

# The Grid High-Performance Networking Research Group (GHPN-RG)

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# GHPN-RG

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# GHPN-RG ?

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- 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

# 2 Drafts in the Publisher's Queue

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- **draft-ggf-ghpn-opticalnets-2**
  - Convergence of optical nets and Grids
  - Greenfield-charting realm
  - It just became GFD.36
  
- **draft-ggf-ghpn-netissues-4**
  - Pain points in attaching Grids to the network
  - Level-set realm
  - 30 days PC finished on 11/08/04

# 3 More Drafts in the making

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- draft-ggf-dt-transportsurvey-1
  - A survey of L4 protocols for bulk data transfer other than TCP
- draft-ggf-ghpn-netservices-usecases-2-3
  - Black-box use cases of Grids setups exploiting network behaviors, and quantitative analysis of the same
- draft-ggf-ghpn-netservices-1
  - Scoping of Grid Network Services that elevate the network resource to being a Grid Managed Resource akin to processing and storage

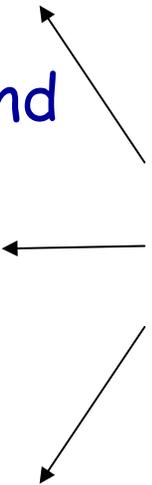
Future Work: Can the GHPN (or spinoff) assist in producing Agreement Documents, for R&E testbeds to inter-work?

# S.O.W. Sampler

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- If testbeds only gave L3 services, then SOW = {
  - IETF wrote it all already, sort of
- If testbeds are L<sub>x</sub>, x = 0,1,2,3, SOW is about rules
  - To exchange external connectivity info
  - To dial a congruent connection end-to-end
  - To handle advance reservations
  - To pass a principal's credentials
  - To define an SLA's grammar
  - To secure the service plane
  - To build/use TOOLS
  - etc.

Ref Arch,  
Schemas!



among heterogeneous domains



# Without Agreement Documents

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- We are stuck to “barn building” between neighbors
- “I will talk to everything as long as it speaks <X>”
- Handicap on innovation

```
#if    UCLP
    ...
#elif  ODIN
    ...
#elif  UNCLE  GEORGE
    ...
#endif
```

## Future Work: Can the GHPN (or spinoff) assist in producing Agreement Documents, for R&E testbeds to inter-work?

- GHPN expressed interest in hosting selected threads, provided that there is critical mass
- GHPN wishes to abstract out Optical Resources
  - Thus eliminating resource bias as early as possible in the stack
  - IETF never standardized a "Twisted Pair BGP" either

# Email über alles

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

... anything we do, you hear about here:

[ghpn-wg@gridforum.org](mailto:ghpn-wg@gridforum.org)

Home page:

<http://forge.gridforum.org/projects/ghpn-rg/>