WLCG 'Weekly' Service Report

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WLCG Management Board, 5th August 2008

Introduction

- This 'weekly' report covers two weeks (MB summer schedule)

  - Last week (21 to 27 July):
  - This week(28 July to 3 August):

- Notes from the daily meetings can be found from:
  - https://twiki.cern.ch/twiki/bin/view/LCG/WLCGOperationsMeetings
- (Some additional info from CERN C5 reports & other sources)

GGUS Operator Alarm Tickets

- At the beginning of July the GGUS operator alarm tickets template was deployed allowing 3-4 users per experiment, identified by their grid certificates, to submit GGUS tickets directly to Tier-1 operations via a local mechanism. The end points are given in:
  https://twiki.cern.ch/twiki/bin/view/LCG/OperationsAlarmsPage

- The mechanism was tested over the next few weeks and by 25 July only FNAL and CERN were failing. This was reported at CERN to the official GGUS contact list of grid-cern-prod-admins@cern.ch with no reaction – too many cooks ? In fact the source email address at GGUS simply had to be added as owner of the CERN Simba lists <experiment>-operator-alarm

- A trailing issue is site dependency of what can be in these tickets. The SA1 USAG group proposal states: Grid Partners, especially VOs, require a direct way to report urgent problems, that must be solved within hours, to the service experts/site responsibles. CERN, for example, restricts this to Data Management services (Castor, FTS, SRM, LFC). Should there be a common expectation or simply a per-site definition (to be added into the Twiki) ?

Site Reports (1/2)

- CERN:
  - Friday 24 July a replacement of NAS disk switches in front of infrastructure Oracle databases stopped Twiki editing and indexing from 13.50 to 15.05. Both ATLAS and LHCb have since emphasised the importance of the Twiki service to them.
  - A post-mortem of last weeks failure of the Atlas offline DB streams replication to Tier 1s between Saturday 26 July and Wednesday (4 days) has been prepared (see https://twiki.cern.ch/twiki/bin/view/PSSGroup/StreamsPostMortem). The issue was caused by the occurrence of a gap in the archivelogs sequence propagated to the downstream capture database. Improvements in the monitoring will be needed to spot similar problems (assigned to development)
  - There was a problem submitting jobs to the CERN T0-export service (FTS-T0-EXPORT) on July 28 between 18.06 CEST and 20.15 and the day after 29-7 between 10.49 CEST to 14.42 CEST. During this period, all FTS job submission attempts failed with an Oracle error. The root cause of this was an unexpected behaviour of Oracle datapump (export/import). The problem has been fixed and is documented in https://twiki.cern.ch/twiki/bin/view/FIOgroup/FtsPostMortemJul29

  - 1 August a converter between fibre and router at P5 failed at 17.42 cutting off the CMS pit. Fixed by network piquet at 19.27.

Site Reports (2/2)

- BNL:
  - 30 July there was an unexpected change in the published BNL site name where a legacy value was previously being used. It was changed in OSG which propogated to WLCG and stopped the FTS channel to BNL. CERN and T1 sites had to run a daily reconfig tool by hand (the following morning).
- Atlas Tier-2:
  - Site AGLT2 (U.Michigan) – one of 4 used for ATLAS muon calibration – disappeared from WLCG bdii on 16 July. Found to be a new version of the way OSG-WLCG mapping is made – sites have to be marked as interroperable at several levels in order to be propogated. Fixed 30 July a few days after the problem was noticed.
- CNAF:
  - 21 July installed LFC 1.6.10 so experienced the repeated crashes. Installed a cron to check/restart but put in negative logic so restarted each 2 minutes. Corrected now so back to 1-2 days between crashes.
- NDGF:
  - Pnfs log full over weekend of 26/27 stopped their dcache from working.

- General:
  - LFC 1.6.11 (which fixes the periodic LFC crashes) has entered PPS in release 34 last Friday. The plan is to accelerate its passage through PPS.

Experiment reports (1/3)

- ALICE:
  - Presented results of integration of CREAM-CE with ALIEN to recent ALICE task force meeting (P.Mendez):
  - FZK-PPS vobox fully configured
  - CREAM CE access with 30 WNs behind increased to 330
  - Access to the local WMS ensured
  - tested the submission following 2 different approaches
    - Submission through the WMS: ALICE submit from a VOBOX with many delegations in the user proxy – from the UI, entering the VObox, passing through WMS, passing through the CREAM CE then through BLAH into the CE exceeds current limit of 9 delegations. Bug report made. No further testing through the WMS yet.

    - Direct submission to the CREAM CE: job submission takes 3 seconds compared with 10 secs for LCG-RB. Needs definition of a gridftp server at each site to return the output sandbox (currently leaving on CE with messy recovery/cleanup. Note such servers were dropped with gLite 3.1)

Experiment reports (2/3)

- LHCB:
  - Heavy load on their CERN gLite 3 WMS around 23rd with 20000 jobs/WMS/day. Borrowed a 3rd from Atlas with plan to convert one to gLite 3.1 (can handle more jobs) for testing.
  - In testing pilot jobs were found to exceed the limit of 10 proxy delegations in vdt 1.6 going through 3.1 WMS. Patch is said to be available – will need coordinated priority rollout.
  - Proxy mixup bug preventing multiple FQANs found in 3.1 WMS when user wants to submit to same instance with different VOMS roles.
- CMS:
  - Continuing the pattern of cosmics runs Wednesday and Thursday
  - Oracle security patch upgrade of devdb10 caused unexpected interruption of pit to Tier-0 testing. Will be followed at regular CMS meeting tomorrow.

Experiment reports (3/3)

- ATLAS:
  - Since end July ATLAS are in quasi-continuous cosmics data taking mode. System tests are done during the day, and there is combined running (with as many systems as possible) usually every night and over the weekends.
  - ATLAS process these combined data at the Tier-0, which includes also registration with DDM. There is hence cosmics data flowing to the Tier-1s any time, without previous dedicated announcement. Data rates and volumes are hard to predict; during last week, e.g., there was ~9 TB of RAW, ~2 TB of ESD.
  - In addition functional tests at 10% of nominal rates continue. Last week ALL Tier-1s received 100% of FT data from CERN (at the same time all cosmic data is also replicated) and there was no double registration for Tier 1 and Tier 2 (an old problem).

Summary

Continued solid progress on many fronts but several long outages emphasise the need for continual vigilance at all levels when data taking starts.