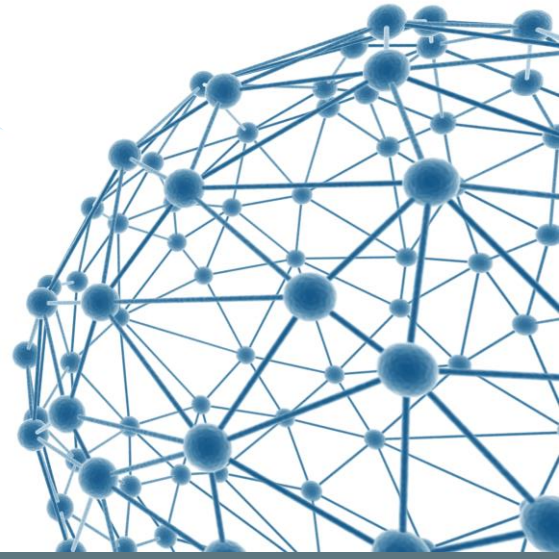



FTS deployment model for ATLAS

Ale Di Girolamo



FTS servers: >1 … but not too many

- FTS == FTS3.
  - FTS2 is dead.
- Multiple FTS3 instances are useful (needed!) to guarantee service resiliency
  - even if one single instance (properly sized) could handle all the traffic
  - Too many instances (e.g. 10) are problematic in terms of upgrade, support, etc.
  - We decided for 3 instances
    - CERN, RAL and BNL

FTS3 automatic failover

- Not quite fully there
  - In case of submission is “easy” to switch… Many other cases are not so easy: e.g. what to do with the jobs already submitted?
  - Examples from Michail Salichos (FTS3 master)
    - DNS alias is down, but FTS3 hosts still processing transfer jobs, though can't submit nor get the status
    - One of the FTS3 servers is down, so you will notice a small percentage of submission failures when this host is picked
    - Networking problems to connect to the site
- Great support from the FTS3 service managers and developers to improve in this area:
  - Dedicated discussions will be needed

ATLAS Sites: which FTS?

- FTS3 server is an attribute of the destination site:
  - i.e. transfers to INFN-ROMA1_* are managed by the FTS3 servers defined in AGIS for the site.
- Rucio, in case of submissions problems, automatically failover on the others servers. Present config:
  - US,CA,DE,IT (312 DDMEndpoints):
    - FTS3: 1) BNL, 2) CERN, 3) RAL
  - CERN,ES,NL,ND,RU,TW (178 DDMEndpoints):
    - FTS3: 1) CERN, 2) RAL, 3) BNL
  - UK,FR (163 DDMEndpoints):
    - FTS3: 1) RAL, 2) BNL, 3) CERN

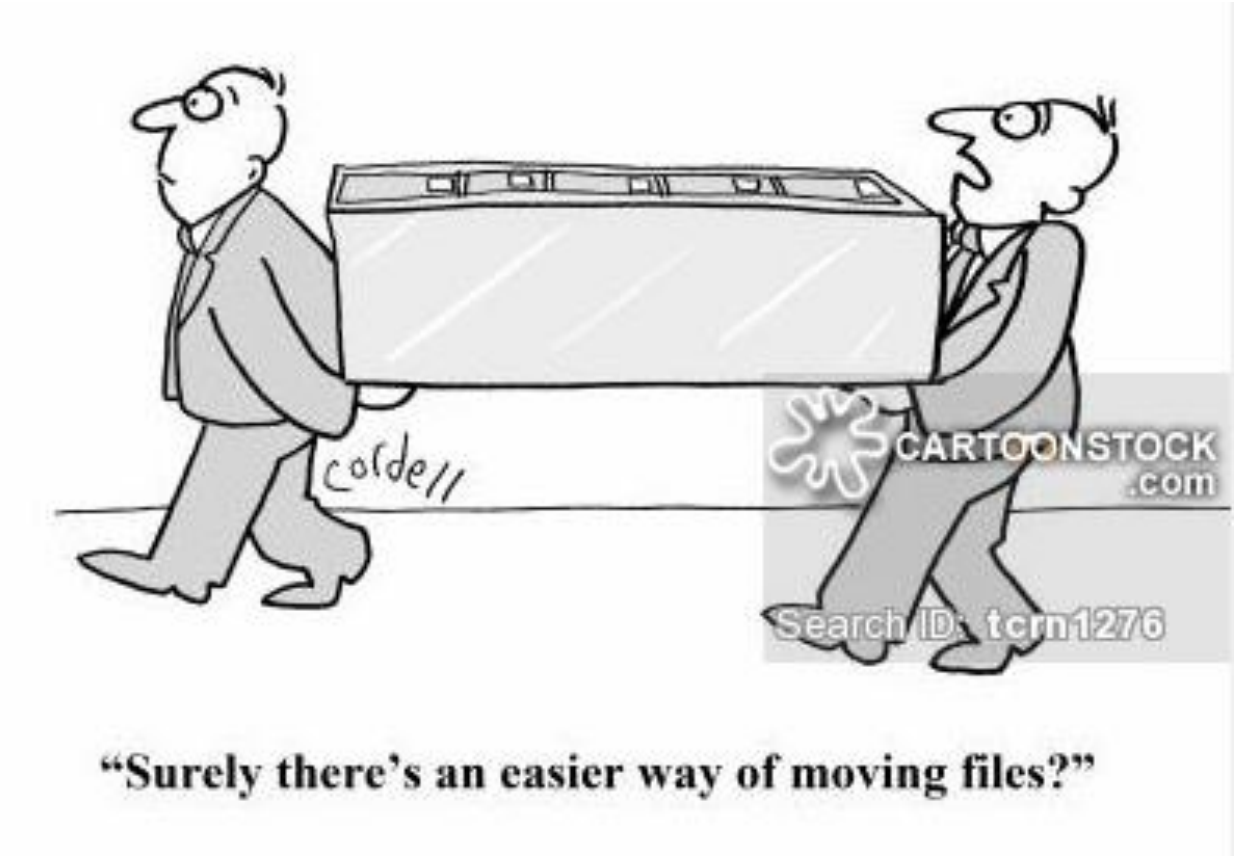
FTS3 configuration

- Configuration is managed centrally by team of FTS and experiment contacts
  - Central team takes care of adjusting conf to VO policy if needed
- Default configuration is auto-configuration: FTS3 optimizer
  - Very good and quick interaction with FTS3 devs in case strange behaviors observed
- Settings for specific endpoints can be applied if needed, e.g. in case of site request
  - Max active from/to SE, Max MB/s from/to SE or pair of SEs, stop processing transfer jobs for SE (downtime)….
  - ATLAS Sites should contact atlas-adc-expert@cern.ch in case of needs
- Procedures have been agreed with the other experiments in the FTS3 task force:
  - will be re-discussed if needed

Few links

- Main DDM ATLAS monitor
  - http://dashb-atlas-ddm.cern.ch/ddm2
  - failed transfers have links to the FTS3 monitoring with log files to debug errors
- FTS (a-la-ddm) dashboard
  - http://dashb-fts-transfers.cern.ch/ui/
  - All the experiments
- FTS3 Server monitor:
  - More details about each instance:
    - https://fts3.cern.ch:8449
    - https://fts.usatlas.bnl.gov:8449
    - https://lcgfts3.gridpp.rl.ac.uk:8449
- FTS3 users guide:
    - http://fts3-service.web.cern.ch/

… we definitely moved forward!



"Surely there's an easier way of moving files?"