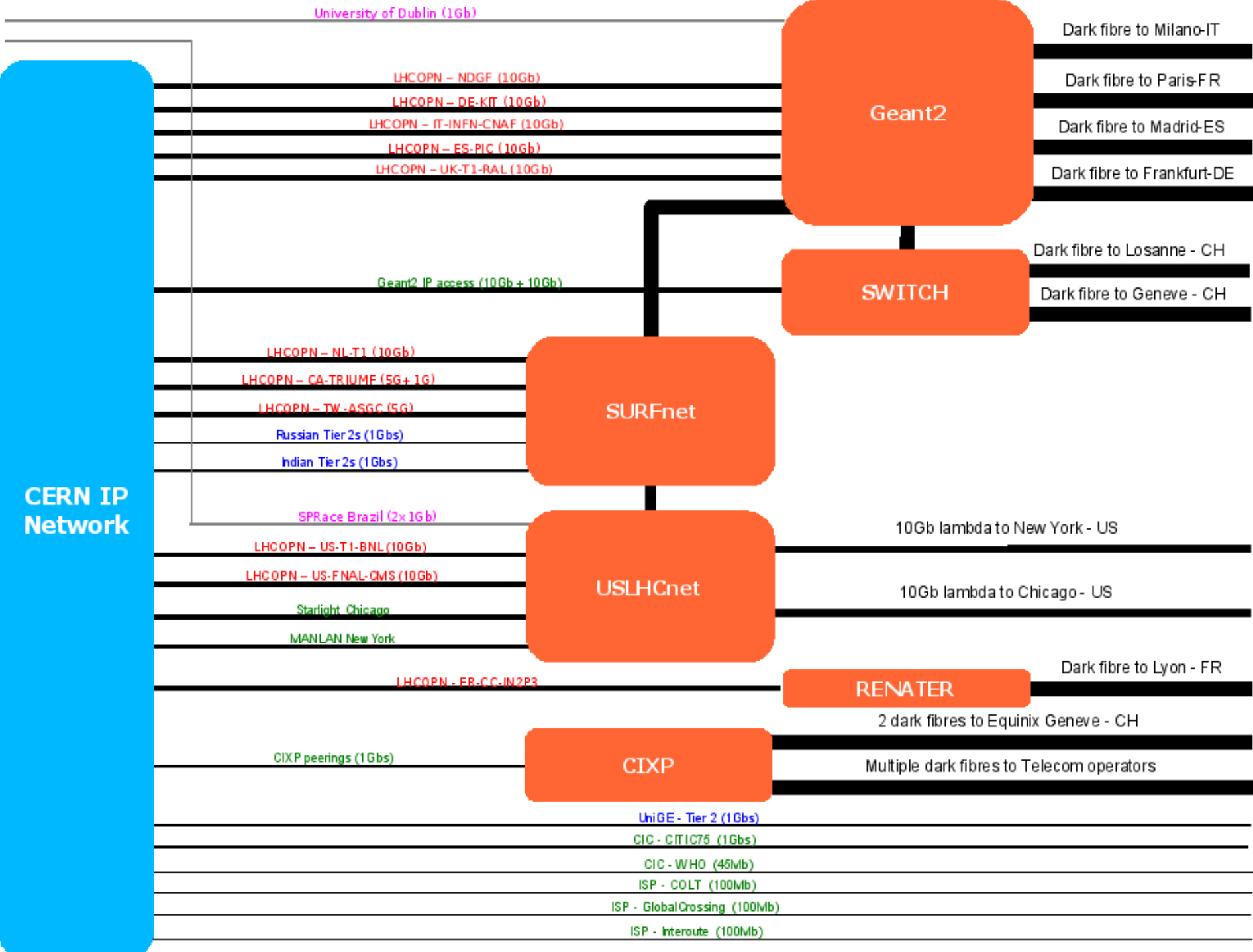


HOME GOLE Status

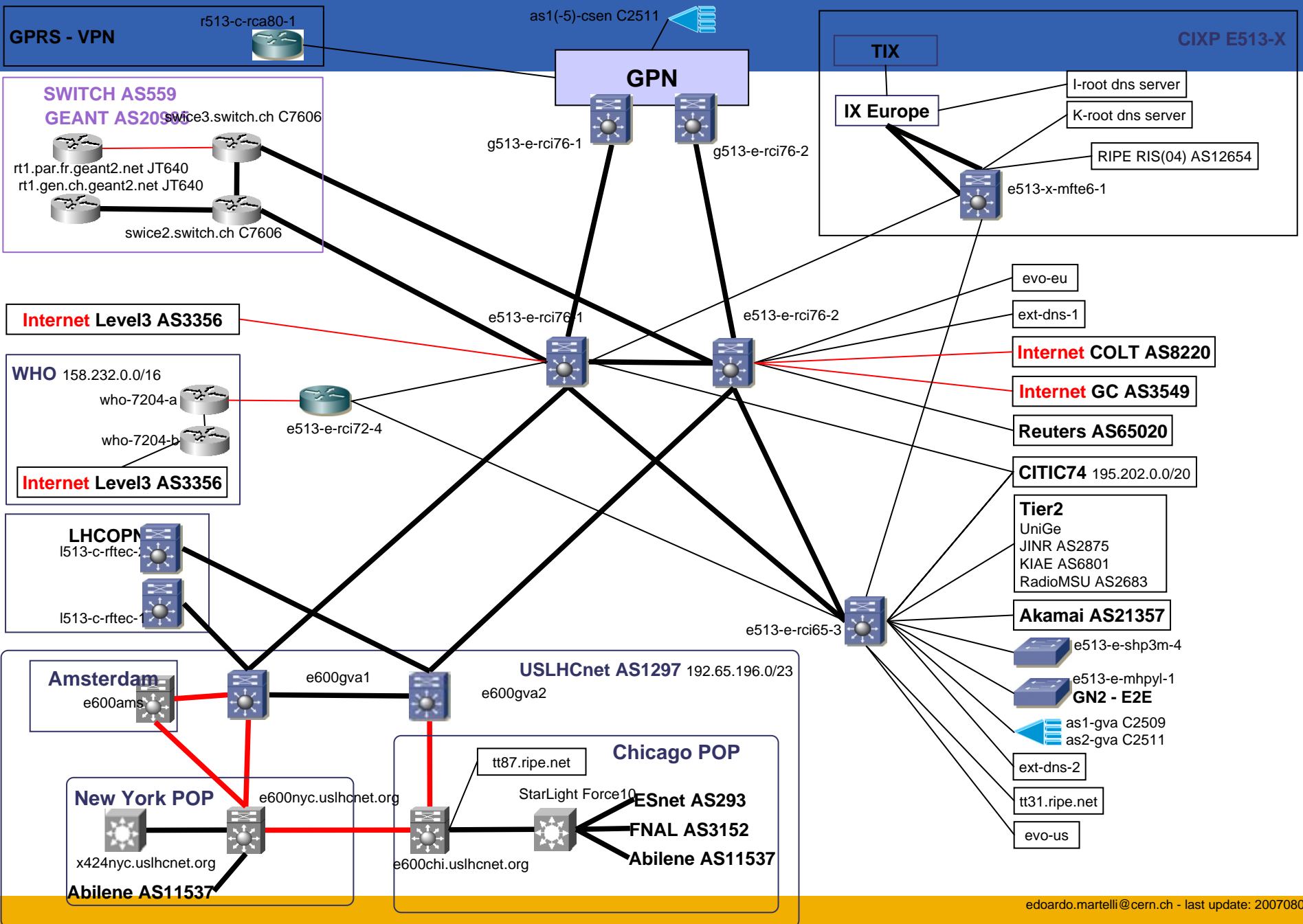
David Foster
CERN
Hawaii GLIF
January 2008



CERN External Network Links

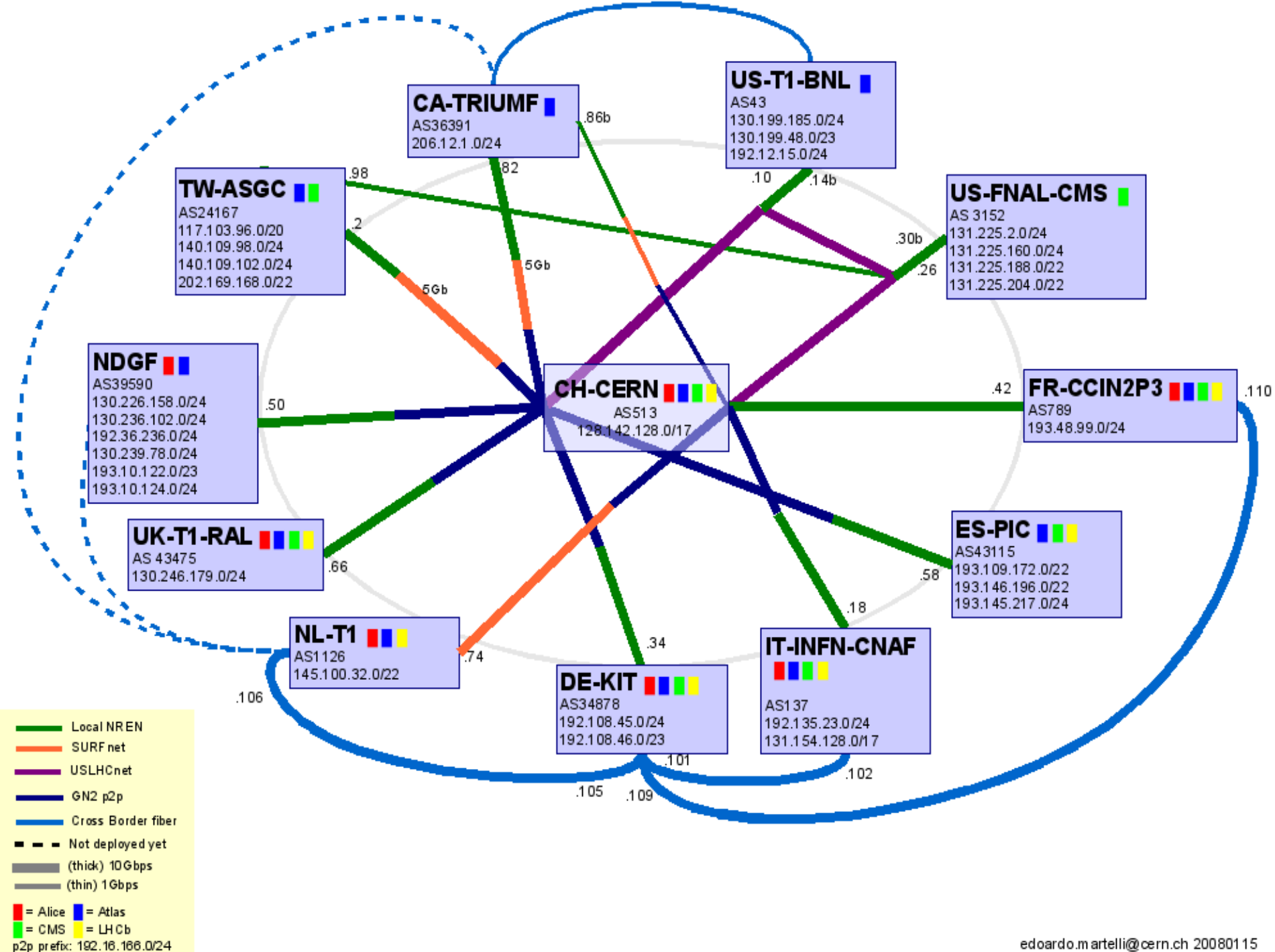


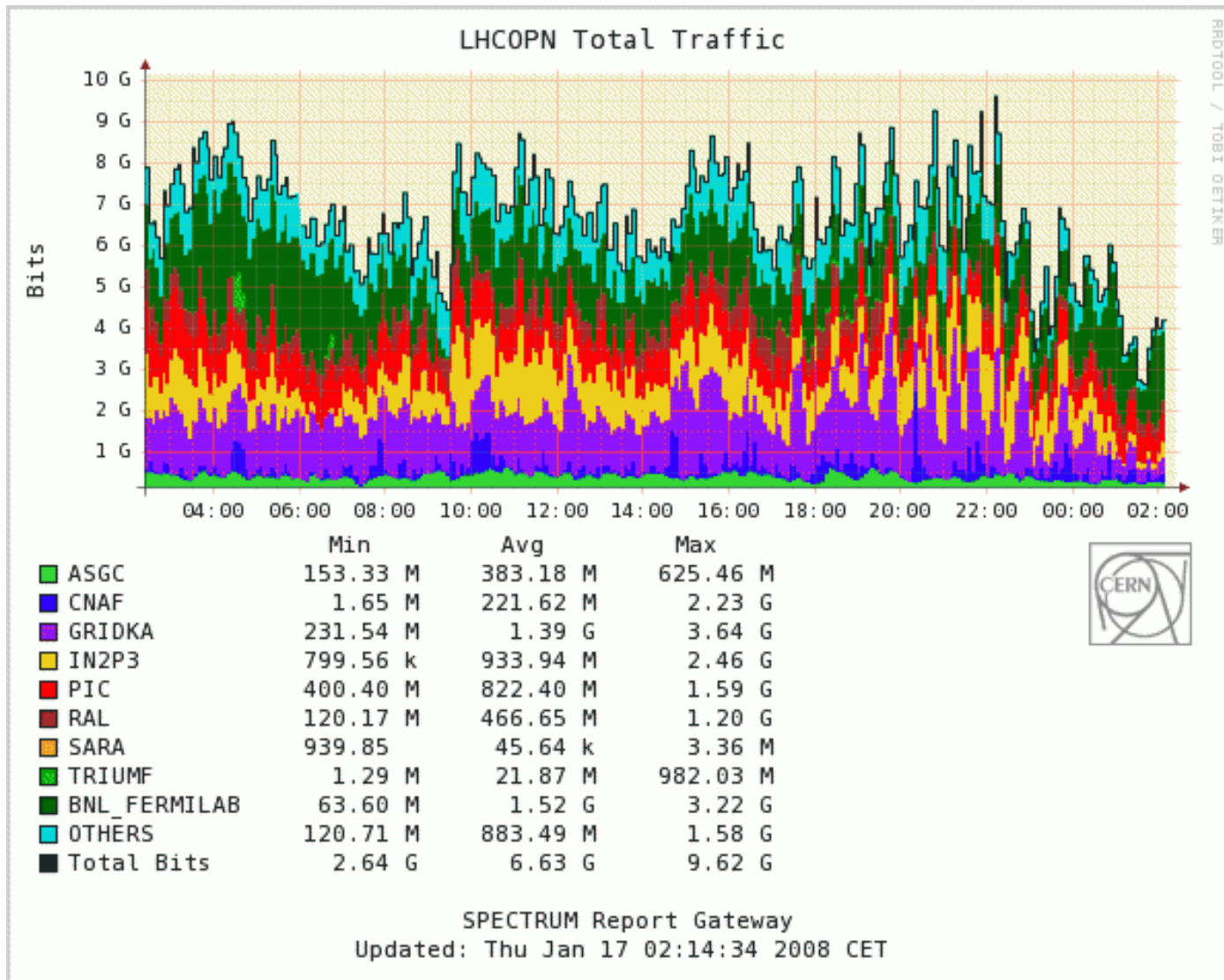
CERN External Network E513-E – AS513



- All technical content is on the LHCOPN Twiki:
<http://lhcopn.cern.ch>
- Therapy Process
 - LHCOPN Meetings (every 3 months)
 - Active Working Groups
 - Routing
 - Monitoring
 - Operations
 - Active Interfaces to External Networking Activities
 - European Network Policy Groups
 - US Research Networking
 - Grid Deployment Board
 - LCG Management Board
 - EGEE

- Started in 2004 with the intention of solving the “T0-T1” problem
 - Well scoped problem at that time
 - “Group Therapy” sessions organised by CERN
 - No central funding
- Today multi-domain operational management is THE major issue
 - Responsibility – “Who me?”
 - Monitoring - “Keep your hands off my network!”
 - Grid Interface – “Its always the network!”
- Infrastructure can be improved
 - Starting as a simple unprotected “star” – insufficient for a production network but enabled rapid progress.
 - Has become a reason for and has leveraged cross border fiber.
 - Excellent side effect of the overall approach.





- Essential to arrive at an operational model using industry “best practices”.
- Monitoring/Resiliency/Redundancy all need to be improved.
- Important to keep capacity ahead of demand.
 - Real life use will give us the traffic patterns.
- Additional routes could provide more opportunities for backup
- Opportunities to make better use of the GLIF community?
 - GLIF is an excellent and very impressive initiative.
 - GLIF has brought much attention to the excellent work being done world wide.
 - But (and this might simply reflect my own limitations)

- LHC networking is organic and many opportunities exist for improving T1-T2 connectivity (and T1-T1 connectivity).
- Can GLIF play a role in this?

- We (I) may say that GLIF is not “Integrated” nor a “Facility”
 - By design to keep governance lightweight
 - Control Plane advances will certainly help, but governance issues will remain.
- Connections depend on one-by-one bi-lateral/tri-lateral agreements
- It is not trivial to find key information
 - What can be used?
 - Under what conditions?
 - For how long?
 - At what quality level?
- How can GLIF contribute to production networks in general and LHCOPN in particular?