



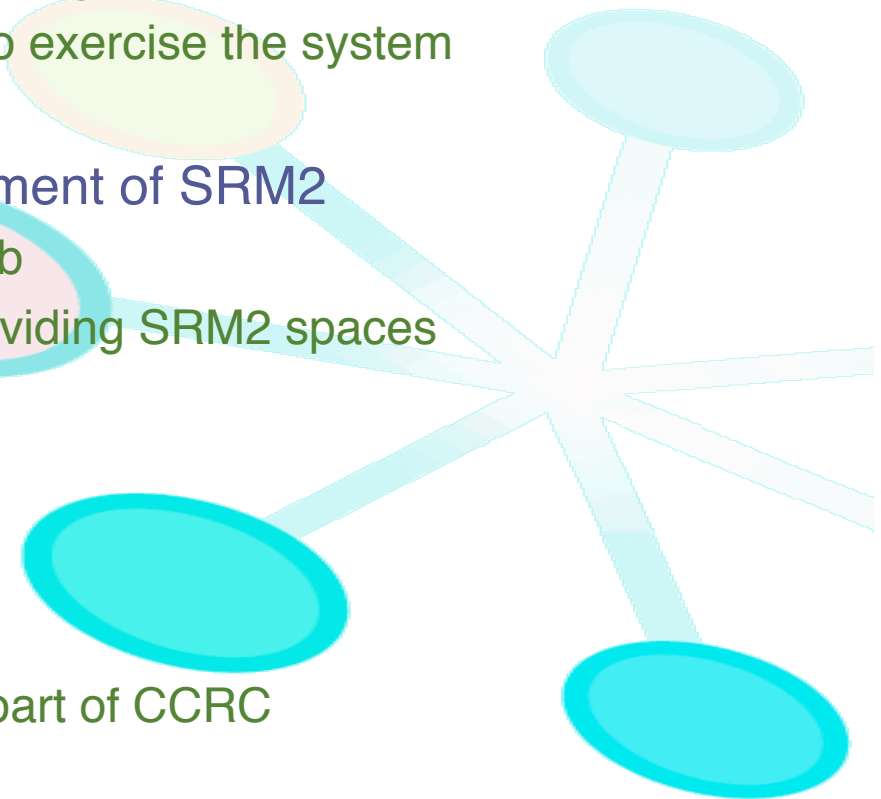
CCRC08 status and progress - LHCb

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- Testing the LHCb full chain computing model
 - DIRAC ported to new framework (DIRAC3)
 - DIRAC3 currently being commissioned
 - Most components are ready, integrated and tested
 - CCRC excellent opportunity to exercise the system

- Testing the production deployment of SRM2
 - SRM2 critical service for LHCb
 - Tier0-1 Storage Elements providing SRM2 spaces
 - LHCb_RAW (T1D0)
 - LHCb_RDST (T1D0)
 - LHCb_M-DST (T1D1)
 - LHCb_DST (T0D1)
 - LHCb_FAILOVER (T0D1)
 - Full testing of the SRM2 key part of CCRC
 - File replication using FTS
 - File upload, access, removal using lcg-utils/GFAL

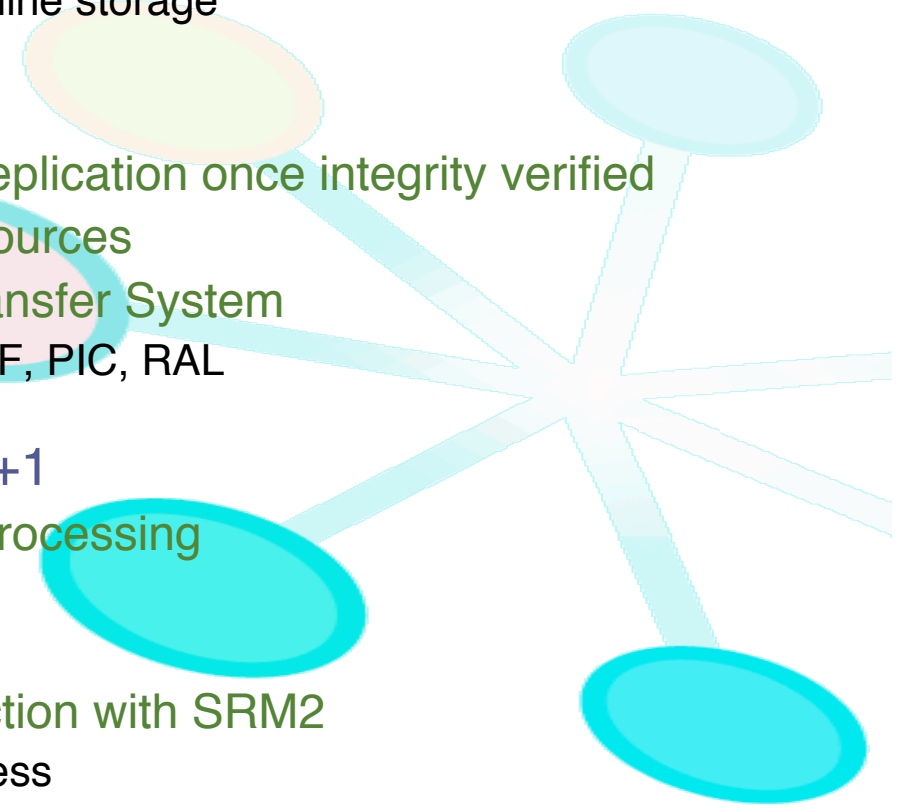




- RAW data upload
 - Online -> Tier0 storage
 - Use DIRAC transfer framework
 - Ensure file integrity in Castor
 - Before file is removed from online storage

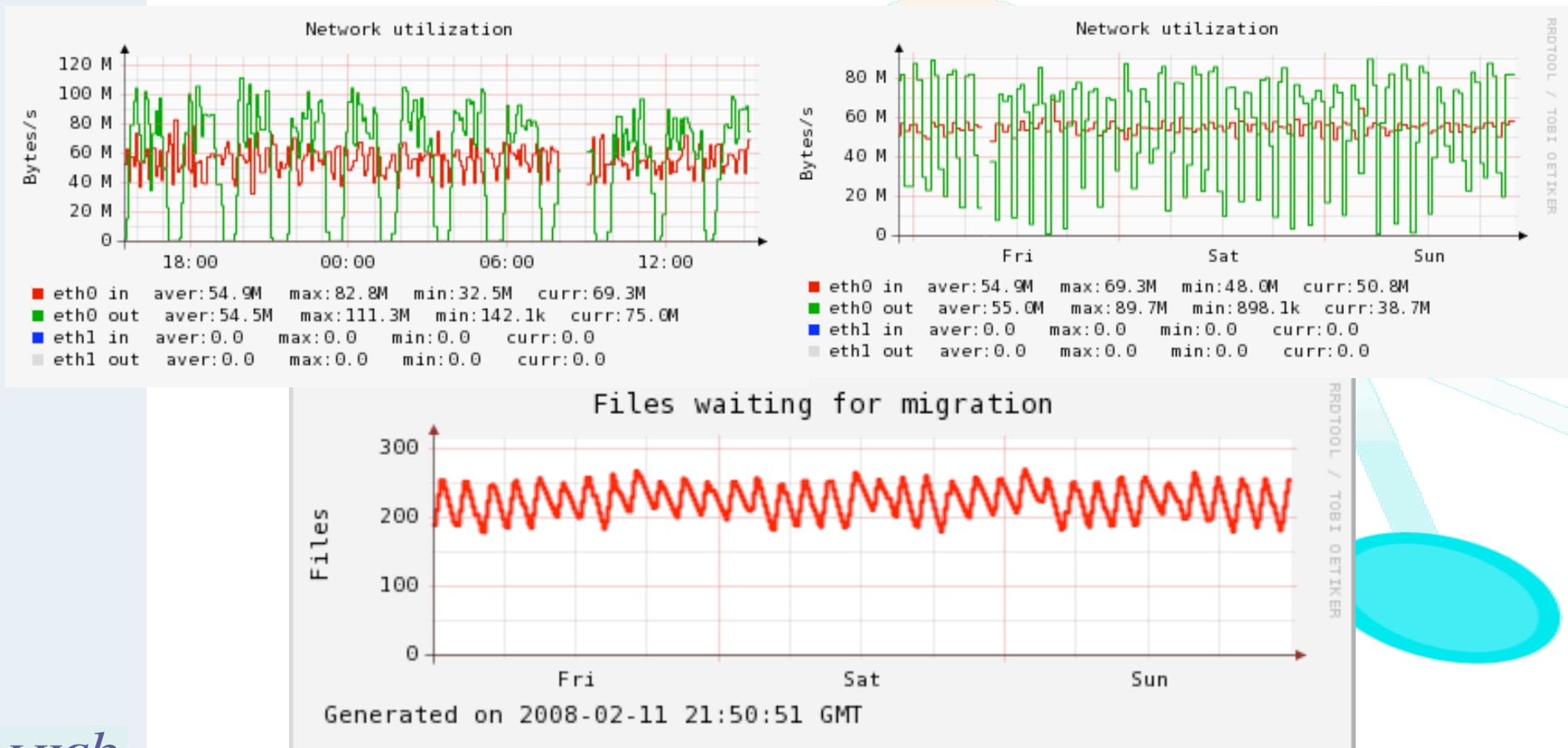
- Data driven RAW distribution
 - Files become candidates for replication once integrity verified
 - Split according to pledged resources
 - Replicated using gLite File Transfer System
 - CNAF, GridKa, IN2P3, NIKHEF, PIC, RAL

- Prompt reconstruction at Tier0+1
 - Files become candidates for processing
 - T0 - Once integrity verified
 - T1 - Once file is replicated
 - lcg-utils/GFAL used for interaction with SRM2
 - Retrieving tURLs for data access
 - Upload of output RDST to local Storage Element



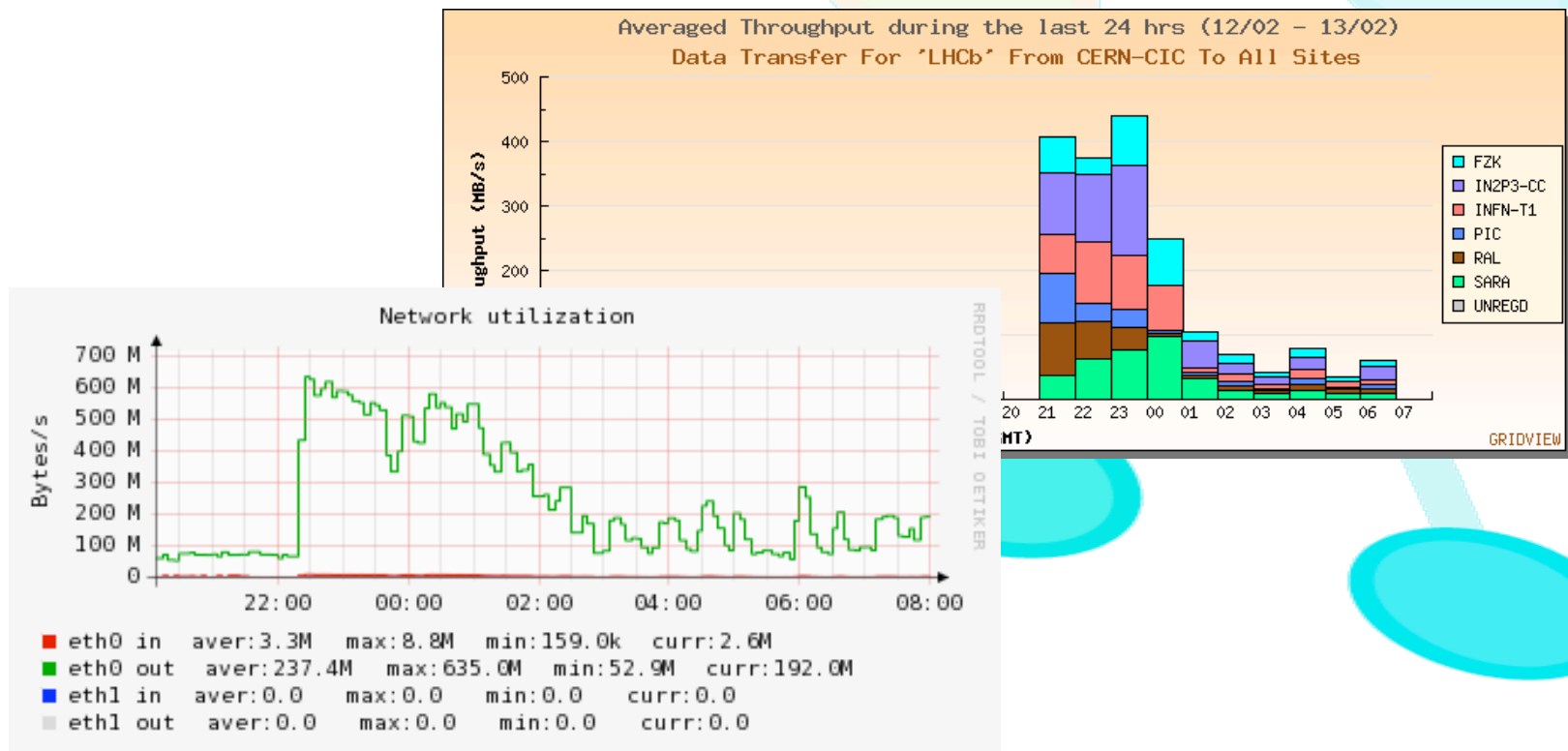


- RAW data upload
 - 60MB/s nominal rate for 6 days (Feb 6-11)
 - 125MB/s for one day (Feb 12)
 - 0 checksum mis-matches



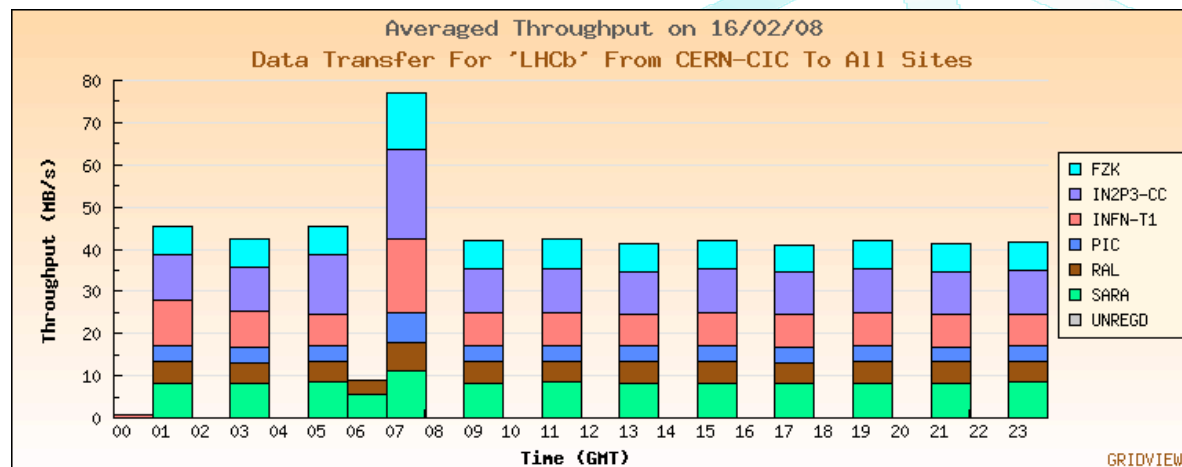
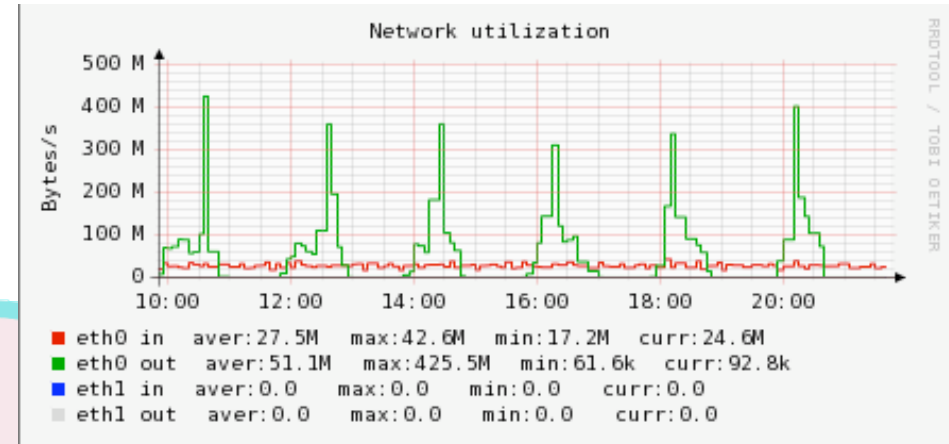


- Raw data replication
 - 5k files retained from Online -> T0 test (7.5TB)
 - Used to test T0 -> T1 FTS replication (Feb 12)
 - SRM2 CERN endpoint as source
 - All tier1 SRM2 endpoints successful
 - Using LHCb_RAW space





- Full chain RAW export test (Feb 15-17)
 - RAW file uploaded to T0 at each minute
 - Approximately half nominal rate
 - File integrity verified
 - Data driven replication to 6 T1s
- Attempted to transfer 3621 files
 - 251 retries performed by FTS
 - Resubmission of 16 files to FTS
 - Re-resubmission of 1 file
 - All but 3 transferred without intervention
 - ~0.1% real failure rate





- Prompt reconstruction at T0/1
 - Next functional block being tested
- Production management system creating jobs
 - Data driven as RAW becomes available
 - Submission of these jobs to be automatic
- Workflow being commissioned
 - To be finalized this afternoon
- Ramp up to nominal rate
 - 6 hour runs, 6 hour break
 - 70MB/s Online->T0->T1
 - Prompt reconstruction
 - ~1650 concurrent jobs

CERN	236
FZK	172
IN2P3	408
CNAF	158
NIKHEF	429
PIC	72
RAL	172
Total	1643