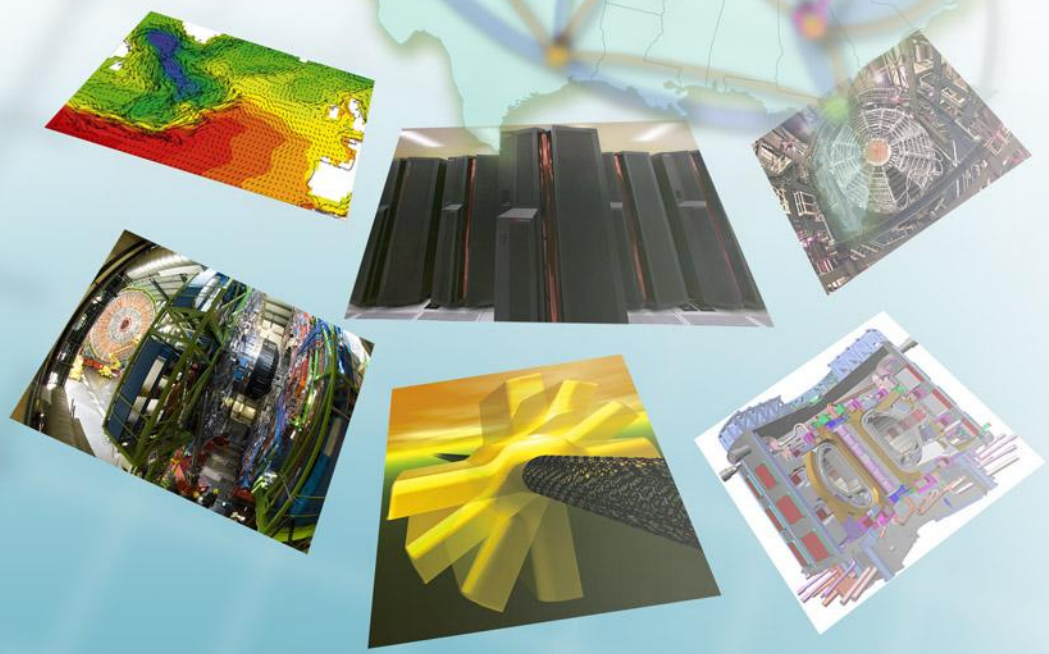
CERN Transatlantic Networking

Panel: Network as a Resource - GLIF, BoD, Oscars+DRAC, experiment interfaces and opportunities etc

CERN, June 10, 2010



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Networking for the Future of Science

- We have seen a “clear” set of requirements from user communities for services related to “bandwidth on demand” – today this is really mostly bandwidth management
  - Will they really use these services if provided?
  - Maybe:
    Several points:
    1. As Shawn McKee pointed out, using such new services in the existing science environment may be a lot harder that the user community initially anticipated
    2. If HEP is any indication, when a service goes into production the user community may well find that their original notion of the service semantics was as least partly wrong and they will need perhaps substantial changes in order for the service to be useful
    3. Sites seem to be willing to consider these circuits as sufficiently isolated from the commodity Internet that they will permit connections that do not go through site firewalls – so high bandwidth is possible
  - However:
    1. Even without any user direct user demand, the rise of large-scale science traffic that dominates all network traffic will drive network operators to establish internal services with many of the characteristics of “bandwidth on demand” to manage traffic flows and provide for fair-sharing in the network