

UBIVERTEX - Letter of Intention

Institute/Company University of Chicago/Argonne National Lab

Name: Kate Keahey

Country: USA

Activity domain: computer science

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

Name of the department/research team: Nimbus

Scientific contact

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Challenge descriptions:

I am a co-PI and the Grid'5000 liason of the NSF-funded FutureGrid project. The FutureGrid project (modeled largely on the Grid'5000 project) is developing technologies and methods to support Computer Science. The FutureGrid infrastructure consists of resources of ~6000 cores distributed in the United States in Indiana University, University of Chicago, Texas Advanced Computing Center (TACC), University of Florida, University of California San Diego and smaller investments scattered among several other institutions. In addition, the FutureGrid project comprises a software development thrust to provide middleware supporting experimentation. Many of FutureGrid resources have been configured as infrastructure clouds to support experimentation with this new paradigm; my team (Nimbus) leads this effort via contributions to infrastructure and infrastructure platform technologies.

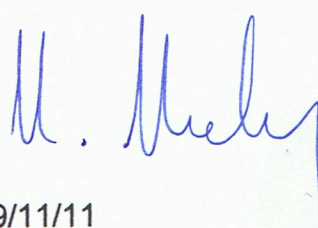
We are currently collaborating with Grid'5000 on individual project and are also in the process of developing a reciprocal account exchange agreement that will allow researchers from both countries (France and USA) to share both resources and technologies on a widely distributed experimental testbed. We hope to continue this collaboration with the UBIVERTEX project. The focus on cloud computing is very timely in consistent with our efforts as our investigations to date show that it effectively **supports** many experimental

patterns. A large scale experiment between our two platforms was already set up by Pierre Riteau from INRIA. Connecting Grid'5000 and FutureGrid using Nimbus to get one of the first "sky computing" platform was a great success story for our two projects. Other large scale experiments are planned around Cloud computing research issues. We are also in the process of organizing a joint workshop to support.

I would like to express hereby the strongest support for the UBIVERTEX project as a continuation of these efforts; we look forward to future collaboration with its team.

Type of commitment (internship, Phd grant, engineering staff): students and researchers using the infrastructure

Number of persons involved in these challenges: initially 10s, potentially more

Signature of Scientific Contact:		Signature of the Legal Representative:	
Date:	09/11/11	Date:	