

## *SAM (REX/Ops) Operations Meeting 2008.02.19*

Present: Adam (typist), Steve W, Randolph, Jerry, Krzysztof, Art, Robert, Eric, John, Anil, Andrew

For reports submitted to the meeting...

*The report text is in this font*

*Comments made during the meeting are in this font inline with the report*

### **Releases:**

New SAM CPP API 8\_4\_0\_1 - Fixes timing problem. Please use for testing. There is still an SL3 issue, but Robert has a work around. It is installed at D0, but not built. Liz is testing at MINOS. Perhaps Thomas could try it at CDF (Angela should ask Thomas).

Sam client v8\_4\_1 has check of file size and other improvements. Also implicitly imports all SAM types for meta-data declaration. Needs to be tested by Steve

### **DØ:**

*Events worth mentioning:*

*-- Around 1 am Feb. 18, 2008 : main ORACLE database crashed, reported like M. Diesburg had made a few reports. It was restored ~7:40 am (the same day).*

*-- SAMDbServer.web\_prd\_old was shutdown on purpose so that the old SAM Dataset Definition*

*Editor was finally shut down for good (I guess).*

*One more nail in the coffin for v5. Only the grid DB servers are left. All v5 multiplexors are talking to these DB servers. Only for in2p3.*

*Unresolved issues:*

*IT# 3383: "Jobs not starting on SAMGrid" : Isn't this also a consequence of the Dzero's database crash ??*

*Error looked like a condor error - may be coincidence. Investigate.*

*IT# 3381: "samgrid user over quota again on d0cabosg1/d0cabosg2" : still waiting for S. Timm or resolved ?*

*Was resolved on Friday, but is possibly happening right now. Mike is in touch with the Fermigrid people.*

*IT# 3380: "Too many open files on samgrid": Anyone working on this ?*

*Monitoring problem - fixed by Andrew. See IT-3380 for solution. Should resolve issue.*

*IT# 3372: "Remove d0rsam01 from the forwarding node mapping list" : Is this done ?*

*New file deletion code in sam client is working - so we can do this removal.*

IT #3369: Premature file deletions from sam cache : Is the new version also installed on samgwd01/2 as Steve Sherwood promised ??

Steve installed the new sam client on samgwd01 and 02. Steve will verify that it's everywhere. We think it is on d0srv066 too.

IT #3368: Problems with station context not found : Is the context service going to be moved soon so that d0srv066 can be retired ??

Context server is working after the restart. We'll see how long it'll stay that way. Steve knows that he'll have to move the context server - find out how from Andrew.

Currently an issue that no new reco jobs can be submitted. Fails with Globus error 155. Mike is in touch with Fermigrid people.

Mike's operational problem for merging is that file delivery times out. He asks that the timeout be increased. Timeout now is 1 hour. Problem with extending the timeout is that jobs will stay idle longer. Since it's merging, the timeout change needs to go to d0srv066. Need to look for the bottleneck somewhere. We should increase the timeout on d0srv066 and then look for the bottleneck.

Certificate for LCG Dodge -- two attempts have been rejected without comment. Made another request \*without\* the automatic certificate request upload. Not rejected as of last night. Will check this morning. - Woohoo! The request has made it to the helpdesk!

## CDF:

### o Known and continuing problems

fcdldata320 offline

### o Problems that were fixed during the last week

...fcdldata111 down 2/11/08 1525 to 2/12/08 1100

,,,fcdldata135 offline since 2/14 1450-fixed around 1612

o One DCache Diskpool door not opening (happened on 2/14 around 1830)--email sent to cdf\_diskpool\_admin  
The following doors are not responding:  
DOOR02 dcap://fcdfrdc3.fnal.gov:22127  
back up at 2/15 1120

### o Issues added after last meeting

..IA1853 (see below) --tape stuck in drive--sent to vendor for recovery  
about 150 files on this tape (mostly muo files) have been marked bad on the DB

..gaps in dcache monitoring plots --see elog--entry Mon feb 18 16:06

gap Monday 2/18 0245-0335, and Thursday 2/14 around 8PM.

..problem with CNAF SAM jobs

(AC++ executable is crashing, cnaf group needs to debug it as one can not even get the core files from their worker nodes)

*Cannot retrieve core file from the worker node. Krzysztof compared libraries and did not see a difference. Doug tried this too. Donatella needs to test on a node where she can get the core file.*

[email from users with failing jobs --from Vataga, etc.starting 2/13/08

[Lots of follow-up email from Donatella, Bob illingworth, Doug B, K Genser,

Thomas Kuhr, etc.]

I enclose here a snippet of the latest email from Doug today 2/18 at 0559

[Dear all,

Here is an update from my work on CNAF over the weekend.

I used the ldd command to see what libraries are used by AC++Dump on a CNAF

worker node and on a Fermigrid worker node. I also checked my desktop at FNAL as it uses a similar Kernel (32 bit). I could not see any significant

differences. (there was one difference on the Fermigrid worker nodes library - linux-gate.so.1 => (0xffffe000) )

I have put the output from both jobs in the directory /cdf/home/benjamin/CNAF for

anyone to look at. In both cases I run offline version 6.1.4 and dataset bpel0i.

Here is a snippet of the log file that includes error that is returned when my Job runs at CNAF. ....

Though Elena is still complaining about failing jobs at 0803]

o Bad movers and Tapes

Fixed --

...LT03\_26 down Friday 2/15 afternoon for a couple of hours due to a stuck tape IAB313 (see below)

...IAD988 0.44GB (NOACCESS 0208-1938 full 0122-0411) CDF-LTO3 cdf.gphysr.cpio\_odc

latest update : IAD988 This volume has been deleted from the library

database and put back into the system. You should be

able to access your data now. [Stanley Hicks, 2/18 1611]

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Outstanding unresolved issues (to be followed up)--

...9940B11.mover (down since Sunday AM)--

(NIC failure, opened helpdesk ticket)

...IAB313 1.23GB (NOACCESS 0215-0815 full  
0424-0246) CDF-LTO3 cdf.cdfpewk.cpio\_odc

latest update : IAB313 This tape has been removed from the library and a new

label will be printed and put on it for re-insertion into the library - most probably tomorrow.[Stanley Hicks, 2/18 1611]

...IA1853 0.23GB (NOTALLOWED 0201-0820 full  
1227-2115) CDF-9940B cdf.xbmu0i.cpio\_odc  
Vol stuck in drive DBT2MV - unable to dismount

Tape sent to vendor for recovery--no estimate

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To be noted :

...9940B27.mover offline for tape test by GS since early last week

*File update performance on cdf-sam station is poor - needs to move to the latest DB server.*

*Randolph made a fix to the DB Browser - took an hour to get going again because had to recompile the whole thing.*

*There is a project that has exhausted the descriptor limit at CDF - kill the project. Now station deliveries can occur.*

## **MINOS:**

General -

AFS - Timeouts continue.

Enstore -

DCache -

Writes blocked by CDMS writing 15K 20 MB files, 15K 20 byte files to the write pool Monday. Cleared by late Wednesday.

SAM -

Working to use sam\_cpp\_api v8\_4\_0\_1

IT 3128. sam\_products for sam\_station v6\_0\_5\_22\_srm

Oracle -

## OPEN ISSUES

IT 1146: cannot test existence of sam tape location

IT 1894: sam locate via C++ api, for simple client needs

IT 1979: Compiler warnings from sam\_cpp\_api

IT 2071: quadratic project startup time growth

IT 3128. sam\_products for sam\_station v6\_0\_5\_22\_srm

PLAN -

Migration to 9940B tape can proceed anytime

## Comments

### DB:

- d0ofprd1 crashed on Feb 18 Monday. Restarted the db. Cause of crash is unknown. Database logs haven been uploaded to Oracle support for further investigation. *Will send to Oracle.*

- deployed the db security patch on d0ofint1/d0ofprd1 on 2/12/08

- Analyzed the SAM Schema after the patch.

- Scheduling Schema cut on d0ofprd1 during March 4th downtime - To add composite index on lower(file\_name) and retired\_date

- Drop the unique index on lower(file\_name)

Recreated as non-unique on file\_name.

dropped the unique constraint on file\_name and retired\_date

- 02/14/08 v6\_14 SAM Schema cut on d0ofdev1 and d0ofint1

- Global Temporary table NUMBER\_PAIRS

- Index on cached\_files on end\_time column

Alert(s):

Message=Tablespace [PARTITIONED\_IDX\_01] is [80 percent] full

Action: Added 2GB

CDF :

- Need to schedule the patch on cdfofpr2 and v6\_10 and v6\_14 SAM Schema cuts
- Message=Tablespace [TS\_CF\_03312000] is [85.67 percent] full

Action: Added 300MB

Alert(s):

MINOS:

- Need to schedule the patch on minosprd as well as v6\_10 and v6\_14 SAM schema cuts

*Comments*

## **Enstore/dCache:**

Scheduled Downtimes:

- o GCC - Wed, 8-10 am
  - CRA UPS work. Affects farm nodes and network, but only if street power fails.
- o STK - Thu, Feb 21, 8 am - noon
  - selective enstore s/w updates (esp. media changer)
  - pnfs and enstore db maintenance
  - update to Python 2.4
  - update ACSLS code on fntt (d0en and stken)
  - update license on fntt-gcc to 22K slots (SL8500-1,2)
- o CDF - Tue, Mar 18, all day
  - upgrade of entire suite of enstore servers to SDE rack
  - update license on fntt2 to include slots in SL8500-3

Operations:

- o d0en
  - scheduled maintenance had 1 small glitch; enstore was up at 11:30, then down again, then up at 12:45.
  - 44 LTO2 volumes migrated to 11 LT O4 volumes; about 1% done.
  - 100 9940B blanks loaded into silos.
- o stken
  - Nearly all the old SLF 3.x movers have been updated to SLF 4.4

o fndca

- renewed and installed host certs for 4 pool nodes.
- restarted gridftp doors on nodes with new certs.
- 1 pool node removed from configuration pending replacement of its 3ware raid arrays with Nexsan blades.

o cdfen

- volume IAD988 was missing; found and restored to service
- volume IAB313 needs a new label, will be done Tuesday

o cdfdca

- nothing to report