

The logo for Fabric Infrastructure and Operations (FIO), consisting of the letters 'FIO' in a white, bold, sans-serif font.

Fabric Infrastructure  
and Operations

CERN IT  
Department

# Metrics for CASTOR (and other storage systems)

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LCG-LHCC Referees Meeting, 19<sup>th</sup> February 2008



- “In order to promote understanding of the systems, it is strongly urged that metrics are developed and published to enable users to evaluate the performance of the storage systems over a sustained time period.”



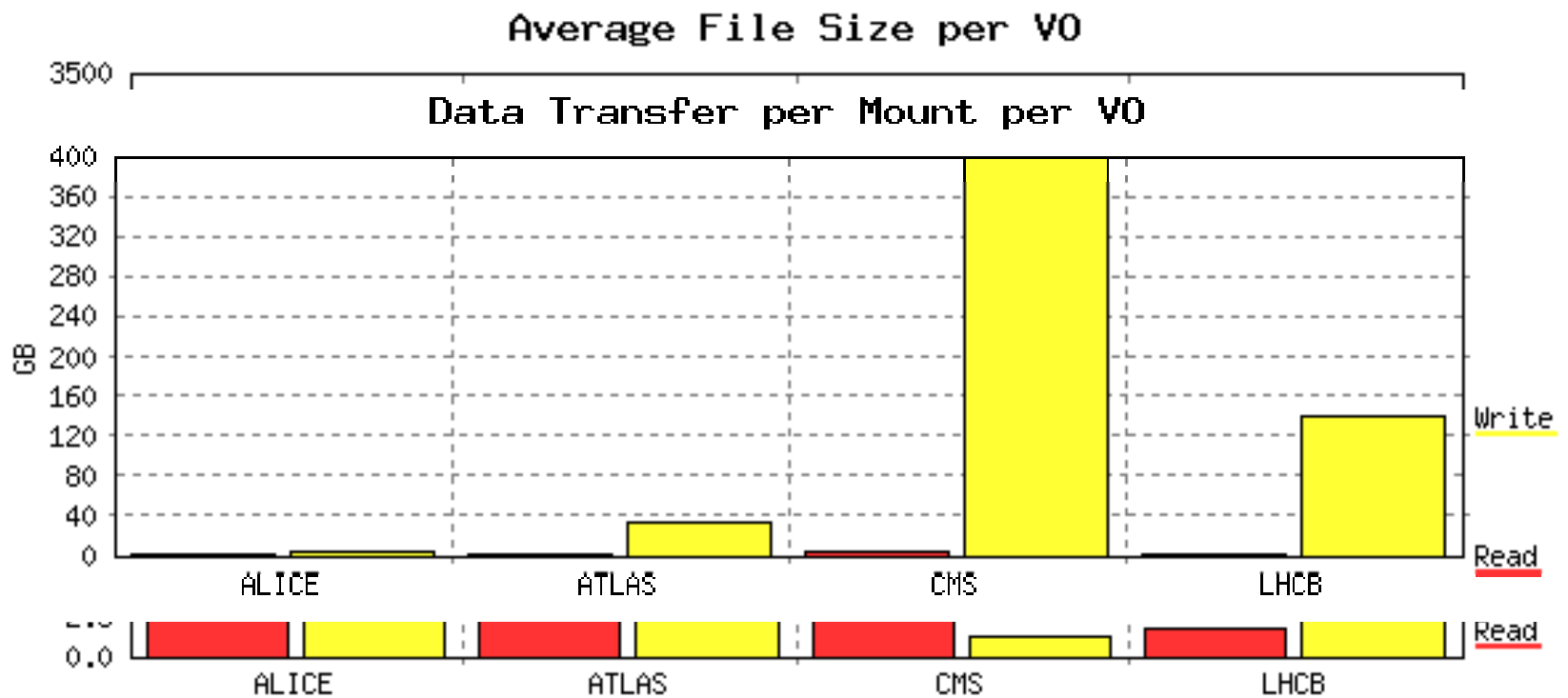
- A number of different CASTOR related performance measurements are collected, but perhaps not easily available from a single location (although they are used by experiment experts)
  - Many of the plots in this presentation are extracted from a report on CCRC by Mike Miller/CMS.
- Following the request from the November review
  - other metrics are proposed. We hope most of these can be collected as from the May CCRC, but (minor) changes to CASTOR logging messages are required.
    - Metrics can/will be prepared by VO as relevant.
    - Few (if any) of the proposed metrics are specific to CASTOR; these metrics could thus be used to compare performance across Tier1s.
  - Location(s) will be reviewed to improve ease of access and tracking



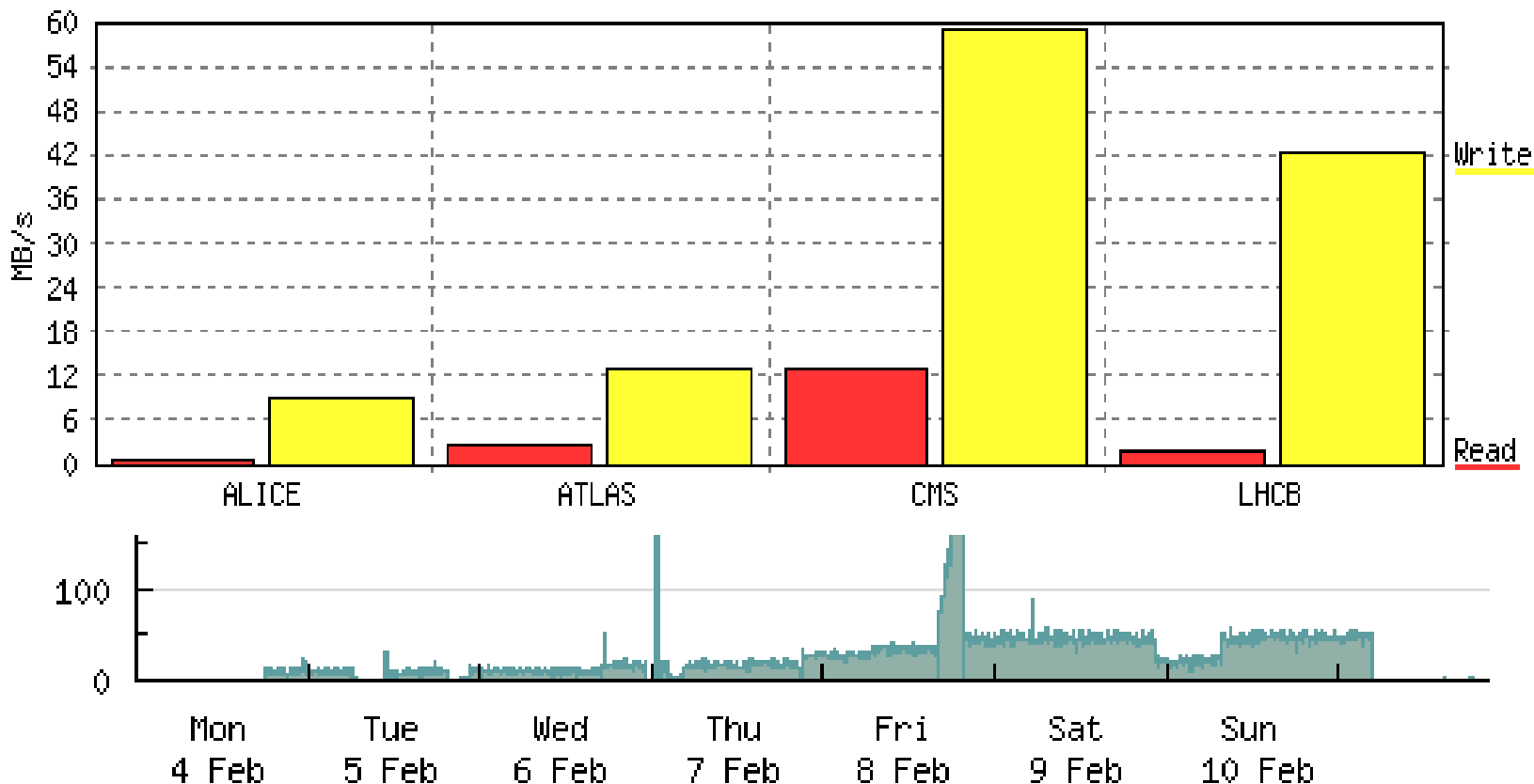
- Usage & Usage Patterns
- Performance
- Responsiveness
- Miscellaneous



- Usage & Usage Patterns
  - Average file size



### Total Data Rate per VO



	Thu	Sat	Mon	Wed	Fri	Sun	Tue
■ eth0 in	aver: 622.5M	max: 2.4G	min: 9.4M	curr: 245.2M			
■ eth0 out	aver: 548.5M	max: 4.8G	min: 37.9M	curr: 920.9M			
■ eth1 in	aver: 212.8	max: 4.2k	min: 0.0	curr: 1.7k			
■ eth1 out	aver: 31.6	max: 636.3	min: 0.0	curr: 244.1			





## TOEXPORT Service Class

Queued transfers - last 7 days

