
Semantic Composition of RESTful services

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Résumé

Nowadays, resource-oriented computing allows us to use the Web as a distributed application platform. RESTful services offer better scalability and lower costs for application development and operation, in particular through their ability to offer a uniform interface and to support stateless interaction and cache management. However, resource-oriented computing does not meet all the requirements that would allow to automate the deployment of applications on top of available resources. Such requirements have especially been identified in the service computing community that has brought to light the need for abstraction, reuse, discoverability, composability, and encapsulation. Combining service-oriented architectural patterns with semantic annotations has allowed to automate at least partially the discovery and composition tasks for typical Web services. However, when it comes to RESTful services, these tasks have barely been explored. In this tutorial, we will show the interest of semantically annotated RESTful services to develop Web-based applications based on a smart building scenario with a focus on the HATEOAS principle.

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