

Grid Exchange Research Group

Global Grid Forum, ARCH Area

Administrative Information

Name and Acronym:

Grid Exchange Working Group (GXCH-RG)

Chairs:

Vikas Deolaliker, vikasd@sun.com

Paul Wolf, Ripeco

TBD

Secretary(s)/Webmaster(s):

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Charter

Focus/Purpose

The Grid Exchange research group will focus on research in topics related to conducting business transactions on top of a grid enabled infrastructure. In a Service Oriented Architecture the role of the “intermediary” is just as critical to the overall architecture as the role of service provider and service consumer. Grid Exchange is a term used to refer to this intermediary entity. While we have many technical definitions of the intermediary role, we have yet to find a definition that is articulated in the economic terms. The purpose of this research group is to articulate the intermediary role in economic terms and highlight the issues and ramifications that such a role may have on the overall infrastructure.

Scope

Under the auspices of this research group, we would like to conduct research into issues involved in orchestrating a business transaction over a grid enabled infrastructure. Unlike large technical batch jobs, business transactions are much smaller in size, less resource consuming, more state dependent, work flow oriented and mostly asynchronous.

We expect that this research group will identify, document and propose resolutions for issues related to transactional grid.

Goals

The goal of this research group is to arrive at a document which clearly articulates the role of the “intermediary” function in SOA architecture in economic terms. We will strive to remain independent of any technology and implementation in arriving at this articulation. In addition, we would like the document and highlight issues that one is likely to face in implementation of this intermediary as articulated. Finally, we expect to recommend the direction that working group might take in arriving at standards which will enable an open implementation of this intermediary. We will however not write any standards document.

Management Issues

Evidence of commitments to carry out WG tasks

A working group chair role is fundamentally a management role, requiring excellent communication and organizational skills as well as in depth understanding of the topic area. It is often a good strategy to have co-chairs including a topic expert and a strong manager. Chairing a working group also requires a significant time investment and it is useful to see a track record of diligent effort on the part of the chairs as well as an indication that the chairs' management is supportive of the time commitment. Part of this necessary commitment is also to ensure that the group makes progress between and during GGF meetings, and thus involves travel.

Pre-existing Document(s) (if any)

If there are useful background documents these are often useful. In some cases the organizers may have already made progress on a draft document and wish to form a working group to involve the community in the work.

Exit Strategy

A WG should normally have a lifetime of between 6 – 24 months. You should make some attempt to note here how you will know when you are finished if this is not simply defined by the last milestone date.

Any other relevant information

Evaluation Criteria (from GFD-C.3)

When considering the formation of this group, the Steering Group will wish to ensure that every WG has clear and focused objectives, and has demonstrated support from the community. The Steering Group will consider the following seven issues (taken from GGF document GFD-C.3).

Is the scope of the proposed group sufficiently focused?

Is the group attempting to produce everything from beginning to end (a survey of the state-of-the-art, plus use cases, plus a requirements analysis, plus recommendations documents) or is it focused on only one or two of these areas? Is there more than one type of standard being proposed (Architecture/framework vs. information model (schema) vs. API vs. Protocol)? Is the topic area too specific or too broad (for example, overlap with other GGF WGs may indicate “too broad”)? Are the milestones reasonably achievable in the proposed timeframe (1-2 years for a WG)?

Are the topics that the group plans to address clear and relevant for the Grid research, development, industrial, implementation, and/or application user community?

Diligence in answering this question often requires discussions with relevant leaders of other GGF working groups.

Will the formation of the group foster (consensus-based) work that would not be done otherwise?

Does the group foster standards or practices that are greater than the work done by any single group (taking advantage of GGF to come together on neutral ground)? How many distinct groups, institutions, and regions of the world are participating in this effort? (GGF activities typically have membership drawn from more than a single research group, institution or project).

Do the group's activities overlap inappropriately with those of another GGF group or to a group active in another organization such as IETF or W3C?

What is the nature and extent of any overlap? The proposed group may still be formed, or the GFSG may recommend that the work be done within the existing GGF (or external) group.

Are there sufficient interest and expertise in the group's topic, with at least several people willing to expend the effort that is likely to produce significant results over time?

How much experience do the participants collectively have in the proposed area of work? How committed are the participating individuals? An attendance list or an email subscriber list is a very weak indication of commitment; a list of people who have attended multiple teleconferences is somewhat better; a list of individuals who have committed to specific tasks, or who have made non-trivial time commitments, is much better. Additional evidence could include statements from organizations stating that they will dedicate resources (people) to participate in the group, and statements from participants expressing their personal, compelling need for the output of the group.

Does a base of interested consumers (e.g., application developers, Grid system implementers, industry partners, end-users) appear to exist for the planned work?

How broadly applicable will the output of the WG output be? Does the WG have true clients of its work? Such interest can be measured by the interest of industry partners, grid deployment projects, and other groups committed to implement the recommendations or adopt the results.

The success of a working group requires “buy-in” from a broad set of constituents who will use the output of the group. It is useful to indicate what is the target set of consumers in the community. While not necessarily a requirement for approval, it is essential that the organizers comment on the relationship of the work, and the level of interest, from large segments of the Grid community such as major software projects, architecture activities, etc.

Does the GGF have a reasonable role to play in the determination of the technology?

What other organizations are working in similar areas? Is the GGF the right place for this work? Is it clear how the proposed WG will coordinate with related efforts?