

FTS Workshop, Amsterdam

LHCb FTS Usage

Anticipated (as per computing model)

- ▶ Distribution of stripped data:
 - ➡ from each T1 to all other T1s and CERN
 - ➡ and out from CERN to LHCb T1s

- ▶ Distribution of reprocessed data:
 - ➡ rDST from CERN to LHCb Tier 1s
 - ➡ CNAF, PIC, SARA, RAL, GRIDKA, IN2P3

- ▶ Distribution of raw data:
 - ➡ out from CERN to LHCb Tier 1s

- ▶ RAW/reprocessed distribution orthogonal

Submission:

- `g lite-transfer-submit -s FTSServer -p MyProxyPwd -f SURLFile -m myproxy-fts.cern.ch`

Monitoring:

- `glite-transfer-status -s FTSServer FTSGUID`
- **If status of interest:**
 - `glite-transfer-status -s FTSServer -I FTSGUID`

glite-transfer-submit

- ▶ Transfer jobs submitted automatically
- ▶ When 'X' files become available in Source SE
- ▶ Reprocessed/Raw
 - When files become available in CERN Castor
 - Currently
 - ◆ 640 files
 - ◆ every 2 hours
 - 6 jobs (640/6) submitted in 5 min period
 - Central CERN FTS
- ▶ Stripped
 - When files become available at T1 site
 - 6 FTS jobs submitted
 - ◆ Target SE's FTS
 - On average expect 6 jobs on each T1 FTS
 - ◆ every 2 hours

glite-transfer-status

- ▶ Once transfers submitted
 - Poll regularly within LHCb Transfer Agent
 - During regular operation
 - ◆ 42 active FTS transfers monitored by TA
 - Between 7 FTS servers
 - 6 active jobs per FTS server
 - ◆ ~2 seconds between CLI polls
 - ◆ Transfer Agent rests 10 seconds
 - Shouldn't be too heavy on web-service

Retries done on LHCb TransferAgent

- ▶ Sometimes useful when transient error with SE
- ▶ Resubmits failed files 'X' times (now 10) to FTS
- ▶ Time scale of FTS job too short
 - ▶ 'Smooth-out' transient failures
- ▶ After 'X' retries receive email notification from agent
 - ▶ Failures fall into three types
 - ◆ Serious problem with SRM endpoint(s)
 - Resubmit once SRM returns.
 - ◆ Corrupted source file in CERN Castor
 - LHCb internal issue.
 - ◆ File exists can't write (dCache sites)
 - Currently using hack of lcg-utils to resolve.

- Currently still pre-staging files
 - ▶ Eventually
 - expect files being transferred on disk
 - data driven activities on LHCb side
 - ▶ But, pre-staging support still helpful
- Method in LHCb TransferAgent to determine FTS server to submit to
 - ▶ Given source and destination SEs
 - If not CERN in source/target then target SE FTS server
 - ▶ Long term solution?

Questions...?