

# **Grid Data Transfer**

## Status Report

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# Grid Storage Sites

- INFN CNAF Tier1 @ Bologna   
Total: 87.89TB; Free 26.12TB (29.7%); info update Nov. 17<sup>th</sup>
- CCIN2P3 Tier1 @ Lyon   
Total 100TB; Free ~92TB; 100TB more per year
- IPHC IRES @ Strasbourg   
Total 26TB; Free all; ~20TB available by late Oct. 2010, 80TB more requested for 2011
- IPNL @ Lyon   
Total 4.5TB; Free all

# Data location

**All experimental data are stored in GRID**

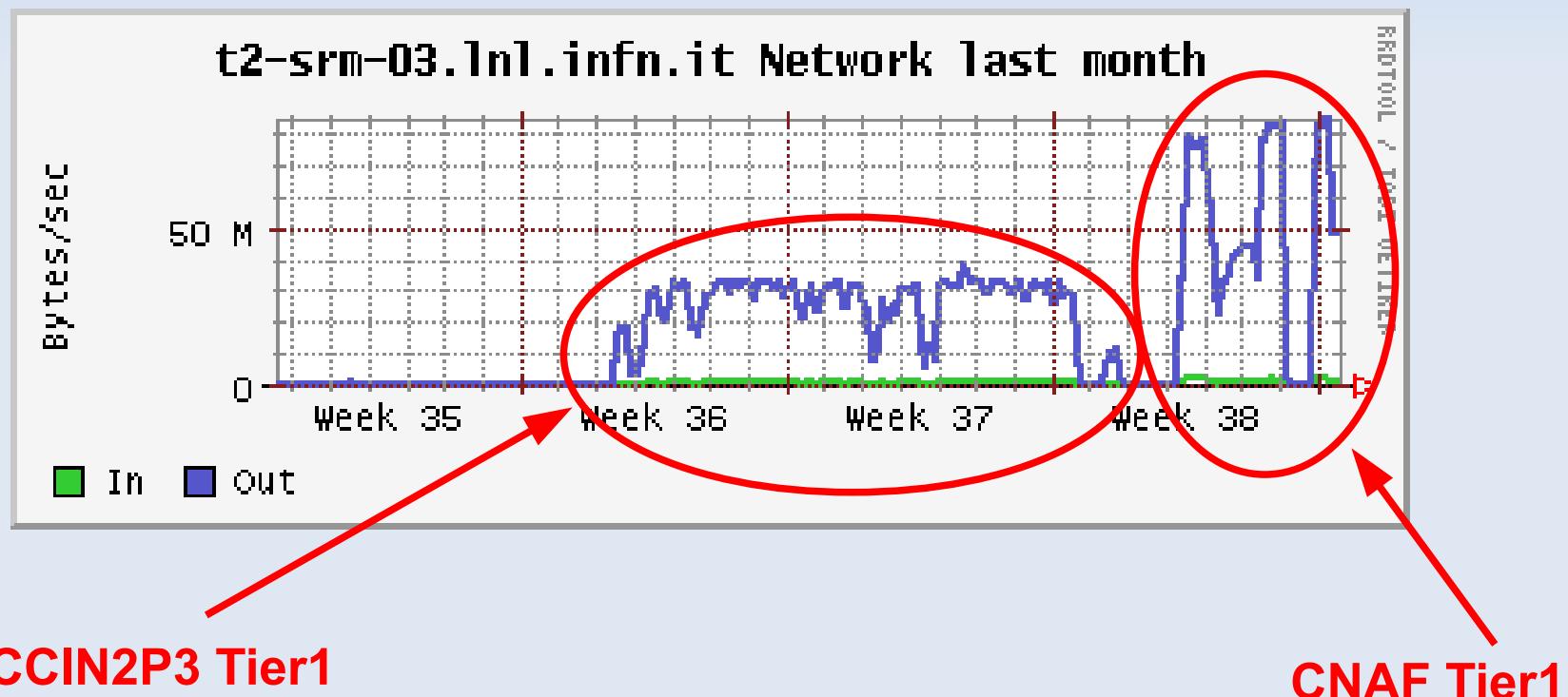
- CCIN2P3 Tier1 @ Lyon   
2010\_week19, 2010\_week28
- INFN CNAF Tier1 @ Bologna   
2009\_week12, 2009\_week22, 2009\_week27,  
2009\_week43, 2009\_week46, 2009\_week49,  
2010\_week06, 2010\_week07, 2010\_week09,  
2010\_week21, 2010\_week24, 2010\_week25,  
2010\_week29.

# News from Grid Sites

- CNAF has just migrated the storage system from CASTOR to GPFS: better performance for tape access. Endpoints will change.
- LYON ?
- Other ?

# Transfer Rates

- LNL – CNAF T1 ~100MB/s
- LNL – CCIN2P3 T1 max. 35MB/s



# Problems & Solutions

- **P:** “Preparation” of data before sending  
requires ~100% of used space  
**S:** Production of smaller files (5GB)  
data are sent “as they are”, following a standard naming convention
- **P:** (semi)manual data movement  
script using lcg-utils and clientSRM  
**S:** automatic data movement triggered by RC  
FTS, lcg-utils, RFT

# More information

- Guide for retrieving data from GRID  
[http://csngwinfo.in2p3.fr/mediawiki/index.php/Grid\\_HowTo](http://csngwinfo.in2p3.fr/mediawiki/index.php/Grid_HowTo)
- Technical information  
[http://csngwinfo.in2p3.fr/mediawiki/index.php/SRM\\_StoRM](http://csngwinfo.in2p3.fr/mediawiki/index.php/SRM_StoRM)
- Guide for sending new data to the GRID (admin only)  
[http://csngwinfo.in2p3.fr/mediawiki/index.php/Data\\_Movement\\_Guide](http://csngwinfo.in2p3.fr/mediawiki/index.php/Data_Movement_Guide)
- Viewer of GRID resources and statistics (not fully working!)  
<http://gstat-prod.cern.ch/gstat/vo/>