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▶ To cite this version:

Clément Quinton, Daniel Romero, Laurence Duchien. SALOON, a Platform for Selecting and Configuring Cloud Environments. EIT ICT Labs Future Cloud Symposium, Jun 2014, Rennes, France. hal-01011039

HAL Id: hal-01011039 https://inria.hal.science/hal-01011039

Submitted on 22 Jun 2014

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SALOON, a Platform for Selecting and **Configuring Cloud Environments**

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Context

Cloud computing has recently emerged as a major trend in distributed computing. This layered model enables the configuration of many computing resources that can be provisioned to support the deployment of applications, provided as Software-as-a-Service (SaaS). Many cloud providers, either at Infrastructure (IaaS) or Platform (PaaS) level, propose different services and pricing models.

Application SaaS **Application Server** Libraries, Database **PaaS** Operating System **IaaS** Infrastructure

Problem Statement

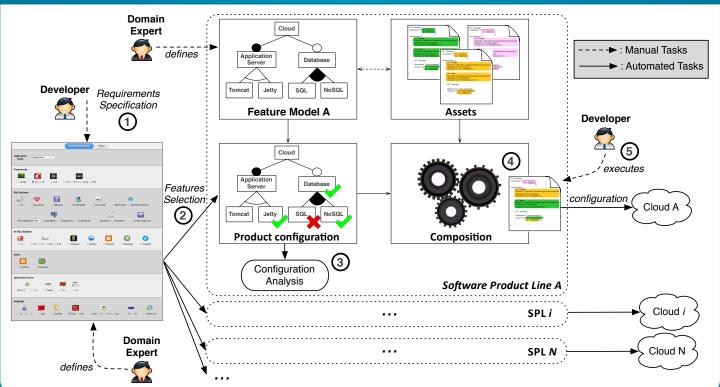
- Which cloud environment... Iaas, PaaS
- ... based on which criteria? Price, performance, reliability...
- How to configure? $manually \Rightarrow error-prone$



Challenges

- C_{i} : find an environment providing all functionalities required by the application to run properly and that is suitable regarding nonfunctional requirements for these functionalities.
- C_2 : find a correct configuration of this environment regarding the set of functionalities provided according to C_{i} .
- $C_{\rm s}$: ensure a reliable way to configure the cloud environment.





Perspectives

- Evolution of the platform
- Dynamic Software Product Lines
- Multi-Cloud deployment

References

Automated Selection and Configuration of Cloud Environments Using Software Product Lines Principles. Clément Quinton, Daniel Romero and Laurence Duchien. In Proceedings of the 7th IEEE International Conference on Cloud Computing, CLOUD'14. Anchorage, USA. Acceptance rate: 20%

Acknowledgments: this work is partially supported by the EU FP7 PaaSage project PAA





