

SIG - collaboration tool for grid applications

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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 project is implementing applications in a framework of gLite-based architecture. The Special Interest Group (SIG) is being developed as a high level e-service for such applications. The main task of SIG is to enable close communication inside a group of users, having similar interests. The functionality of SIG for groups of users includes such possibilities: sharing applications, desktop, user resources, data and files, teleconferencing.

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 software for SIG is designed by using object-orientation modelling for software process and includes operational components (as cooperating software objects): an adopted open source content management system (CMS), selective open source software components from the Access Grid, a specially designed software components (gridcom component). It is operational under Internet browser (in conventional way). The software is implemented by BalticGrid software developers. The key component for the workflow in SIG is an interactive repository, which provides data, input and output streams for computing processes, input and output media streams, specification of computing applications, some additional information.

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 implemented by SIG software will be distributed (or coupled with suitable applications to be served) as wide 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.

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 SIG is primarily oriented and designed to give communication/sharing tools for group of users, in order to implement functionality, listed above. The SIG software presents high level e-services, enabling sharing (and working together) to Grid users: repository of data sources and data sets; interactive forums for research processes; 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 computing and similar data transformation procedures for user groups. Such capabilities of SIGs are achieved by envisaging suitable software components. The applications are: 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.

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