

IPv6-HIP-Grids project proposal with China

IST 6. Call: International cooperation on Grid
Technologies - Target country: China
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Problem statement

- China Internet backbone almost converted to pure IPv6
- EU Grids are IPv4
- No common EU grid with China currently?
- B. Carpenter (IETF chair): IPv4 based Grids are forced to rely on HTTP proxying between organizations: inefficient, and cannot exploit network level security. => need IPv6 Grids interoperable with IPv4
- We propose a practical project targeting EU-China Grid testbed with IPv6 and Host Identity Protocol for v4/v6 secure interoperability

Prospective partners

- Tsinghua/CERNET
- Beijing University of Posts and Telecommunications (BUPT)
- Nokia Research China
- HIIT and Helsinki Institute of Physics (acting as a Joint Research Unit)
- Telecom Italia
- Sheffield University / UK
- PSNC Poznam / Poland
- Budapest TU
- ...

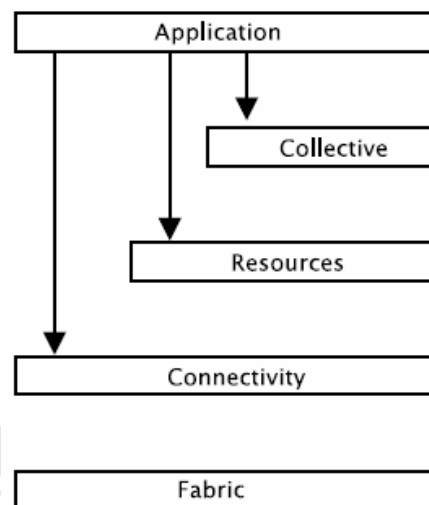
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HIP benefits for Grid

- IPv4-v6 interoperability
- Multihoming
- DoS protection
- IPsec encryption of traffic
- Authentication
- NAT traversal
- Rendezvous support from Hi3
- Mobility/fault tolerance
- Wide-area application migration

Grid Protocol Architecture



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Question?

- If you have any question, please contact
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