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A Communication Protocol for Distributed Process Management

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Problem

- coordination and cooperation of several sites with a large number of people and sub processes in software development
- How to manage the site autonomy?
The main open problem remains the systematic definition of distributed process models and their enactment across multiple sites using appropriate abstractions and mechanisms.



GENESIS architecture for distributed process management

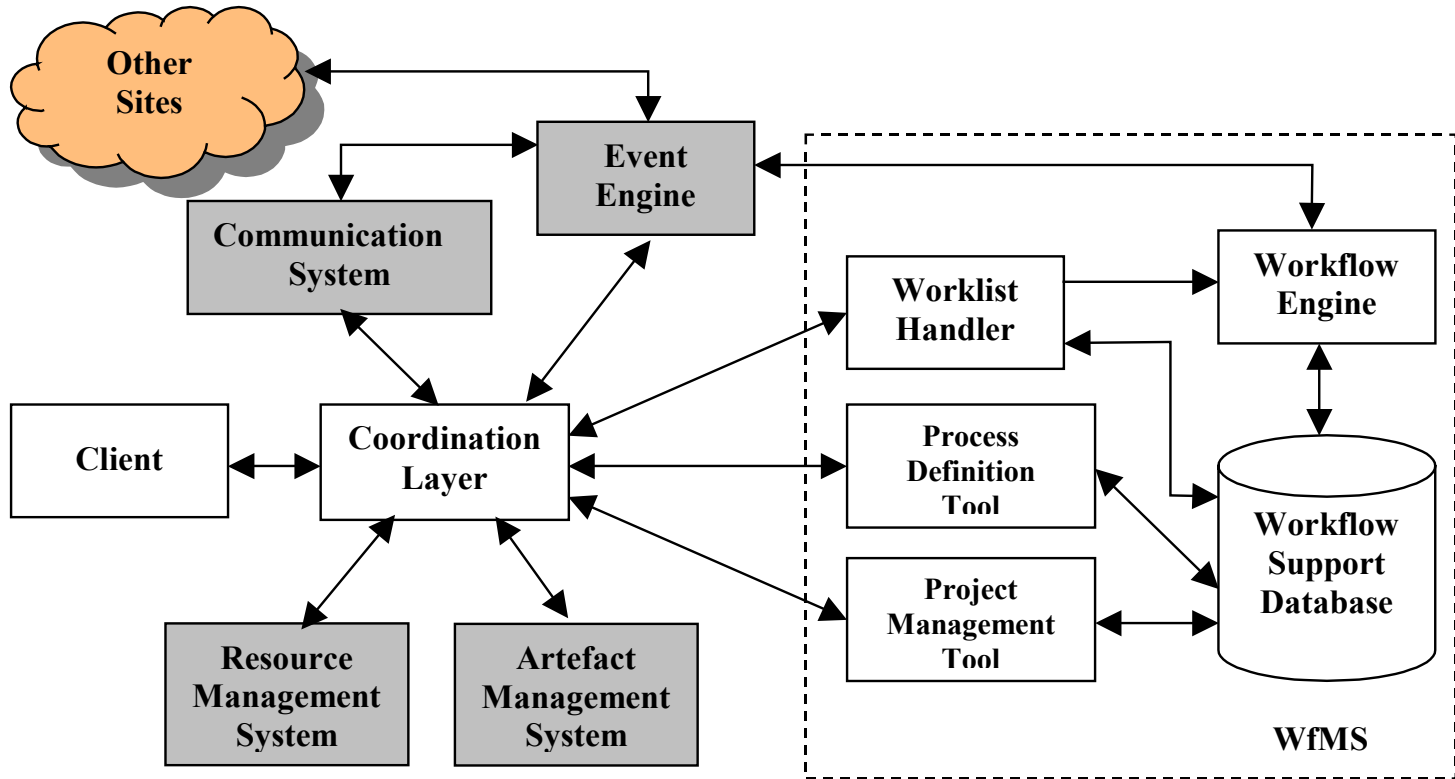
Distributed projects in GENESIS are organized in a hierarchical way. A two level project will include:

- a project coordinator site, and
- a number of local sites.

The coordinator is in charge of modelling and executing the global process, while the local sites are in charge of modelling and executing the sub-processes.



GENESIS architecture for distributed process management





Distributed process modeling

an asynchronous protocol has been defined for the communication between the global coordinator level and the local coordinated sites during the instantiation of a distributed software project.

three main phases:

- the creation of the project on both the coordinator site and the local sites, where the resource managers associate people to the project and select the project managers;
- the definition of the global process involving project managers of the different sites; and
- the definition of the local processes, independently defined by the different local project managers.