

UBIVERTEX - Letter of Intention

Institute/Company

Name: LORIA – UMR 7503

Country: France

Activity domain: Research

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

Name of the department/research team: AlGorille team

Scientific contact

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Challenge description:

Performing experiments on virtualized infrastructures raises important challenges, especially when combining several levels of virtualization (network, hardware) and complex software infrastructure such as cloud middlewares. The UBIVERTEX project will enable key scientific advances in the fields of methodology and tools for experimentation.

The UBIVERTEX testbed will be used to design and evaluate software to support top-quality experimental methodologies. We will work on building the common tools required by most experiments in order to interact with the testbed, control nodes, manage data, emulate experimental conditions, inject load and faults, monitor the experiment, extract results, etc. We will also work on more high-level tools to organize and orchestrate the experiments by combining and automatizing the various steps. By pushing the limits of what is achievable on the experimental level, this work will allow researchers to perform both better and easier experiments.

Additionally, the UBIVERTEX testbed will also be used by the recently accepted ANR SONGS project (INFRA program), which will extend the SimGrid simulator to other fields such as HPC, Cloud, P2P in addition to Grids. UBIVERTEX will be used (1) to collect data and build better platform models; (2) to perform experiments that aim at validating the simulator; (3) to design a campaign management tool that enable researchers to benefit from the computational power of Cloud platforms to run their simulations.

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

2 internships, 1 PhD grant, 2 engineers

Number of persons involved in these challenges: 5

Signature of
Scientific Contact:



Date:

9/9/2011

Signature of the
Legal Representative:

La Directrice du LORIA

Date:

Françoise SIMONOT

9/9/2011