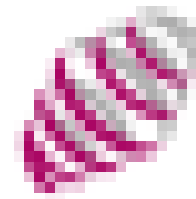


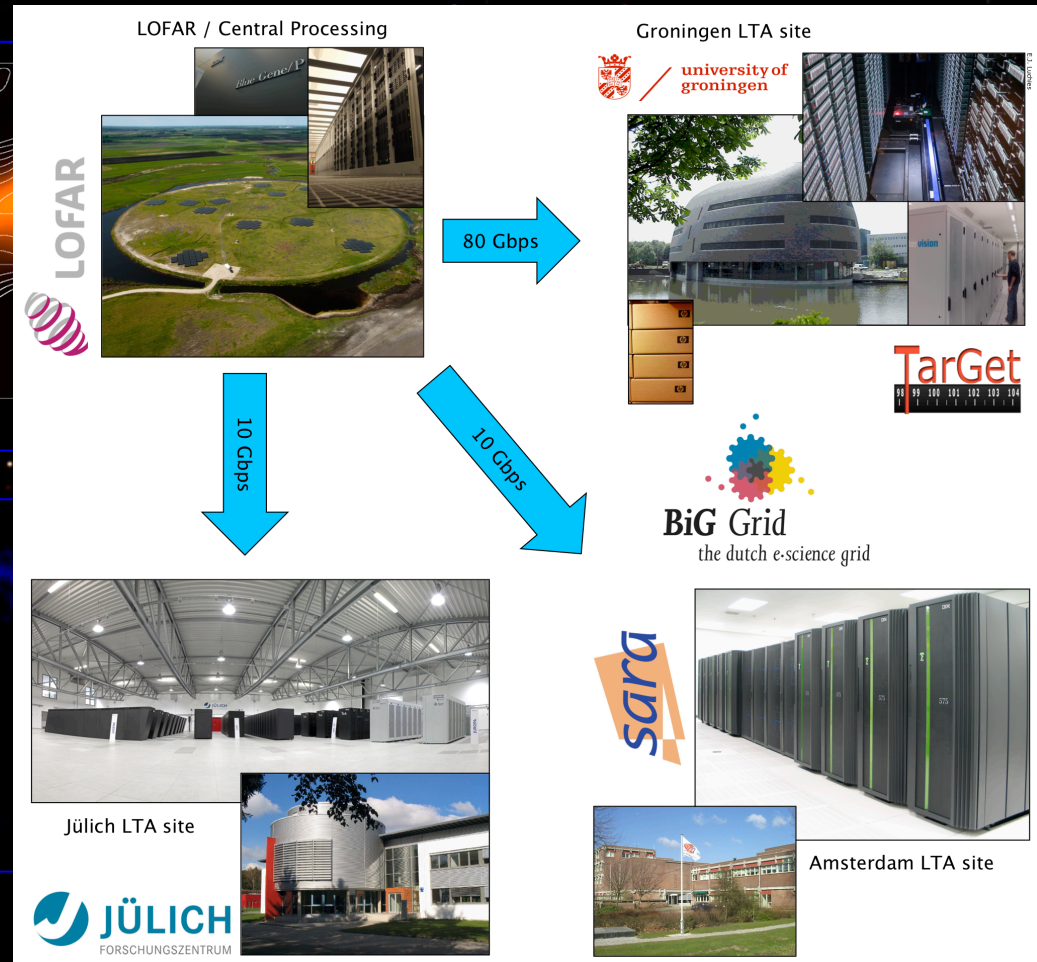
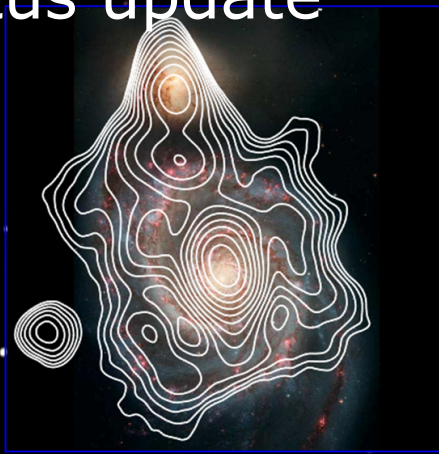
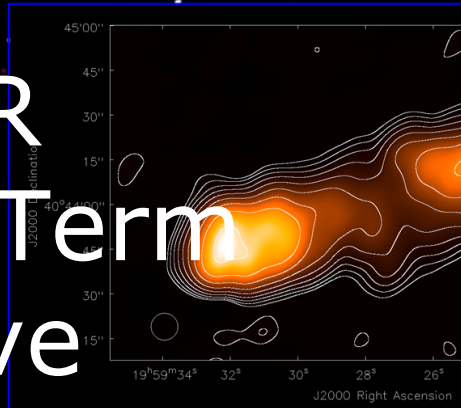
ASTRON



LOFAR

Netherlands Institute for Radio Astronomy

LOFAR Long Term Archive Status update



January 8, 2014

Status



- (Some ingest hiccups during Xmas
not completely understood, some files > 2TB, also stalled transfers at 00:00 01Jan
- (SARA: no issues
- (Jülich: no issues
 - (Stability & performance improved after November maintenance
 - (January 14th maintenance on tape backend: no stores/restores to/from tape.
Requests will be queued
- (Target: major issues (next slides)
- (Ingested last month (1/12 – 8/1)
 - (SARA:
 - (474 TB Regular ingests
 - (225 TB Pulsar data
 - (85 TB EOR processed data
 - (FZJ: 64 TB
 - (NB planned ingest rate per site in 2013 was ~170 TB per month!
- (**More balance data storage between SARA and Juelich needed**

TARGET



(**August 2013 RUG compute hall cooling failed**

- (Target storage systems affected badly
- (Several components have been replaced
- (Still stability issues with storage controllers
 - (In particular main LTA (disk) storage area GPFS2/Tier E
- (No LOFAR data loss

(**Current situation:**

- (GPFS2 mounted read only
 - (Data on disk is accessible (close to 1 PB of LOFAR data, mainly EOR)
 - (Data can not be recalled from tape (mainly processed EOR data)
- (Almost daily spontaneous reboots of storage controllers
- (One controller reporting parity problems
 - (Not understood (data is ok) but has reported multiple failures
 - (Replacement ordered and expected in ~week

TARGET Cont'd



- (**Observatory decided to no longer use Target as operational LTA storage**
 - (Until all problems fully solved
 - (Configuration changes have been implemented before Xmas to allow
 - (Direct transfer of raw EOR data from CEP2 to EOR processing cluster
 - (Transfer of processed EOR data from EOR cluster to SARA
 - (Using dedicated LOFAR LTA connection
 - (Ingest (catalog update) work in progress
 - (SARA & Jülich have been asked to (temporarily) support higher ingest rates
 - (SARA probably ok to increase by 50%, official request submitted
 - (FZJ ok to increase by 50% for at least first half year 2014
 - (Issue: data already stored on Target
 - (Disk: ~950 TB, Tape: ~700 TB
 - (Started to copy most critical data to SARA
 - (Planned downtime Target (controller migration) starting January 22nd (~2 weeks)
 - (Target system improvements being discussed (incl IBM Zurich)