Regional Activities, International Projects and Collaborations

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e-infrastructure

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Enabling Grids for E-sciencE

- International grids cross national boundaries - with hundreds of grids running worldwide, there are many lessons to be learnt from international projects and collaborations.

- This session brings together representatives of grids in Europe, Latin America, South Africa and the Asia-Pacific region.

- Key to European science in the future will be the European Strategy Forum on Research Infrastructures roadmap projects. This session explores integrating instrumentation with e-Infrastructures for the potential benefit of these projects, as well as combining Virtual Research Environments (VREs) with grid technologies.

- Dissemination activities such as publications, events, social media and community-building websites help to bring user communities together. This session gathers together best practices based on the lessons learnt during the EGEE project.

- Also explored are the requirements of experimental scientists to steer, control and monitor instruments and sensors remotely. A prototype system developed by DORII will be presented.

- The D4Science-II project provides a number of VREs to address the needs of the Fisheries and Aquaculture community and some case studies will be discussed.

Enabling Grids for E-sciencE

- **SEE-GRID in South Eastern Europe will present improvements to the usability and services for its end users, including operational tools for monitoring, alerting, job tracking and security as well as application services such as advanced workflows, better data and file management and new applications platforms.**

- **EELA-2 in Latin America also presents its enhancements to the functionality of the gLite middleware, which has widened the number of potential applications and sped up the porting process.**

- **The Nordic Data Grid Facility's experiences in bringing on board a new user community, the materials science virtual organisation are also presented, enabling non-LHC scientists to run their jobs on ARC enabled resources.**

- **The South African National Grid Initiative aims to deploy a production-quality regional e-Science infrastructure for all South African researchers. Benefits are already being seen in the areas of physics, geomatics and bioinformatics and, through collaboration with the HP/UNESCO project, the seeds of the first regional African grid initiative.**

- **EUAsiaGrid brings together researchers from the Asia-Pacific region, and presents its progress in building, maintaining and developing e-Infrastructure within the region, together with a roadmap towards a sustainable and persistent multinational digital platform.**

Eliminating and preventing Grid Security Vulnerabilities to reduce security risk (P35)

The EGEE Grid Security Vulnerability Group was formed "to incrementally make the Grid more secure and thus provide better availability and sustainability of the deployed infrastructure". The aim is to eliminate vulnerabilities from the Grid and prevent new ones from being introduced, thus reducing the risk of security incidents. This poster alerts users and developers to both the activities of the this group and problems that may be caused by vulnerabilities. It is also intended to inform what they should do to avoid introducing vulnerabilities and report any their find.

Dr. CORNWALL, Linda Ann (Particle Physics-Rutherford Appleton Laboratory-STFC)

Earth Science and Astrophysics Applications in Armenia: Present and Perspectives (34)

The Institute for Informatics and Automation Problems of the National Academy of Sciences of the Republic of Armenia operates, supports and manages the national Grid Infrastructure and Academic Scientific Network of Armenia, which provides all core services to the users and consists of 7 Grid sites located in Yerevan and Ashtarak cities (424 cores). Armenia actively engaged in different international Grid (EU FP7 SEE GRID SCI, ISTC A-1606, ISTC A-1451) and connectivity (EU FP7 BSI) Projects, which make possible to deploy infrastructures and environments in the earth science and astrophysics.

Dr. ASTSATRYAN, Hrachya (IIAP NAS RA)

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              Dr. SAHAKYAN, Vladimir (Director)
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Enabling Grids for E-sciencE

XtreemOS Grid Operating System (D03)

The XtreemOS operating system provides for Grids what a traditional operating system offers for a single computer: abstraction from the hardware and secure resource sharing between different users. When a user runs an application on XtreemOS, the operating system automatically finds all resources necessary for the execution, configures user's credentials on the selected resources and starts the application. It simplifies the work of users by giving them the illusion of using a traditional computer. The XtreemOS technology is being developed in the frame of the XtreemOS European IP.

Mrs. MORIN, Christine (INRIA)
Mr. LINNELL, Peter (INRIA)

Presenters: Mr. JEGOU, Yvon
Mr. LINNELL, Peter

DEMO AND POSTER SESSION: Wednesday 14th, 16:00 – 18:00, Aula