

Grid Computing Environments (GCE) Charter

July, 2002

1. Research Group Organization:

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2. Statement of Purpose

The Grid Computing Environment (GCE) Research Group is aimed at contributing to the coherence and interoperability of frameworks, portals, PSE's, and other Grid-based computing environments and Grid services. We will do this by evaluating and testing protocols, API's and SDK's from "best practices" projects that are required to integrate technology implementations and solutions. A GCE covers both the tools and the technologies needed to construct environments such as:

- Portals: users, application, education – web, other
- Problem Solving Environments

Our *function* is to perform research on how developers are using the Grid and it's services, and by using a task-oriented approach to extract out functionality, API's, and protocols and to facilitate interoperability between users of the Grid and developers of the Grid based on what can be done today and what can/should be done in with next generation of software. Our information will have a bi-directional flow between service working groups and those that sit at "higher" levels of the 3-tier Grid architecture.

Our *research* would be expected to produce recommendations to GGF for possible standards. Our process will consist of: meetings and workshops, ad-hoc testbed, demonstration activities at SC, GGF and other conferences; targeted groups of papers.

Our *deliverables* will consist of papers, publications, documents, sharing of research software via papers and web sites, collaborations on projects.

3. Targeted Projects and Activities

The GCE research group will initially perform collaborative research on:

- a. Identify “Community Practices” for projects
- b. Target metadata and related projects (needs clarification)
- c. Produce survey documents
- d. Focused studies: detailed exploration of particular technologies
- e. Participate in ad-hoc testbeds and collaborations as necessary

Currently we are working on the following:

- a. Grid Job metadata and workflow management
- b. Portlets and similar technologies for component models for user interfaces
- c. Interoperable web and grid services (eg OGSA)
- d. Explore architecture(s) for GCE framework(s).
- h. We will use the results and provide feedback to other research and working groups
- i. Continue to evaluate emerging technologies in the areas of grid services, APIs, SDKs and Protocols, technologies
- o. Collect Software Toolkits for building Grid applications and post/link on websites

4. General Deliverables

- a. We expect to hold at least 2 additional topical workshops outside the GGF meetings.
- b. We expect to have around three targeted activities each year, and at least one will produce a GGF document.
- c. We expect to continue to produce papers for publication based on our targeted activities.

4.1 Current Activities (July 2002):

- d. Publications: a group of 28 papers will be published in C&C:P&E, which was a direct result of the GCE activite to collect “current practices” documents in 2001.
- e. Grid Job metadata, will produce a GGF informational document by GGF7
- f. Interoperable web services demonstration planned for SC02, and resultant GGF info doc by GGF7.
- g. Continue to experiment with schemas needed for interoperable web services
- h. We expect to start new targeted activities in the areas of
 - i. Portlets
 - ii. OGSA-based Grid services
 - iii. Experiments with the above technologies in a testbed fashion

