



SEE-GRID-SCI Newsletter

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SEE-GRID-SCI helps kick-off the National Grid Initiative of Azerbaijan

Under the organization of the Institute of Physics of Azerbaijan Academy of Sciences and the Azerbaijani National Research & Education network (AZRENA), both SEE-GRID-SCI and BSI (Black Sea Interconnection) projects have contributed to the inauguration of the Azerbaijan link to the pan-European network GEANT and the official kick-off of the Azerbaijani NGI.

The presence of highest-level officials, including Ali Abbasov - Minister of

Communication and Information Technologies of Azerbaijan, demonstrated strong political support for the eInfrastructure activities in the country.

The inauguration event was followed by an intensive Grid training, delivered by the Grid operations experts from the ULAKBIM team from Turkey, and a visit to the first Azeri Grid site at the Institute of Physics, where young local technicians already support the site operations.

SEE-GRID-SCI operations at EGEE'09 Conference

EGEE'09 Conference was organized in Barcelona from 21 to 25 September 2009, with more than 600 participants, more than 100 individual sessions, and a large number of demos and posters. SEE-GRID-SCI operations and SA1 activity were presented by the Institute of Physics Belgrade team through two posters: "WMSMon - gLite WMS/LB Monitoring Tool" and "WatG Browser -

Grid Information System Browser". The posters present operational tools deployed within the SEE-GRID-SCI infrastructure, aiming to discover and help in diagnostics of problems in key Grid services functionality in order to ensure sustainable operation of regional e-Infrastructure.

Regional projects concertation meeting held in Athens 1-2 September 2009

SEE-GRID-SCI and GRNET hosted the highest-level representatives of EC-funded regional Grid projects in Athens on 1-2 September 2009, to discuss long-term sustainability issues and plan future common actions in this area.

Representatives of EUAsiaGrid, EUIndiaGrid, EUMedGrid-Support, EELA, EUChinaGrid, SEE-GRID-SCI as well as EGI-DS, spent 2 days in an open workshop discussing a number of technical and policy issues relevant for long-term regional Grids sustainability and relationship to EGI.

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LEDA installed eight new WNs

The Laboratory for Electronic Circuit Design (LEDA) has enhanced its own capabilities. Financed by Tempus JEP_41107_2006 project, LEDA installed eight new WNs. Each WN is packed in twin-motherboard 1U case (four cases), each motherboard with two quad-core Intel Xeon E5420 processors, 4GB RAM memory, 1GB/s LAN connectivity and 250GB storage capacity. SE capacity is also increased to 1.4TB with new RAID5 network attached storage. After successful installation and testing, AEGIS03-ELEF-LEDA added 64 processors to production, available to all virtual organization we supported.

Visit of the ITU Secretary General to MD-Grid NGI Head Office

On August 25, 2009 the ITU Secretary General, Dr. Hamadoun Touré, accompanied by ITU CIS Regional office representative Mr. Andrei Untila and by vice-minister of the Ministry of Information and Communications Technologies of Moldova Mr. Oleg Rotaru, had visited MD-Grid NGI Head Office hosted by RENAM Association. During the meeting with the Chairman of the MD-Grid NGI Consortium Acad. Andrei Andries and leading specialists of MD-Grid NGI, multilateral aspects of national e-infrastructure/ICT sector for science and education development were discussed, namely the SEE-GRID-SCI project details, broadband communications infrastructure building on national and regional levels, including projects of establishing fiber optic channels to GEANT network, join Ukraine and other Balkan and Black Sea ring countries. Additionally, there were discussions on the importance and role of government of Moldova and its collaboration with NGOs and Civil society in order to overcome current economic difficulties, cyber-terrorism combating issues and also – the perspectives of the implementation of international ICT-related projects, which can be jointly supported by ITU.

First National High Performance & Grid Computing Conference 15-18 April 2009, Ankara-Turkey <http://basarim09.ceng.metu.edu.tr>

1st National High Performance & Grid Computing Conference (BASARIM09) was organized by TUBITAK, ULAKBIM and Middle East Technical University on 15-18 April 2009 in Ankara, Turkey.

The aim was to discuss and raise awareness of High Performance & Grid Computing in the country. The conference provided an open environment and brought all universities and related private and public institutions together, exchanging experiences on previous Grid application deployment activities in context of TR-GRID, etc. The key contents of the conference were: 1) Projects, Applications and Success Stories, 2) Parallel Algorithms, Approaches and Theories, 3) Systems, Architectures and Standards, 4) Communication Systems, Methods and Layers, 6) System and User Management, 7) Sustainability and Policies.

SEE-GRID-SCI was introduced with a dedicated project session including:

- Burcu Ortakaya (TUBITAK ULAKBIM), "Evolution of Grid @ SEE: from SEEGRID to Regional eScience"
- Cevat Sener (METU) "Strategical Scientific Communities Seismology, Meteorology and Environment Protection"
- Can Ozturan (BOUN) "Seismology Virtual Organization"
- Bilal Bektas (BOUN) "Eartquake Location Finding (ELF) Application"

SEE-GRID-SCI was also presented with the demonstration of the project's poster, brochures and 3 project VO (seismic, enviro and meteo) posters. The previous posters of SEE-GRID projects and some applications were also presented to mention the history of SEE-GRID series.

The Grid User Training for Local Community was organized in the content of the conference on 18 April. The main aim was to provide practical introduction to Grid and high performance computing with MPI. The course was addressed to researchers and system administrators with an interest in grid computing and HPC.

WMSMon
gLite-WMS/LB Monitoring Tool

eGEE
Enabling Grids for E-science

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Overview and Motivation

In gLite-based Grid infrastructure, complex task of discovery and management of resources is performed by the Workload Management System (WMS) and Logging and Bookkeeping (LBS) services.

Current implementation of Grid Service Availability Monitoring (GSAM) framework does not include direct probes of gLite-WMS/LB. WMSMON tool provides extensive monitoring of the status of gLite-WMS/LB services, as well as the status of the server machine.

Currently deployed by the SEE-GRID-SCI and AEGIS Grid e-infrastructure.

<http://wmsmon.scl.rs/>

Architecture and Implementation

- Client-server architecture
- Client locally aggregates the values of all relevant parameters
- Client is composed of data parser and data publisher
- Server collects the data from all clients
- Server consists of the data collector, collector cache, database, and graph-generator
- Data caches keep the values of monitored properties until they are transformed
- Grid TP service ensures high-performance, secure and reliable data transfer
- Round Robin Database (RRD) as a back-end database
- Web portal presents information from diverse gLite-WMS/LB sources
- Released as RPM packages available from SCL RPM repository <http://rpm.scl.rs/>

WMSMon Server Side

- WMSMon Parser
- WMSMon Graph Generator
- RRD
- WMSMon Server Cache
- WMSMon Data Collector

WMSMon Client Side

- WMSMon Data Parser
- WMSMon Data Publisher
- grid TP server
- WMSMon Client Cache

Features

- Site independent, centralized and uniform monitoring of gLite-WMS/LB services
- Aggregated and detailed status view
- Daily, weekly, monthly and yearly graphs
- Monitoring of properties relevant to successful operation of gLite-WMS/LB service
 - Load average (1, 5 or 15-minute average)
 - Job queues properties (WMSJob, JobController, Candidate)
 - File system properties (SanDisk, MySQL, Inodes)
 - Log files properties
- Availability/responsiveness of services/databases

Data cache ensures that there will be no loss of information in the case of broken network links to the appropriate trouble-shooting guides

- Distinguished Name (DN) based authentication
- Easy addition of monitored properties
- Assessment of hardware, software, and performance bottlenecks

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www.eu-egee.org



First National High Performance & Grid Computing Conference in Turkey, 15-18 April 2009, Ankara



Visit of the ITU Secretary General to MD-Grid NGI Head Office
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SEE-GRID-SCI (SEE-GRID eInfrastructure for regional eScience) is a 2 year project co-funded by the European Commission, starting on 01/05/2008.

SEE-GRID-SCI stimulates widespread eInfrastructure uptake by new user groups extending over the region, fostering collaboration and providing advanced capabilities to more researchers, with an emphasis on strategic groups in seismology, meteorology and environmental protection. The initiative thus aims to have a catalytic and structuring effect on target user communities that currently do not directly benefit from the available infrastructures.

In parallel, it aims to enlarge the regional eInfrastructure to cater for demands of the communities by increasing the computing and storage resources and involving new partner countries in the region.

Finally, SEE-GRID-SCI targets to help mature and stabilize the National Grid Initiatives in the region, allowing them to join the new era of longer-term sustainable Grid infrastructure in Europe.



News from partners

Poster presentation of EnviMon application @EGEE'09 Conference

The EGEE'09 conference was held at the hotel Barcelo Sants in Barcelona between 21-25 September 2009, with a number of participation of more than 600 delegates. Dr. V.Sidorenco, leading specialist of RENAM, represented Moldova at the forum with a poster entitled: EnviMon – data acquisition and processing application for Environment monitoring (by V.Sidorenco, P.Bogatencov, A.Golubev – RENAM, D.Gorgan – TU Cluj, Romania and I.Borta – SHMS, Moldova). The aim of EnviMon application is to organize data acquisition and processing for Environment state monitoring. A nation-wide distributed set of sensors are polled from central station

placed at State Hydrometeo Service (SHMS) premises. The application provides data collection, filtering, storage and processing in order to produce synthetic reports and data that can be used as table data or put on geoinformation systems maps. The application is developing by MD-Grid NGI specialists from Moldova in collaboration with specialists from Romania and Hungary participating in SEE-GRID-SCI project and using SEE-GRID infrastructure. The application can be used both autonomously and as part of GreenView grid application, that also is developing in frame of SEE-GRID-SCI project. The aim of the GreenView application is a refinement of surface- and vegetation parameters in SEE region based on satellite images.

