Grid cluster at GRENA

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A number of Georgian research centers are involved in the international scientific collaborations that are intensively developing the high performance computing technologies and Grid infrastructures for a common work of thousands of specialists from hundreds of the institutions. Deployment of the high performance computing and Grid technologies in Caucasian region will promote a larger integration of Georgian specialists in the international community via the Grid-enabled Virtual Organizations. Scientists of Georgian research centers involved in the international collaborations are interested in implementation of modern high performance computational infrastructure and creation of a powerful base for Georgian national Grid infrastructure. I present the characteristics of a computational cluster at the GRENA (Georgian Research and Educational Networking Association) and future plans and prospects for creating and developing Georgian national Grid infrastructure. The use of Linux clusters for scientific research at Georgian research institutions and universities corresponds to the modern computing trends and the open source software promises to be a cost-effective way to obtain a high performance system.

The GRENA team has a large experience in computer networking, data management and analysis. The activities on Georgian national Grid infrastructure development are currently in a very beginning phase and it is still necessary to determine and make clear a lot of aspects. I could just list the prior steps I consider to be very important for our future work:

- Training and education of specialists;
- Creation of the common computing and networking infrastructure for Georgian research centers;
- Creation of Grid service centers;
- Integration of Georgian national Grid clusters into the Caucasian Grid segment and the world wide Grid infrastructure.