

UBIVERTEX - Letter of Intention

Name: IT and Media Center/SC TU Dortmund University

Country: Germany

Activity domain: Research on SLAs

Number of employees: <50 <250 > 500

Name of the department/research team: Service Computing Chair

Scientific contact

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Challenge descriptions:

The Service Computing Group is exploring computational challenges in large-scale distributed computing which includes Cloud and Grid computing scenarios. The specific field of interest is reliable and efficient scheduling and resource management of dynamic workload in such computing environments.

The UBIVERTEX project will provide a rich and sophisticated computing platform that facilitates research in the area of virtualization and remote management. Especially, the ability to have access to the physical aspects will foster our research interests in deploying large scale applications in an efficient and seamless way for the end-user.

The group in Dortmund is currently active in supporting SLA/QoS features for cloud systems and working on the interoperability of different infrastructure back-ends. This has already been executed in the EC projects like SLA@SOI, or in national projects like SLA4D-Grid. We contributed to the new standards like OCCI and CDMI. We would like to explore these options on UBIVERTEX to support HPC computing facilities like clusters on demand through virtual systems. Optimization goals are end-user metrics like response time or QoS, and provider optimization goals like resource utilization, power consumption.

Type of commitment (internship, Phd grant, engineering staff):

We would like to deploy 1-3 PhD students on the above mentioned research topics. We would be willing to send students to other UBIVERTEX partners as well hosting research at our site.

Number of persons involved in these challenges: 3

Signature of Responsible Representative:

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Date: 09. September 2011