

IN2P3 Computing Centre

Getting ready for Service Challenge 3

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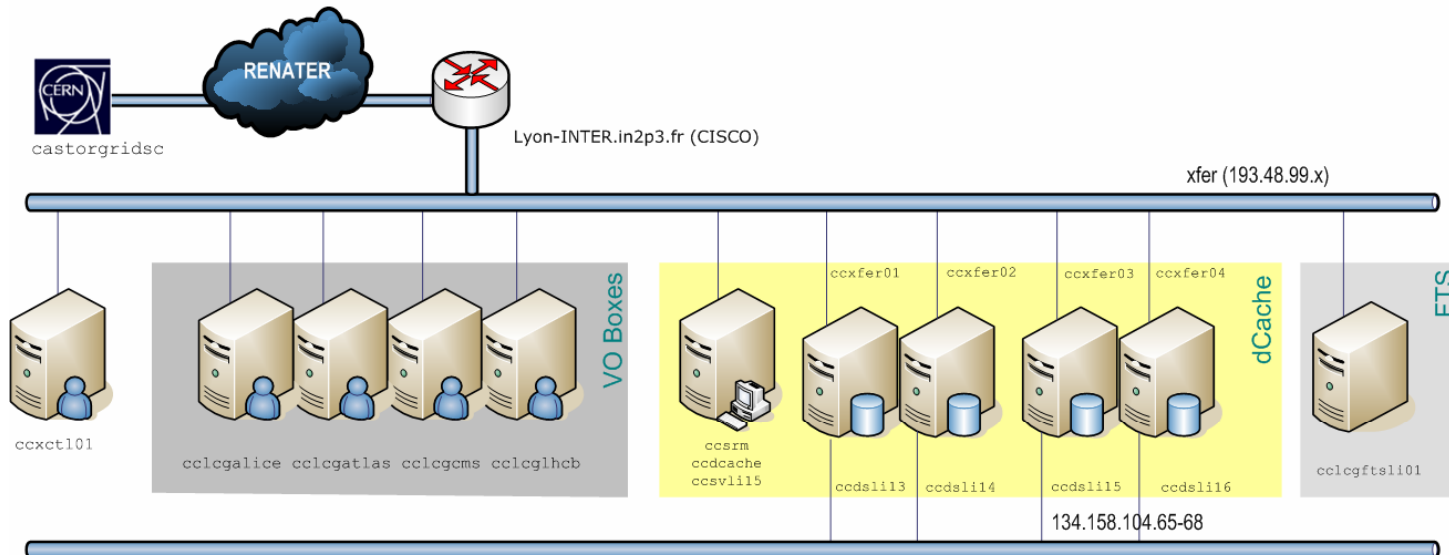
Configuration

- **Network: 1 Gbps non dedicated link**
 - Provided by Renater/GEANT
- **Disk:**
 - Managed by dCache
 - 4 disk servers: 6.3 TB
- **Tape:**
 - Managed by HPSS
 - ◆ We will use the production instance of HPSS
 - ◆ Fall back: use a HPSS instance dedicated to SC3
 - Data are transferred from dCache pools directly to tape
- **Software:**
 - dCache v1.2.2-7-3

Configuration (cont.)

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LCG Service Challenge 3: Setup for Throughput Phase



Notes

dCache

- Head Node (SRM access only): CPU: Pentium III 1.4 GHz | RAM: 1GB | Disk: 70 GB, ext3, mirrored
- Pool Nodes: (two sets)
 - CPU: 2 x Xeon 2.8 GHz | RAM: 2.5 GB | Disk: 1.8 TB, FastT100, RAID5,FC,XFS
 - CPU: 2 x Xeon 3 GHz | RAM: 2 GB | Disk: 1.35 TB (6 x SCSI U320) , RAID5, XFS
- Total cache disk capacity: 6.3 TB

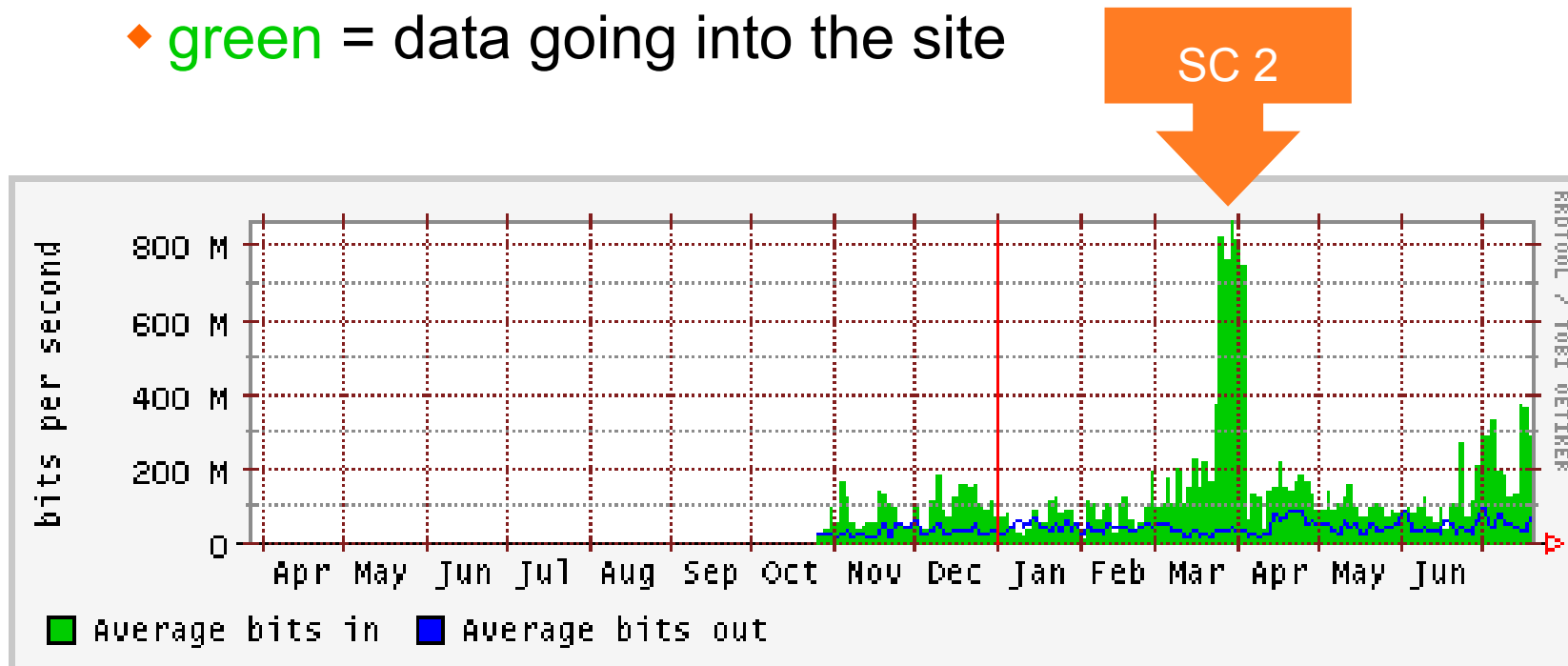
Network

- CERN network access control requires that the machines transferring data from/to castorgridsc be in the 'xfer' network



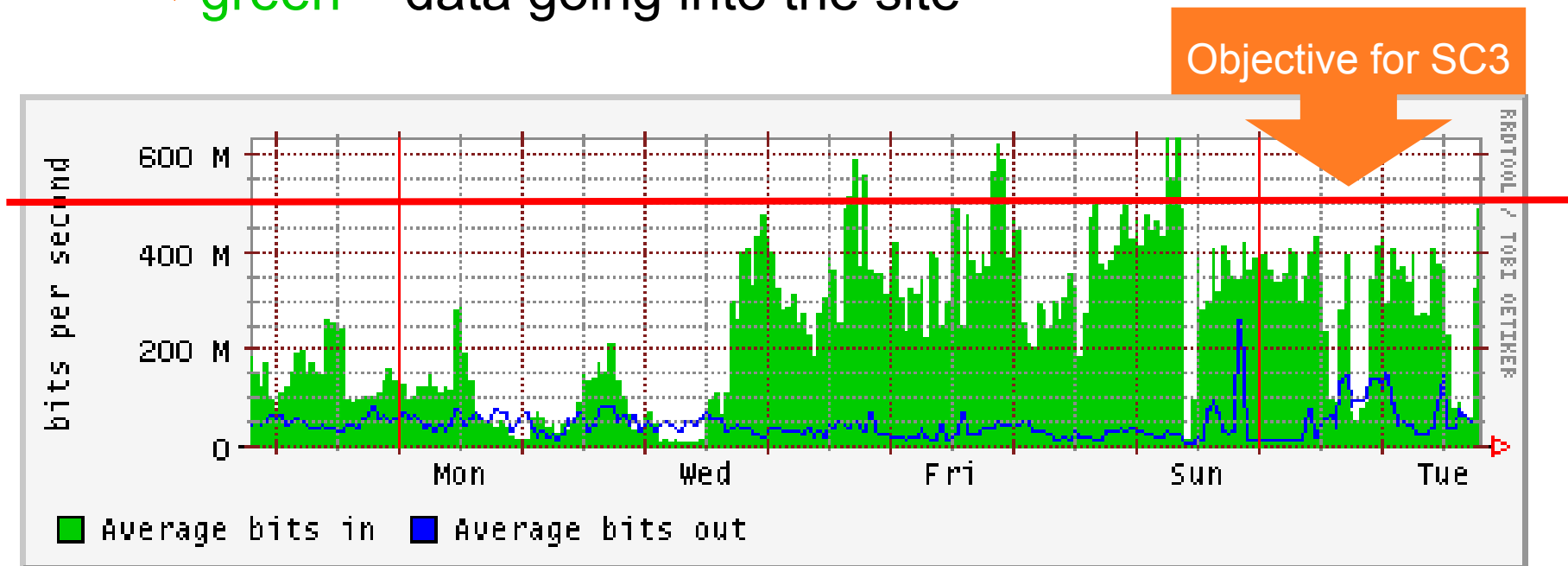
Last Updated: 2005-07-19
 EDM5id: <https://edms.in2p3.fr/document/1-005837>
 Author: F. Hernandez

- Usage of the Lyon – CERN link
 - Traffic on the last 12 months
 - ◆ green = data going into the site



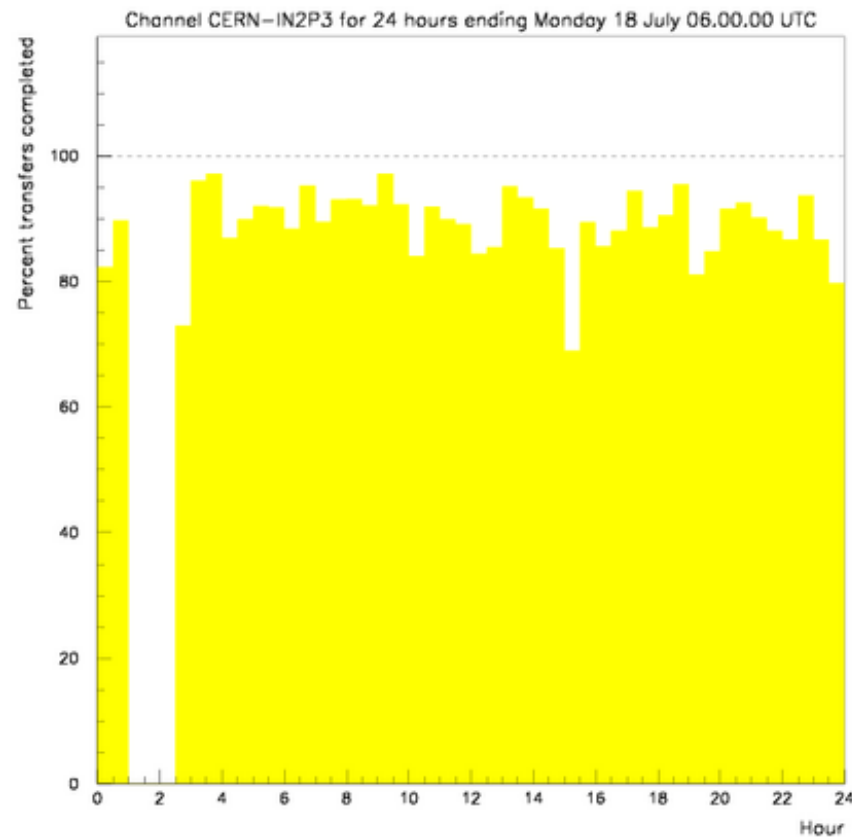
Status (cont.)

- Usage of the Lyon – CERN link
 - Traffic on this week
 - ◆ green = data going into the site



Status (cont.)

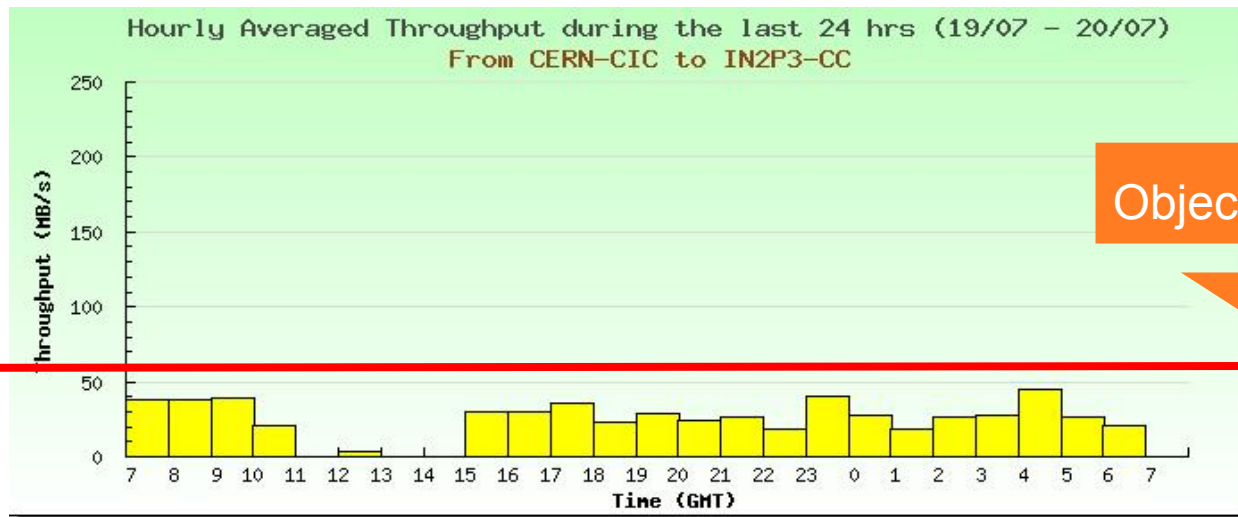
- Percentage of FTS CERN → Lyon transfers completed



Status (cont.)

- GridFTP traffic for SC3

- We don't understand where the problem is for reaching the 60 MB/sec goal
- We reached the goal using srmcp (during weekend of July 3rd)



Objective for SC3

Other services

- **FTS (+ MyProxy) service being installed**
 - Goal: use it to transfer data to the Tier-2 Ile-de-France (Orsay + Saclay + Paris)
 - Problems encountered with the Oracle version
 - ◆ We use Oracle 9i in production. FTS server is tested with Oracle 10
 - ◆ In contact with Gavin McCance for working this out
- **LFC**
 - Not required by the experiments for throughput phase in Lyon
 - Server installed and configured for dteam and egeode VOs (EGEE)
 - ◆ Using MySQL as backend
 - ◆ Planned to use Oracle in autumn

Other services (cont.)

- **LFC (cont.)**
 - Needs to be fully tested: publish of service URL in the site information system
 - ◆ Needs to better understand interactions between central catalogue and site catalogues
- **VO Boxes**
 - one machine per experiment installed and delivered to experiments for testing
 - ◆ Still need to solve some VO-specific configuration issues
 - Close contact with experiment representatives to understand their needs
- **One machine for testing SRM transfers to/from our site for experiments**
 - Needed to integrate/validate their software
 - CMS currently testing transfers through PhEDEx

Lessons learned

- Close contact with experiment representatives helps a lot
- Service Challenges Wiki extremely useful for getting up to date information
 - Including James Casey's daily logs
- Complexity generated by testing the site setup with tools that are not the ones to be used during the challenge
 - srcmp vs. FTS usage of SRM
 - Negative impact on dCache: extra transfer of data between dCache disk servers

Plans for Service Phase

- Need to better understand what experiments plan to do in our site
- More tape drives will be added to HPSS
- More disk space will be added
 - dCache or xrootd or NFS or ... depending on each experiment specific needs
- Finish configuration of VO Boxes
 - Connectivity, disk storage needs, ...

Questions

