ALICE Grid Operations

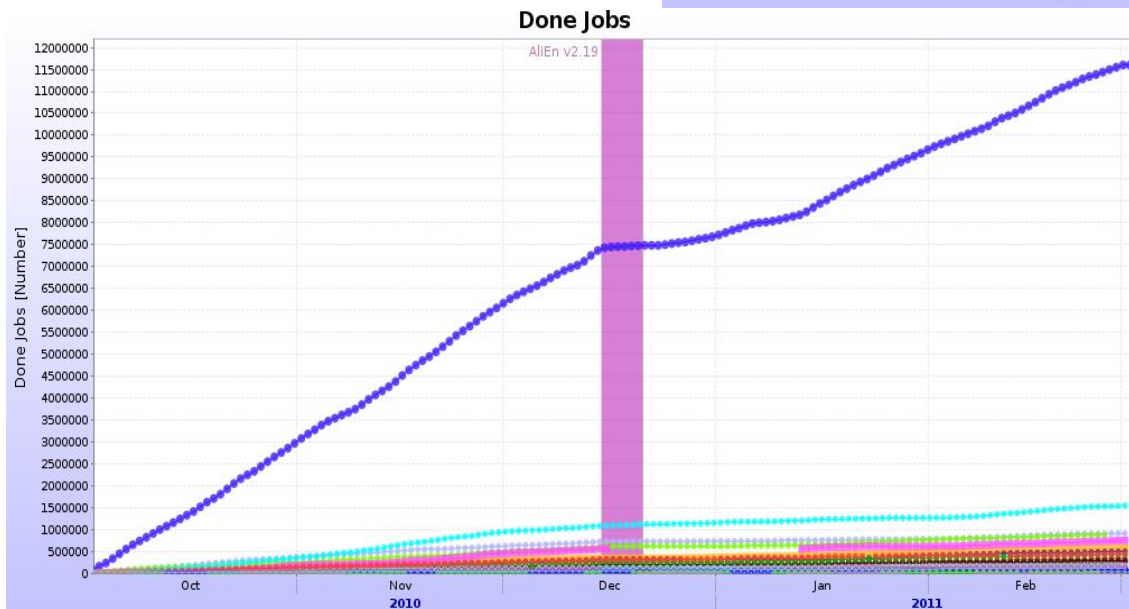**Lola Saiz Santos**

10th march 2011

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- Data taking 2010-2011

  - Heavy Ion run

- Operational Issues

  - Quattor managed machines

  - Upgrade to gLite 3.2.9

  - Xrootd servers upgrade

  - CAF nodes ampliation

  - Cluster Monitor issues

  - AFS to Torrent
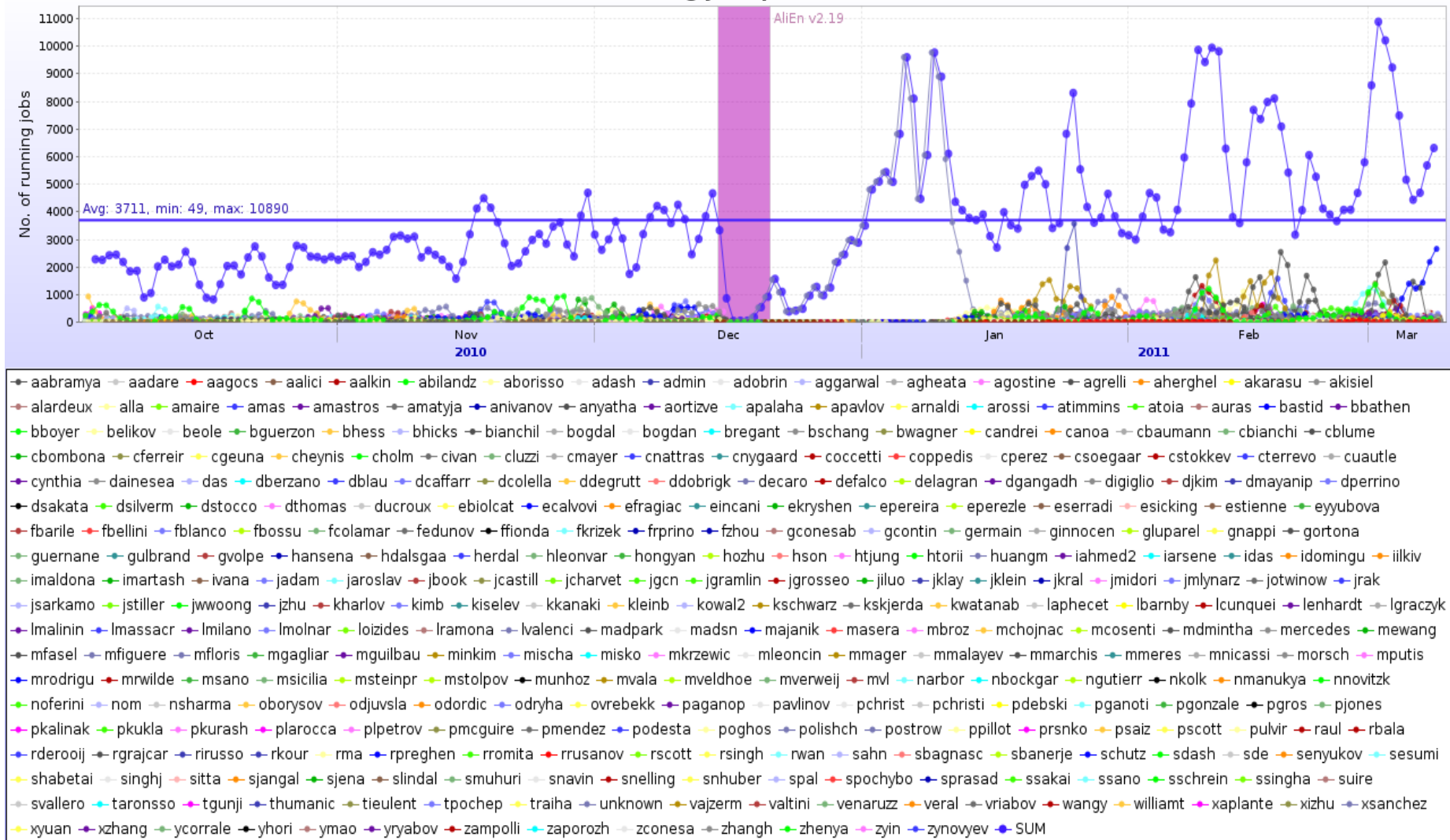
  - SAM - NAGIOS

- Current & Future Plans

Jobs

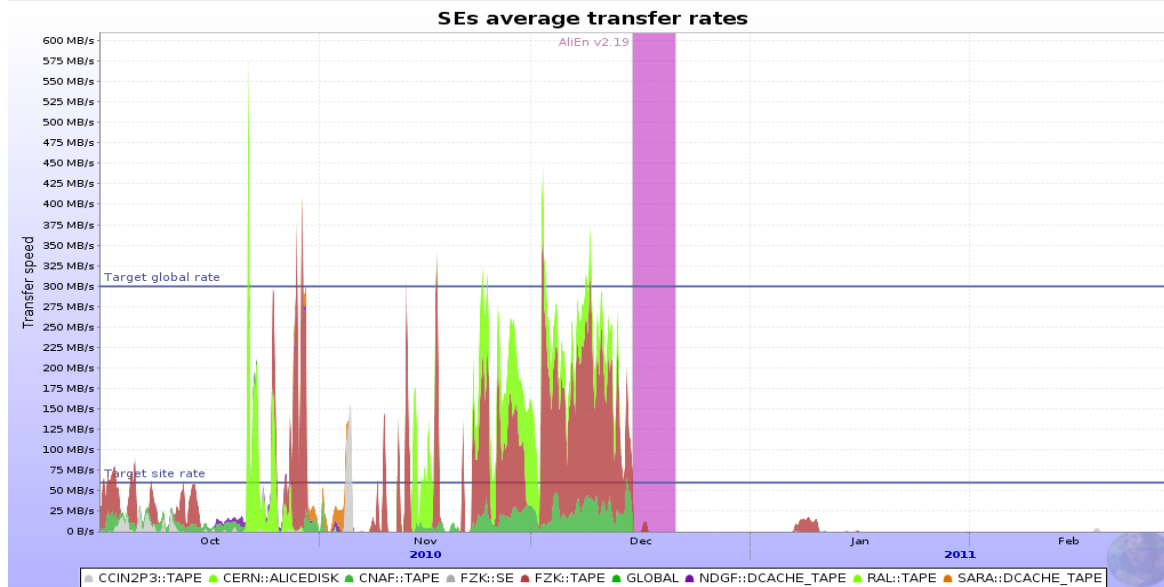-Peaks of ~30K jobs
-Average of ~17K jobs
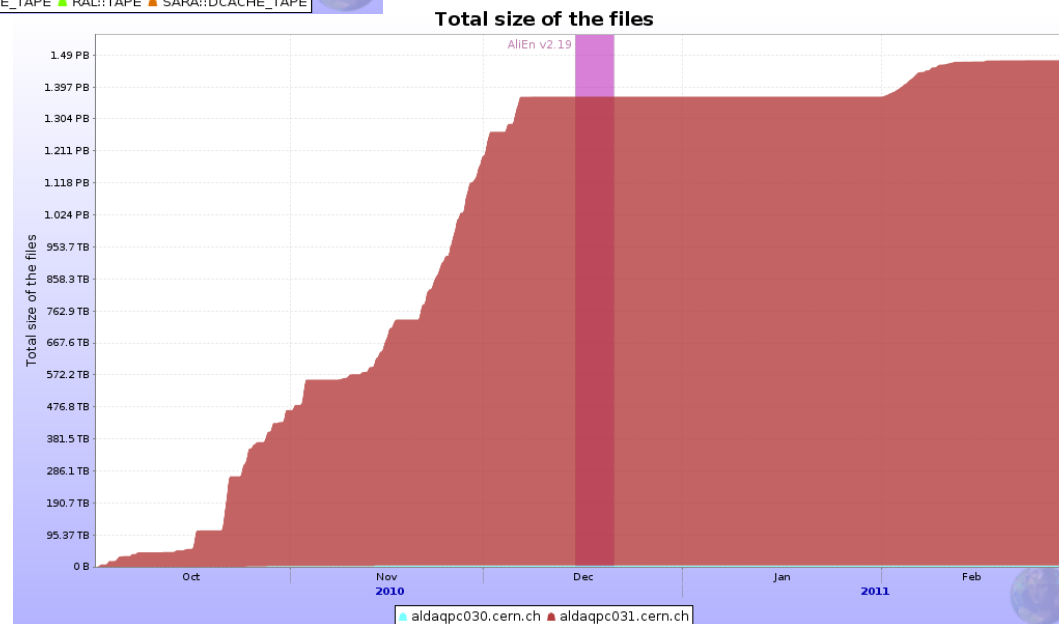
-12 million successful jobs

Chaotic user jobs

Running jobs per user

Raw Data Transfers

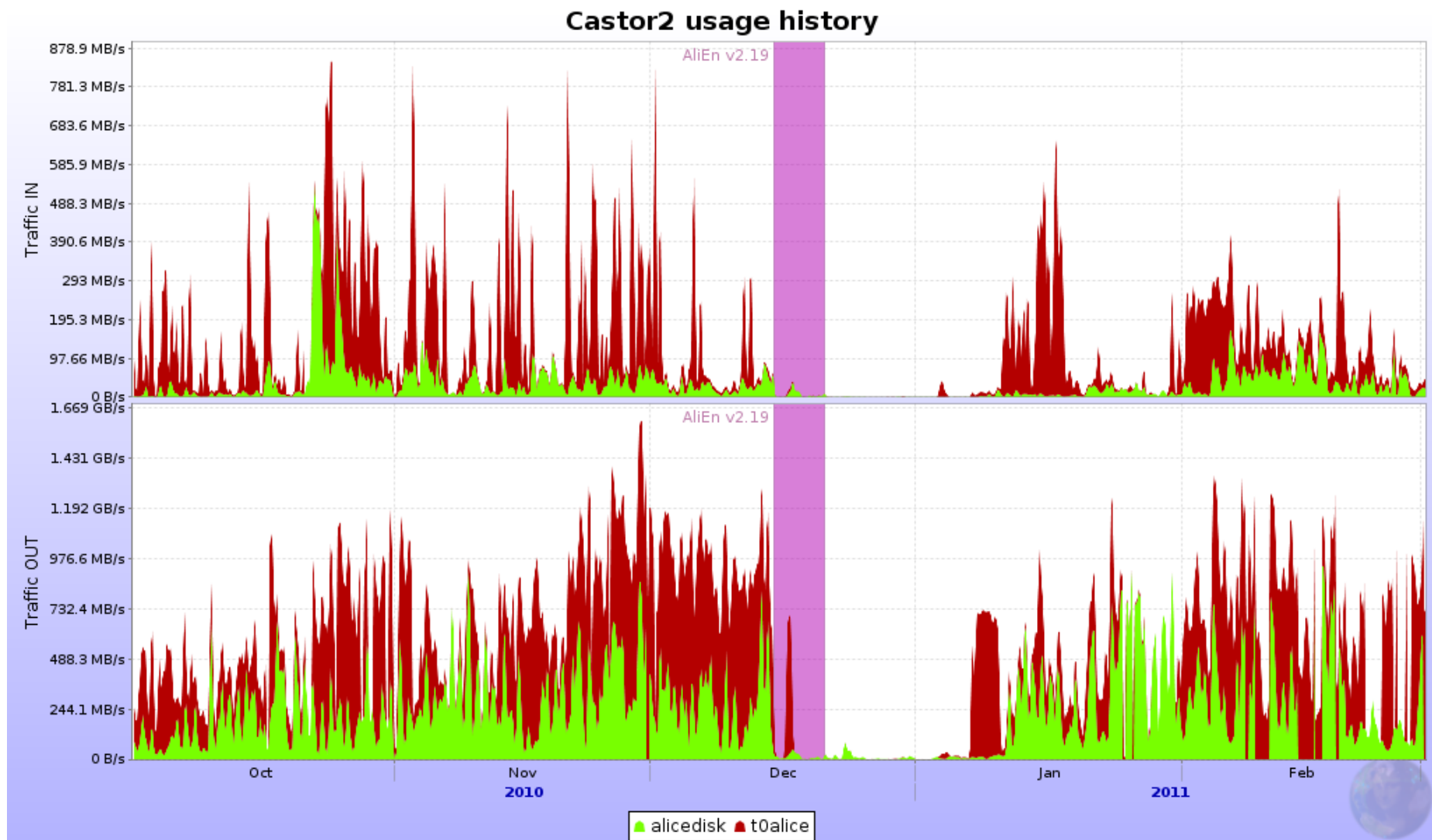-Peaks of 450MB/s
-P+P and Pb+Pb
280+750 TB transfer

CASTOR Usage

Castor2 usage history

Operational Issues

- Improve maintainability of Quattor managed machines
  - Modular template system
  - Increase the Quattor template intelligence
    - Decide depending on a setting of variables which templates to include
- Upgrade to gLite-VOBOX 3.2.9
  - new Glue 2.0 service publisher
  - new version of LB client
- Upgrade xrootd servers at CERN (voalicefs01-05)
  - SLC4 to SLC5
  - Quattor managed
    - Do all the templates for SLC5
  - Machines with crucial data that must be preserved
  - Many thanks to IT-DSS and IT-CF
    Successful Operation!!

Operational Issues

- CAF extension
  - New 16 nodes
  - Integrate and configure from Quattor point of view

- Cluster Monitor issues
  - Usually a big site problem
  - Service stopped working due to a process which consumed lot of memory
  - Partly solved by now splitting the CM into the master process and the rest
  - Possible solution to make our life easier:
    - Set a MonALISA alarm to restart the service the moment it fails
      - Service Down? Try to restart the CM X number of times

Operational Issues

- AFS to torrent
  - Reasons:
    - AFS performance issues
      - Jobs were found using the r/w instead of the r/o volume
    - Synchronization problems
      - Testing at CERN in both VOBoxes
    - Couple of issues with background processes from the alien-installer: not fully debugged
      - Performing well
- SAM-NAGIOS
  - Switch in March
  - Dashboard IS using the NAGIOS tests for the availability since yesterday
  - New instances for the NAGIOS tests

ALICE Impressions

- Happy with CREAM and support

- Happy with site stability and support

- RAW data processing and MC production on track.

  - Big date for ALICE is the QuarkMatter conference in Annecy (23-28 May)

- Heavy user activity on the grid since begining of 2011

  - From 2K jobs in parallel to 6K up to 15K. This is a great success!!

ALICE is happy!

Current & Future Plans

- RAW Pass2 reco of the HI period is about to start : expected duration 1 month

- Awaiting physics run in 2011, all is ready

- Enhance the usage of GGUS

- Improve availability calculation profile

  - LCG-CE ➔ CREAM-CE

  - Add xrootd tests ?

- gLExec ?

- No changes in operational model foreseen