

# The Main Elements Of Our Enterprise Architecture

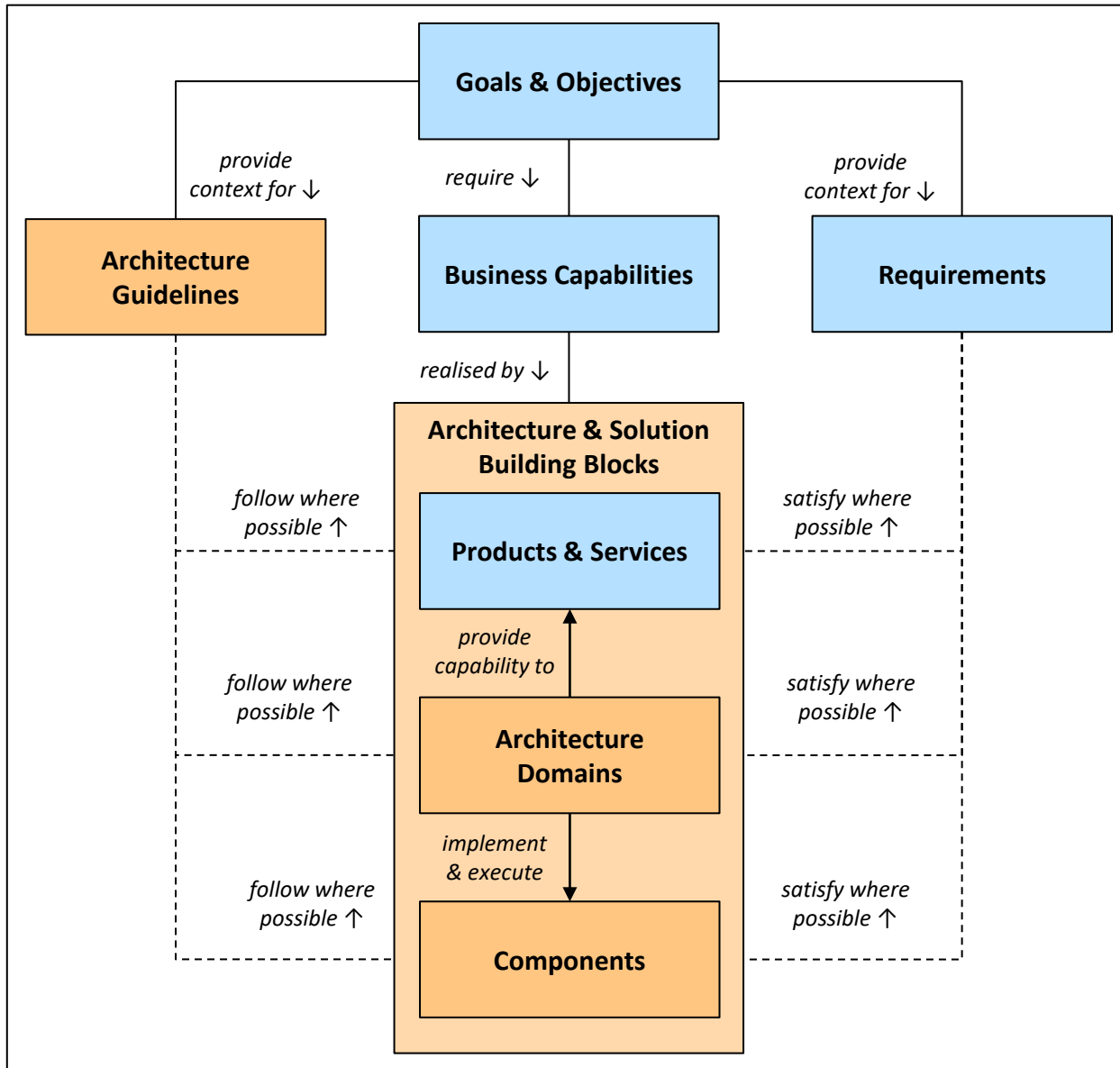
**Our enterprise architecture** connects our business goals, objectives and requirements to our information system implementations.

**The architecture guidelines** (the principles, policies and standards, roadmaps, reference models and patterns) provide the context and controls for how we develop and govern existing and new solution components and integrate e2e products and services for our markets.

**The building blocks** (representing the actual business and technology components) provide the “raw material” we use in our current solutions and that we can reuse or change to create new solutions.

The building blocks are grouped into

- Specifications of what is needed: **Architecture building blocks**
- Implementations of what is needed: **Solution building blocks**



# Our Architecture Guidelines

**The architecture guidelines** promote the creation, evolution and governance of information systems solutions in line with our goals, objectives and requirements. They include:

- **Principles**  
Statements of a key property or quality.
- **Policies**  
How principles are applied to specific situations and solutions.
- **Standards**  
Preferred implementations.
- **Best practices**  
Preferred ways of working.
- **Target roadmaps**  
Showing how a products, services, platforms and components are expected to evolve over time.
- **Reference models and patterns**  
Providing examples of how we to organise components for the best outcomes.

**Principles &  
Policies**

**Standards &  
Best Practices**

**Target  
Roadmaps**

**Reference  
Models & Patterns**

*The guidelines are produced and managed by our architects and solution specialists, providing direction for our development teams to create well-formed interoperable information systems that best meet our goals, objectives and requirements.*



# Architecture Landscape

The overall architecture landscape is broken down into four main domains and two supporting domains.

The Business, Application, Data and Technology domains identify the business and information system building blocks that we need to implement our strategy and day to day operations.

The Security domain identifies how these building blocks need to be configured, integrated and managed to ensure that they are secure and controlled.

The Operations domain identifies the building blocks and their integrations needed to deploy, operate, repair and general manage their use in delivering services to our customers.

Each architecture domain has a lead architect to oversee and evolve the relevant capabilities and support the change teams implementing new or changed capabilities.

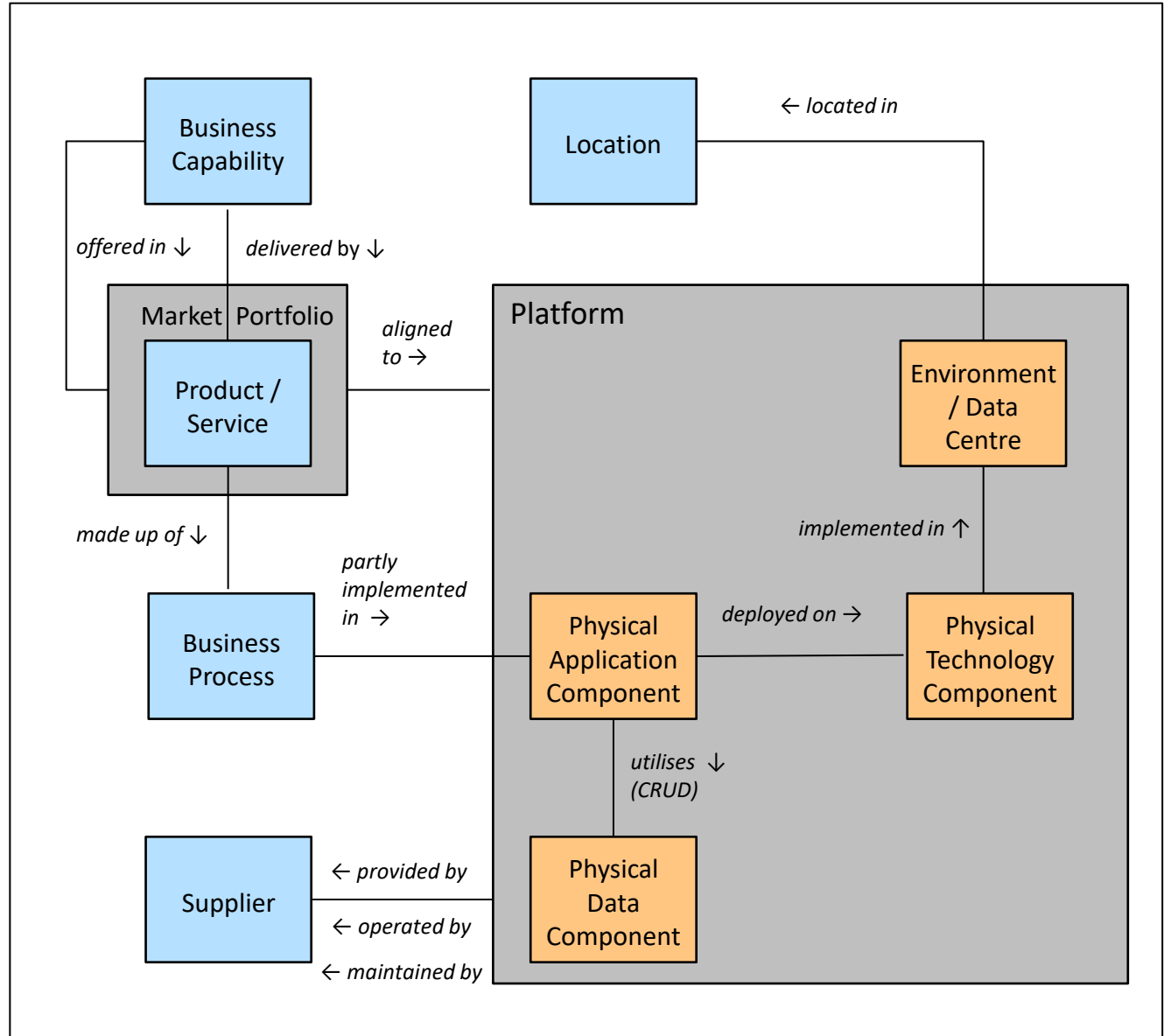


# Our Generic Enterprise Architecture Viewpoint

We have identified these elements as the most relevant to our business.

The generic enterprise architecture viewpoint identifies the main business and information systems elements for the markets and locations in which we operate.

This architecture viewpoint supports the development of separate and shared business and information systems components and their efficient and effective use, as determined by the relevant business goals, objectives and associated requirements for us and each market.



# The Application Architecture Viewpoint

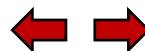
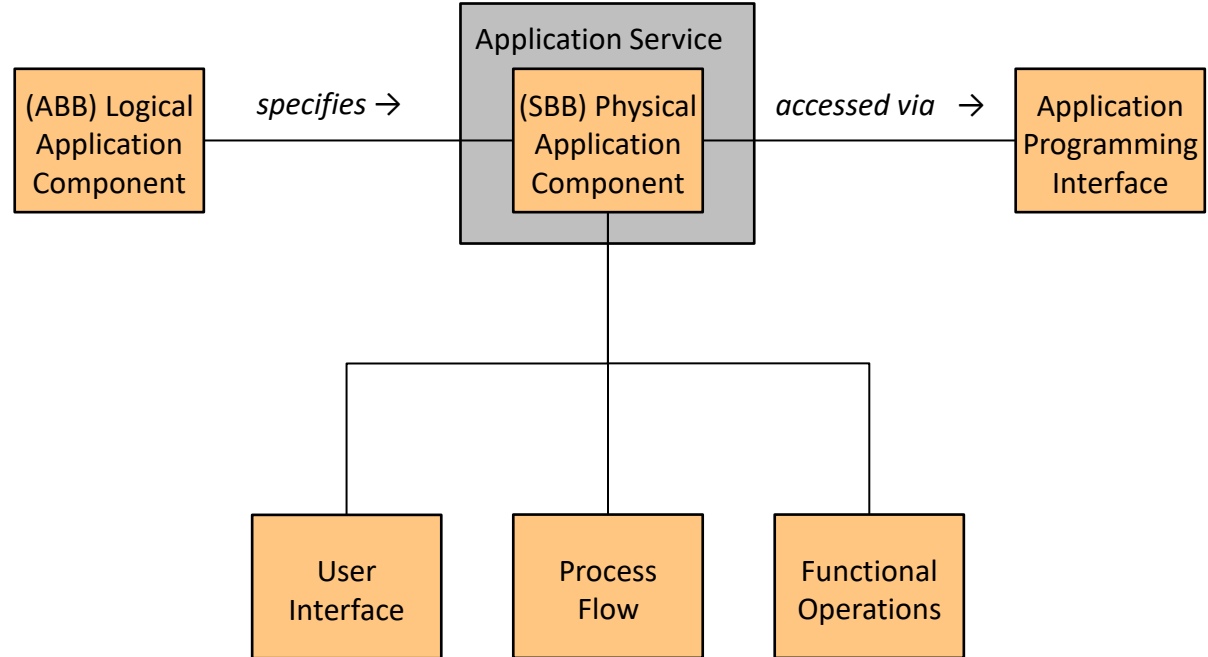
The application architecture viewpoint provides a frame onto which we place our software building blocks in their many forms.

This viewpoint (including its placement in the enterprise architecture viewpoint) enables us to effectively structure and control our software building blocks across our information systems.

We may source application capability in many different ways, including:

- Connecting to readily available application services already running in the cloud.
- Accessing application components available in the cloud.
- Buying in application components.
- Creating application components ourselves.

Our generic application architecture and approach is defined and governed by our application architecture team in support of all of our market aligned platforms.



# The Data Architecture Viewpoint

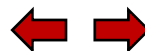
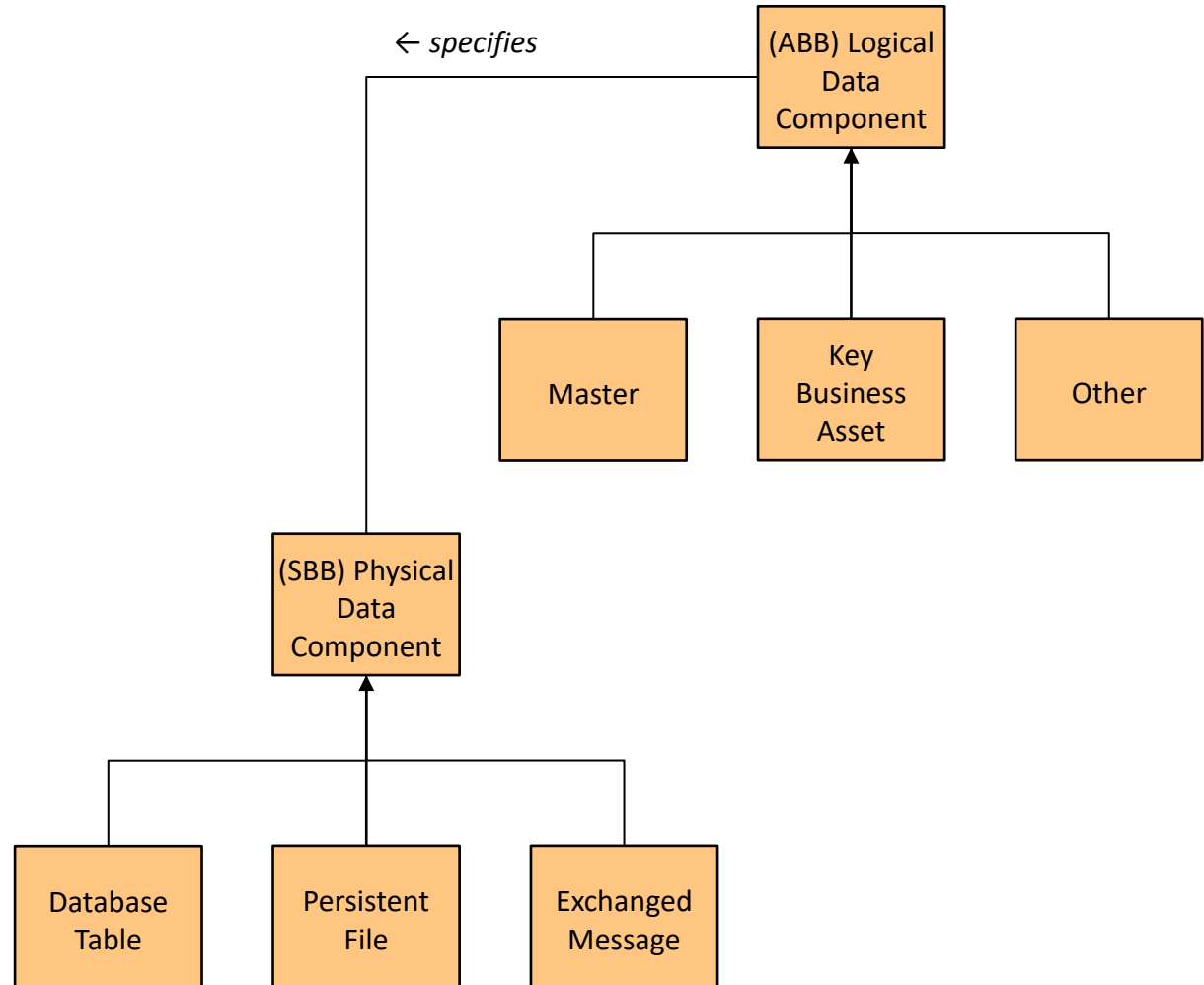
The data architecture viewpoint provides a frame onto which we place our data and information building blocks in their many forms.

This viewpoint (including its placement in the enterprise architecture viewpoint) enables us to effectively structure and control our data and manage its security and use in our applications.

Definition, management and use of data will be in many different forms (reflecting data, at rest, in motion and use) and its specific context and importance.

In particular master data and key business asset data must be reviewed and controlled across the different market platforms as well as within each platform

Our generic data architecture and approach is defined and governed by our data architecture team in support of all of our market aligned platforms.



# The Technology Architecture Viewpoint

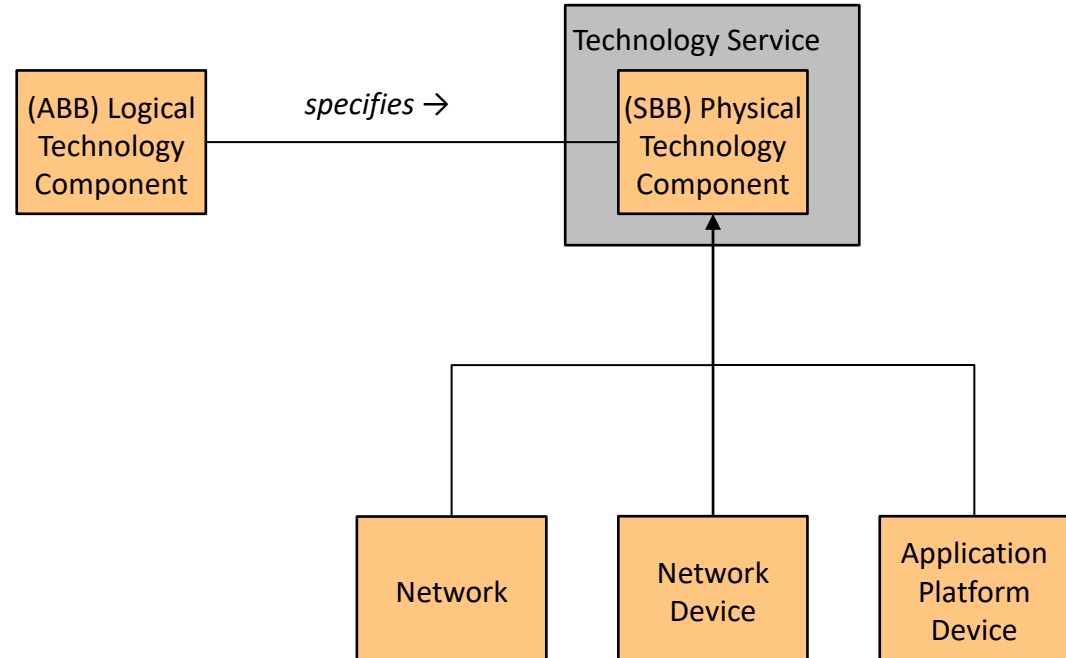
The technology architecture viewpoint provides a frame onto which we place our technology building blocks.

This viewpoint (including its placement in the enterprise architecture viewpoint) enables us to effectively structure and control our technology building blocks across our information systems.

We may source technology capability in many different ways, including:

- Connecting to readily available technology services already running in the cloud.
- Accessing technology components available in the cloud.
- Buying in technology components in our own environments.
- Creating technology components ourselves.

Our generic technology architecture and approach is defined and governed by our technology and data centre teams in support of all of our market aligned platforms.



# Managing Our Architecture and Solution Information

The enterprise architecture information needs to be captured, stored in domain-based catalogues (lists) and maintained.

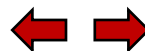
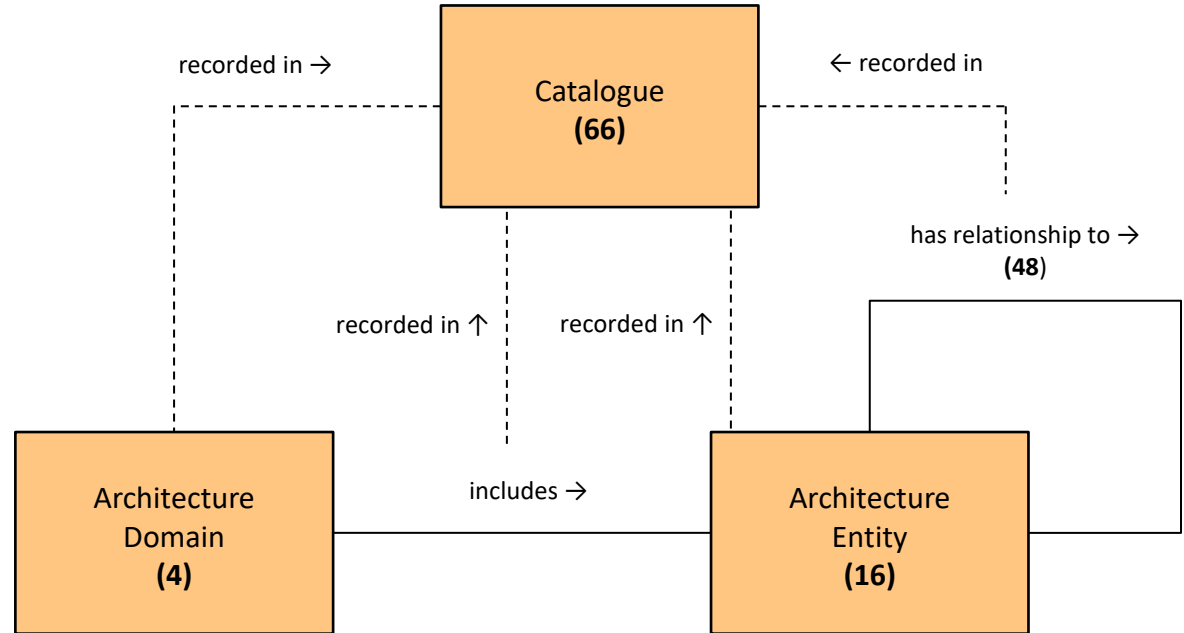
This enables it to be used in a consistent fashion and to provide the information needed for effective management of our business and information system assets.

There are three sets of information described in the enterprise architecture that may need to be catalogued:

- Domains
- Architecture Entities
- Useful relationships between the domains and the entities.

We have up to:

- 4 Main Domains
- 16 Entities
- 48 Possible Relationships





# The Potential Catalogue Set (1)

The table shows the:

- 4 Main Domains
- 16 Entities
- 48 Interesting relationships

In order to manage the elements, their scope and impact, a record should be made in the appropriate catalogue as any entity is created, updated or deleted and/or related to another entity. Basic information such as its name and date of creation, change, or deletion should be entered plus relevant information about the relationships.

In all cases the information about the entity and the domain should be entered. The information about the relationships between entities should be entered when it provides useful information for managing and/or reusing those entities.

		API	Application Component	Application Service	Business Capability	Data Centre / Environment	Location	Logical Data Component	Market	Physical Data Component	Platform	Process	Product	Service	Supplier	Technology Component	Technology Service	No Of Matrices For Row
Application	API		X															1
Application	Application Component	X		X	X	X			X	X	X	X	X	X	X	X	X	13
Application	Application Service		X		X	X			X	X	X	X	X	X	X	X	X	12
Business	Business Capability		X	X					X				X	X				5
Technology	Data Centre / Environment		X	X			X								X	X	X	6
Business	Location					X												1
Data	Logical Data Component									X								1
Business	Market		X	X	X						X		X	X				6
Data	Physical Data Component		X	X				X			X				X			5
Technology	Platform		X	X					X	X			X	X	X	X	X	9
Business	Process		X	X									X	X				4
Business	Product		X	X	X				X		X	X		X				7
Business	Service		X	X	X				X		X	X	X					7
Business	Supplier		X	X		X				X	X					X	X	7
Technology	Technology Component		X	X		X					X				X		X	6
Technology	Technology Service		X	X		X					X				X	X		6
	No Of Matrices For Column	1	13	12	5	6	1	1	6	5	9	4	7	7	7	6	6	96

*(N.B. the total counts entries twice (horizontal and vertical) so the number of relations is 48)*



# The Potential Catalogue Set (2)

For example: when creating a new application component a record of the component should be placed in the application component catalogue and references to that component created (if relevant) against the:

- APIs it uses,
- application services it is part of (if relevant),
- business capability it implements,
- data centre / environment it is deployed in
- market it addresses
- physical data components it uses,
- platforms it is placed in,
- processes it is part of,
- products and/or services it supports,
- suppliers who created it,
- suppliers who operate it,
- suppliers who maintain it,
- technology components it is deployed on, and the
- technology services it is part of.

		API	Application Component	Application Service	Business Capability	Data Centre / Environment	Location	Logical Data Component	Market	Physical Data Component	Platform	Process	Product	Service	Supplier	Technology Component	Technology Service	No Of Matrices For Row
Application	API		X															1
Application	Application Component	X		X	X	X			X	X	X	X	X	X	X	X	X	13
Application	Application Service		X		X	X			X	X	X	X	X	X	X	X	X	12
Business	Business Capability		X	X					X				X	X				5
Technology	Data Centre / Environment		X	X			X								X	X	X	6
Business	Location					X												1
Data	Logical Data Component									X								1
Business	Market		X	X	X						X		X	X				6
Data	Physical Data Component		X	X				X			X				X			5
Technology	Platform		X	X					X	X			X	X	X	X	X	9
Business	Process		X	X									X	X				4
Business	Product		X	X	X				X		X	X		X				7
Business	Service		X	X	X				X		X	X	X					7
Business	Supplier		X	X		X				X	X					X	X	7
Technology	Technology Component		X	X		X					X				X		X	6
Technology	Technology Service		X	X		X					X				X	X		6
	No Of Matrices For Column	1	13	12	5	6	1	1	6	5	9	4	7	7	7	6	6	96

(N.B. the total counts entries twice (horizontal and vertical) so the number of relations is 48)



# How Much Work Is This And What Is The Value?

This seems at first sight to be a lot of work but when broken down as shown here, it can be seen to be both much simpler and of significant value.

Each domain architect is responsible for the relevant entity catalogues. The number of entities for each domain is relatively few and many of them (particularly in the business and technology domains do not change very often).

Part of effective solution design, quality assurance and repair requires that we understand, what we have, the impact across any other elements and what has actually been created.

Additionally, knowledge of what we already have and how it is deployed within our environments makes it much easier and faster to reuse components and their capabilities; avoiding time and money on new solutions that may not be needed and incur the greater risk of new deployments.

## Business Domain Catalogues

- Business Capability
- Location
- Market
- Product
- Business Service
- Process
- Supplier

## Application Domain Catalogues

- API
- Application Component
- Application Service

## Cross Reference Entries

## Data Domain Catalogues

- Logical Data Component
- Physical Data Component

## Technology Domain Catalogues

- Data Centre / Environment
- Platform
- Technology Component
- Technology Service



# How We Deal With Security And Operations & Support Aspects

We also address the security and operations & support aspects of our architecture, in a similar manner to the four architecture domains.

Security is a property of the things in each domain rather than a physical thing in its own right. Devices, software, people, processes, locations etc. can be more or less secure. The security architecture does not therefore have a predefined set of elements but does have a defined set of elements and activities that we also define, manage and govern.

Information systems operations and support capability is an instance of the business capability of running and supporting the elements from the four architecture domains. It is therefore addressed through each of its constituent elements, people, processes, technology, data applications etc. We manage this as a formal element of our overall architecture

**Security**

**Operations & Support**

