

## Keeping an eye on flash floods: the Grid and Cyclops

## Vienna, Austria, 22 April 2009

At this week's European Geosciences Union General Assembly in Vienna, Austria, researchers using grid technology will present their work to reduce the hazards of flash floods.

After the extreme European floods of 2002, which heavily affected southern France, the French government reformed and consolidated their flood warning systems. Now the European project CYber-Infrastructure for CiviL protection Operative ProcedureS (CYCLOPS) is using the Enabling Grids for E-sciencE (EGEE) Grid infrastructure to model flooding to help forecasters and authorities make decisions in emergency situations.

The framework provided by CYCLOPS has been used to create a grid powered flood forecasting platform called G-ALHTAIR. By combining data of many types and sources, the software allows researchers to examine possible future flooding. Instead of running each scenario separately on their own personal computer they can use the resources provided by the Grid to examine up to 500 different hydrological situations simultaneously and examine the effect of various conditions on the potential flooding.

Currently the work is focussing on the Grand Delta region, the area around the Rhone in Southern France. However Vincent Thierion from CYCLOPS, who is presenting the work as well as running a demonstration of G-ALHTAIR on the EGEE booth at the conference, is confident that the technology could be used for any area under threat from flooding.

"We hope that before the end of 2009, this platform could be tested in operational situations in the Grand Delta flood forecasting service and then extended to the other French flood forecasting service managing other kinds of flooding, like plain floods," says Thierion. "It would then be possible to integrate more sophisticated meteorological forecasting and get the system included into a fully integrated decision making architecture."

A short video of Thierion explaining his work can be seen at: http://gridtalk-project.blogspot.com/2009/03/cyclops-hydrology-app-fights-flash.html

## **Notes for Editors**

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The Enabling Grids for E-science (EGEE) project is co-funded by the European Commission. The project aims to provide researchers in both academia and industry with access to major computing resources, independent of their geographic location.

## EGEE's main aims are:

- 1. To build a secure, reliable and robust grid infrastructure
- 2. To supply a computing service for many scientific disciplines
- 3. To attract, engage and support a wide range of users from science and industry, and provide them with extensive technical and training support.

For more information see <a href="http://www.eu-egee.org">http://www.eu-egee.org</a> or contact Catherine Gater, EGEE Dissemination, Outreach and Communications Manager, on + 41 (0)22 767 41 76 or email Catherine.Gater@cern.ch.

