

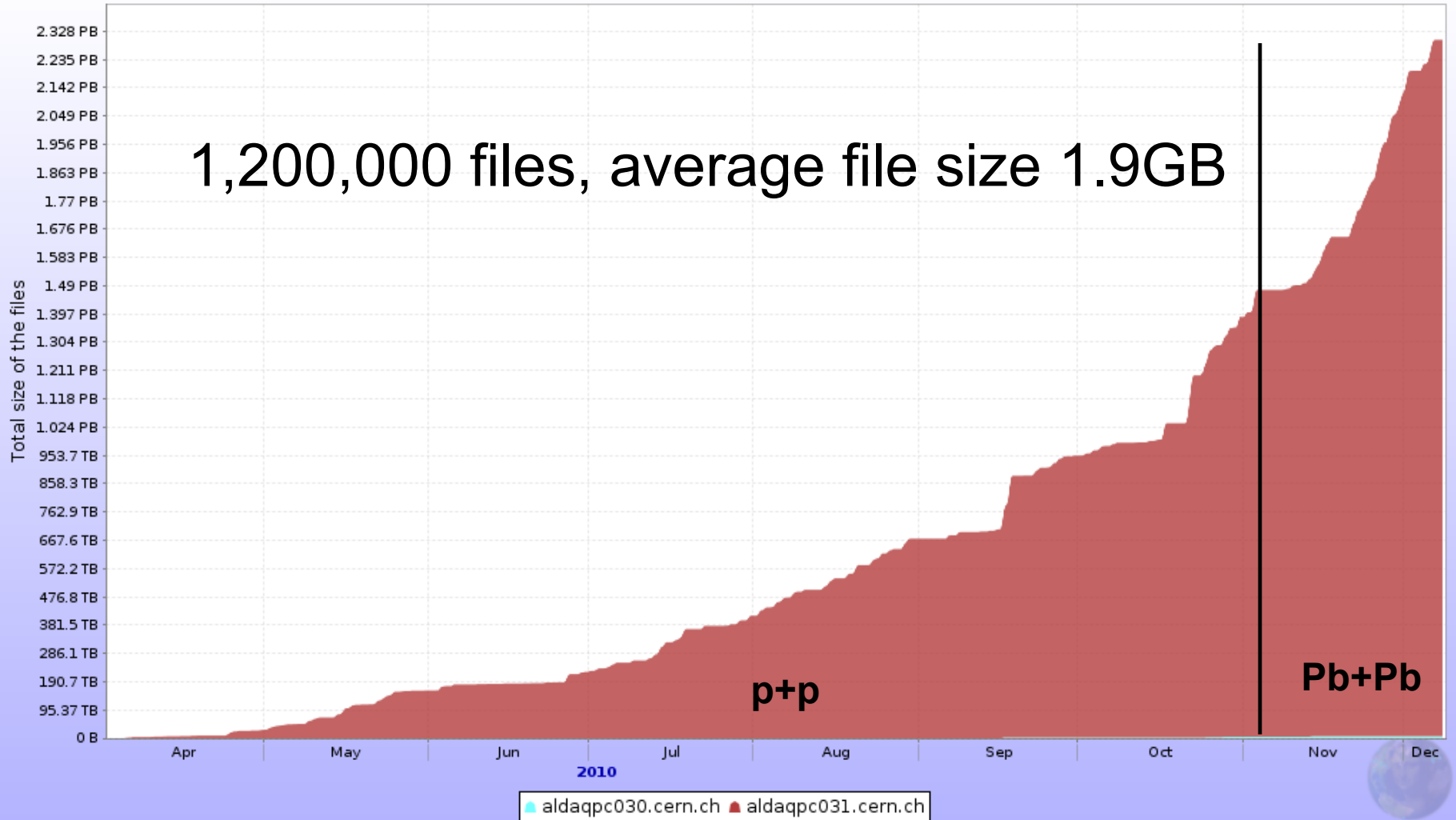


ALICE Operations short summary 2010

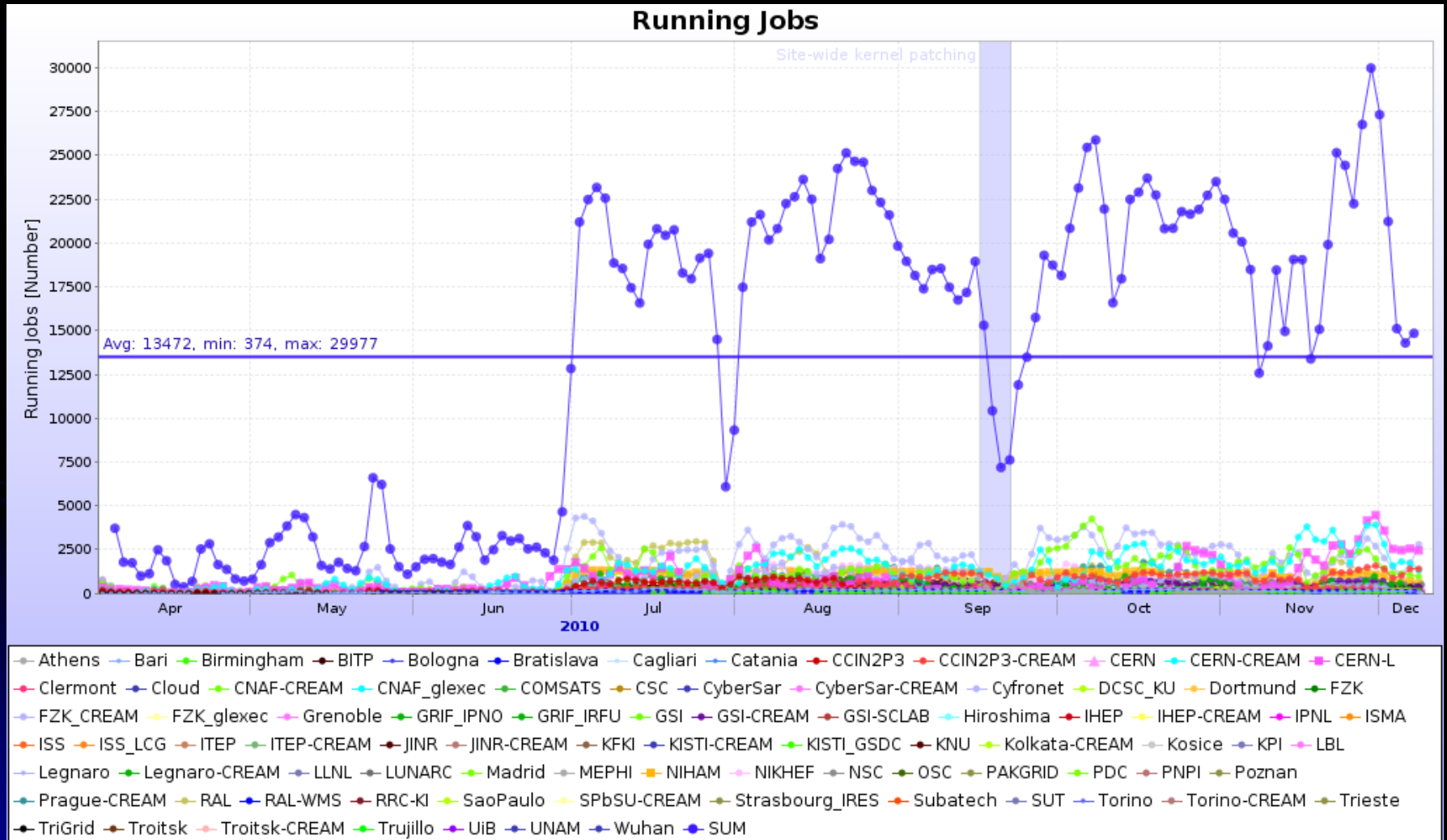
Grid Deployment Board
Dec 8, 2010

RAW data April – December 2010

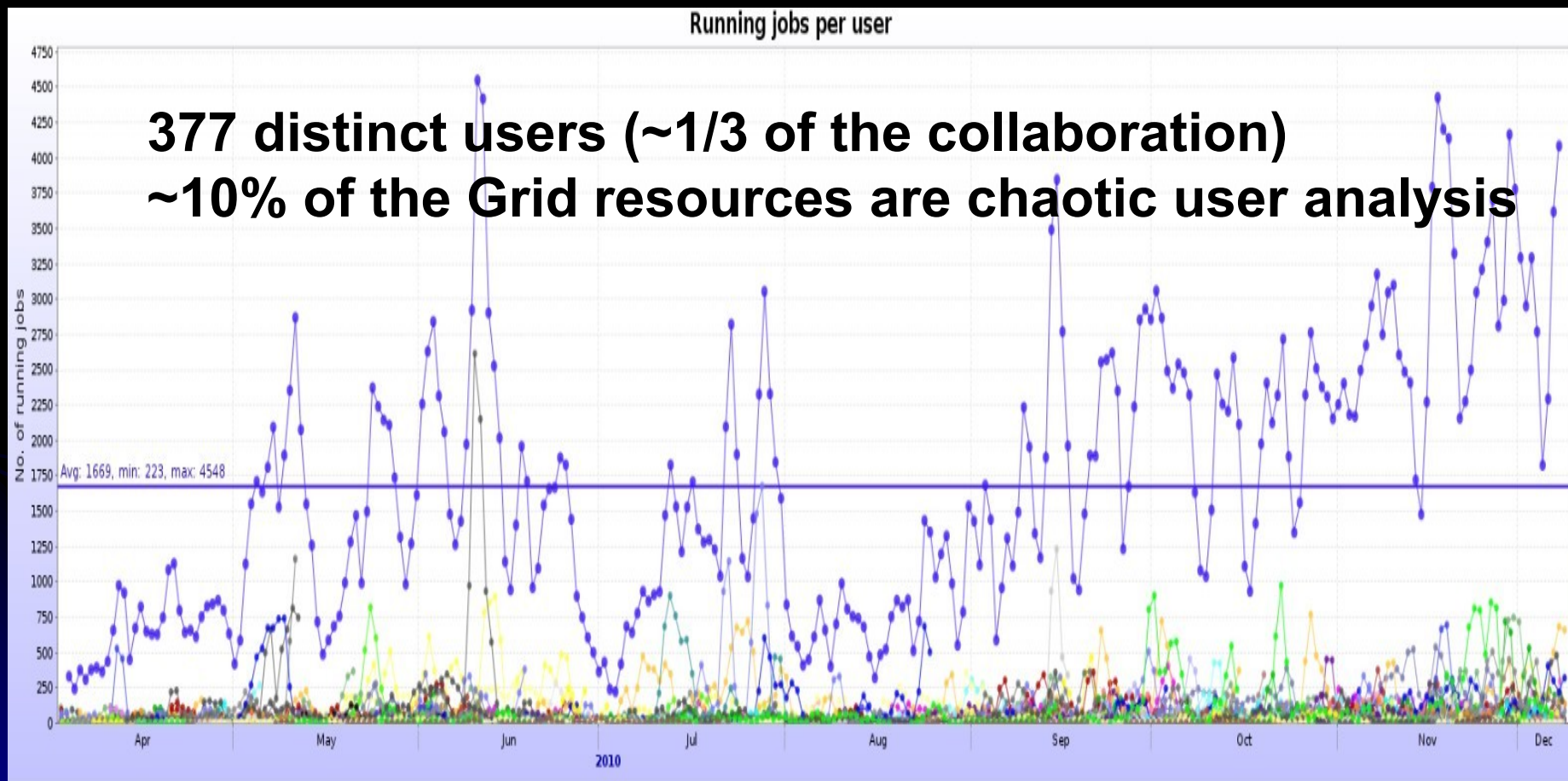
Total size of the files



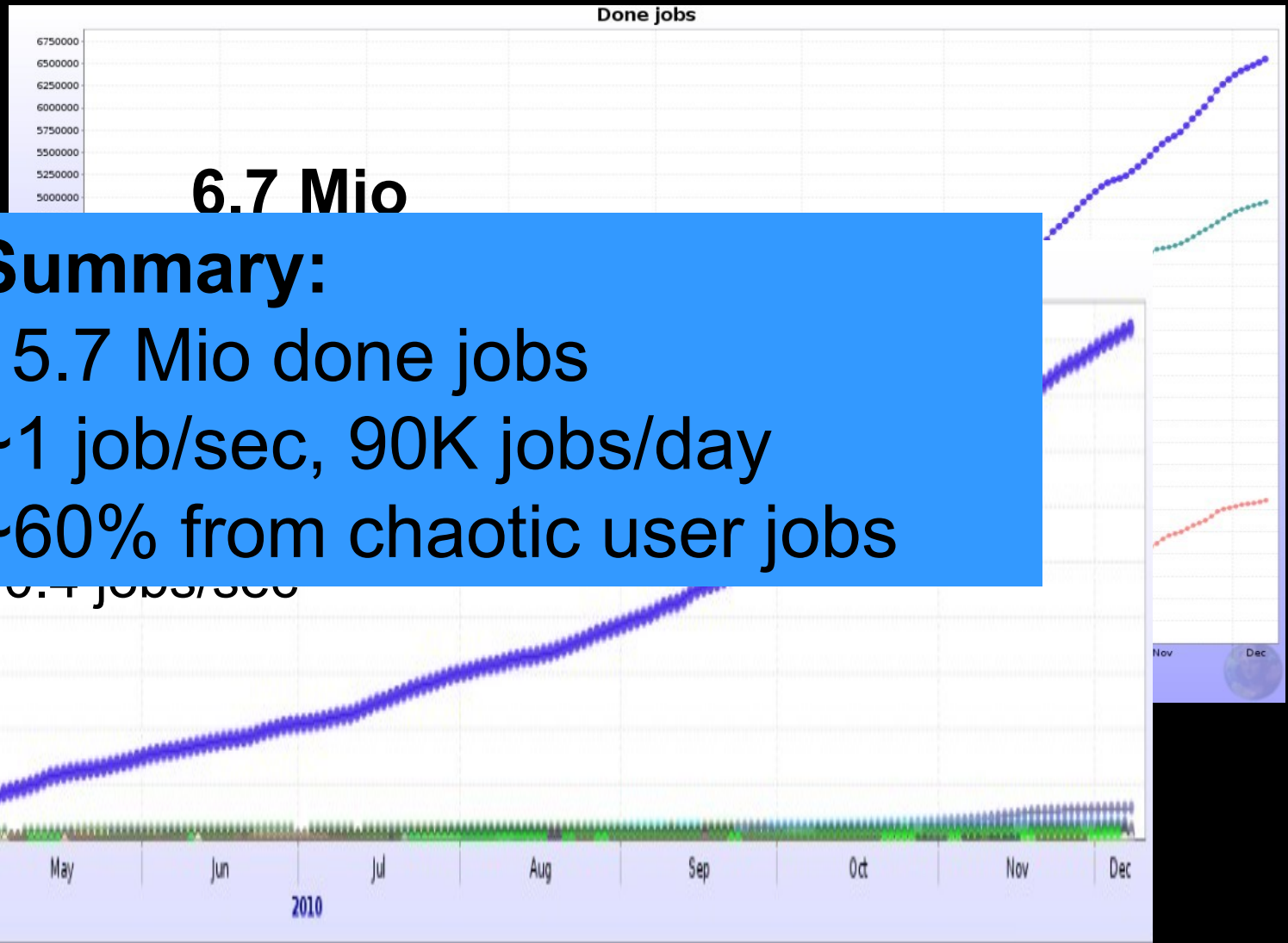
Grid occupancy – all



Grid occupancy – chaotic user load



Grid occupancy – done jobs

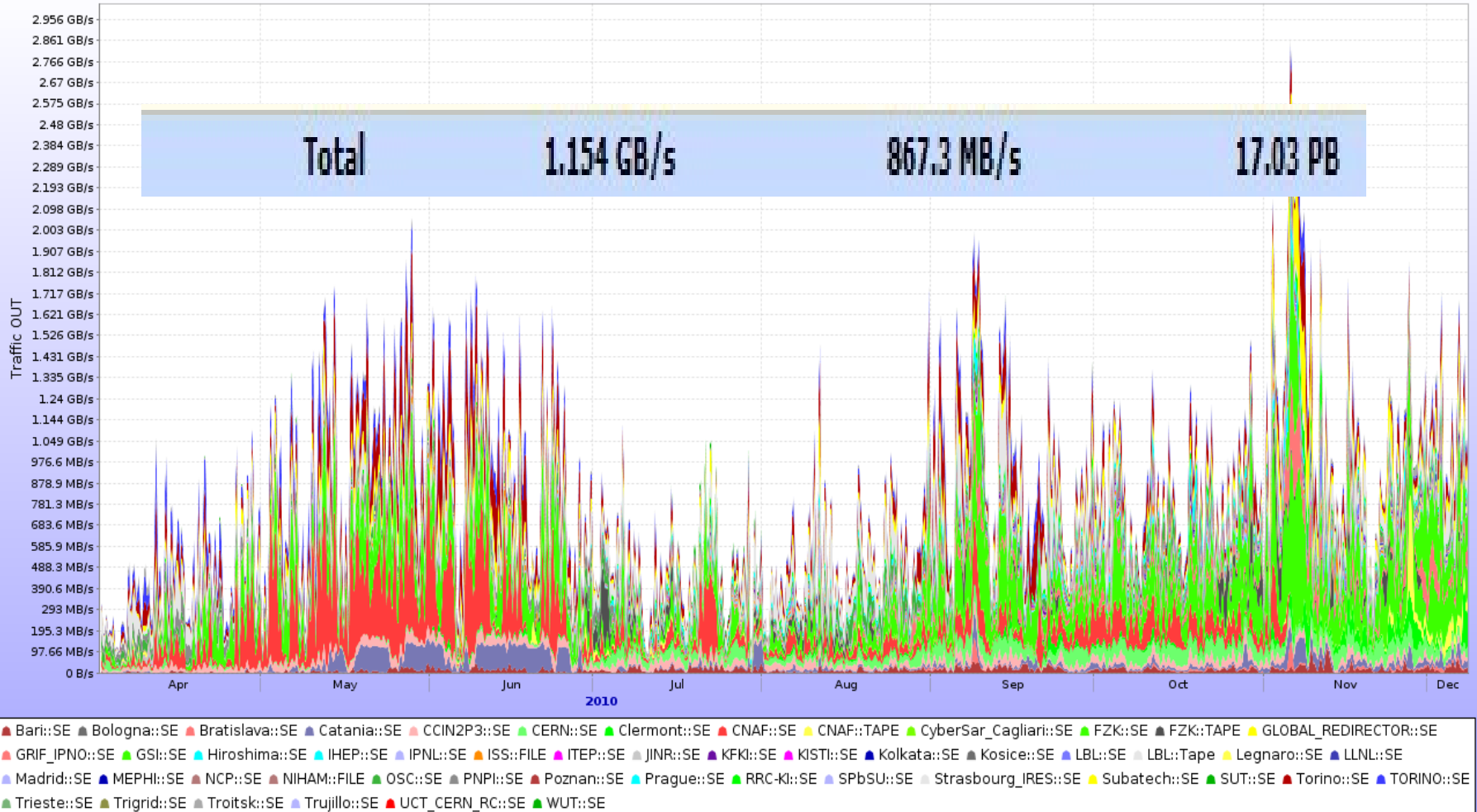


User analysis on the Grid

- The user analysis has been a resounding success
- Still there are several issues
 - The code is often 'green' – job failure is higher than for production jobs
 - Memory usage is still high in some cases (this has been reported by many sites)
 - Extremely short jobs (< minute) are a burden for the site batch/gLite/AlIEn services
- Mixture of production (including organized analysis) to user jobs is working well
- The storage is supporting the load!

User analysis - storage

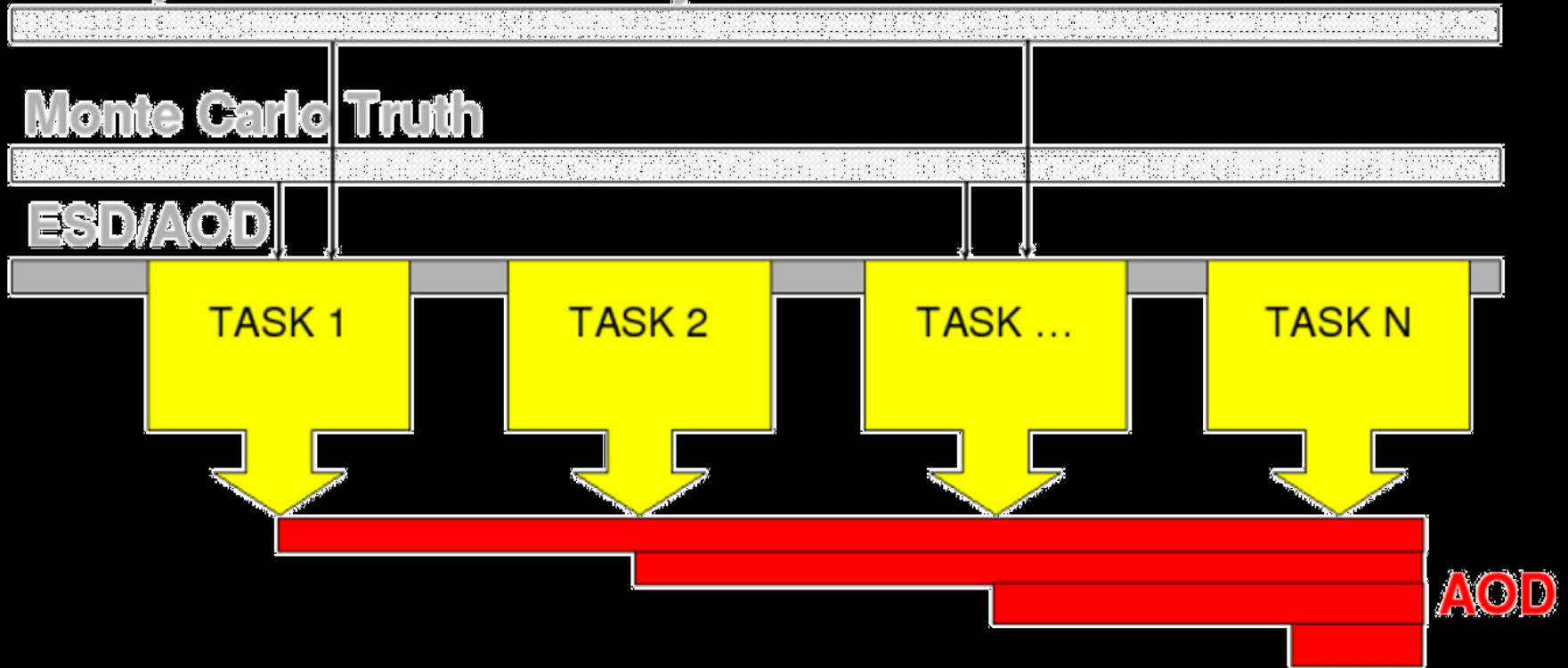
Aggregated network traffic per SE



Organized analysis - trains

Several trains running at all times, running on ESDs, produces QA, AODs

Acceptance and Efficiency Correction Services

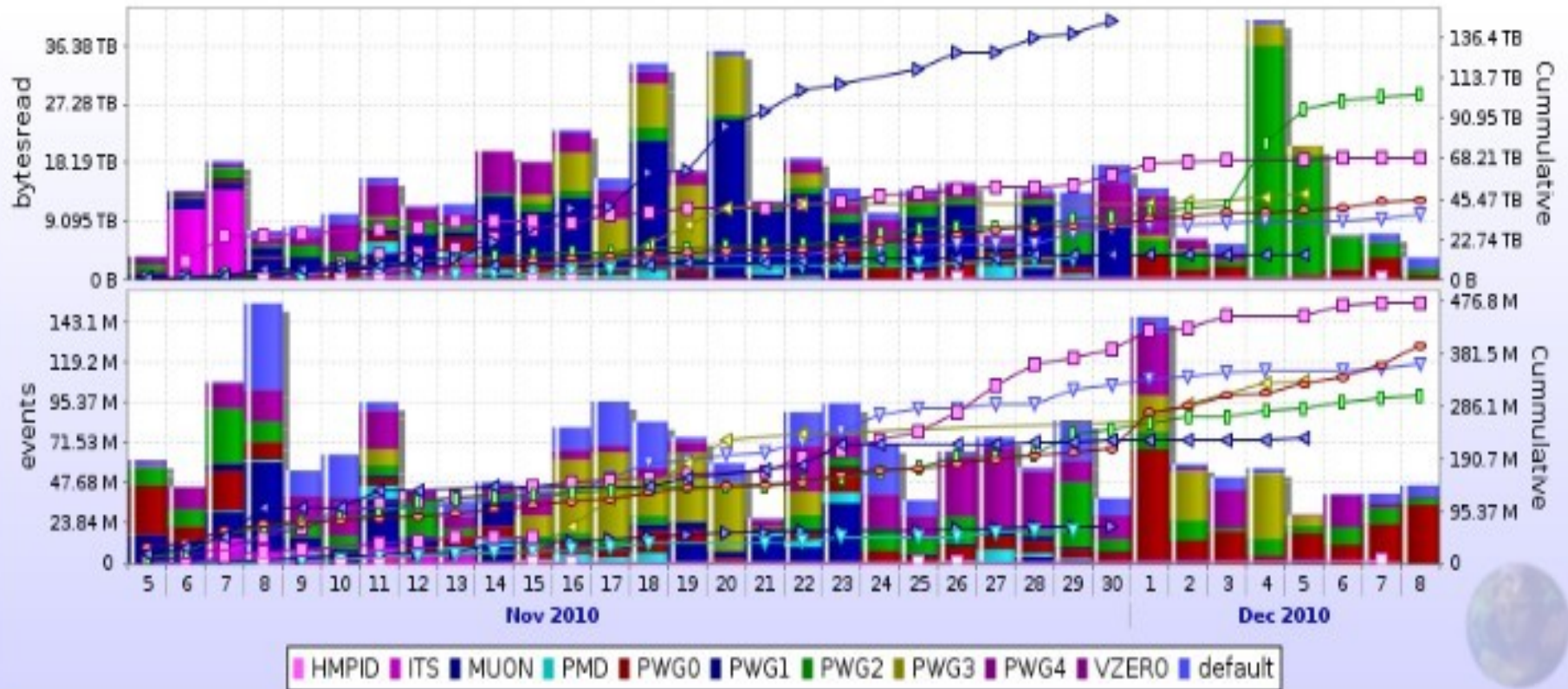


Prompt analysis - AAF

- Currently 4 AF (PROOF) facilities in operation (largest is CAF)
- Extremely popular with users, instrumental for first physics publication, QA, calibration
 - Essentially the 24-hour day/night cycle was not visible on CAF
- Access to AF (anywhere) enabled for all collaboration members

CAF stats

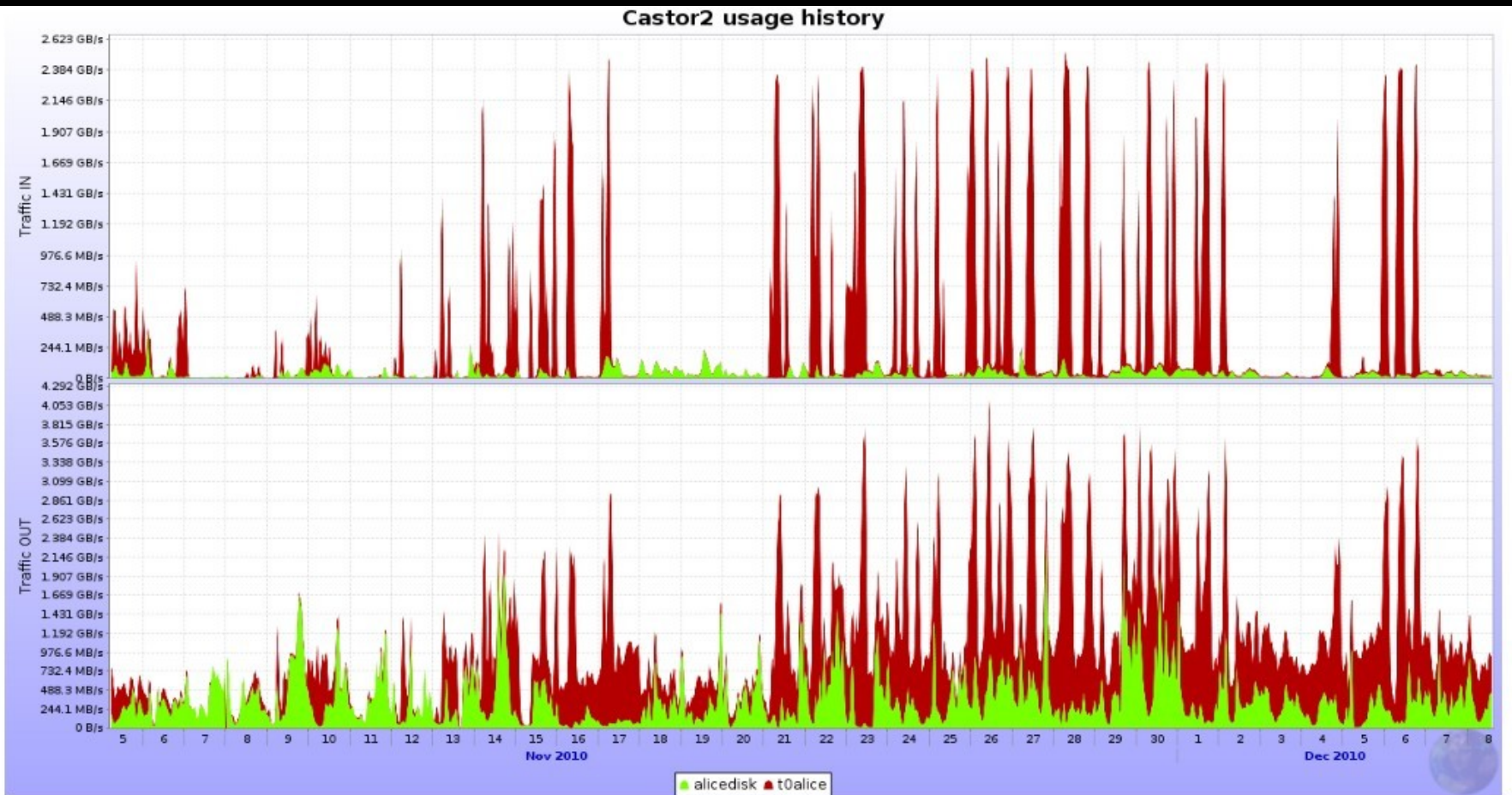
- The HI period



Services summary

- Homogenous site workload model – CREAM
 - The full migration was done already in the beginning of 2010
 - Several CREAM versions – rolling updates
 - Extremely good CREAM developers support
- Homogenous site data access model – xrootd (58 storage elements)
 - Majority of T2s – native xrootd (3 sites DPM/xrootd)
 - T1s – CASTOR2/xrootd CERN/RAL; dCache/xrootd – SARA, NDGF
 - StoRM/xrootd - CNAF
 - xrootd – CCIN2P3, GridKA

Services summary – CASTOR HI



Statistics

Network traffic IN

	Series	Last value	Min	Avg	Max	Total
1.	alicedisk	18.3 MB/s	27.35 KB/s	35.99 MB/s	1.92 GB/s	98.93 TB
2.	t0alice	6.377 MB/s	21.67 KB/s	323.9 MB/s	3.113 GB/s	890.3 TB
	Total	24.68 MB/s		359.9 MB/s		989.3 TB

Network traffic OUT

	Series	Last value	Min	Avg	Max	Total
1.	alicedisk	446.6 MB/s	74.58 KB/s	378.5 MB/s	5.904 GB/s	1.015 PB
2.	t0alice	470.6 MB/s	59.17 KB/s	748.6 MB/s	4.007 GB/s	2.009 PB
	Total	917.2 MB/s		1.101 GB/s		3.025 PB

Shutdown (Christmas) plans

- The GRID never sleeps
 - MC for p+p and Pb+Pb
 - RAW data reprocessing – late p+p periods
 - Mid-January – Pass 2 of Pb+Pb
 - Traditionally the Christmas period is very successful for processing, site support continues to be excellent
- AliEn upgrade v.2-19 (central services/sites)
 - 16-18 December

Summary

- The Grid operation in ALICE was excellent throughout the year
 - Thanks to the good quality Grid software, developer and site support
- The processing of MC, RAW and user analysis did not encounter any major obstacles
 - Effectively all of the computations are done on the Grid and prompt analysis facilities (PROOF)
- ALICE is happy 😊