Practical Company Organization Modeling Guide

Author: Modeliosoft Consulting Team
Version: 1.0
Copyright: Modeliosoft

Modeliosoft

21 avenue Victor Hugo

75016 Paris

www.modeliosoft.com

Introduction to Practical Guides

This set of Practical Guides is the result of hands-on experience gained by Modeliosoft consultants. Each guide is designed to facilitate model construction and to help you get the most out of the Modelio tool in a given context. The practical guides are deliberately short, since the aim is to provide essential practical information in just a few pages. The Modeliosoft consulting team is at your service to help with enterprise architecture definition, business process and software architecture modeling, SOA, and to provide any other assistance you may need in your IT projects.

Modeliosoft is pleased to provide a consulting/tool package. Find out more at www.modeliosoft.com.

At www.modeliosoft.com, you can download the Modelio Free Edition tool, a user-friendly and unlimited tool for UML modeling and business modeling (Enterprise Architecture, BPM, SOA logical architecture and software architecture), completely free of charge.

At www.modeliosoft.com, you can also evaluate and purchase Modelio Enterprise Edition, and discover the full functional richness of this tool: teamwork support, goal analysis, dictionary definition, requirements analysis, code generation, documentation generation throughout the entire project lifecycle, and so on.

The Practical Guides currently available are as follows:

- Practical Use Case Guide

- Practical Business Process Guide

- Enterprise Architecture: Practical Guide to Logical Architecture

- Practical Company Organization Modeling Guide

Other practical guides will be available soon. Please check our website for details.

What is company organization modeling?

Building or developing a company's information system requires knowledge of its organization, definition of how the information will be implemented within the organization, and possibly information on how the organization will evolve.

In this context, the company organization model will be of great use to everyone. It will:

- clarify the position of the information system

- facilitate the positioning of information system definition and realization work

- help rationalize the organization

- help clearly define each participant's tasks

- help understand the business process implemented within the company

In a company organization model, the following elements are represented:

- *Organizational Units*

- *Roles* within the company, with their responsibilities and interactions

- *Business events*

- *Data flows* circulating within the organization, and the *Business processes* concerned

Figure 1 shows an example of the models that are built. As you can see, this diagram shows the roles that exist within a company, their responsibilities, their hierarchical links and their communication links.
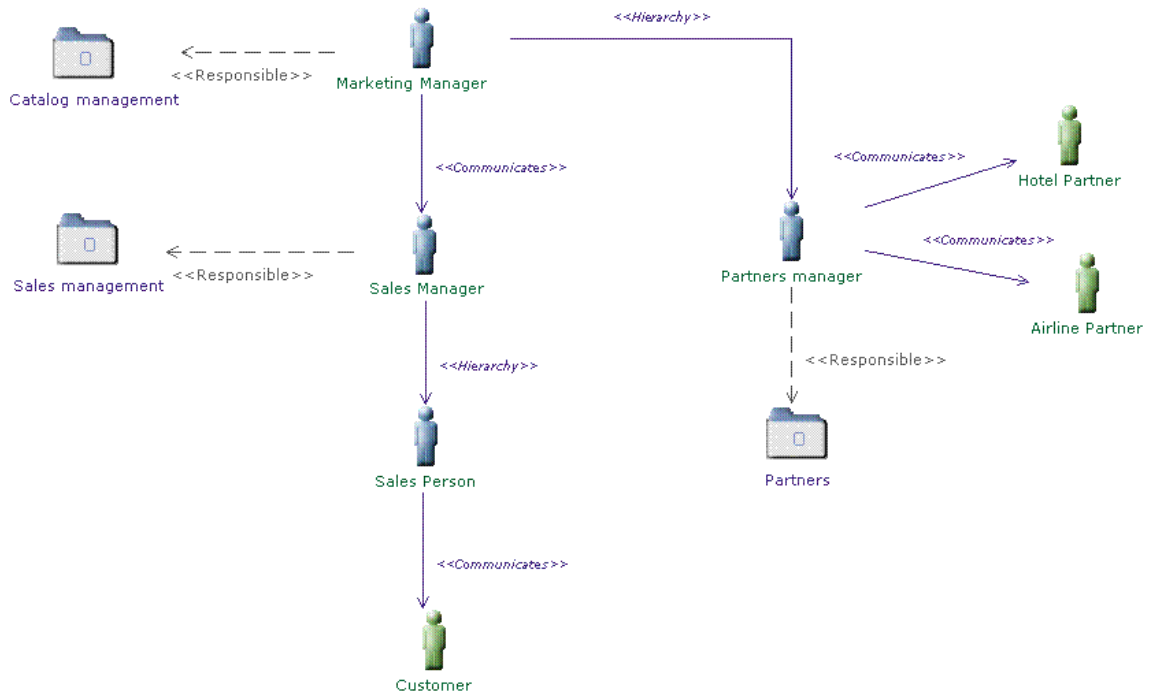

Figure 1 - Roles within a company

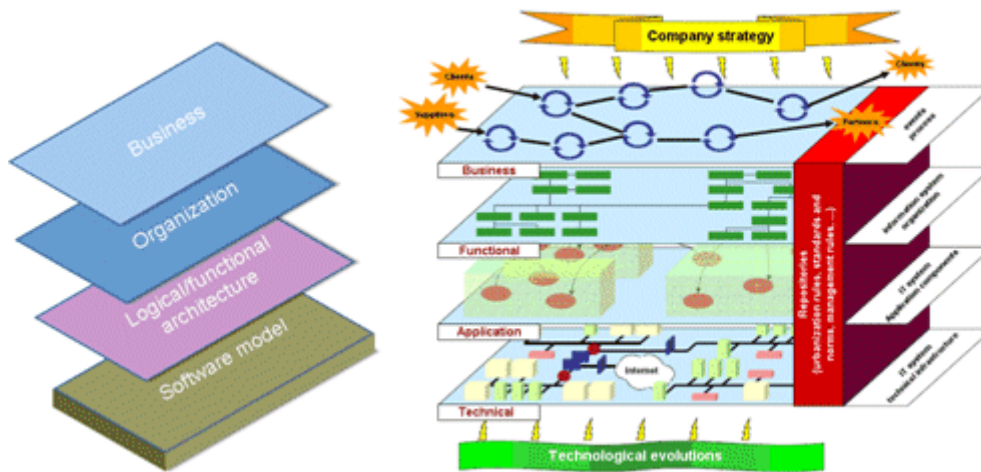# When and how to articulate a company organization model

Figure 2 - Modelio SOA views including views defined by CIGREF

Figure 2 provides the positioning of the organization model compared with other models of and work on an information system. This graphic corresponds to the traditional urbanization view (business, functional, IT layers), by separating the definition of the business from that of the organization, as in the Praxeme[1] approach.

> **Note:**   The technical layer is supported by Modelio deployment models.

Each of these models has a specific guide. The organization model is developed when you wish to understand, document, adapt or improve the organization of the company. Organization models are typically used to establish the link between the company and its information system, and constitute a solid framework for work to be carried out on the information system. They are traditionally built by company structures linked to the business, acting as the information system business owner.

We recommend that the business be represented independently from the company organization, its core dissociated from the history and geography of the organization and from all the company constraints. This is the role of the semantic business model (called semantic model in the open Praxeme approach).

The organization model determines how the company operates in order to carry out its business(es) according to a set of specific objectives.

The functional or logical architecture will then determine the information system components necessary to the functioning of the company.

---

[1] www.praxeme.org

And finally there are the software realization stages, where the IT services will implement the UML models centered on the information systems and its realization.

Best practices

Getting started with Modelio SOA Solution

Modelio SOA Solution is used to model the organization. In the explorer, click on the "Create Organization" button and the root of the organization model is created. For this element, the palette displays the organization elements that can be created.
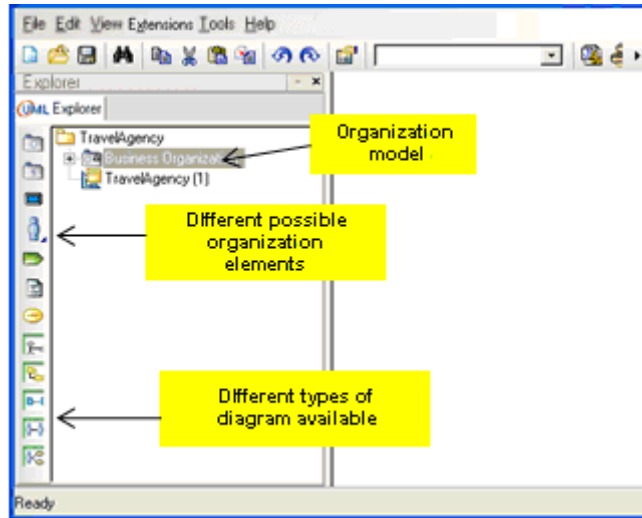

Figure 3 – Starting the organization model with Modelio SOA Solution

Essential elements for modeling the organization

The following table shows the essential elements used to model an organization. Processes, which are key elements in the organization, are broken down into process diagrams using BPMN notation.

Icon	Name	Definition
	Organization unit	An organization unit structures the company. It has a manager (actor), and structures actors, business processes and other organization elements. For example, a service in a company is represented by an organization unit. An organization unit can also represent a "functional domain", useful for structuring but not representative of a service.
	Actor	Role within the company. An actor has specific responsibilities and participates in business processes. An actor does not designate a person: several people can play this role, in the same way as one person can play several roles. External actors (who do not belong to the organization, but who interact with it) are distinguished from internal actors. An actor does not have to be a human being, and can be any active element participating in a process (a machine, for example).
	Business process	Sequence of actions carried out by different actors collaborating to deliver a tangible result and an added business value to the company. The process appears in general overviews and will be broken down into tasks, lanes and pools using BPMN formalism (see the Practical Business Process Guide).
	Business event	Initiates a business process. It can be emitted by a business process to signify that a condition has been met or a notable state reached.
	Business flow	Information emitted and/or received by the active entities of the company.
	Use case	A use case represents an interaction between actors and the system, in the aim of meeting a fundamental need. It is described by a set of scenarios, which specify the dialog between the system and the actors (see the Practical Use Case Guide).

Positioning objectives

A company addresses one or several businesses according to its objectives. Objectives justify the organization and provide indicators (KPI – Key Performance Indicators), which are notably of interest to business processes.

So ideally, company objective analysis should precede the modeling of the actual organization. The Modelio Scope Manager tool is used to model the organization's objectives and aims, and to trace them to the rest of the model.
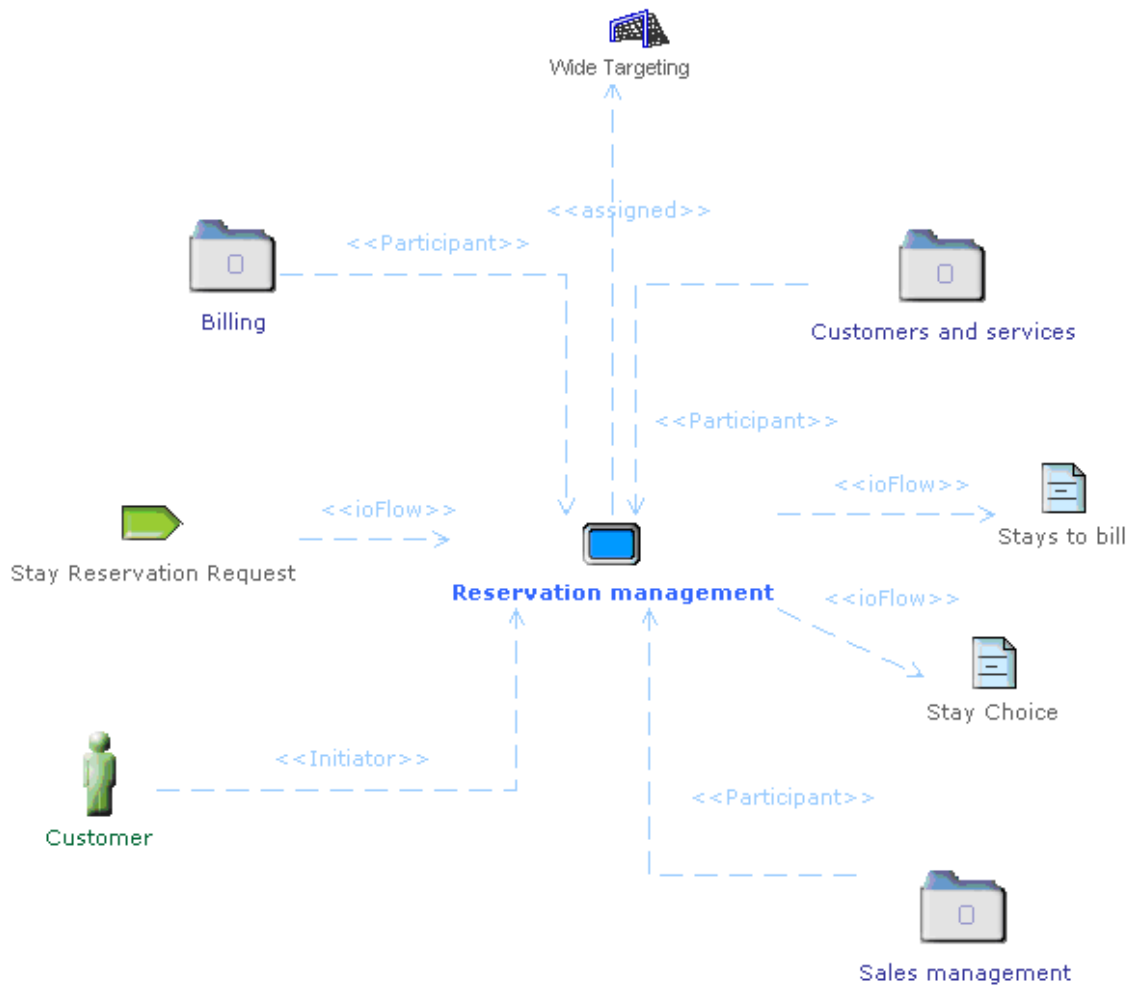

Figure 4 – The "Wide Targeting" objective is assigned to the "Reservation Management" process

Defining the company's organization (external view)

An *external view* of the organization can be previously defined. This view focuses on actors external to the company but who interact with it, typically clients, partners and so on. In terms of missions, the following fundamental questions come up:

- What are the services that the company should provide to the external actors?

- Who are the appropriate partners/suppliers?

The products made by the company are destined for its clients/consumers/administrators, and the company depends on its partners and clients to carry out its missions.

These external actors solicit the company through business events. They are identified alongside company missions. These events will be the entry point for the company's business process.
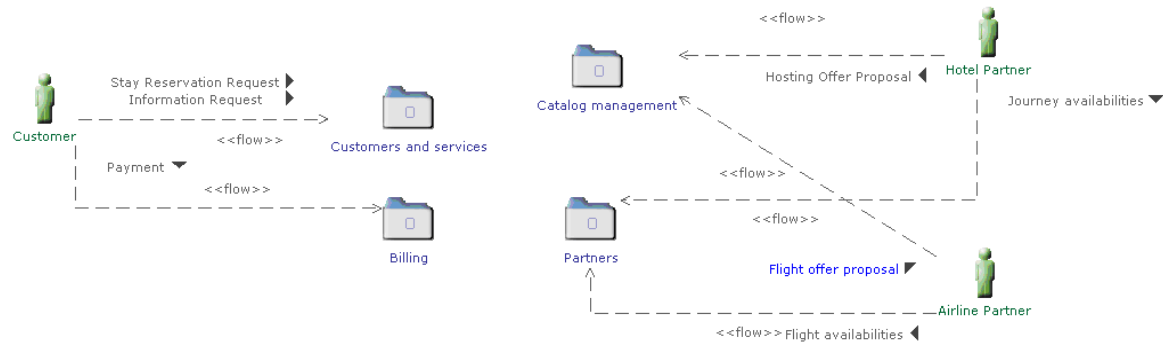

Figure 5 – Example of an external view

The external view can already break down the company into organization units, to distinguish the entities that are responsible for processing certain business events, and to highlight business events that are internal to the company.
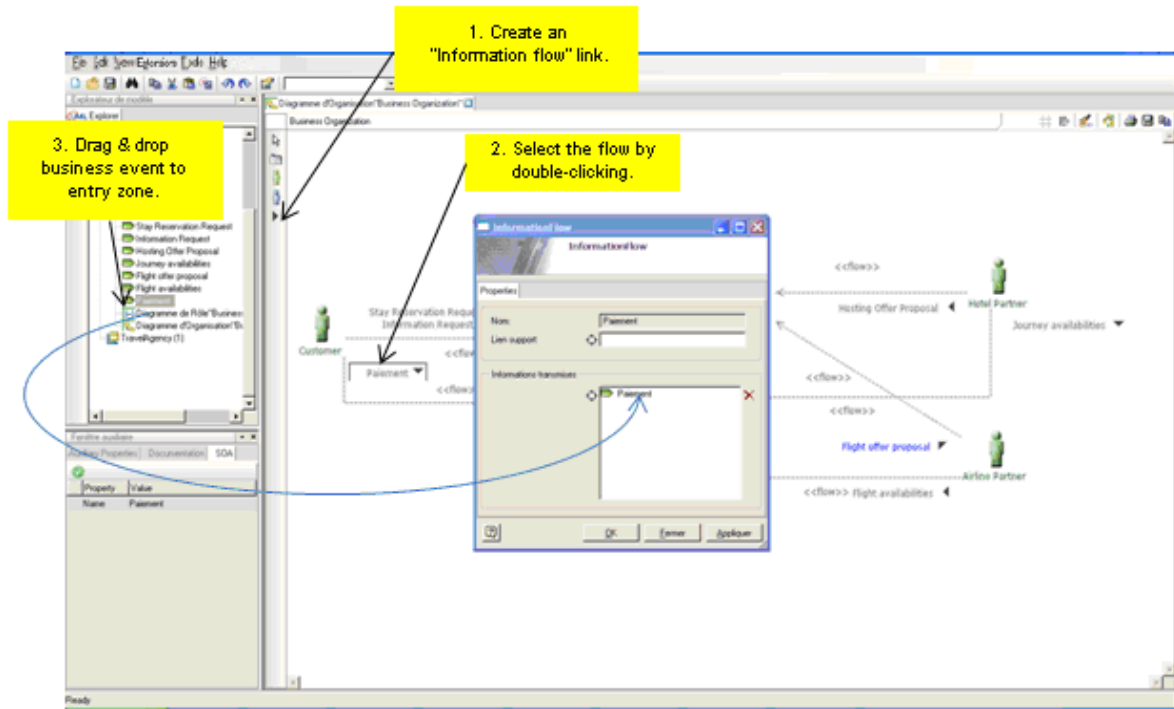
Figure 6 – Creating a flow associated with a business event

The external view enables you to continue with the breakdown by showing the structuring of the company. Organization units which interact with external actors are shown, as well as external actors themselves and business event flows. This constitutes a first representation, which will subsequently be enriched to show the complete organization. There is no particular order in which the different types of elements should be identified. They are generally know, and the main task is to structure them and give them their most general definition.

Actors and Organization Units are the easiest elements to identify. External actors (such as the inevitable *Client*) are presented opposite the internal roles of the company, and communication links and hierarchical relationships are highlighted. The responsibilities of roles with regard to organization units can also be defined. Role diagrams formalize these links, and organization diagrams present the structure of the company and its responsibilities. These diagrams enable you to get your first idea of the level of completeness and consistency.

Identifying business processes

To identify business processes, the following question must be answered: what are the fundamental processes necessary to the company's missions? The processes that deal with previously identified business events must also be identified, and the two techniques combined. Processes are then described in terms of the activities carried out by the company's actors (internal), or by external third parties, or, for example, by organization units. *Client processes*, which bring added value directly noticeable by clients, are identified, as are *support processes*, which are necessary to client processes but which do not directly bring a noticeable added value (for example, bill), and *internal processes*, which are not seen by clients but which are necessary to the company (for example, do a stock take). See the Practical Business Process Guide for more details.

The identification of business processes consolidates the identification of actors (who participate in these processes), and enables the identification of business events and a part of business flows (consumed and produced by business processes).

Some people implement use cases at this point, either as an alternative or in addition to process modeling. We do not recommend their use at this stage (see the Practical Use Case Guide).

The aim is to try to structure elements as much as possible through organization units. However, business processes are often transversal, and roles can participate in several organization units. When an element is not transversal to the entire company, an organization unit will be defined.

The different view that represent the elements created in different types of diagram are used to consolidate the model, and to document it at different levels (overview and detailed view). The overview of business processes provides a global view of the way in which they are connected.
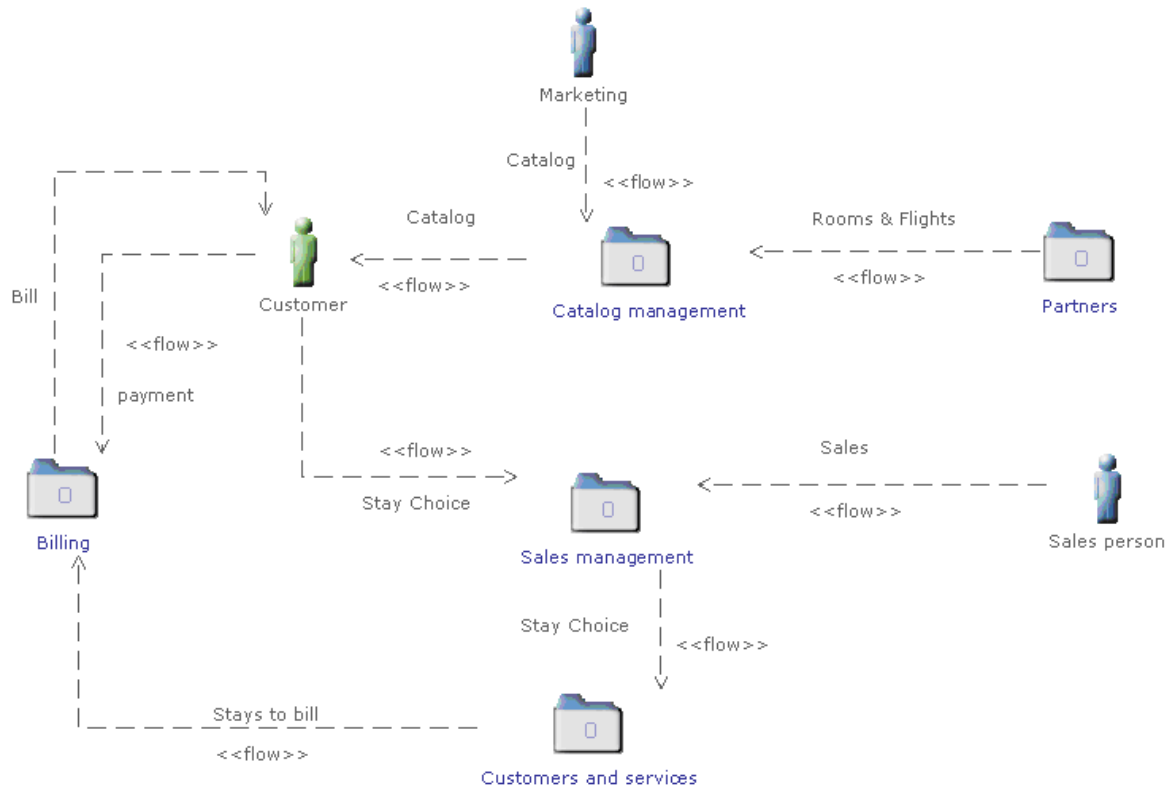
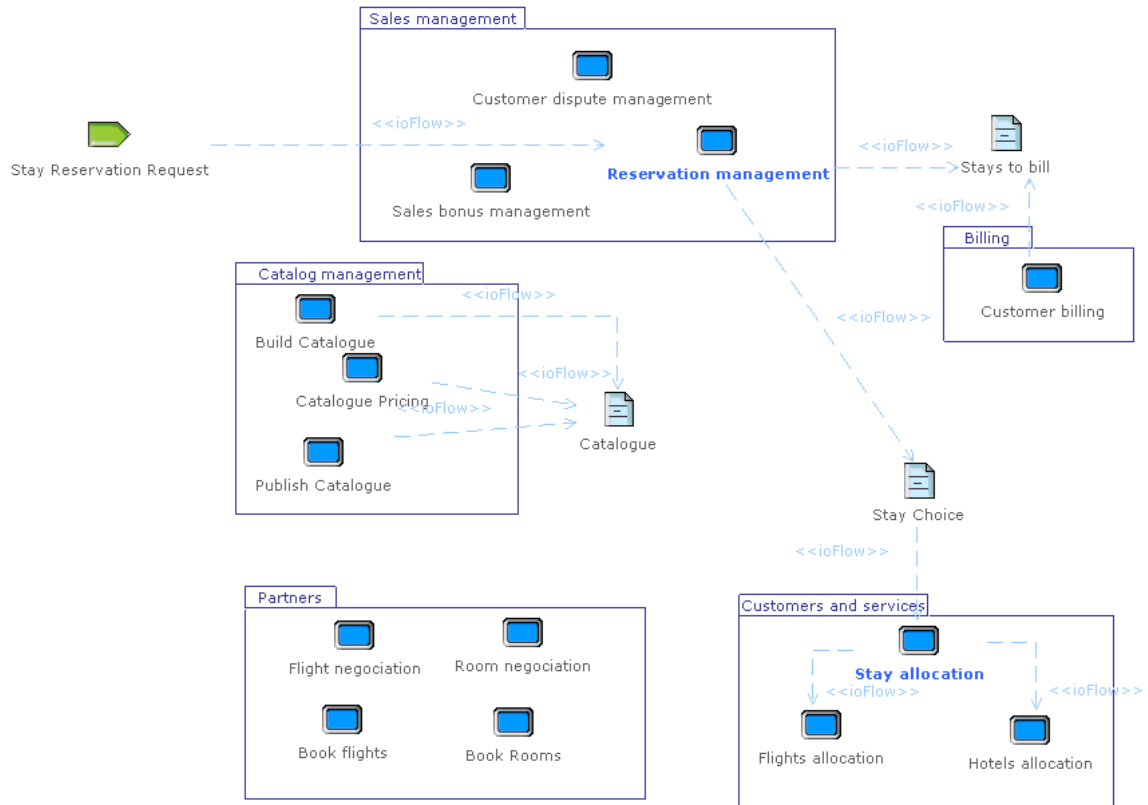*Figure 7 – Flow diagram, illustrating communication between the company's actors and organization units*

Figure 8 – Overview of the company's business processes

So the definition of business processes is well situated. We know the objectives they meet, their position within the organization, and the trigger business events, exchanged flows, roles and organization units that participate in a process. The Practical Business Process Guide goes even further, enabling business processes to be broken down when establishing their BPMN model.

Geographical view – deploying the organization

The model will be even more explicit and understandable if its geographical deployment is defined.

For this model, the model root must be selected in the explorer and a business deployment or business implementation model created.

Icon	Name	Definition
	Site	Geographical location of a part of the company's activities. The site hosts organization units and IT material.
	Headquarters	Central site. All other company sites are positioned with regard to this central site.
	Instance	Used to deploy an occurrence of an organization unit in a site (graphically create the instance in the site, use the site to type the instance).

The model is then built simply by creating the headquarters and the sites, and by linking them through associations representing the essential communication channels. Organization units are then divided over the sites by creating instances typed by these units (see Figure 9). In this way, a single organization unit can be deployed several times in different sites.
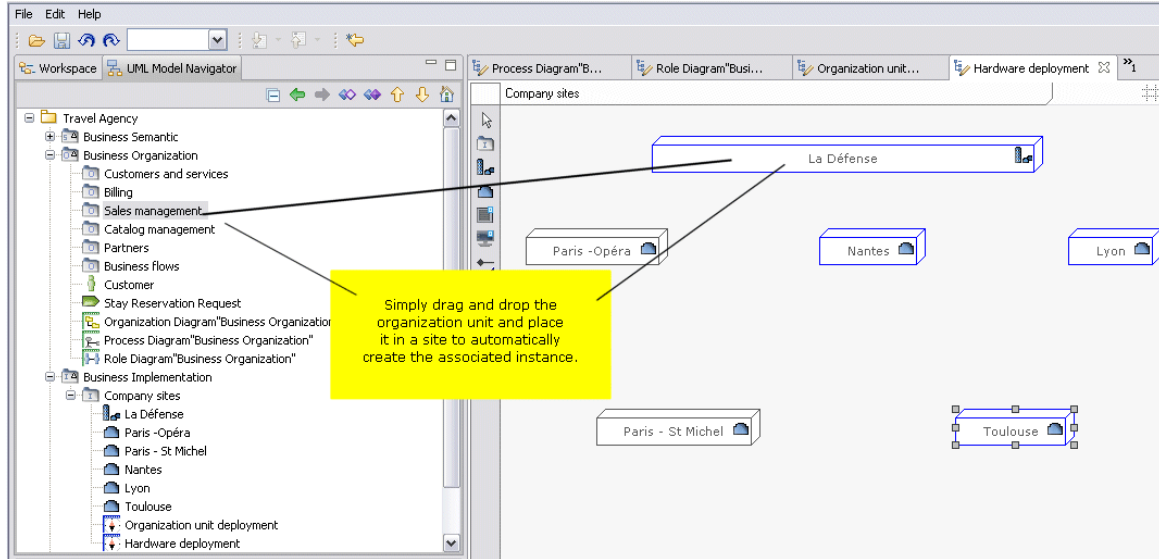

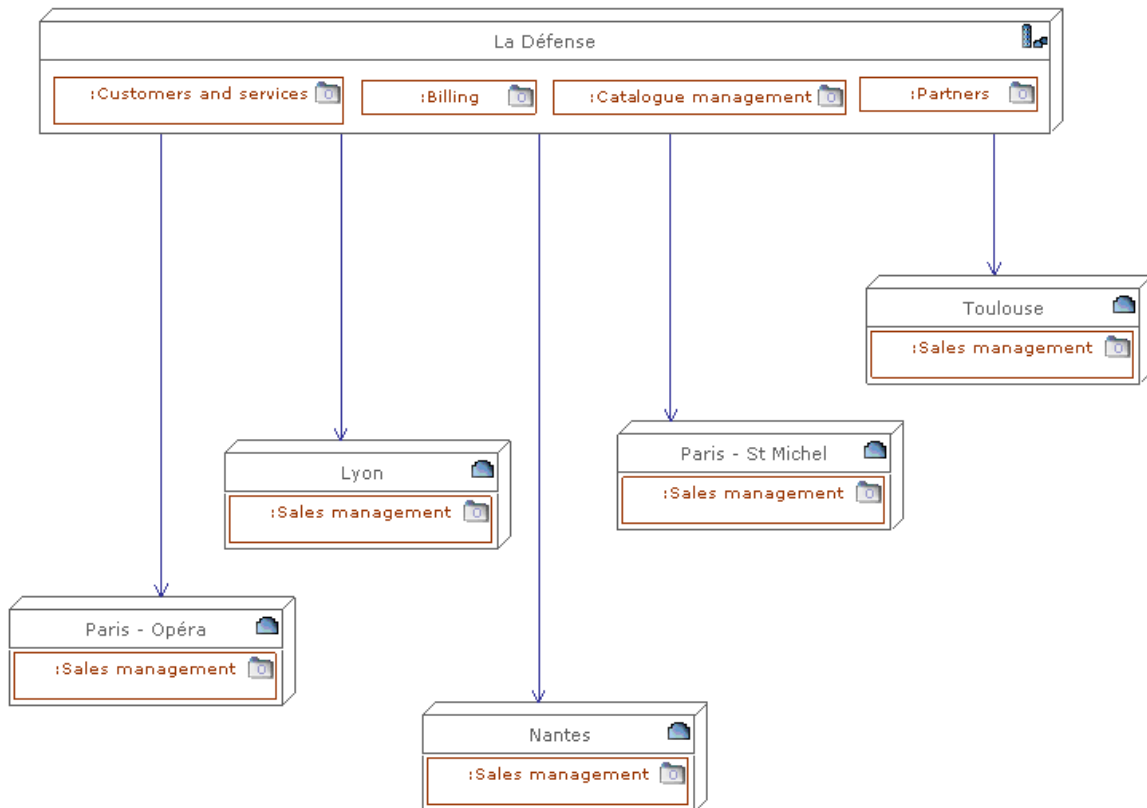*Figure 9 – Creating an occurrence of an organization unit in a site*

Figure 10 - Example of an organization's geographical implantation

References

- Praxeme: www.praxeme.org – Praxeme open methodology. See also the Togaf, Modaf, Dodaf approaches.

- CIGREF: Increasing information system agility - Urbanism: from concepts to projects, CIGREF white paper, September 2003.

- URBA-SI: www.urba-ea.org – site dedicated to information system urbanization.

- Rummler Brache: Mapping is NOT Methodology (2004)

- Rummler Brache: Business Process Management in US Firms today (2004)

- OSM – Organization Structure Metamodel; OMG standard – work in progress. www.omg.org