

Many used relationships

Question: ArchiMate consists of a considerable number of concepts and relationships. The question of which relationship is used to model between two concepts is exactly defined in ArchiMate, but in day-to-day practice it can be hard to pick the right choice from the allowed possibilities. The question must focus on which relationships between concepts should be used in the most practical cases. In the section below we describe which relationships should be modeled for these cases. To prevent misunderstandings: in the list summarized below not all ArchiMate relationships between concepts are described, only those relationships that we considered the most often used. A complete overview of all possible relationships between different concepts can be found in the ArchiMate reference manual.

Solution: Below an overview of most used relationships between concepts is shown (especially from the business layer and application layer).

- Business service:
 - a business service is realized by a business process or a business function;
 - a business service is used by a business role;
 - a business service has access to a business object (a business service creates, reads, modifies or destroys a business object);
 - a business service can consist of other business services and can use other business services.

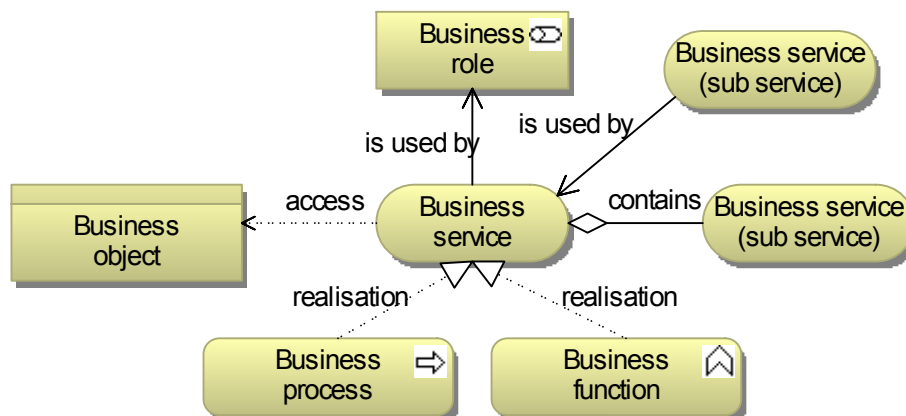


Figure : Most important relationships between concepts

- Business process:
 - a business process realizes a business service;
 - a business process exchanges data with other business processes (via the flow relationship);
 - a business process is triggered by or triggers a business event, a business function or other business processes;
 - a business process is assigned to a business role;
 - a business process is part of a business function;
 - a business process has access to a business object (a business process creates, reads, modifies or destroys a business object);
 - a business process uses application services.

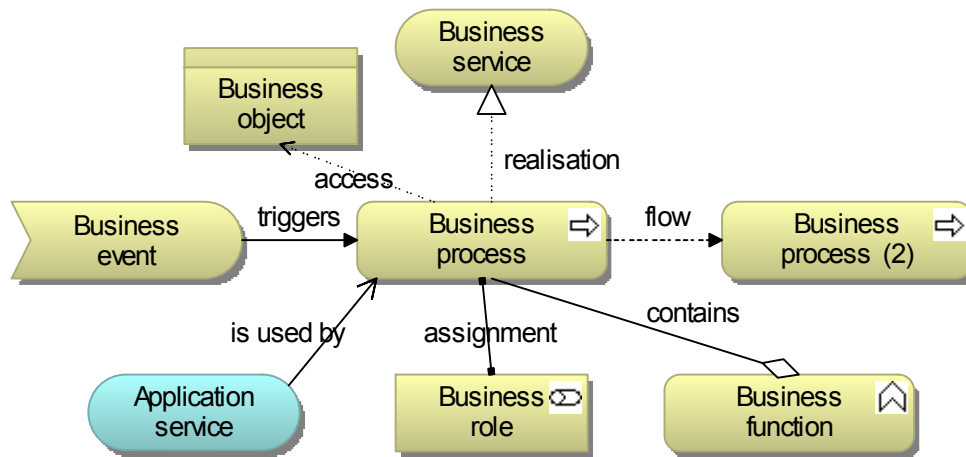


Figure : Most important relationships between concepts

- Business actor:
 - A business role can be assigned to a business actor.

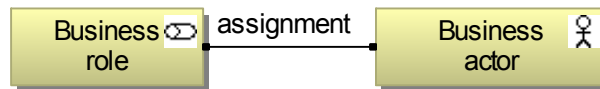


Figure : Relationship between business role and business actor

- Business role:
 - A business role can be assigned to a business actor;
 - A business role can be assigned to a business process, business function or business event;
 - A business role can use a business interface.

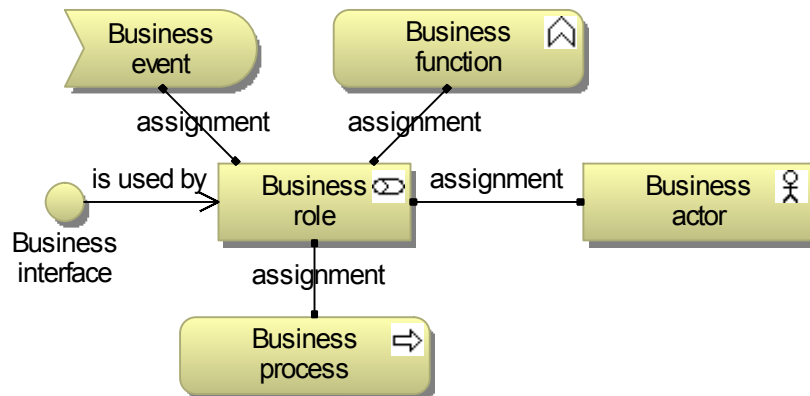


Figure : Most important relationships between concepts

- Business object:
 - A business object is created, read, modified or destroyed by a business process or business function (via access relationship);
 - A business object can have specializations;
 - A business representation realizes a business object;
 - A business object can point to other objects (aggregation relationship);
 - A business object can consist of other objects (composite relationship).

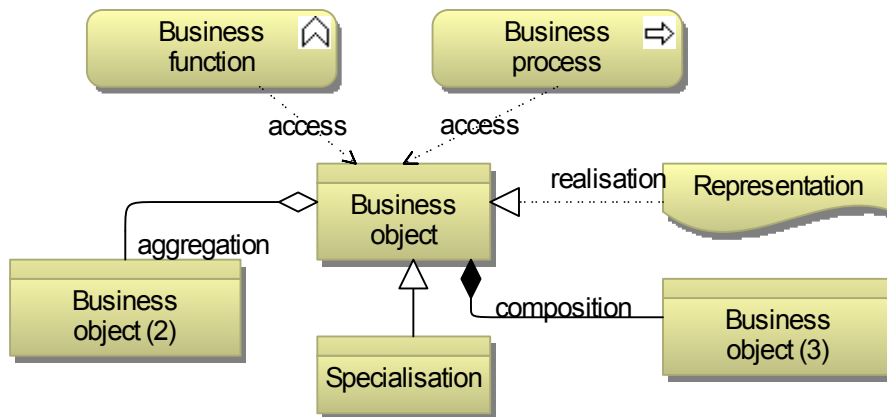


Figure : Most important relationships between concepts

- Business product:
 - A business product consists of services and contract(s);
 - A business product represents a value.

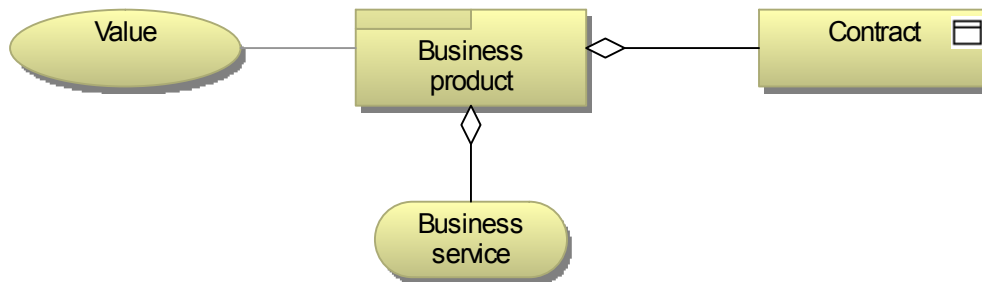


Figure : Most important relationships between concepts

- Application component:
 - An application component realizes an application service;
 - An application component has one or more application interfaces;
 - A data object is created, read, modified or destroyed by an application component or application function;
 - An application component can be part of an application collaboration (via aggregation relationship);
 - An application component can consist of multiple application components (via composite relationship);
 - An application component can be assigned to an application function;
 - An application component uses infrastructure services;
 - Data flows can exist between application components (flow relationship).

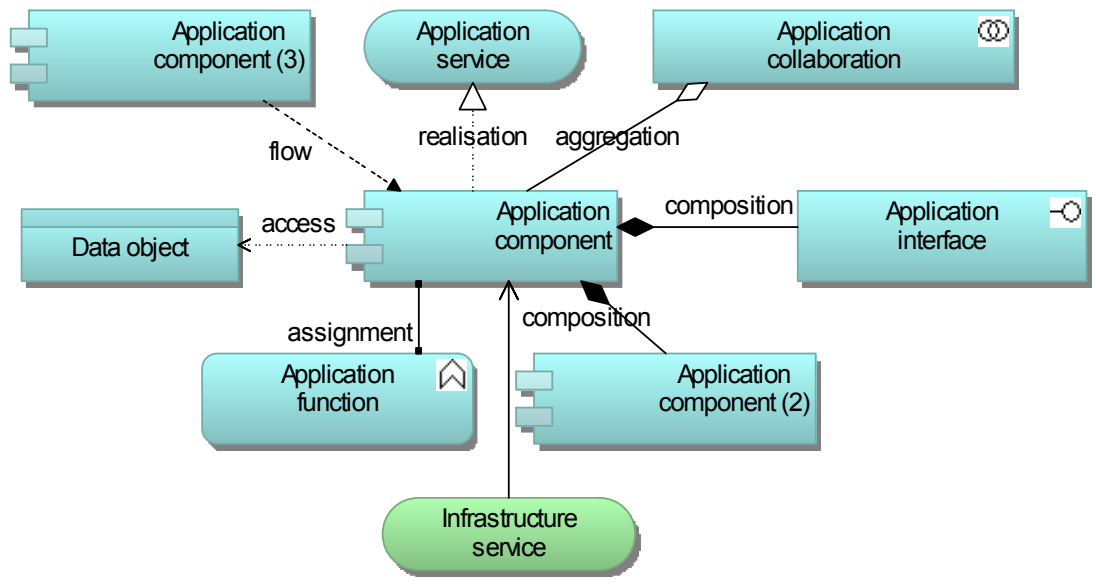


Figure : Most important relationships between concepts

- Application service:
 - an application service is realized by an application component or an application function;
 - an application service is used by an application component;
 - an application service has access to a data object (an application service creates, reads, modifies or destroys a data object);
 - an application service can consist of other application services and can use other application services.

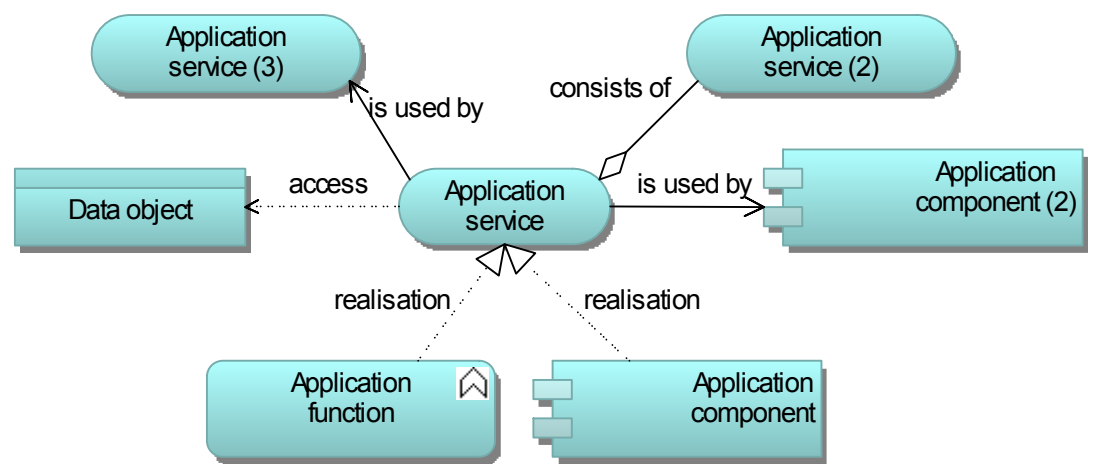


Figure: Most important relationships between concepts

- Data object:
 - A data object is created, read, modified or destroyed by an application component, application service or application function (via access relationship);
 - A data object can have specializations;
 - An artifact realizes a data object;
 - A data object can point to other data objects (aggregation relationship);
 - A data object can consist of other data objects (composite relationship).

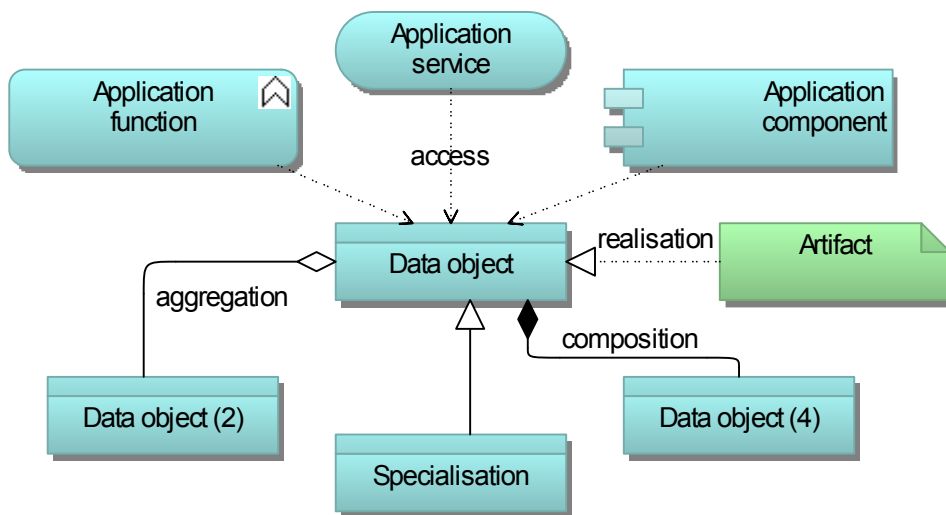


Figure : Most important relationships between concepts

Consequences: Beware; these are a number of frequently occurring situations where the use of relationships in ArchiMate is much broader than summarized above. A complete overview can be found in the Architecture Language Reference Manual.

Alternatives: Not applicable.

Relationships with other good practices: Not applicable.