GHPN-RG Session

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Agenda

1. Agenda Bashing and Administrivia   [5']

2. GHPN overview. Progress against milestones [10']

3. draft-ggf-ghpn-netissues-0.pdf: [30']
   Discussion of open issues, what's next

4. New milestones: discussion   [15']

5. Short presentations: [30']

   – "Wireless GRID Networks and Virtual Markets Sharing Resources in Dynamic Ad-hoc Environments," by Lee W. McKnight et al.

   – "Grid Network Infrastructure", by David Martin

GHPN-RG ?

- To bridge gaps between Networking and Grid advanced communities
  - E.g., Grid requirements not yet understood by 'Netheads'
  - E.g., Net rules/features ignored by 'Gridheads'

- while countering any premature ossification around Grid/Net dominant scenarios
  - E.g., Advocacy of Grids using non-traditional mixes of end-systems and net infrastructures

- Outcomes: Informational or BCP Drafts, new RGs/WGs, liaisons with other Groups

GHPN Charter—the long version

The Grid High-Performance Networking Research Group **focuses on the relationship between network research and Grid application** and infrastructure development. The objective of GHPNRG is **to bridge the gap between the networking and grid research** communities. It accomplishes its goal by **serving as a forum for information exchange on advances and requirements in both fields**, as well as by providing a **focal point for liaison activities** between the GGF and the various networking standards bodies. Specific topics of interest include, but are not limited to:

- End-to-end performance
- High-performance transport protocols
- Emerging network technologies
- The interface between Grid applications and network services
- Deployment of new technologies on the Internet and overlay networks

GHPN Charter—the long version 2

- **The GHPNRG provides a forum** for such topics until sufficient maturity and interest to both communities is reached **that naturally results in the formation of a separate WG or RG to pursue them further**. The discussions of GHPN are carried out both during the meetings and on the GHPN mailing list.

- Two specific goals of the GHPN-RG are identifying:

    - grid application requirements and implementations that are not supported or understood by the networking community and
    - advanced networking features that are not being utilized by grid applications.

"<u>High-Performance</u> Networking RG" ?

- It does NOT necessarily imply:
  Gigabit/s or Terabit/s !!!

- It's short for: "Highly **effective** OR **efficient** networking, AND **qualitatively** different from established practice (if any)"

  - effective, adj: producing a decided, decisive, or desired effect
  - efficient, adj: productive of desired effects, especially: productive without waste

These can be in GHPN's scope

- ## Grids with wireless systems
  - Traits: Mobility, resource constrains, etc.

- ## Grids exploiting Optical Networks
  - Traits: Circuits, scheduled connection services, diversity routing

- ## Grids encompassing sensor-nets
  - CERN LHC and Berkeley's Motes are two kinds of sensors

But:

- ## No tutorials, primers, 101
  - Suggestion: Use glossary + references to level set quickly

- ## No "miniature-GGF" in a Draft

- ## Bumpy & tortuous road is somewhat expected due to material's novelty

- ## OGSI/OGSA must be light at the end of tunnel
  - If there is no intercept with present/planned GGF work, with any WG/RGs, then there is no value in pursuing it here further
  - E.g., a conference, a journal may then be the proper outlets

Email über alles

Anything we do happens here:

ghpn-wg@gridforum.org

Drafts in the making, new Drafts, comments, ideas, why and why-nots, technical news …

Got Draft?

- GHPN was to produce two Drafts by GGF8
    1. "Top Ten Things Network Engineers wish Grid Programmers knew"
    2. "Top Ten Things Grid Programmers wish Network Engineers knew"

- As the Drafts were written, the distinction between viewpoints has blurred a good deal
    - On June 6th, #2 became draft-ggf-ghpn-netissues-0.pdf
    - #1 will soon merge into draft-ggf-ghpn-netissues-**1**.pdf
    - Top Ten became Top N, really

- Yes, we've got Draft!

[draft-ggf-ghpn-netissues-0.pdf]

Un-chartered Drafts for GHPN consideration

1. "Wireless Grids", an Individual Submission
   http://www.csm.ornl.gov/ghpn/draft-ggf-lwmcknight-wgissues-0_11.pdf

2. "Optical Networks and Grids", a new initiative recently launched on the GHPN reflector

New Milestones
(as currently published, with edits)

- **June 6th 2003**. First drafts of the two [ed: now ONE] top-ten documents. Begin circulation with other groups.

- **By GGF9 cutoff date.** First draft of a new GWD-I track document. What demands do grid applications really put on the network? Do some grid applications abuse the network? Among things, this draft will cross-reference the OGSA use-cases document and GHPN's own draft-net-issues-with-grids, to characterize actual network utilization patterns according to several metrics.

- **By GGF10 cutoff date.** Combine feedback from other groups, submit the two [ed: now ONE] top-ten documents for GWD-I track.

- **By GGF10 cutoff date.** First draft of a new GWD-I track document. Sensor nets, post VonNeumann architectures ... what is the impact on Grids an their usage of the network? In which ways can networking research help?

Email us at:
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Coming soon on
www.gridforge.com