

Draft Charter for GNI-WG

Date 2008-05-06

Group Abbreviation:

gni-wg

Group Name:

Grid Network Interface working group

Area:

Infrastructure

Group Leadership:

Georgios Zervas

Tomohiro Kudoh

Eduard Escalona

Group Summary:

The Grid Network Interface working group will provide a recommendation for an interface between Grid layer and Network layer. The interface will define the set, type and level of information transaction between these two layers as well as procedures and protocols required for it. It will also consider adopting this interface to provide interoperability between different network domains.

Charter Focus/Purpose and Scope:

Focus/Purpose

The main purpose of the GNI is to facilitate interoperation between Grid and Network infrastructures via the development of functionalities and procedures. GNI must provide a general and open definition independent from implementation of provisioning systems (e.g. Grid and network). It should be abstract and scalable enough to facilitate any future requirements. So, GNI will be a recommendation to any Grid and network system in order to achieve interoperability. GNI WG will also focus on identifying existing standardization activities/documents and understand their relevance and importance with regards to GNI.

Goals

The goal of the GNI-WG is to provide a specification document with the requirements and capabilities of both Grid applications/ services as well as network provisioning systems (e.g. network operators, L1/2/3 systems) and in turn define the architecture and abstract GNI messages. Definition and creation of abstract message transactions of the GNI based on the architecture will be another goal.

The scope of the Grid Network Interface Working Group is to define the following:

- a) Architecture definition for GNI
- b) Abstract messages and procedures independent of any implementation

The working group will collaborate with other OGF working groups such as GRAAP, NML, and others where these are considered relevant and applicable.

Goals/Deliverables:

The goals of the GNI-WG may be defined by a set of deliverables and the milestones for their delivery. These deliverables are:

Title: Grid Network Interface architecture and functionality requirements

Deliverable 1. A recommendation document describing the architecture for functionalities required to structure the GNI.

Define GNI architecture

Identify requirements for Grid applications, Middleware and Network providers

Specify GNI functionalities.

Title: Grid Network Interface Specification Document

Deliverable 2. A recommendation document describing GNI protocol and messages specification.

Abstract Message Definition and Protocol Specification of

Service Discovery

Capability, Availability

Network Service Request (type of service, policies, AAA)

Connection Creation

Connection Deletion

Connection Modification

Connection monitoring

Timeline

OGF 24 (Sep 2008):

- official start of working group
- outline and author list of deliverables

OGF 25 (Feb 2009):

- First Draft of Deliverable 1

OGF 26 (Jun 2009):

- Submission of Deliverable 1, First Draft of Deliverable 2

OGF 26 (Jun 2009):

- Update of Deliverable 2

OGF 27 (Sep 2009): Outline and initiation of Deliverable 2

Exit Strategy:

The work of the GNI-WG will be deemed complete upon the delivery of a first version of each of the deliverables listed above in the section entitled "Goals". The preliminary schedule for the release of deliverables is provided above.

Abstract:

During the last few years, it has become evident that the diversity of both grid and network infrastructures has broadened considerably. Interoperability between these infrastructures is a critical aspect in the realisation of seamless Grid networks services. To this end, a set of interoperation efforts among Grid layer (Grid applications/ resources/services) and network layer (network services/resources) cannot be over-emphasised.

The Grid Network Interface working group will provide a recommendation for an interface between Grid layer and Network layer. The interface will define the set, type and level of information transaction between these two layers as well as procedures and protocols required for it. The interface aims to facilitate interoperation between any type of Grid service provisioning system (e.g. middleware, scheduler), application, resource and network service provisioning system (e.g. control plane, management plane), resource.

Type: GFD-R

Milestone	Date (YYYY-MM)	Completed?	Completed Date (YYYY-MM)
First Draft	2009-02		
Public Comment	2009-06		
Publication			

Type: GFD-R

Milestone	Date (YYYY-MM)	Completed?	Completed Date (YYYY-MM)
First Draft	2009-06		
Public Comment	2010-02		
Publication			

Seven Questions:

1. Is the scope of the proposed group sufficiently focused?

Yes

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

Yes

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

Yes

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

No

5. 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?

Yes

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

Yes

7. Does the OGF have a reasonable role to play in the determination of the technology?

Yes

Group Status:

Pending initiation at BoF.

Public Description (for print & web site):

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