10 octobre 2012

FCPPL MEETINGS

Transfer rates for real data between IHEP and CC-IN2P3

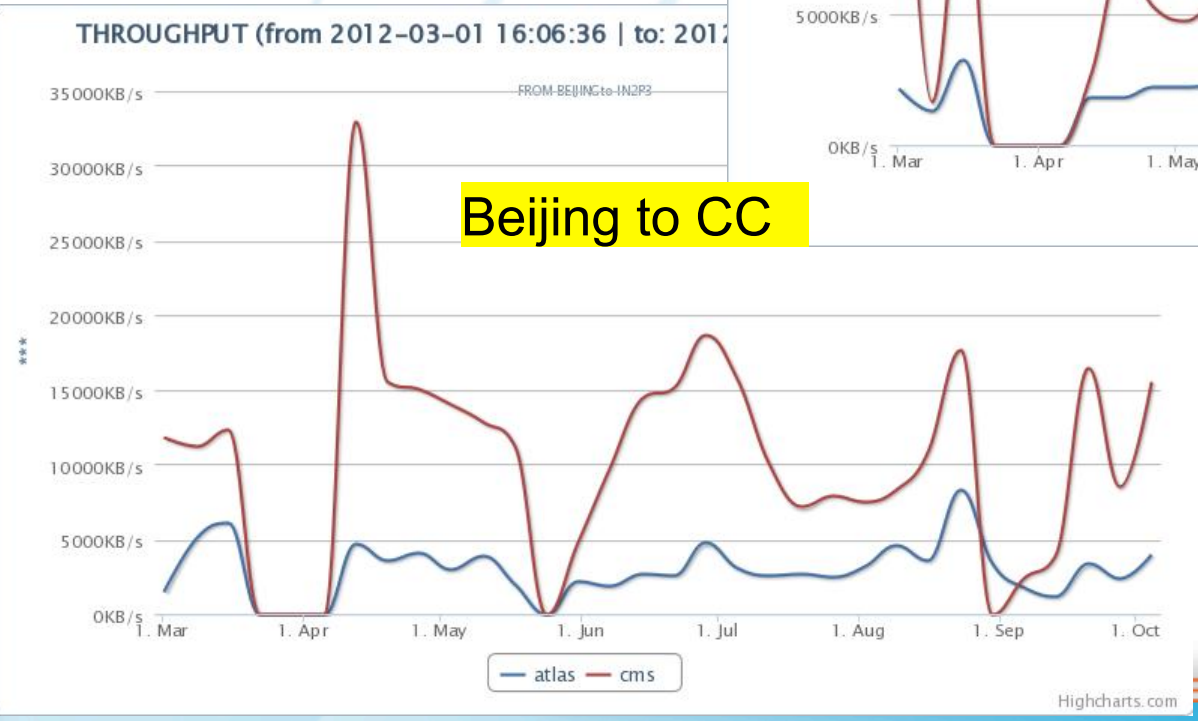
Summary Interventions during 2012

- Summary interventions during 2012:
  - https://indico.in2p3.fr/materialDisplay.py?materialId=0&confId=7336
  - May 2012: Modification of the bonding algorithm of all transferring machines at CC-IN2P3
  - June 28th: new configuration of perfsonar machines
  - ~ July : 10Gbps card replaced by 1Gbps card on the network interface of perfsonar machines
- All interventions, except first one will affect/improve perfsonar machines. First intervention is the only one that could affect real data transferts
- Presented in these slides, compilation of the transfer throughput to and from IHEP during 2012

FTSMON CC Monitoring

- ATLAS:~ 2 MB/s to Beijing vs 4 MB/s from Beijing
- CMS higher throughput
  - Difference may be due to the size of the files (cf later slides)

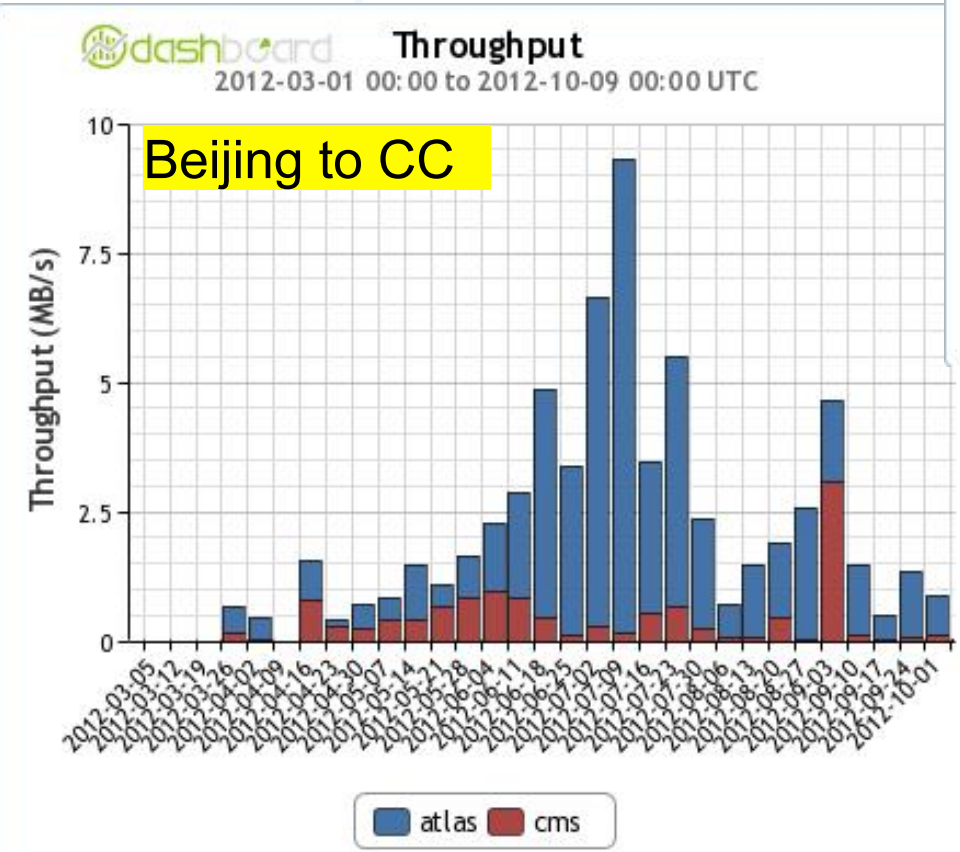
CC to Beijing

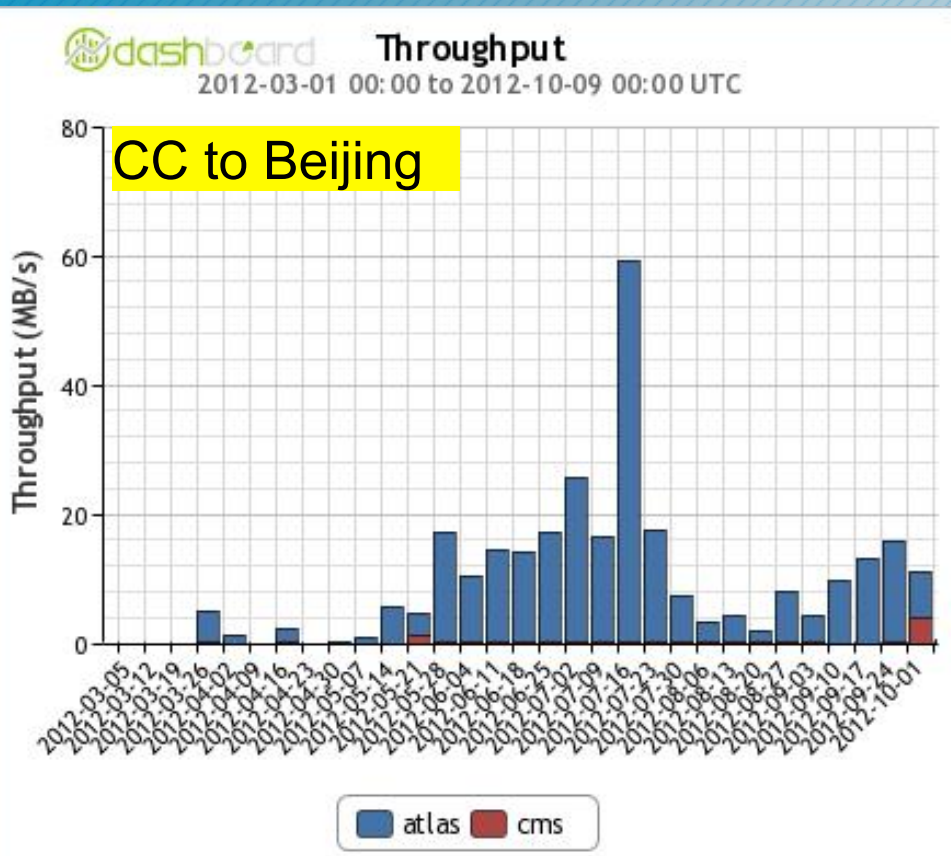


Beijing to CC

WLCG Dashboard

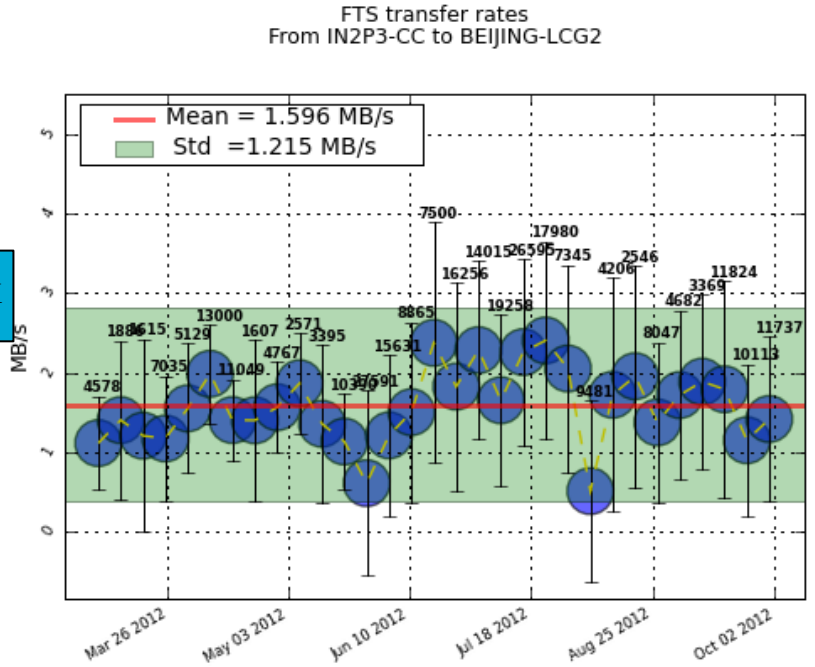
- Select only transfers going through cclcgftsprod instance
- 1 bin per week
- Throughput not compatible with previous graphs. Possible origin:
  - Bug?
  - Throughput calculations?
  - ???? To be investigated



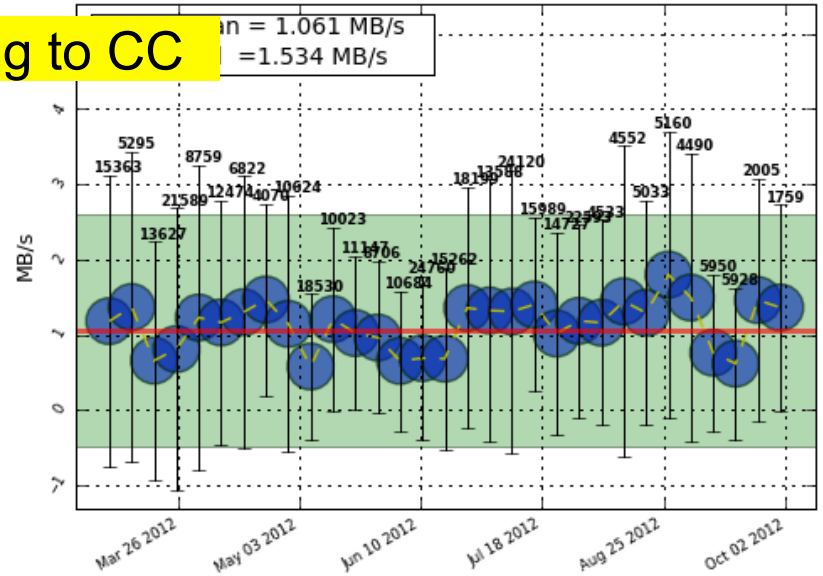


ATLAS dashboard

Throughput for all files per bins of 1 week



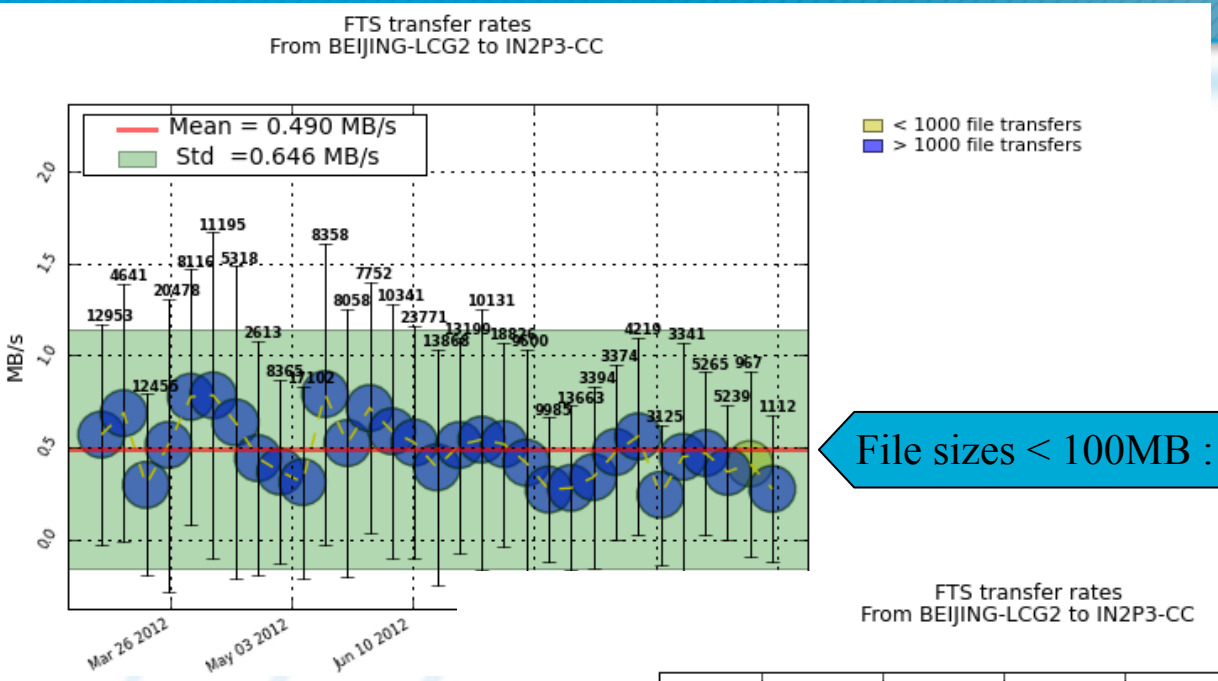
CC to Beijing



Beijing to CC

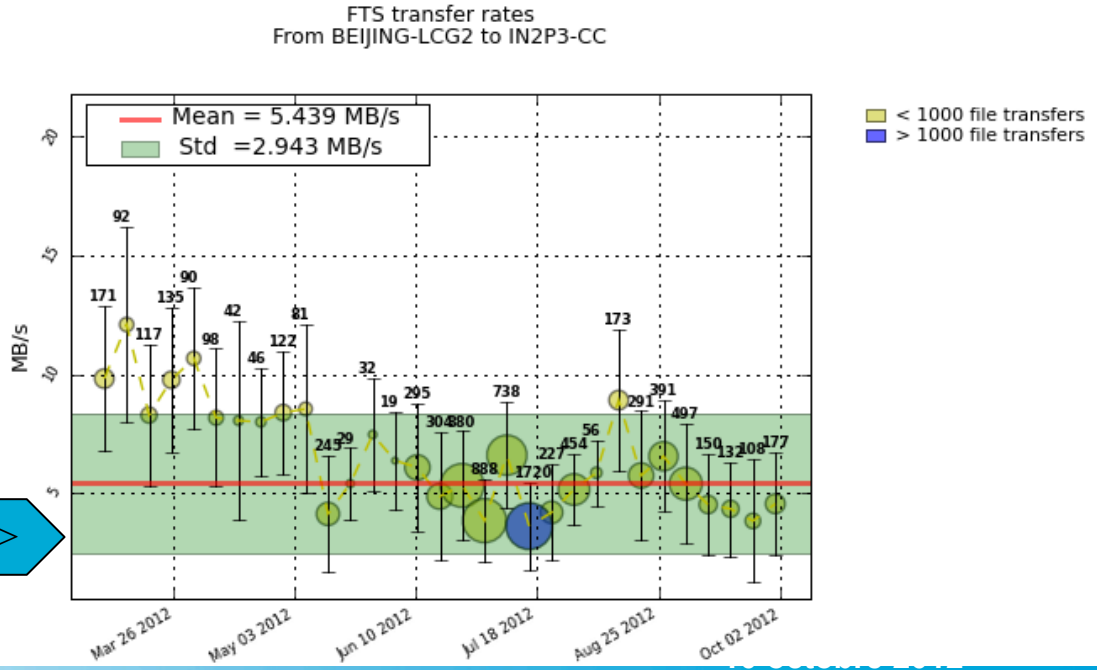
- Compatible with FTSMON
  - Order of magnitude, not values
    - Throughput calculation?

ATLAS : throughput vs size of files: to CC



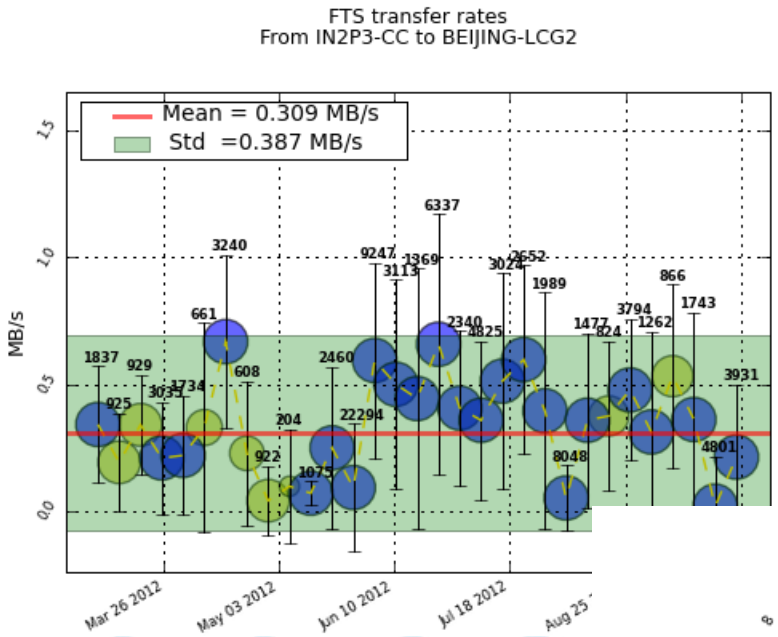
Beijing to CC

File sizes < 100MB : throughput <0.5MB/s>



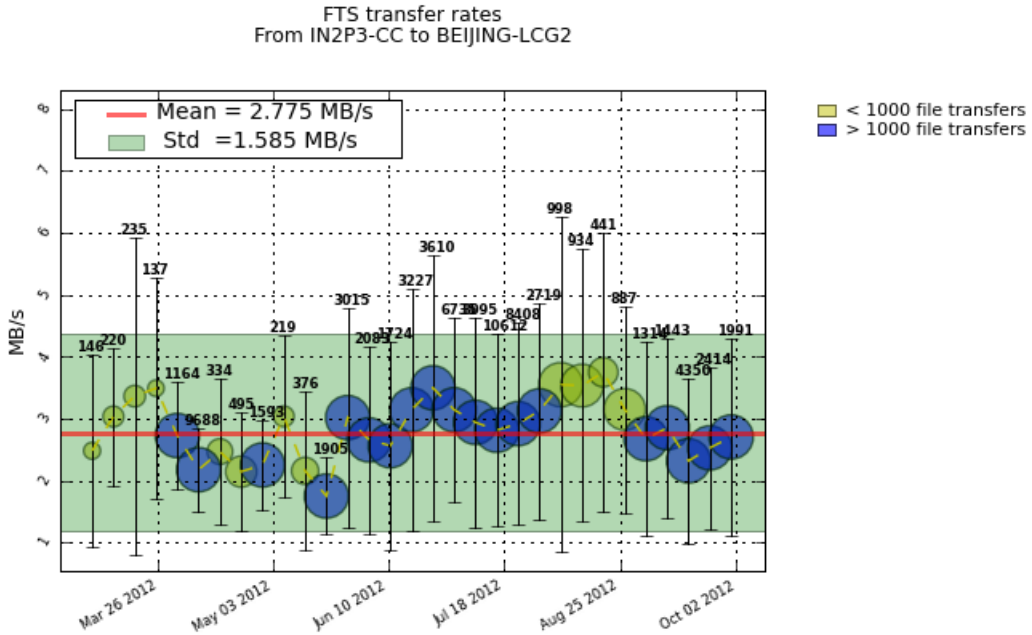
File sizes > 1GB: throughput < 5.4MB/s>

ATLAS: throughput vs size of files : from CC



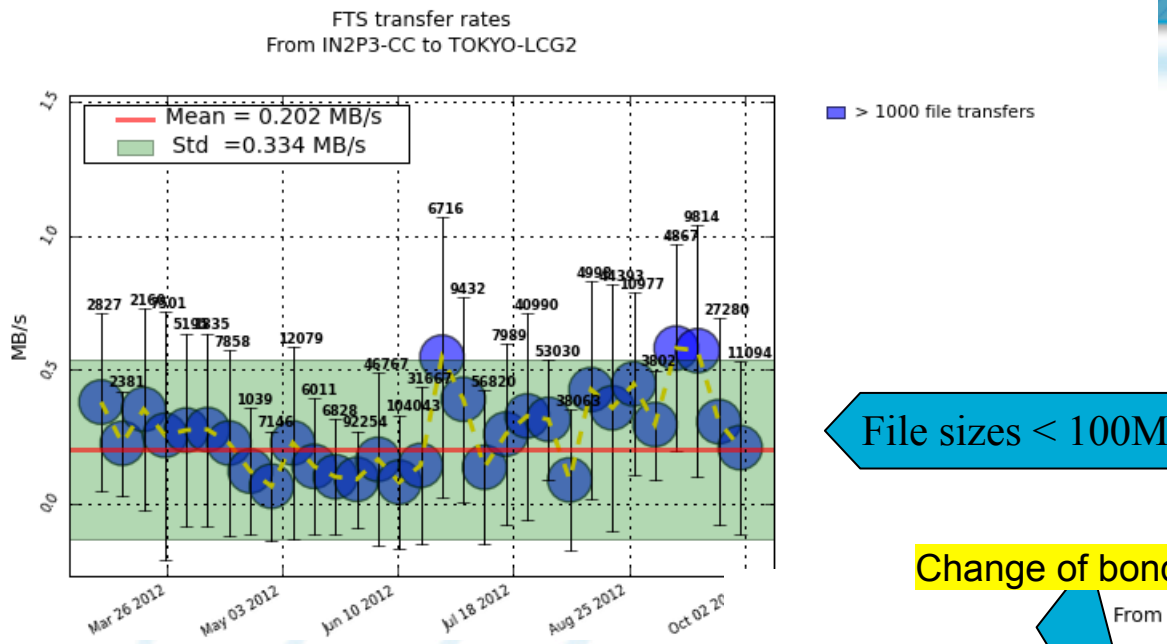
CC to Beijing

File sizes < 100MB : < throughput > ~0.3MB/s



File sizes > 1GB: <throughput > ~2.8MB/s

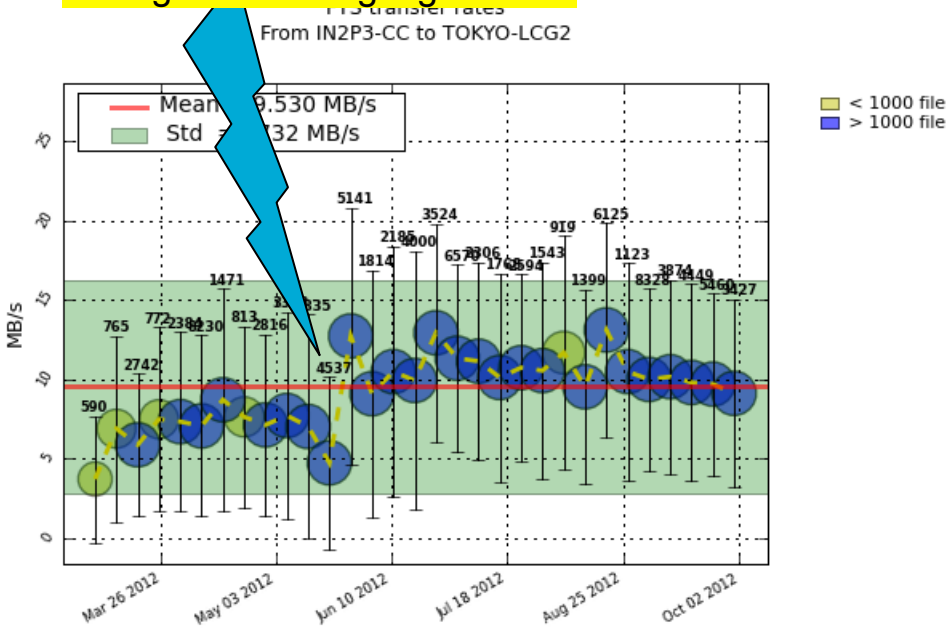
Throughput vs size of files : from CC to TOKYO



CC to Tokyo

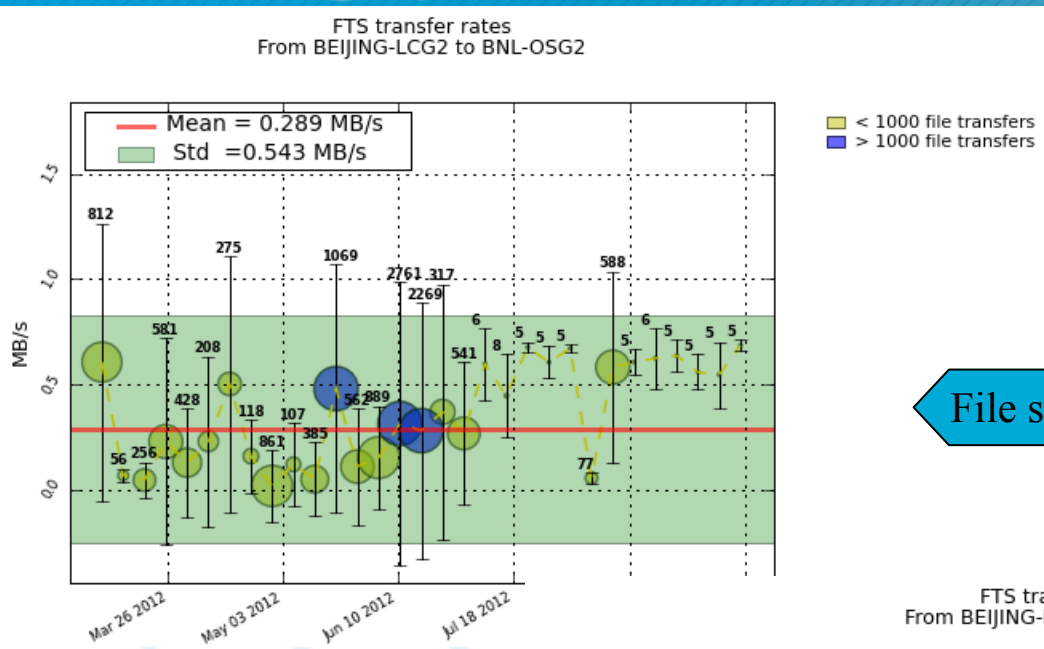
File sizes < 100MB : < throughput > ~0.2MB/s

Change of bonding algorithm?



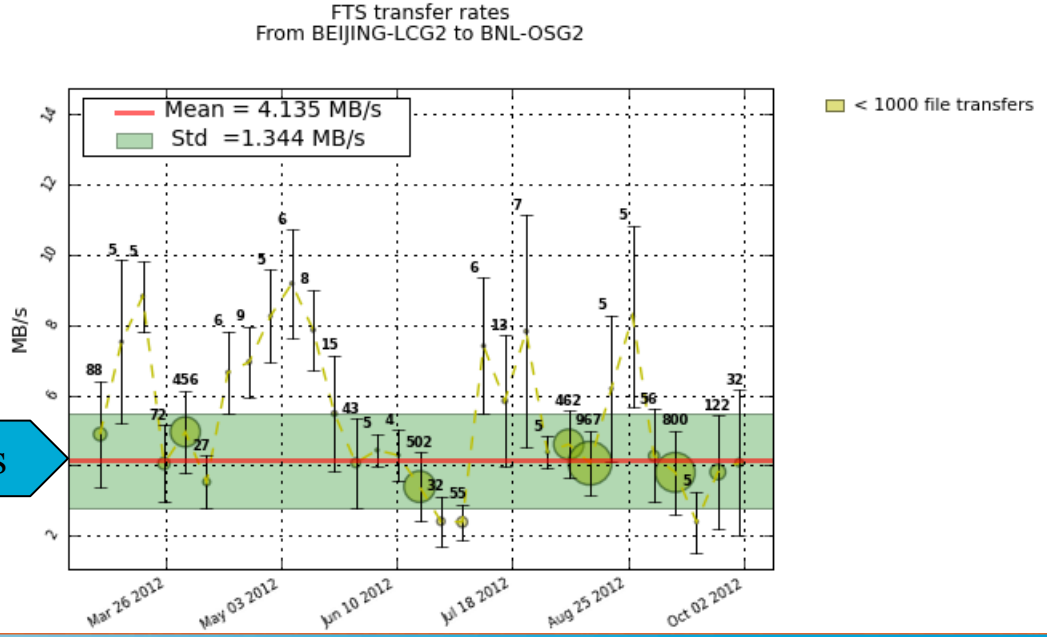
File sizes > 1GB: <throughput > ~9.5MB/s

Throughput vs size of files : to BNL



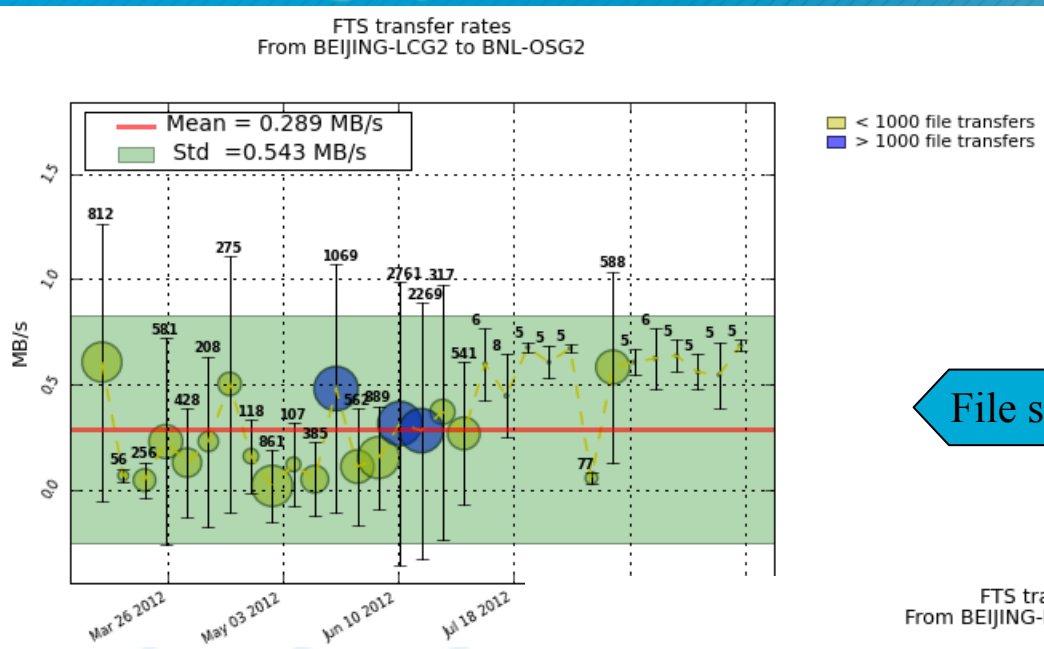
Beijing to BNL

File sizes < 100MB : < throughput > ~0.3MB/s



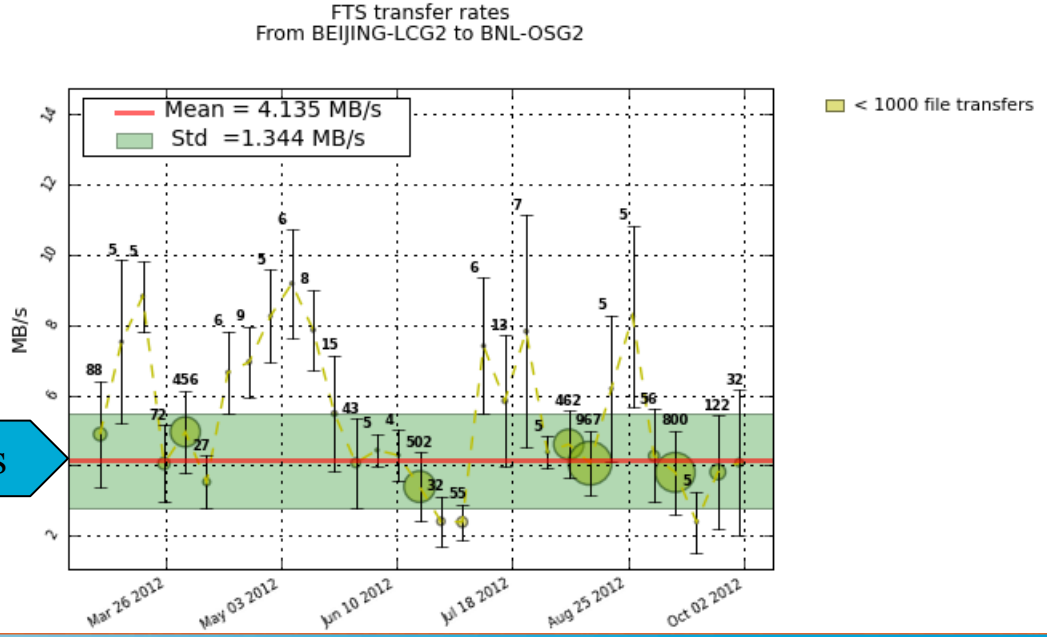
File sizes > 1GB: <throughput > ~4.1MB/s

Throughput vs size of files : to BNL



Beijing to BNL

File sizes < 100MB : < throughput > ~0.3MB/s



File sizes > 1GB: <throughput > ~4.1MB/s

Summary

- No clear change of throughput rate during this year.
- A clear dependency with the size of the file
  - Small files have much smaller rate than large files (factor 10)
    - Is it the time preparation of the transfer which is the same for small and large files that is specially large for transfers between remote sites?
- To investigate: differences between the dashboards.