

**** 2007.01.23 Meeting******* Releases and Project News**

SAM DB server pkg v8_0_6 - added exceptions for lots more Oracle error messages for handling bad connections. Also added capability for adding more errors in the regular DB server configuration file (so can be added on the fly). See documentation in db_server_base_cx. If Oracle gives a recognized error, the DB server will reconnect on the next use of the DB server (but the failing attempt will fail - no retry). Retries are hard because if the DB goes down in the middle of a transaction, you would have to recreate the transaction up to when the downtime occurred - hard!

Looking into automatic registering of DB server with nameservice - disappearing DB server from nameservice is a rare problem, not sure when it happened last.

v8_0_6 was tested by Steve S. on Thursday.

Steve W. upgraded CDF int to v8_0_6. D0 production is at v8_0_6.

***** D0**

Another problem - user stored > 2 GB file into SAM. SAM can handle it fine, but Fermi version of Kerberos rcp on CAB cannot handle these files. Files are not delivered. Many CAB nodes were upgraded to SL4, but still fails. Clued0 uses rsync with ssh instead of rcp, because rcp has bad failure modes (if disk full, rcp hangs). But rsync +ssh uses more cpu (Art says to use blowfish cipher with uses less CPU). Robert will try this on some nodes and see speed difference. Looks like everything else works except rcp on CAB. CDF is all dccp. Hard to use gridftp on cab since so many machines - too many certificates.

D0 is down to 31 tapes. Have identified 1100 recyclable tapes. Tapes are on order. ~ 100 tapes will probably be borrowed from CDF (this should happen today). If no one wants data on 1100 tapes by early Feb, then recycling will begin. The data on these tapes have been re-recoed twice already.

***** CDF**

Dehong sometimes zips log files on the online system. When doing "gzip -9 * / *" drastically slows down the NFS server, even though files are small. Find a better way to do the gzip (like one by one instead of lots together).

CDF sees big improvement with the sequence number cache change.

***** MINOS**

See mail

***** DB**

Need a plan to change SAM code to not reference events table (what about dimensions?).

When our code is ready, drop synonyms to events table so it will not be accessible (easily reversible).

CDF listener restart to set parameters will occur during an enstore pause on 1/25.

***** enstore/dCache**

See mail

Text in boxes like this are commentary on e-mail messages from the meeting (see subsequent pages).

To print the commentary, be sure you choose "Document and Markups" from the "Comments and forms" drop down menu on the Print dialog.

From: Daria Zieminska <daria@indiana.edu>
 Subject: Re: SAM Operations Meeting tomorrow, 9:30am, Racetrack, 88SAMDH
 To: Adam Lyon <lyon@fnal.gov>
 Cc: sam-design@fnal.gov, Angela Bellavance <bellavan@fnal.gov>
 Date: Tue, 23 Jan 2007 09:01:39 -0500 (EST)

D0 Sam shift report Jan 15 -- Jan 22 2007

2550,2549 Re: SAMGrid monitoring
 Assigned: AAD0SAMexpert
 Monitoring pages on SANMGrid not reachable
 Investigated by experts

2544. files not going into sam (fielded by shifter, with info from
 S.Kovich)
 Assigned: D0SAMonshift
 Files have stopped going into sam on fnal-cabsrv2 station.
 d0oral crashed this (1/18) morning due to a rack power supply failure.

Nothing to do with d0ora1 - was because ADIC was down

2543. corrupted file (solved by Robert)
 ...happily got all their files, except for one, namely:
 WMass_Unsup_189141_v1 I cannot see anything wrong with this
 particular file...
 Robert: "The copy on disk on d0srv018 was corrupt. I have erased it.
 I'm not sure why your cabsrv1 jobs got stuck: they should have just
 ignored the file and carried on."

Two corrupt files on the same
 RAID array (> 1.5 TB).
 Not easy to check all CRCs -
 takes 12 hours. (dCache
 automatically scans CRC).

2540. refix-router problems (solved by Robert)
 problems getting delivered files via refix-router:d0rsam01.fnal.gov:

 'ccin2p3-grid2:ccd01.in2p3.fr:/samgrid/boo', result: EXIT CODE: 32256
 STDERR: /usr/bin/env: sampy: Permission denied
 Robert: "looks like a problem at your end. Are you sure that
 the permissions on the sampy executable are correct (ie both readable
 and executable by the sam account)?"

Not clear if this was solved - problem on user end.
 Users never responded.

On Mon, 22 Jan 2007, Adam Lyon wrote:

```
> Hi,
>
> We'll have the usual SAM Ops meeting tomorrow morning (Tuesday) at
> *9:30am* in the Racetrack (88SAMDH). The usual agenda is...
>
> - Project news, releases
> - D0
> - CDF
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> Please send me your report *before* the meeting if possible. Thank
> you!
>
> --- Adam
>
>
```

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Daria

From: Gabriele Compostella <compostella@tn.infn.it>
Subject: CDF SAM shift report 01/16/2007 - 01/22/2007
To: sam-design@fnal.gov
Date: Tue, 23 Jan 2007 10:27:59 +0100

Hi all,

I've been on CDF SAM shift last week, here's my report:

All week long

There has been a Warning in Raw Data logging for the whole week:

=====

b0csl29 -- Files remain in .open for too long

Fri Jan 5 00:05:50 2007 1167977150 Action: Experts have been notified, please wait

=====

Then we had some problems with files uploaded to SAM, probably not having all the correct metadata.

Jan 17

fcdldata154 dcache doors went down; the machine was rebooted, it was spewing out kernel messages about page faults. - (Joe Boyd)

Jan 19

Cache size for SAM sequences has been altered in CDF production db (cdfofpr2). - (Anil Kumar)

Thanks,

Gabriele

Warning should be ignored - fixed by online people - there is always some warning because CSL does not handle all cases.

Raw pool dcache pool node (no doors on there). 2nd down in a week for this machine.

All DB servers were upgraded to v8_0_5.

All ntuples are going to the new robot!

From: Arthur Kreymer <kreymer@fnal.gov>
Subject: Minos status 2007 Jan 23
To: sam-design@fnal.gov
Cc: minos_sam_admin@fnal.gov
Date: Tue, 23 Jan 2007 08:55:29 -0600 (CST)

Minos - Concatenation continues,
with some interruptions due to grid server upgrades
and UPS product reconfigurations.

Monte Carlo import continues, 1.3 TB so far.

All systems will be down Thursday 23 Jan 06:00+ for network switch work.

Enstore - Observed over 4 'A' tapes mounted, restoring files this morning
will investigate, this is old stale data.

VO8557 no-access for copy, 2001 mounts.

DCache - Renamed 105 files pending in write pools, Friday PM.
Produced 200K internal DCache errors over weekend.
My bad. Spotted by DCache administrators.
Renamed the files back and files cleared quickly.
Requested 'enmv' of the files, still pending.
This will move the files and their metadata cleanly.

SAM - IT 1894 Need 'sam locate' in C++ API - progress ?

Oracle - dev/int patches today
dev/int buffers and TNS tuning today.
prd buffers and TNS tuning Thursday

OPEN ISSUES

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 (from Nov 1 2005)

PLAN - Migration to 9940B tape can proceed anytime... when ?
New cache space scheduled mid February.
Update sam dbservers

From: Anil Kumar <akumar@fnal.gov>
 Subject: DB Notes
 To: sam-design@fnal.gov
 Cc: Angela Bellavance <bellavan@fnal.gov>
 Date: Mon, 22 Jan 2007 16:36:04 -0600

Jan 2007 Oracle Critical Patch has been released. Planning to deploy this patch on d0, cdf and minos databases. **Dev will occur tomorrow.**

Schedule : d0ofdev1 - Jan 25 - Only if approval for Feb downtime for d0ora2.

critical patch as well as patch if yes then 9:00AM , Oracle's
 for ORA-2000 errors otherwise at
 2:00PM, we will apply just patch for ORA-2000 errors.
 cdfofdev - Jan 24

Minosdev/minosint - Jan 23
 Minosprd - Jan 25

D0 :

- On 18th Jan, the rack power supply failure for d0oral have triggered a CPU board failure.

- Can we drop the index on data_files on file_name column ?

- Partition# 58 rolled over last week.

- V6_7 altered the cache size of SAM sequences on d0ofdev1/d0ofint1. Cut pending on d0ofprd1.

This is the new index added.
 Yes - drop! But check that Oracle still uses the file_name and retired_date index. If not then put it back.

- v6_4 index on create_date of data_files against d0ofdev1 done

Yes - deploy to D0 - already deployed at CDF (already seen lots less load on the DB).

- Draft Plan to remove the events :

http://www-css.fnal.gov/dsg/internal/d0_of1_dbs/plan_to_remove_events_from_d0_of.htm

D0 Online will stop writing event catalog on 2/6.

- Service Request with Oracle on Full table scan Vs Index scan on data_files_param_values.

Development is working on Bug Fix. Bug# 5601578 No time estimate yet for bug fix.

- Any news on usage of SAM EVENT CATALOG ?

425GB can be reclaimed by dropping of Level_1, Level_2, Level_3 columns. Restricting the select on columns from read accounts is not possible since these accounts have 'SELECT ANY TABLE' role.

- Status of Modification of SAM API for update statement on REQUESTS table.

Details for recommendation :

http://www-css.fnal.gov/dsg/external/bad_queries/d0/bad_update.htm

CDF :

- Jan 25 Network outage - Listener tuning will be deployed on Jan 25 during network outage.

- Alerts

- V6_7 altered the cache size of SAM sequences on cdfofdev/cdfofint1/cdfofpr2.

- v6_4 index on create_date of data_files against cdfofdev - done

- Full cut of V6_3 pending on cdfofint and cdfofpr2.

MINOS :

- Schedule 1/23 : V6_7 altering the cache size of SAM sequences on minosdev/minosint
1/25 V6_7 altering the cache size of SAM sequences on minosprd

- v6_4 index on create_date of data_files against minosdev - done

----- Original Message -----
From: "Adam Lyon" <lyon@fnal.gov>
To: <sam-design@fnal.gov>
Cc: "Angela Bellavance" <bellavan@fnal.gov>
Sent: Monday, January 22, 2007 3:41 PM
Subject: SAM Operations Meeting tomorrow, 9:30am, Racetrack, 88SAMDH

> Hi,
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> We'll have the usual SAM Ops meeting tomorrow morning (Tuesday) at
> *9:30am* in the Racetrack (88SAMDH). The usual agenda is...
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> Please send me your report *before* the meeting if possible. Thank
> you!
>
> --- Adam
>
> --
> Adam Lyon (lyon@fnal.gov)
> Fermi National Accelerator Laboratory
> Computing Division / D0 Experiment
> Running Experiments Operations Group Leader
> 630-840-5522
>

From: David Berg <berg@fnal.gov>
 Subject: enstore/dcache report
 To: sam-design@fnal.gov
 Cc: enstore-admin@fnal.gov
 Date: Mon, 22 Jan 2007 21:23:08 -0600 (CST)

enstore/dcache report
 =====

Operations

- o CDF
 - We are arranging moving 500 of their LRU 9940B tapes to the d0en silo served by 1 drive, and loading 500 blanks into the CDF silo.
- o D0
 - Adic maintenance - fixed broken abort button and replaced and realigned a dlt drive
 - New 9940 tapes have been ordered. Loading 100 blanks now in case they run out.
- o public dcache
 - Friday there were reported 4 files failing to get on tape and having no CRC. The time when files were written into dcache correlates with reported network glitch, then files were written again to the dcache. The broken replica exists in the pool, but can not be stored to tape. More store failures were reported Monday. Developers are investigating.

Expect to get mover up today.

Downtimes

- o Jan 25, 5:30 to 6:30 am, D0 and CDF enstore
 - network outage 6 to 6:30 am affects control subnet for all robots
- o Jan 25, 5 to 7 am, public enstore/dcache
 - network outage 6 to 6:30 am affects all stken systems (subnet 13)
- o Feb 15, public enstore, 2 hours(?)
 - upgrade stkensrv0 (volume/file database)
- o Feb 15, public dcache, all day
 - reconfigure all pools to ~1 TB each (some files will be moved, but none should be lost)
 - 4 new pool nodes (~5 TB ea) will be split between Minos, exp-db (Minos keeps their existing raw data write pools; Minos, exp-db to no longer write to shared pools)
 - configure and turn on gPlazma for grid certificate authentication

Thanks,
 David

Problem - GUMS server is not 24/7, but dCache is (??)

```
> Date: Mon, 22 Jan 2007 15:41:57 -0600
> From: Adam Lyon <lyon@fnal.gov>
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