

# 6

## Conclusions and perspectives

In this thesis, we proposed the concept and design of an event management and composition framework. The framework adapts to different application requirements, in particular regarding the handling of composite events and event management.

### 6.1 Results

The concept and design of the event management and composition framework is the central contribution of this work. The general architecture for such a framework was presented with the components for event management and composition that it implements. The framework was defined around flexible and general models. The design of the models uncouples the event modeling from the event management aspects.

We addressed the identified framework requirements by providing flexible support for the event composition, for different event observation methods, and for event filtering.

Therefore, the proposed framework is well suited for building adaptive systems. It provides adaptability and expressiveness to event-based systems allowing the personalization of event types, composition operators and the composition algorithm. The proposed framework was validated with a specific system, the facility management system.

An important result of this work is the analysis and review of the event models and event-based services and the identification of requirements for the event management and composition framework.

## 6.2 Perspectives

The work will be following in order to explore the event mining approaches for the event composition. A future objective is that the framework will be tested in adaptive systems, with big event frequencies and complex subscriptions.

Another perspective is to consider special characteristics of large-scale distributed systems that impact the event management such as the global and local time problem.