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5 Design

5.1 Workflow

5.1.1 Purpose

The purpose of the design workflow is:

- To develop an information model from the conceptual class diagram in the Analysis workflow
- To develop a business service view that describes the business collaborations amongst networked components
- To develop class diagrams that describe the business messages exchanged (business actions and signals) in a business collaboration
- Integrate the information model into an inter-industry model
- Integrate business objects into the information model
- Select business service interaction patterns to describe each exchange

5.1.2 Design Methodology

The fundamental principle for the design workflow is to describe the business collaborations between networked components, the information model that describes the domain and the business documents, and the application of business service interaction design patterns.

5.1.3 Design workflow Use Case

The design workflow use case involves only the technical modeler as shown in Figure 5-1. This shows that the work effort is primarily technical, and is closer to the real implementation, despite still being in a protocol neutral environment.

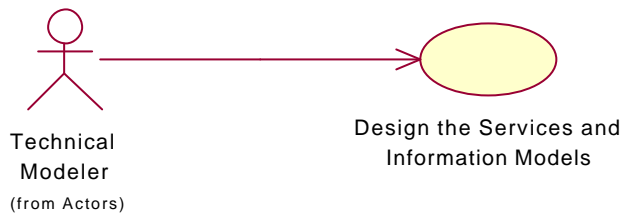


Figure 5-1 Design Workflow Use Case Diagram

5.1.4 UMM Framework: Design Workflow

Figure 5-2 highlights the methodology steps, and the artifacts created.

Workflow	Methodology	Pattern	Model Artifacts [UML]
Design	<ul style="list-style-type: none"> • Process Analysis • Collaboration Modelling • Message Sequencing • Information Modelling • Business Message Modelling (protocol neutral) 	<ul style="list-style-type: none"> • Business Service Interaction Patterns • Information Modelling Patterns 	BSV <ul style="list-style-type: none"> • Service Collaboration [Object Collaboration] • Network Component [Class Diagram] • Business Service [Class Diagram] • Service Transactions [Sequence Diagram] • Business Documents (detail) [Class Diagram]

Figure 5-2 Extract from the UMM Framework

5.2 Artifacts

The Business Service View is comprised of the following key modelling elements or artefacts.

BusinessService

A business service is a network component that responds to business transaction requests initiated by other services.

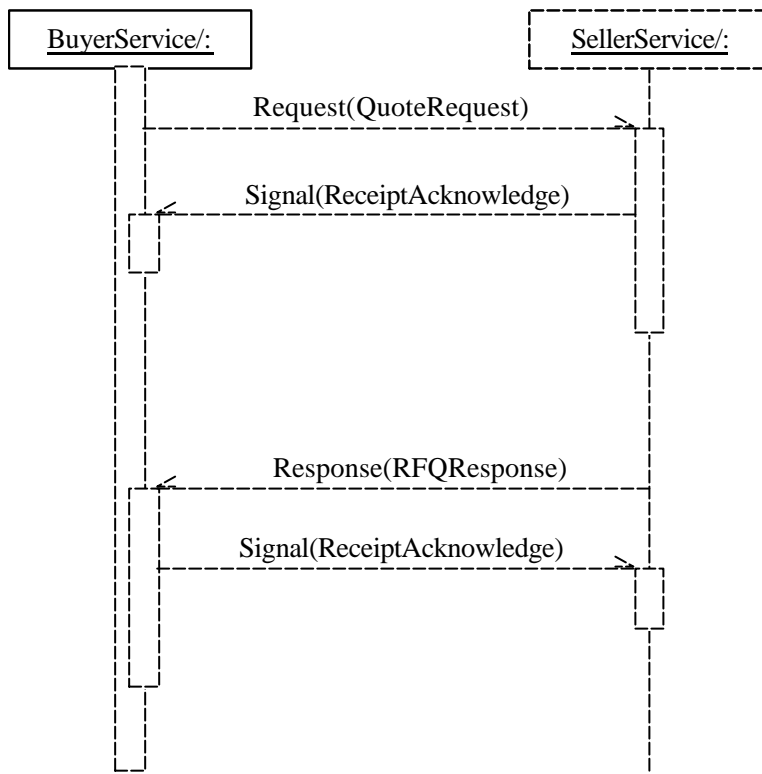
BusinessServiceComponent

A business service component is a logical computing component in a distributed network environment.

ServiceCollaboration

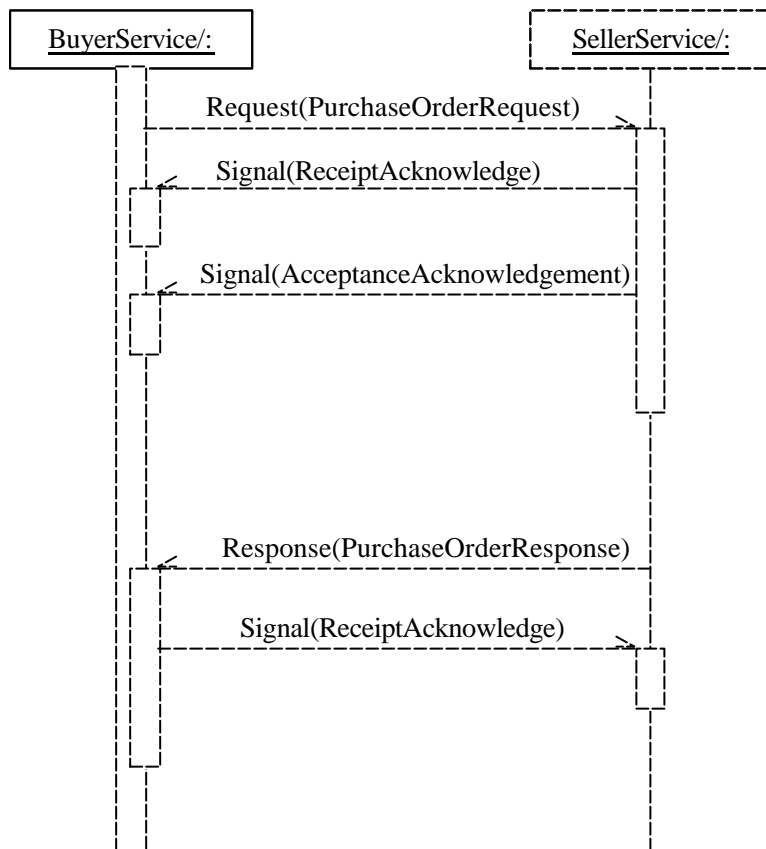
A ServiceCollaboration comprises a set of interactions (service request) between business service components, which comprises one business collaboration (from BTV).

1 **5.3 Example**



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3
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Figure 5-3 Obtain quote business service interaction design pattern



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Figure 5-4 Place order business service interaction design pattern