

SAM (REX) Operations Meeting 2007.09.18

See following pages for mail.

Present: Adam, Krzysztof, Rick St. D., Angela, Art, Steve S., Steve W., Randolph, Dave Berg, Anil, Andrew

Releases:

8.3.0 DB server ("Retired Date") passed tests from Steve. Randolph should tag the SeedData and the DBTestLoader (already DONE during version build).

8.2.2 of the SAM client was also passed tests from Steve.

Randolph will learn how to install the 8.3.0 DB server into CDF integration. Then run a test where a file is retired and replaced. Then run a project and ensure that the right file is retrieved.

Also have to come up with the procedure where a file can be retired without breaking the station. Rick St. D suggests trying for more than one station. - Randolph has a script that generates sam admin commands that does the station removal.

Note that the regular sam admin remove command without a station argument will try all stations and will get hung on stations that are down.

There also may be an issue of DB server cache that could remember the old files. The solution is to flush the DB server cache. There is a DB server command to flush the cache (used in the test suite). Not sure if this is really a problem - but the DB server is probably caching the file name and the id. Steve W. doesn't think that flushing the cache is a big hit (same as restarting all of the DB servers - and that's not a problem since we do that). Steve W. suggests to restart the DB servers instead of flush (need to look at the code, since the flush is really meant for testing - but Art says he's used flushing in production).

Steve W: Do not install in D0 production until CDF tests are done. 8.3.0 also has latest cx_oracle (passed all tests so should be fine). Changes to cx_oracle - has a bug fix for the crash under high load.

DØ:

See mail.

For IT-3018 - Parag has fixed this before. Will put a link into 3018 directing to the older ticket for solution.

CDF:

See mail

Problem where the CDF station flooded e-mail server. Should probably review how the station sends mail. Make this a task for Andrew.

Angela and Rick St. D. will meet to go over documentation.

Robert updated the Farm DB server yesterday and Krzysztof will update the client.

MINOS:

See mail.

Thursday downtime will upgrade dCache and Oracle server hardware.

DB:

See mail.

When to do CDF offline DB upgrade? Note that this Oracle 10.2.0.3 release is the last Oracle 10g release that Oracle will put out before going to Oracle 11g (Arrrgh!). No plans yet from DBAs for migrating to 11g. Krzysztof says 10/3/07 for upgrade date 10.2.0.3 -- that is the power outage date (e.g. do the upgrade on the power outage date).

enstore/dCache:

See mail

Problems with the SL8500 (robot that hosts the LTO3 drives) - looks like a handbot is down again. Sun task force was investigating last week. One result of task force: current tape labels are incompatible with latest robot

firmware -- so haven't upgraded. Enstore group is updating labels. Sun says that some handbot problems are fixed in latest robot firmware. But even with the current firmware and new labels, some new labels cause problems. Perhaps label maker is the problem (can visually see problems with bar codes). Looking into alternate sources of labels -- still under consideration.

cdfen downtime on 10/3 to replace pnfs server hardware will occur on 10/3 even if power outage is moved to a different date.

D0 weekly SAM report Sept. 11-18, 2007

1 message

Kin Yip <kinyip@bnl.gov>

Mon, Sep 17, 2007 at 3:48 PM

To: sam-design@fnal.gov

Unresolved issues :

IT #2999: about an issue of "transfer id" that T. Yasuda has raised. Do we want to investigate more (as Robert and Randolph has given their opinions) ?

IT #2993: Stagers not running on d0srv063,65 as Mike had complained ?

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Others from ~last week :

(a few were left attended probably as we didn't have a shift last Friday ... I cleared a couple and

I had reminded the SAM shifter tomorrow to look at them ... there is NO US time shifter this week before Fri.) :

IT #3019 : merge jobs have problem from nikhef.nl .

IT#3018: Joel's jobs stuck at ouhep0.nhn.ou.edu

IT#3016: SAM disk resize problem ... hopefully the shifter tomorrow in Europe should be able to help.

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Others worth mentioning:

--- There seem to have quite a lot of problems with OSG jobs from ouhep0.nhn.ou.edu (some already resolved). Somehow, OSG is a very popular name for the SAM shifters.

<https://plone3.fnal.gov/SAMGrid/tracking/3018/pcng_issue_view>

CDF report

1 message

Richard St. Denis <r.stdenis@physics.gla.ac.uk>

Tue, Sep 18, 2007 at 8:33 AM

Reply-To: r.stdenis@physics.gla.ac.uk

To: sam-design@fnal.gov

- o Logbook server was unavailable at start of week: being upgraded. Then it was not available for entries offsite. This was fixed.
- o Asked Rob Harr to look into the Upload Server errors we usually ignore. He sent mail but bigger problems -- getting people off fcdldata134
- o Big issue of the week: Error fetching a file came up when Donatella submitted a job to CAF requesting a dataset only available in CNAF. (Cannot be transferred since there is no writable sam cache on CAF). This created a flood of messages on the mail server. I stopped the CAF station when this happened as it looked like the problem from deleting files and the discussion last meeting was that the solution was to stop/restart.

Thus a new issue: the station sends mails at an alarmingly high rate when certain error conditions are excited. To address this Krzysztof turned off the mail message sending. The consequences need pondering.

Shutting down the sam station and restarting created a new issue: jobs failed. They should survive station startup according to the shiny SAM leaflets.

The fourth and original issue that started this cascade of problems was that AC++Dump did not work on the dataset in CNAF on the remote CNAF CAF. A large amount of discussion about libraries ensued but I know of no resolution to this.

There are as far as I know there are four followups needed

- o Stopping a station causes CAF jobs to fail
 - o The station can and does flood the mail server with error messages
 - o There is a problem in AC++Dump running in a certain site. (Are there others?)
 - o Users submitting datasets to CAF which are not available at CAF can cause a flood of the mail server with messages and their mistake is not caught at submission time.
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- o Randolph and Lena should have communicated on how to delete files -- Ray Culbertson was informed and asked to close the loop. This is a follow up on the issue of files being removed from the database but there still being files on the stations.
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- o 9940B tapes show an alarm (red) on DH at a Glance. We don't use them so this is a spurious problem and the alarm condition for this should be removed.
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- o A number of bad tape problems were solved by relabelling:
 - IAB440
 - IAB444
 - IAB450
 - IAB454

IAB460

IAB464

o fcdldata138 was fixed and is no longer in alarm on the DH at a Glance. There is an open issue as to whether it has the most up to date software.

o fcdldata309 is up and functional.

o Diskpool door was not responding. Sent mail to Alexei and he restarted

o r-fcdldata145-1 was offline. Alex restarted (saw nothing unusual).

o Follow up from April: Mario Campanelli was processing the large sample of data (3-4 TB) for silicon alignment. This is done but he was validating and still needs files. 2.4 TB needed for the rest, 4.7 available so the remaining files are being put on diskpool.

Rick

Dr. Richard St. Denis, Dept. of Phys. & Astr., Glasgow University
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Minos status 2007 Sep 18

1 message

Arthur Kreymer <kreymer@fnal.gov>

Tue, Sep 18, 2007 at 9:21 AM

To: sam-design@fnal.gov

Cc: minos_sam_admin@fnal.gov

Minos status 2007 Sep 11

General -

Preparing for Minos Collaboration meeting Sep 27-30

Enstore -

DCache -

Looking forward to 20 Sep DCache upgrades
which may resolve open file problems.
We are having continued problems with this,
including writes using srmcp.

Slow ROOT DCache reads in root >= 5.12
Need to rerun tests on larger test files.

SAM -

IT 1894 Need 'sam locate' in C++ API
Users really need this feature.

Oracle -

Plan minosora1 firmware upgrade, per Sun request, 20 Sep
during the DCache maintenance.

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 ?
Update Minos dbservers and clients to v8

DB Notes

1 message

Anil Kumar <akumar@fnal.gov>

Tue, Sep 18, 2007 at 8:01 AM

To: sam-design@fnal.gov

D0 :

- Scheduling upgrade of d0ofdev1 to [10.2.0.3](#) for Sep 18 Tuesday - 7 hours downtime starting 7:30AM
- Scheduling upgrade of d0ofint1/d0ofprd1 to [10.2.0.3](#) Oct 2, 2007
- SAM cut v6_10 on d0ofdev1 - To add composite index on lower(file_name) and retired_date
- v6_4 index on create_date of data_files against d0ofdev1 done
- 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.
SAR# 5837876.993

Alerts :

CDF :

- Upgrade to [10.2.0.3](#) done for cdfofdev and cdfofint on Thursday 09/13/2007
But CPU was not replaced.
Planning for CPU replacement on Tuesday 09/18/2007
- Need to schedule the db upgrade to [10.2.0.3](#) for cdfofpr2.

Alerts:

MINOS :

- 09/20/07 Thursday, planning to upgrade bios and firmware on minosora1.
BIOS and firmware had already been upgraded on minosora3.
- v6_4 index on create_date of data_files against minosdev - done

Thanks,

Anil.

----- Original Message -----

From: "Adam Lyon" <lyon@fnal.gov>

To: <sam-design@fnal.gov>

Sent: Monday, September 17, 2007 4:01 PM

enstore/dcache report

1 message

David Berg <berg@fnal.gov>

To: sam-design@fnal.gov

Cc: enstore-admin@fnal.gov

Mon, Sep 17, 2007 at 6:35 PM

enstore/dcache report

Scheduled Downtimes:

- o stken - Thu, Sep 20, 8 am to 2 pm
 - enstore s/w updates
 - dcache s/w updates, incl. fix to "too many open files"
 - 9940B drive firmware updates
 - Nexsan raid firmware updates

- o cdfen - Wed, Oct 3
 - dcache s/w updates, incl. fix to "too many open files"
 - upgrade cdfensrv1 (pnfs server), PC and raid

Operations:

- o d0en
 - nothing to report

- o cdfen
 - nothing to report

- o cdfdca
 - Certain stage requests that were getting into the "waiting" state (which really means "waiting to retry after a failure") were failing because of a "NOACCESS" tape.

- o stken
 - nothing to report

- o fndca
 - 3 gridftp doors that had been offline due to lack of host certificates are now online
 - a few pools have been restarted

Thanks,
David

> Date: Mon, 17 Sep 2007 16:01:51 -0500
> From: Adam Lyon <lyon@fnal.gov>
> Subject: SAM Ops Meeting Tuesday 9/18 9:30am FCC1 88SAMDH
> To: sam-design@fnal.gov
>
> Hi,
>
> We'll have our usual SAM Operations Meeting Tuesday 9/18/07 at 9:30am
> in FCC1 (88SAMDH).
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