

SPRACE Status Report

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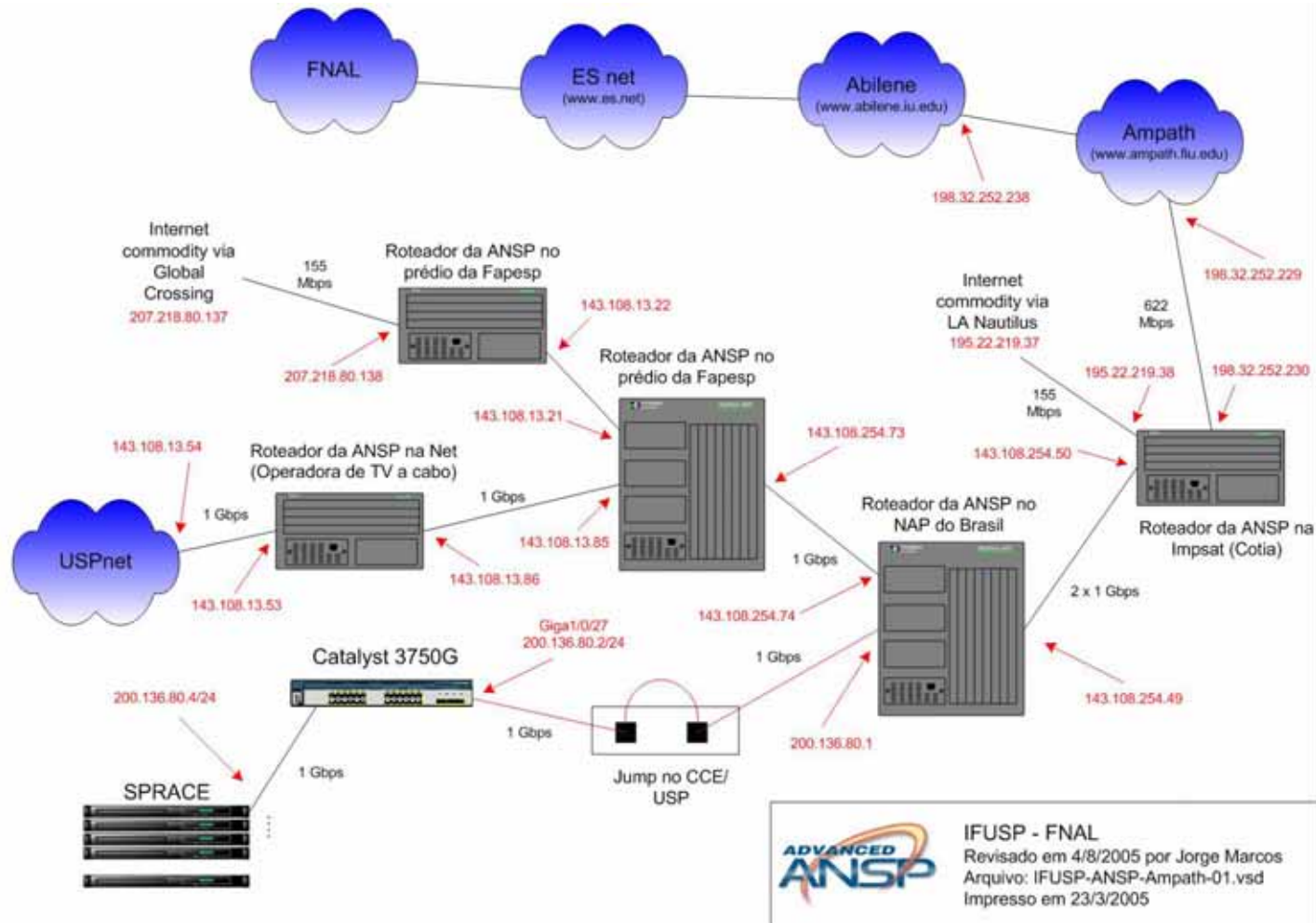
Cluster Description



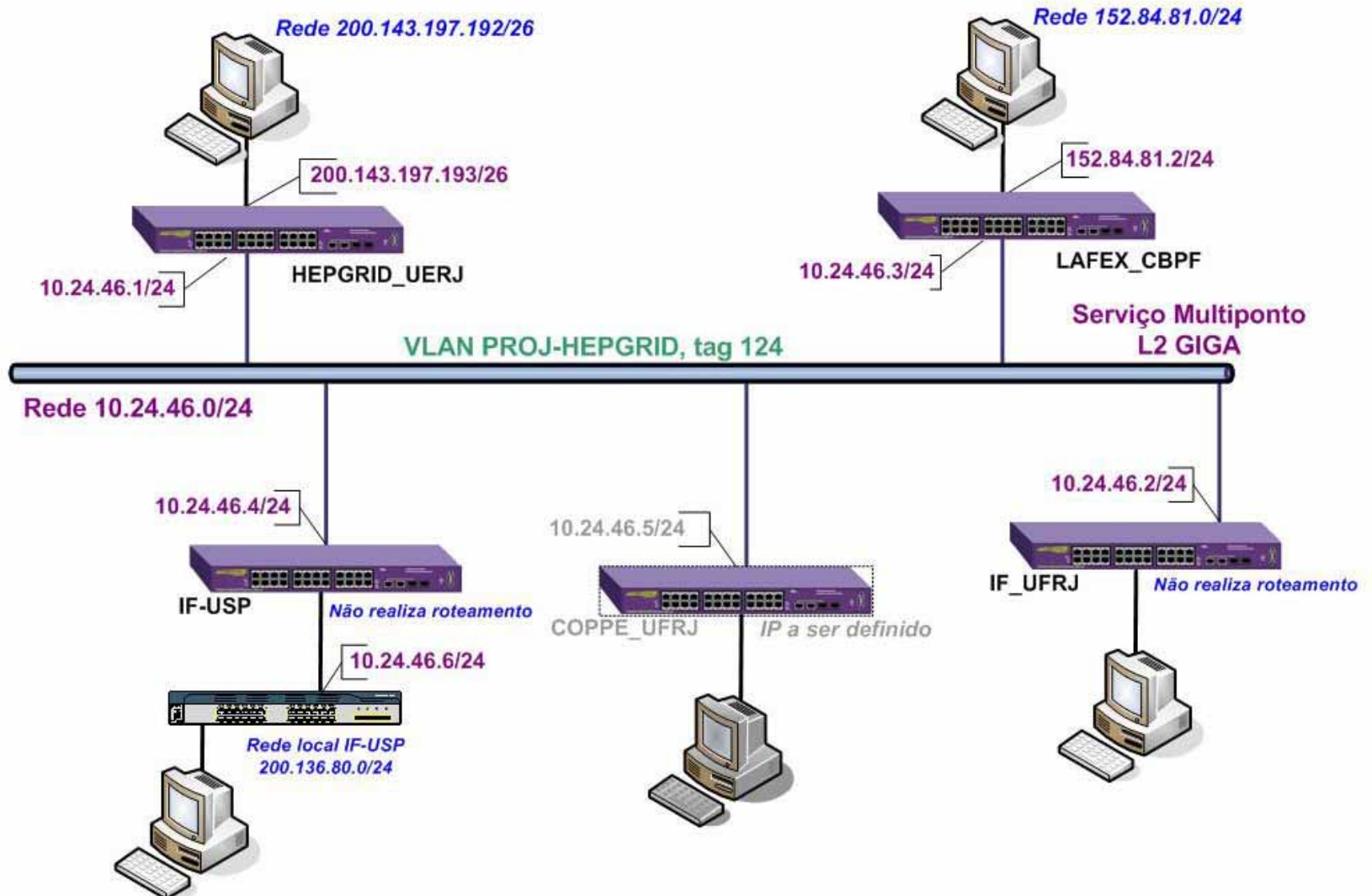
	Phase 1 (2004)	Phase 2 (2005)	Phase 3 (2006)
CPU	50	115	180
Power (GHz)	125	315	550
RAID (TB)	4	12	12



International Network Configuration



National Network

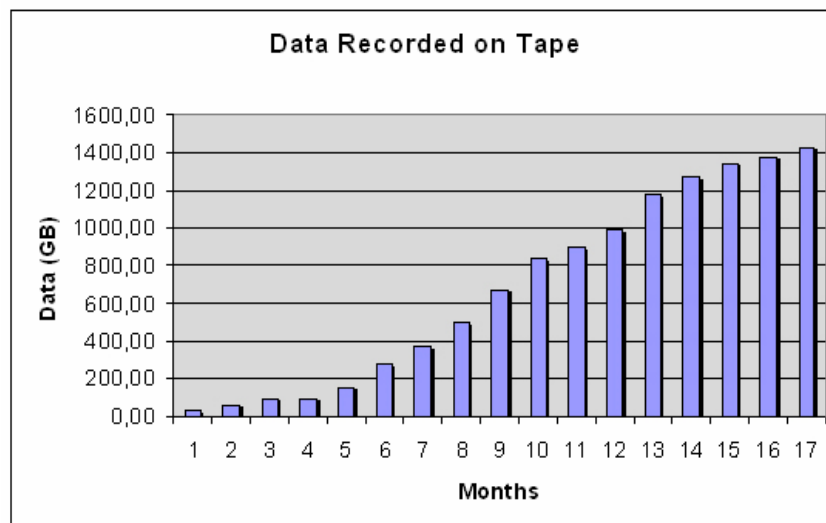
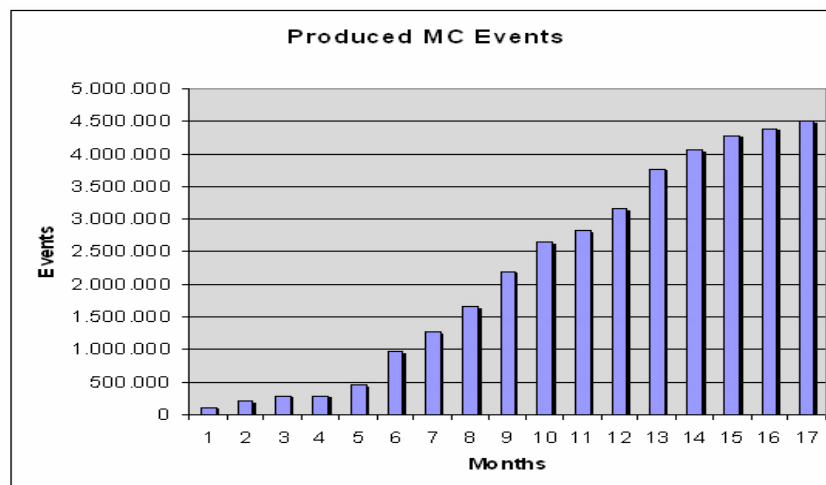


Ongoing Activities

- Monte Carlo production for DZero.
- Data Reprocessing for DZero.
- GridUnesp.
- Ultrafast Network Applications.
- HEPGrid and GIGA Project.
- Open Science Grid.

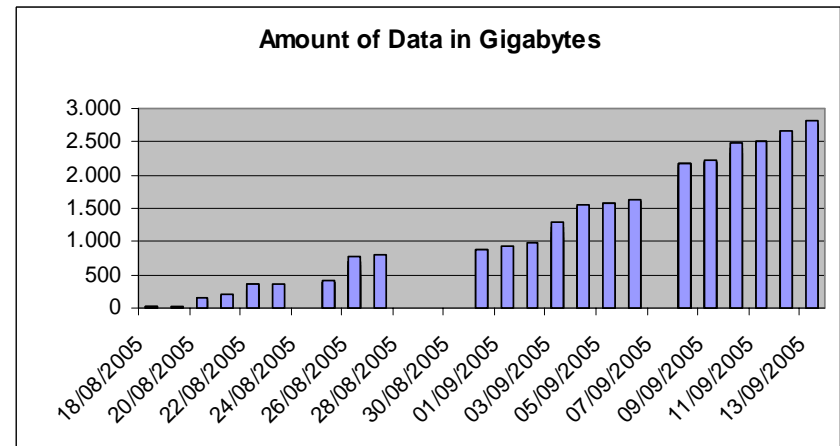
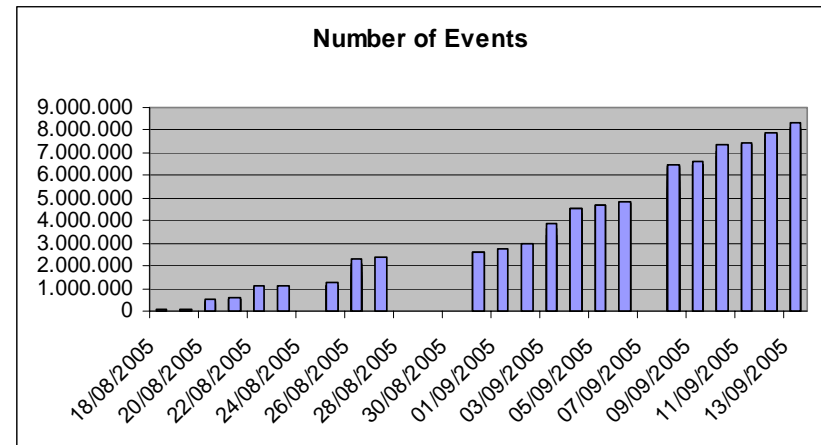
Monte Carlo Production for DZero

- **McFarm Era**
 - From March/04 to July/05.
 - P14 production only.
 - Produced about 4.5 Million Events.
 - Stored more than 1.4 TBytes on tape at Fermilab.
- **SamGrid Era**
 - Using Dial-A-Job for job management.
 - 10^5 Events produced using P14 on July/05.
 - Ready for P17 production.
 - To fully start by mid-October.



Data Reprocessing

- Full SamGrid operation using LUHEP as submission site and d0reco tools.
- Certification started on July 17th and production started on August 18th
- Assigned:
 - 4,253 raw data files.
 - 9,206,931 events.
 - 3.12 TBytes of data.
- Reprocessed:
 - 3,841 raw data files.
 - 8,304,202 events.
 - 2.82 Tbytes of data.



Open Science Grid

- Development Cluster
 - 1 Head Node (SPGRID)
 - Dual Xeon 3.0 GHz, 2 GB, 2 x 35 GB 15k on raid1, dual Giga NIC.
 - 4 external RAID5 with 2 TB each.
 - Job server, storage server, grid gatekeeper.
 - 3 worker nodes
 - Dual Xeon 2.4 GHz, 1 GB, 36 GB 10k, 2 x Giga NIC
- To be used for iGrid demo on September 27 and on SC'05.



GridUnesp

- São Paulo State University (Unesp) Grid.
- Integration of scattered computing capabilities.
- More than 13 research groups from 6 different campi over São Paulo state.
- Research Projects on:
 - Structural Engineering.
 - Genomics.
 - High Temperature Super Conductivity.
 - Molecular Biology.
 - High Energy Physics.
 - Geological modeling
 - Protein Folding



UltraLight and Kyatera

- Spruce Research on Ultrafast Network Applications (SPRUNA).
- Ultralight Project
 - Funded by DOE and NSF
 - Enable petabyte-scale analysis of globally distributed data
 - Promote the network as an actively managed component.
- Kyatera Project
 - Funded by FAPESP.
 - Cooperative project for the study of advanced Internet technologies.

