

Research Interests

Contributed by Clement
Thursday, 21 December 2006
Last Updated Saturday, 28 April 2007

My research interests turn around the following topics :

- Service Oriented Computing / Service Oriented Architecture
- Dynamic Service Platform
- Autonomic Management / Autonomic Computing

- Dynamic Adaptation Service Oriented Computing / Service Oriented Architecture Service Oriented Computing (SOC) is a programming paradigm where Services are the primary blocks. A service is a functionality described by a specification / description. The SOC is based on three actors :

- Service Provider : publishing and providing services
- Service Consumer : requiring services

- Service Broker : containing reference on available services The service consumers look inside the service broker they need a service. This allows the separate evolution of the different providers and consumers. The only information shared between actors is the service specification. Dynamic Service Platforms Dynamic service platforms, like OSGi, are framework allowing the deployment and execution of service based applications. By using the SOC paradigm, dynamic service platform creates a dynamic environment where service providers and consumers can appear and disappear dynamically.

Autonomic Computing Autonomic Computing aims to ease the management of complex administration by allowing "reflexe-actions". By plugging an autonomic manager to an application, this application can optimize, heal, configure ... itself. Dynamic Adaptation Dynamic Adaption is the ability to adapt an application to the runtime according to its execution context. Moreover, it allow the desynchronized evolution of the different piece of an application. By adding dynamic adaptation ability to an application, autonomic computing and service oriented computing could be coupled. It is the main objective of my research.