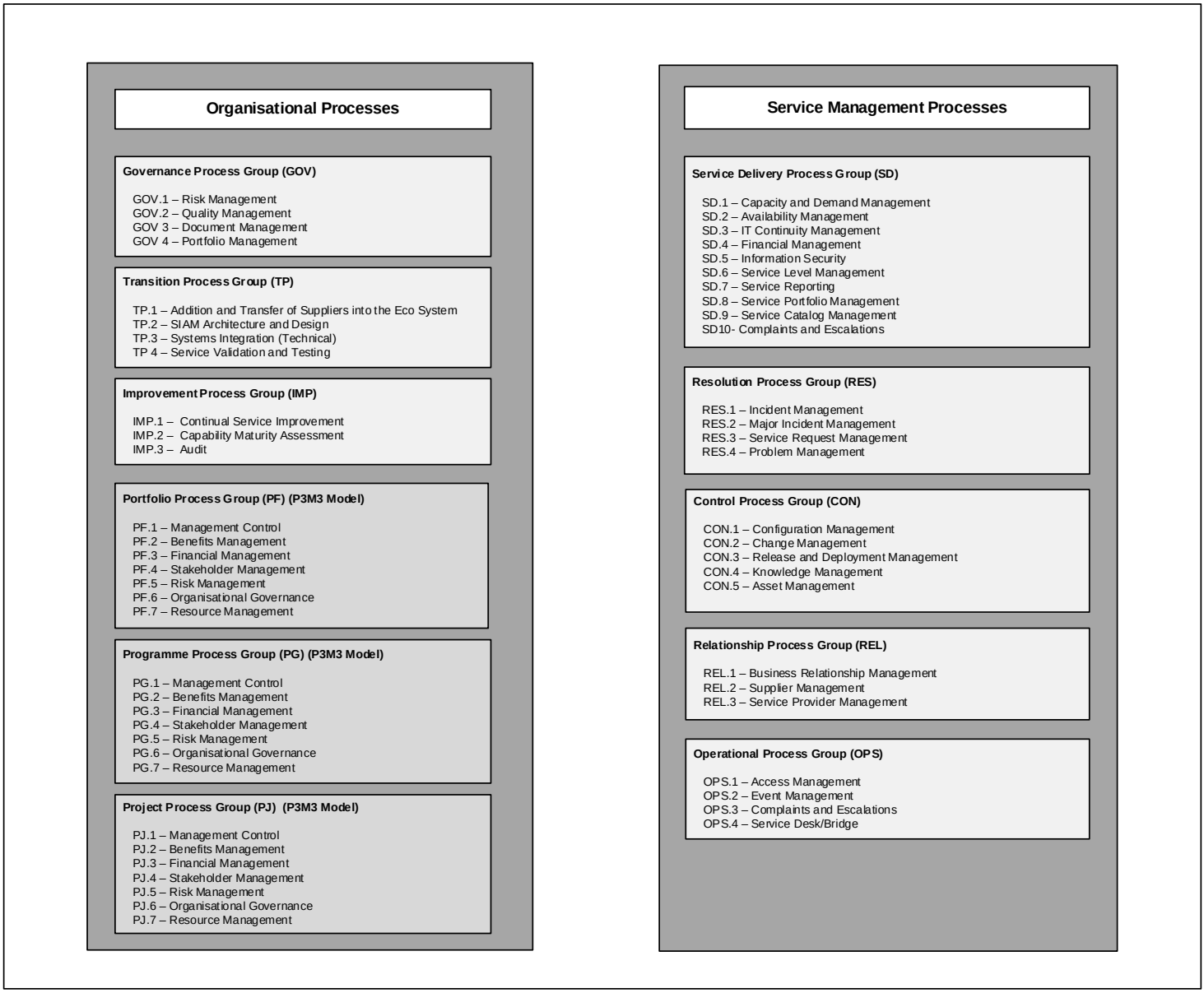
Whilst the cultural realities will be felt and addressed at the tactical or operational level, the author believes that the direction required to address any shortcomings will need to be driven at the strategic level. This is primarily because the tactical or operational level is most likely to operate in a defensive mind-set where the protection of IPR, internal good practise, or the deflection of blame is likely to be felt to be more important than being wholly collaborative. The implementation of processes aimed at encouraging collaboration warrants consideration in any process framework that’s developed for your SIAM model.

We conclude this paper with some examples of what process models could look like, the examples are fairly generic and should only be viewed as a guide to helping you form a view on what processes should be in your SIAM process framework.

Examples of Process Models

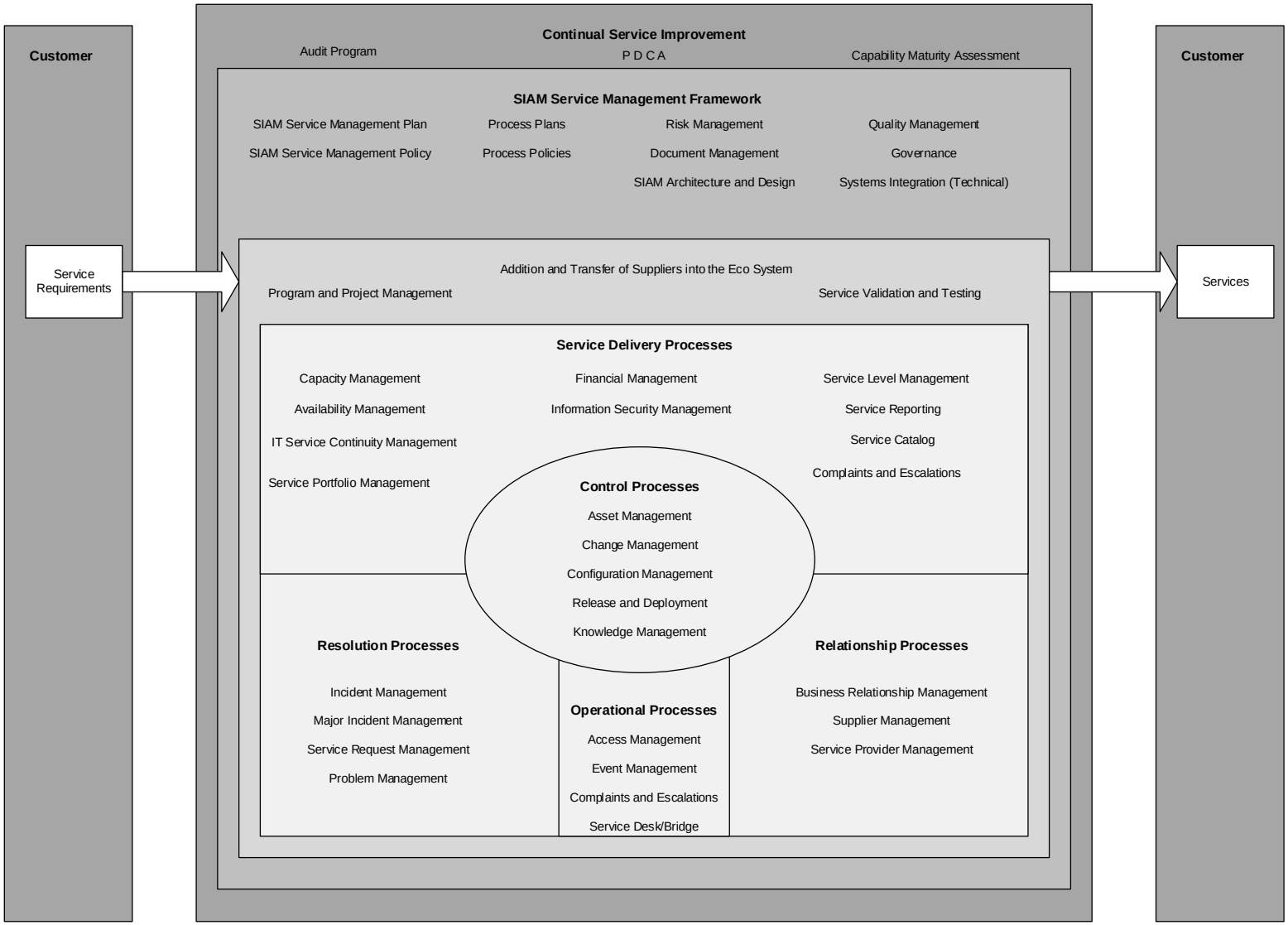
This example shows the set of processes selected, these processes are then grouped by domains and sub domains, complete with unique reference numbers. This example also utilises the OGC P3M3 model for Portfolio, Programme and Project management.

Example SIAM Process Reference Model



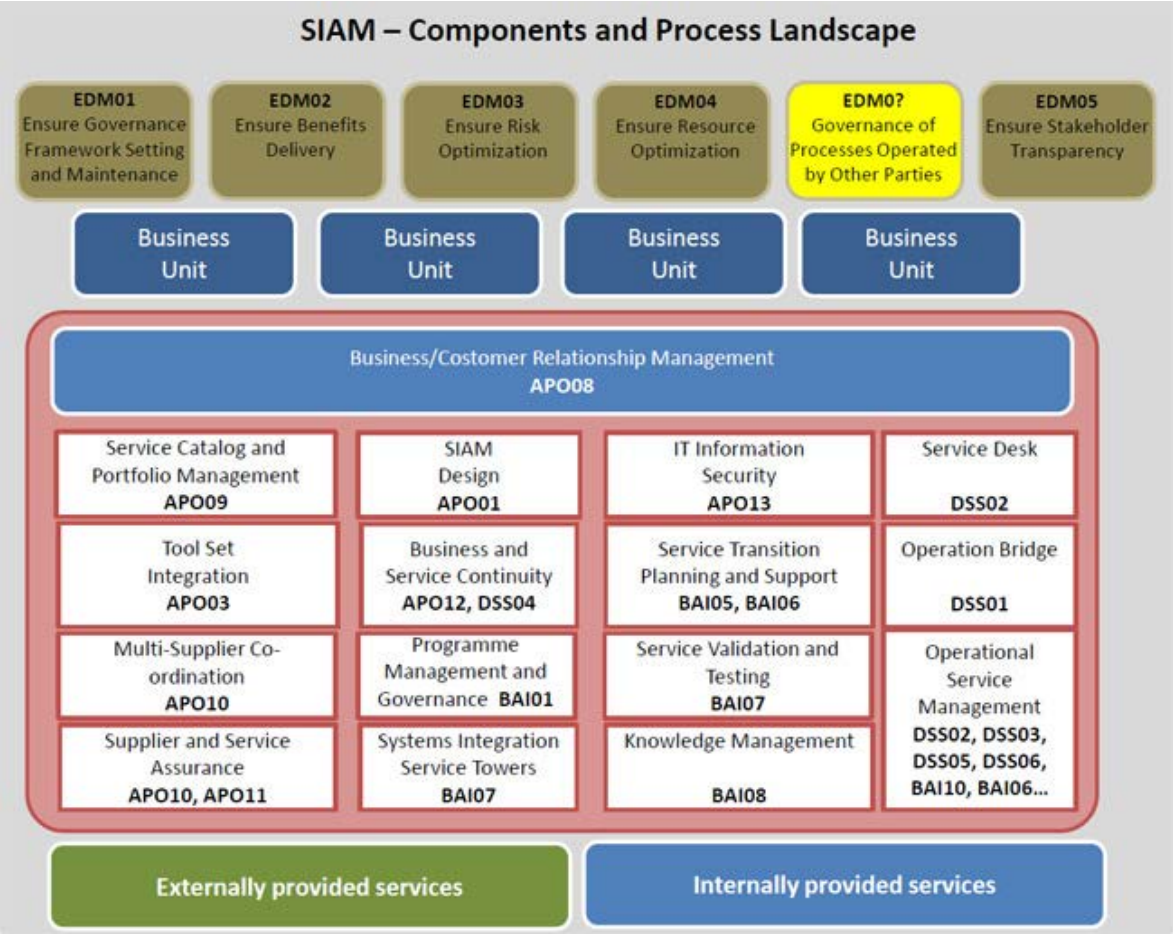
This tabular view is then represented in a framework view below

Example SIAM Process Reference Model **viewed in ISO 20000 Framework Format**



Example CoBit view of a SIAM as a Framework Format

Taken from http://www.isaca.org/cobit/focus/pages/implementation-of-service-integration-in-a-multiprovider-environment-using-cobit-5.aspx



Example Model from Kevin Holland taken from his white paper:

"*An Example ITIL-based Model for Effective Service Integration and Management*"

https://www.axelos.com/CMSPages/GetFile.aspx?guid=2758eedf-bedf-4507-b18c-f26ca437c4ca

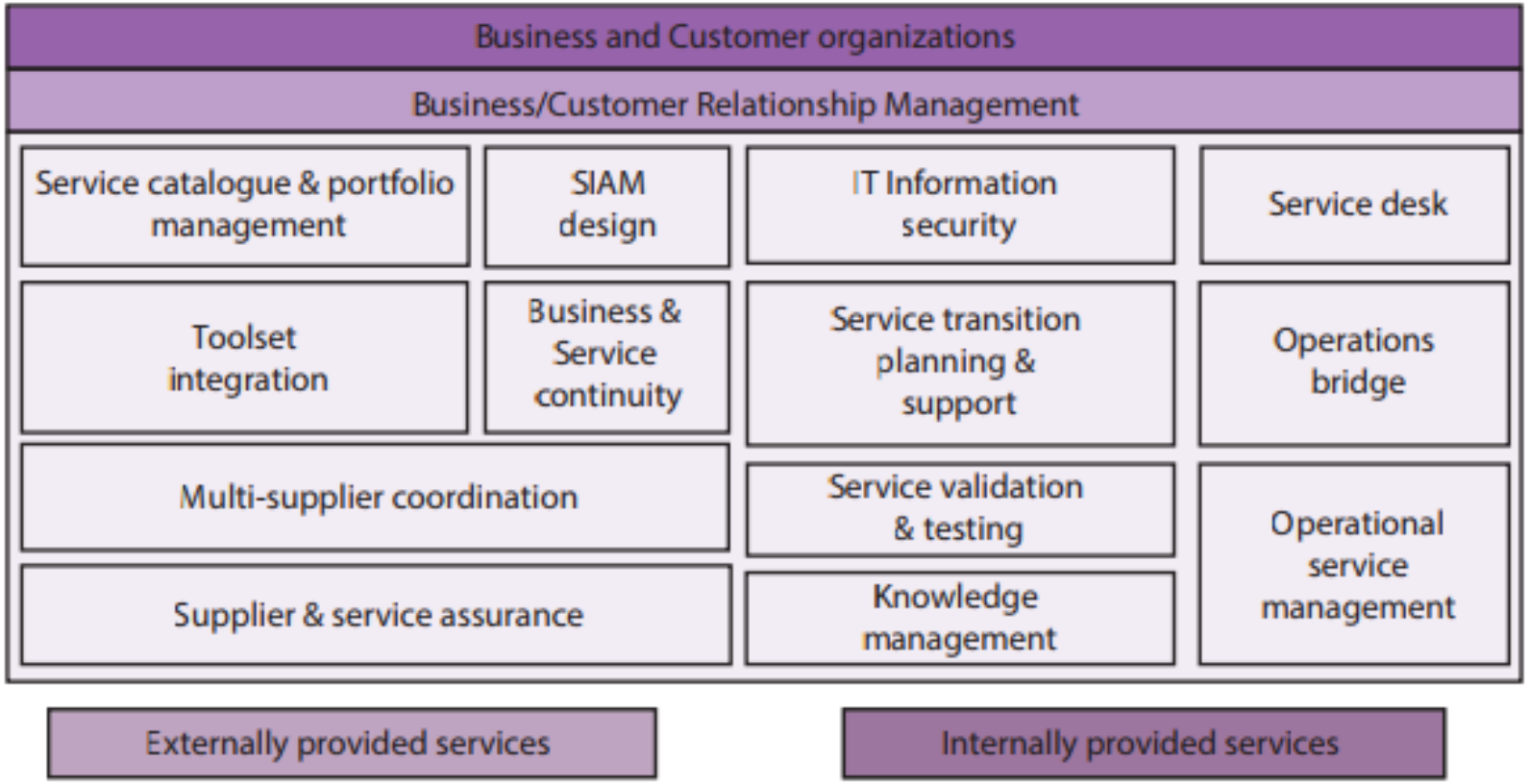
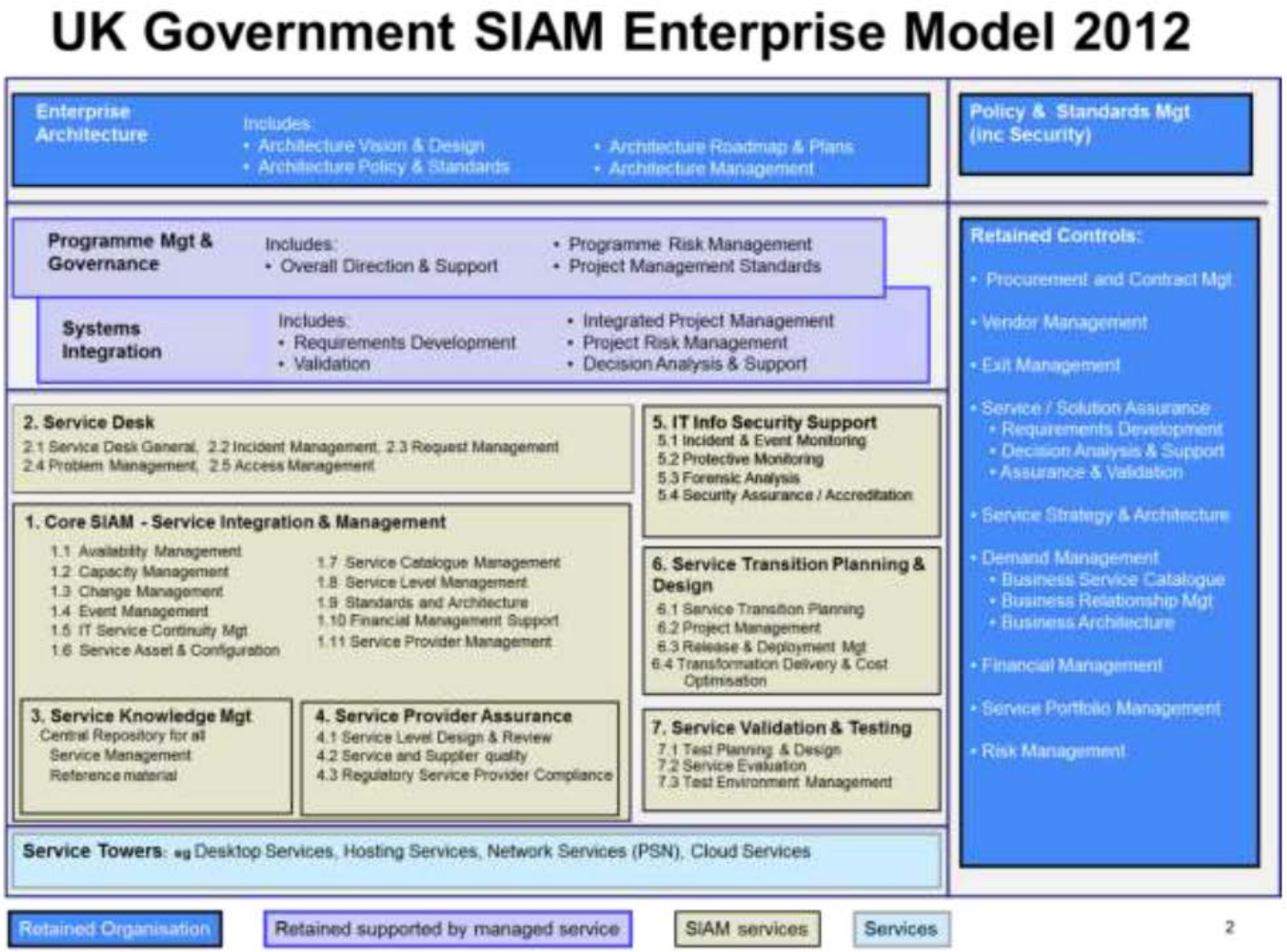


Figure 2.2 SIAM component model

Example of UK Government Model

Taken from Scopism Body of Knowledge document



List of References

- ITL V3 publications (OGC)
- CoBiT 5.0 (ISACA)
- CMMI for Services 1.3 (Software Engineering Institute)
- Microsoft Operations Framework (Microsoft)
- itSMF SIAM SIG internal material
- SIAM Body of Knowledge (Scopism)
- SIAM Principals and Practices for Service Integration and Management (Van Haren)
- ISO 20000 (International Standards Organisation)
- ISO 12207 (International Standards Organisation)
- *An Introduction to Service Integration and Management and ITIL* (Kevin Holland)
    - https://www.axelos.com/CMSPages/GetFile.aspx?guid=6ed22879-f3cd-458c-87c2-b53575ddca06
- *An Example ITIL-based Model for Effective Service Integration and Management* (Kevin Holland)
    - https://www.axelos.com/CMSPages/GetFile.aspx?guid=2758eedf-bedf-4507-b18c-f26ca437c4ca