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Collaborative environment for applications in BalticGrid

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Describe the scientific/technical community and the scientific/technical activity using (planning to use) the EGEE infrastructure. A high-level description is needed (neither a detailed specialist report nor a list of references).

The BalticGrid, having related infrastructure to EGEE, is implementing operational gLite-based architecture, also for

applications. Sveral Special Interest Groups (SIG) are being developed as a public service based on grid technology.

The main task of SIGs is to enable group-to-group communication of users, having similar research interests. The

functionality of SIG introduces new possibilities to users including sharing among user group the desktop, user

resources, data and files.

Report on the experience (or the proposed activity). It would be very important to mention key services which are essential for the success of your activity on the EGEE infrastructure.

The design and implementation of SIG in BalticGrid project is applied to user groups, having similar or related

interests in the following research areas: Baltic Sea eco-system modelling, Text annotation service, Text-to-Speech

service, Stellar spectra computing, Atomic and nuclear computing, Computer modelling of heterogeneous processes.

SIG will be also used to establish a special form of application support, acting as an interactive tool for application

developers (especially in the process of user interface design and gridification process). The software for SIG is

designed in an object-oriented way and includes cooperating components: a content management system (CMS),

selective open source software components from Access Grid, a specially designed software component (grid-com),

implemented by BalticGrid software developers. The SIG software is now applied to the areas of application mentioned above.

With a forward look to future evolution, discuss the issues you have encountered (or that you expect) in using the EGEE infrastructure. Wherever possible, point out the experience limitations (both in terms of existing services or missing functionality)

The high level e-services offered by SIG software to grid users will be made as wide applicable as possible. It will

be independent from computer platform and is expected to serve architecture of many applications. Also technically it will use the certification procedure common to EGEE and other grids. The special impact may be made

for social/humanitarian grid applications, where groups of scientists are usually collaboratively intensive (not computationally ones).

Describe the added value of the Grid for the scientific/technical activity you (plan to) do on the Grid. This should include the scale of the activity and of the potential user community and the relevance for other scientific or business applications

The relatively new idea, expressed by SIG, emphasizes service for group of users, working in a tight collaborative
way. It is designed to give communication/sharing tools inside user group, in ways of functionality, listed above and
complemented by video-audio teleconferencing. The SIG software is designed and implemented as high level e-
services; it provides sharing of resources (and working together) to Grid users: variety of data sources of interest;
description of computing processes; explicit knowledge-processing services; description of networks existing between
scientists; knowledge descriptions that can be asserted or generated in their own right. The special value to SIG is
added by the possibility to have joint knowledge transformations for user groups. Such capabilities of SIGs are
achieved by envisaging procedures of on-line forum, mailing lists, on-line documents and data repositories, surveys,
news, events.

Primary author: Dr JUOZAPAVICIUS, Algimantas (associate professor)

Co-authors: Mr PIATOV, Danila (research fellow); Mr ANBINDERIS, Tomas (research fellow)

Presenter: Dr JUOZAPAVICIUS, Algimantas (associate professor)

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Track Classification: Related Projects