

UBIVERTEX - Letter of Intention

Institute/Company

Name: INRIA / Ecole Normale Supérieure de Lyon

Country: France

Activity domain:

Number of employees: ☐ <50 ☒ <250 ☐ > 500

Name of the department/research team: LIP / Avalon

Scientific contact

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Challenge descriptions:

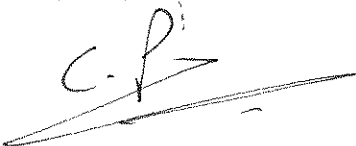
Resource management is a important issue for future virtualized architectures. The Avalon team is working on hot topics such as

- Elastic resource provisioning that will require new scheduling algorithms,
- Data management issues, which is one of the most important issues of incoming applications as the amount of data is rising a lot.
- Energy management issues, that will require algorithm and middleware to combine platform and user objectives.
- Middleware deployment, in particular with respect to elastic resource.
- Virtualization and large scale distributed computing infrastructure (DCI), in particular to study how virtualization techniques can scale – currently large virtualized systems are just a few hundreds of nodes for an application even though the system has ten of thousands of nodes.
- Programming models, and workflows, so as to abstract applications from the specificities and the low level detail of elastic environment.
- Isolation, in particular with respect to performances and the enforcement of non-interference.

Type of commitment (internship, Phd grant, engineering staff): permanent people, Phd students, engineers

Number of persons involved in these challenges: 18

Signature of
Scientific Contact:



Date: 2011, September 8th

Signature of the
Legal Representative:
Head of Avalon Team



Date: 2011, September 8th