LHCOPN Meeting
January 2007

Thanks to everyone for attending!!

Conclusions

- IP Routing
  - Protecting the OPN traffic
    - Separate routers will be used by NDGF
    - Does not scale for SARA
  - Need a technical meeting to resolve the issues. (Edoardo)
    - Should be no uncertainties by the next OPN meeting
- Backup Principle
  - OPN Network is a common resource
  - Objective is to keep as much a homogeneous level of service.
  - In case of failure reduced level of service can be expected to avoid service cuts. The priority is to avoid a T1 being disconnected.
- Backup Paths
  - How do we do a formal analysis?
    - Identify if what we have is sufficient
    - If not what do we still need to provision
  - TRIUMF, PIC and RAL are most at risk.
  - Can ask NREN's+GEANT to for information for impact analysis.
  - Conclusion: Coherent failure analysis and backup design for the OPN (Dante/NREN+Edoardo+USLHCnet patricipation)
    - National ring infrastructures
  - Backup test plan (??)
- Perfsonar deployment
  - On track. UK deployment uncertain.
- E2ECU
  - Mainly complete, european only for the moment. How will this be extended internationally? (Marian/Roberto)
  - Not 24x7
  - For next meeting produce statistics+reports
  - Still sorting out coordination processes between the NREN noc's, GN2 noc and the E2ECU.
- E2E Monitoring Tool
  - http://cnmdev.lrz-muenchen.de/e2e/lhc/G2_E2E_index.html

Conclusions - 2

- Beyond Perfsonar
  - Perfsonar interfaces being put on top of a number of new tools.
  - How do we leverage that for the OPN community?
    - Can we understand what the network was capable of?
  - Overall strategy use emerging perfsonar framework and compatible tools.
  - Short Term Objectives
    - Link Utilisation
    - Latency
    - Achievable Bandwidth
  - Action is to organise the deployment and evolution (Joe)
  - Troubleshooting function?
  - Auditing tools?
    - UKLight researchers may make a tool available? Could talk at the next meeting. Also JRA1 has an activity.
- 24 Hour Global Coverage
  - How to ensure global operations 24x7?
    - Establish Regional E2ECU's
      - Not really 24x7, but allows problems to he handled as quickly as possible.
      - Start with a single E2ECU and see how it goes.
      - Could help with fault isolation in some cases, but start simple. Fault resolution will only happen during working hours.
    - Distributed NOC model?
      - Transparent for the NREN's
  - Start with a single E2ECU until we get experience. Re-evaluate in a year.
- ENOC
  - Should provide a service level view
  - Prototype Graphical interface
  - Need clarity on the backup paths
  - Missing most sites. Objective is to get all OPN site information.
  - Work procedures to be finalised end-Jan (Mathieu)
  - How do we quantify the service level impact?
- USLHCNet
  - CMS: 35 T2's in Europe 7 in the uS
  - US T1->EU T2 responsibility of ESNet
  - EU T1->US T2 responsibility of I2
  - T2 data transfers by the IP networks adequate for the first year or so, until experience with the data models are gained.

- Next Meeting
  - April 11/12/13 ?
  - Munich (hosted by DFN)

LHC T0-T1 Meeting,
Cambridge, January 2007

David Foster, CERN