



# Storage review

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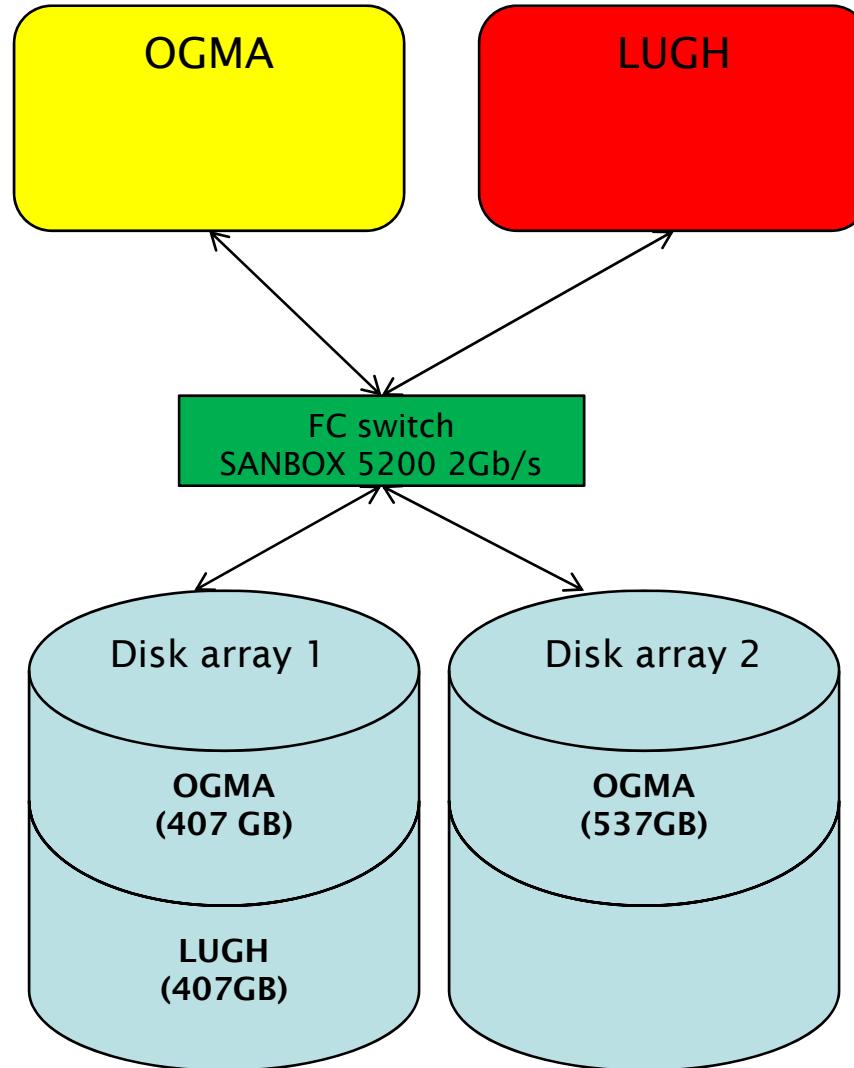
- Storage spec and configuration
- Performance
- Future plans



- Two disk arrays used by both databases (OGMA, LUGH):
  - Storage: 2 SAN, 2GBps FC
  - Single switch SANBOX 5200 2Gb/s
  - Physical disks available:
    - Array 1: 16 disks SATA 260GB
    - Array 2: 6 disks SATA 550GB
  - Arrays configured with RAID10



# Storage spec and configuration



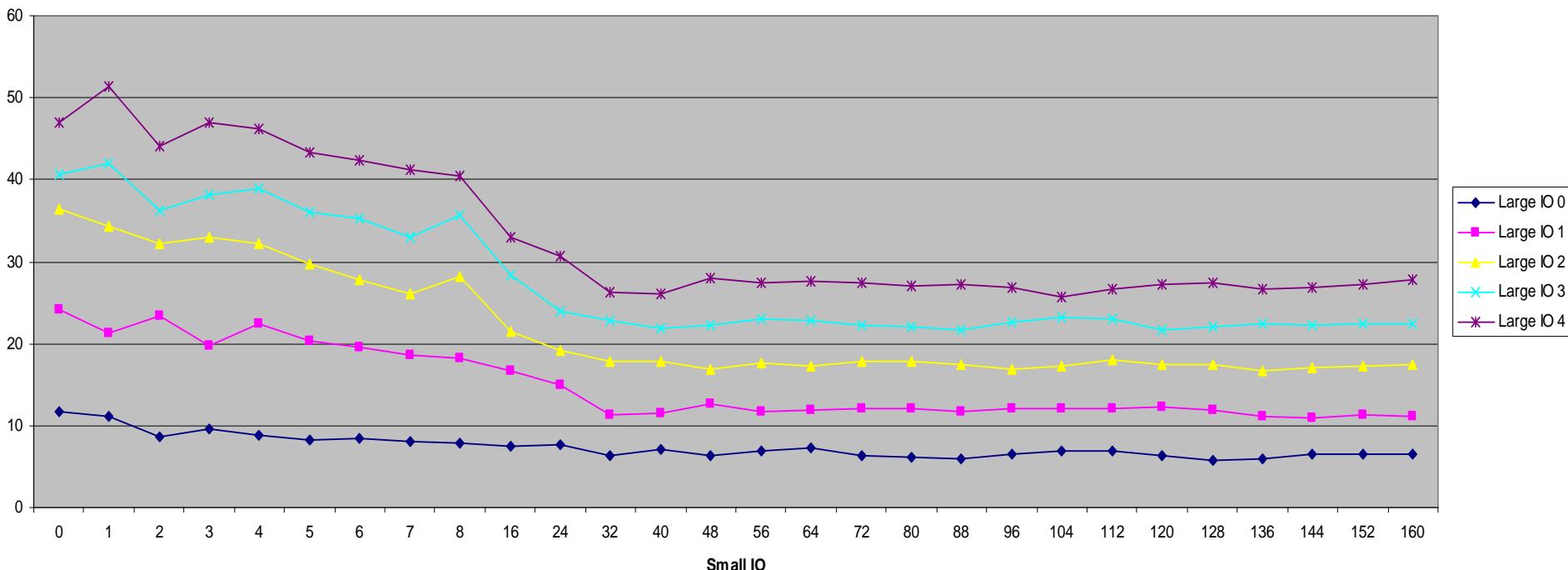


- ASM:
  - ATLAS:
    - External redundancy
    - Single disk group
    - Two disks:
      - disk 1 of 407 GB (205 free)
      - disk 2 of 537 GB (271 free)
  - LHCb:
    - External redundancy
    - Single disk group
    - One disk 407 GB (337 free)



# Performance MB/sec

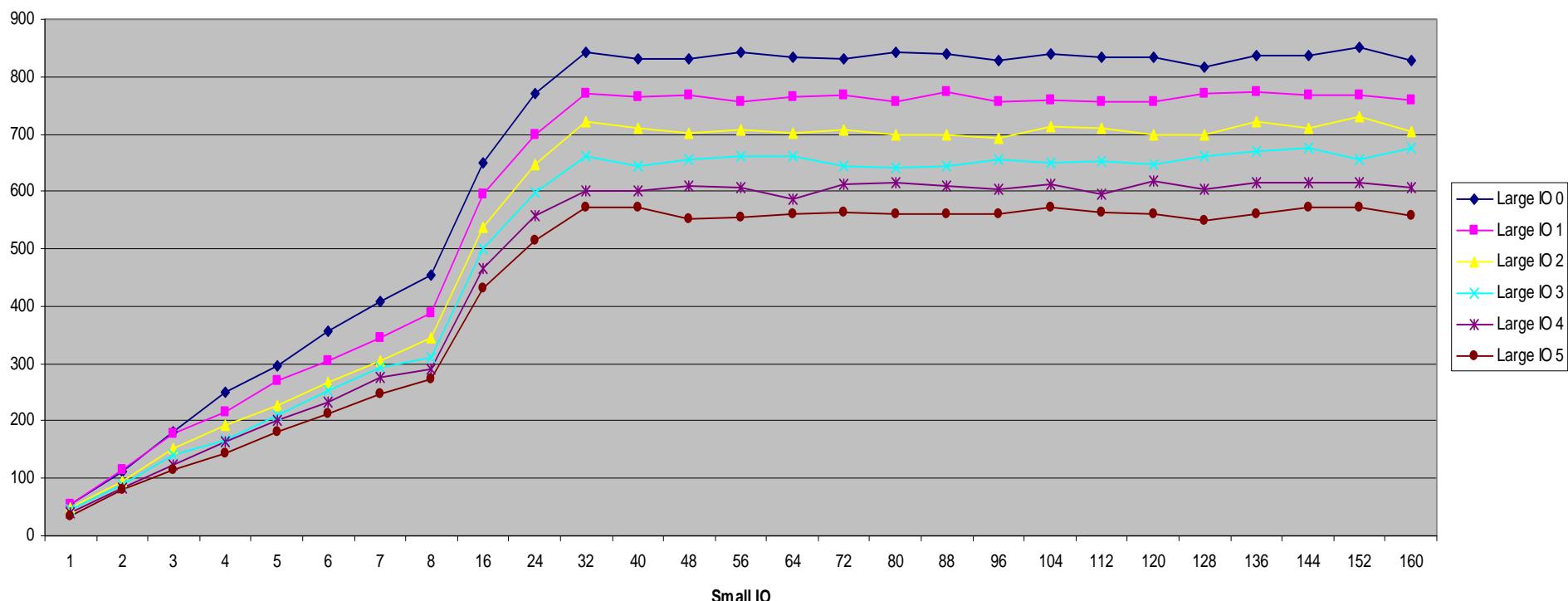
MB/sec





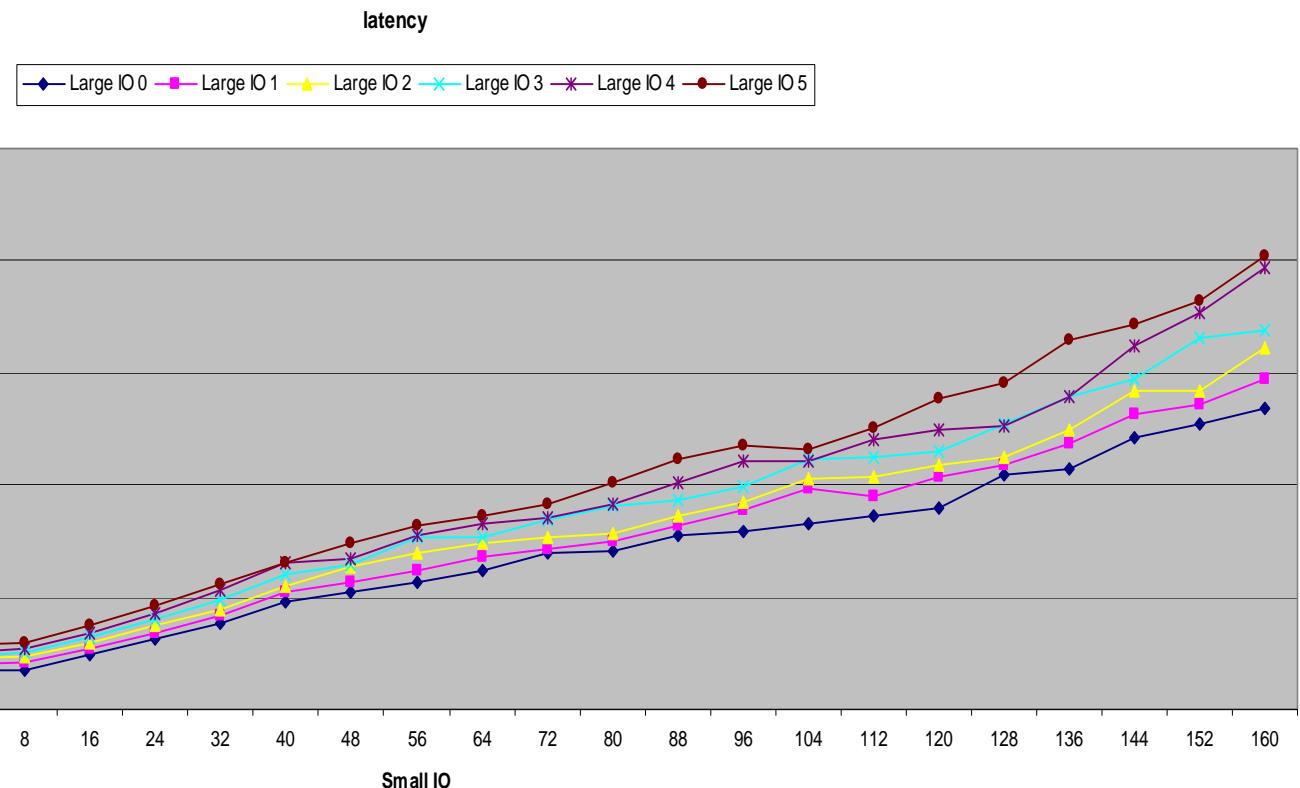
# Performance IO/sec

IO/sec



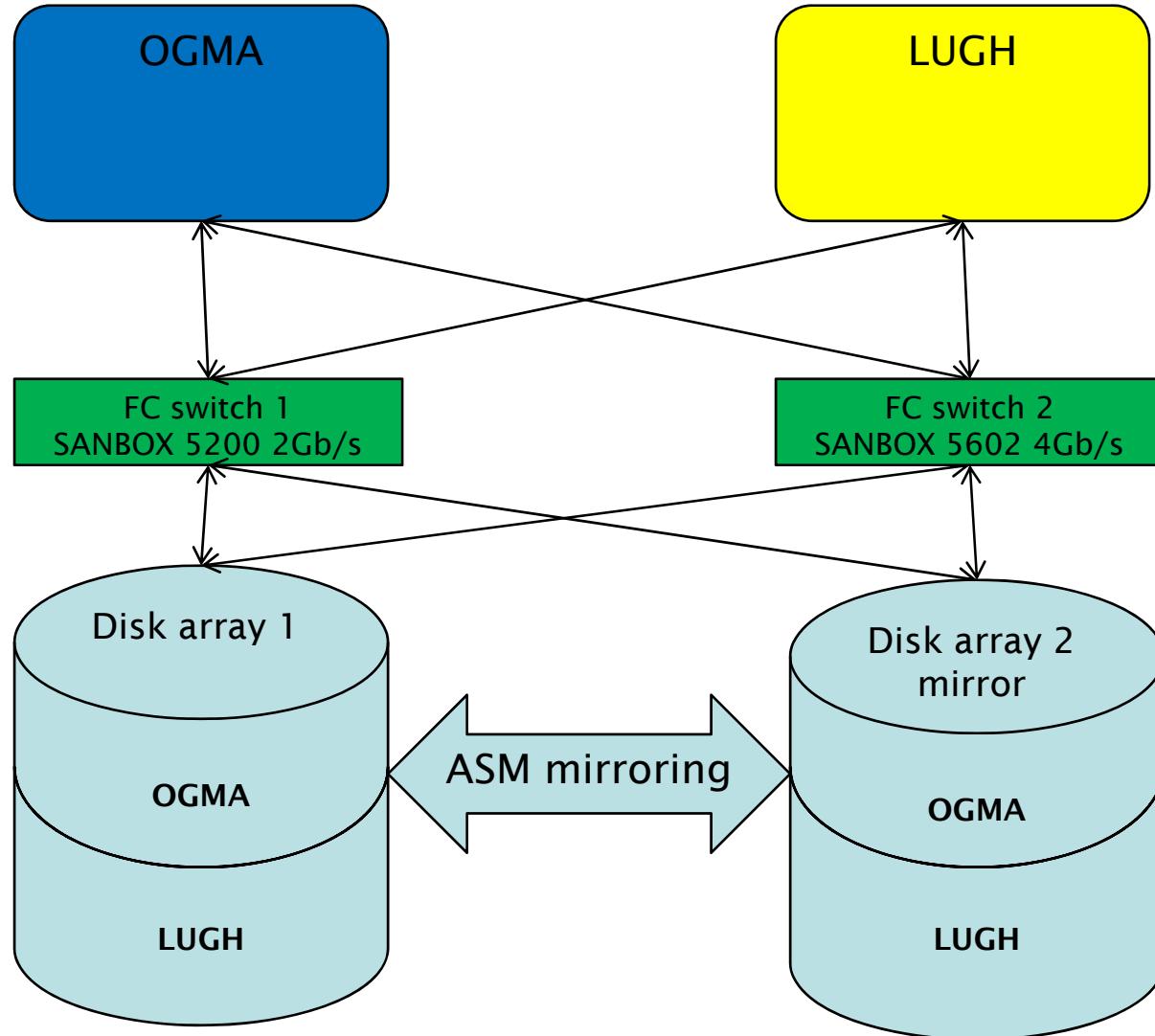


# Performance Latency





# Future Plans





- Two disk arrays used by all or systems except TAG:
  - Storage:
    - 2 SAN, 2GBps FC
    - ? (third disk array)
  - two switches:
    - SANBOX 5200 2Gb/s
    - SANBOX 5602 4Gb/s
  - Physical disk available:
    - Array 1: 16 disks SATA 260GB (backup)
    - Array 2: 6 disks SATA 550GB ? (storage)
    - Array 3:? (storage)
  - Arrays configured with RAID5 or RAID6



- ASM:
  - ATLAS:
    - Normal redundancy
    - Single disk group two fail groups
    - Two or more disks
    - Mirror disks on different disk array
  - LHCb:
    - Normal redundancy
    - Single disk group two fail groups
    - Two or more disks
    - Mirror disks on different disk array



- ATLAS by mid June
- LHCb by the end August