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Increased productivity for emerging Grid applications: the application support system

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The CERN Grid application support team has been working with the following real-life applications: medical and particle physics simulation (Geant4, Garfield), satellite imaging and geographic information for humanitarian relief operations (UNOSAT), telecommunications (ITU), theoretical physics (Lattice QCD, Feynman-loop evaluation), Bio-informatics (Avian Flu Data Challenge), commercial imaging processing and classification (Imense Ltd.) and physics experiments (ATLAS, LHCb,HARP).
Using the EGEE Grid we created a standard infrastructure - set of services and tools - customized for the emerging applications. This includes creation of a generic Virtual Organization easily accessible by small communities and adding resources and services to it. We provide the consultancy service to help the porting of the applications to the Grid using the Ganga and DIANE tools. The system may be operated with only small maintenance and support overhead and is easily
accessible by new applications.

3. Impact

The various parts of the application support system developed by the CERN Grid application team were used by more than 1000 individual users in the year 2007. More than 10 new applications have been successfully enabled and produced large scale results. We consider that the efficient application support is the key point for further development of the Grid as it allows to continuously attract new
application communities, strengthen the Grid infrastructure and enhance the productivity of the users.

URL for further information:

www.cern.ch/arda

4. Conclusions / Future plans

We plan to further consolidate the application support system in order to minimize the maintenance overhead and further increase the autonomy of the application communities in the efficient Grid usage

Provide a set of generic keywords that define your contribution (e.g. Data Management, Workflows, High Energy Physics)

Grid applications, users, interoperability

1. Short overview

Recently a growing number of various applications have been quickly and successfully enabled on the Grid by the CERN Grid application support team. This allowed the applications to achieve and publish large-scale results in a short time which otherwise would not be possible.
We present the general infrastructure, support procedures and tools that have
been developed. We discuss the general patterns observed in supporting new
applications and porting them to the EGEE environment

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