Tier2D Ops Issues/Communication

U.S. Facilities Workshop/SMU
October 12, 2011
Mark Sosebee

Outline

- Description of production shifts

- Tools used by shifters

- Contact options

- ATLAS Tier2D

- Example of how (not?) to handle problems

- Can we improve the situation?

- Summary

Shifter Perspective (I)

- Production shifts have evolved considerably over time

- In more US-centric days we called them "PanDA shifts"

- With widespread adoption of PanDA in the other clouds it became necessary to standardize the shifts

- Enter "ADCoS" (Atlas Distributed Computing Operations Shifts)

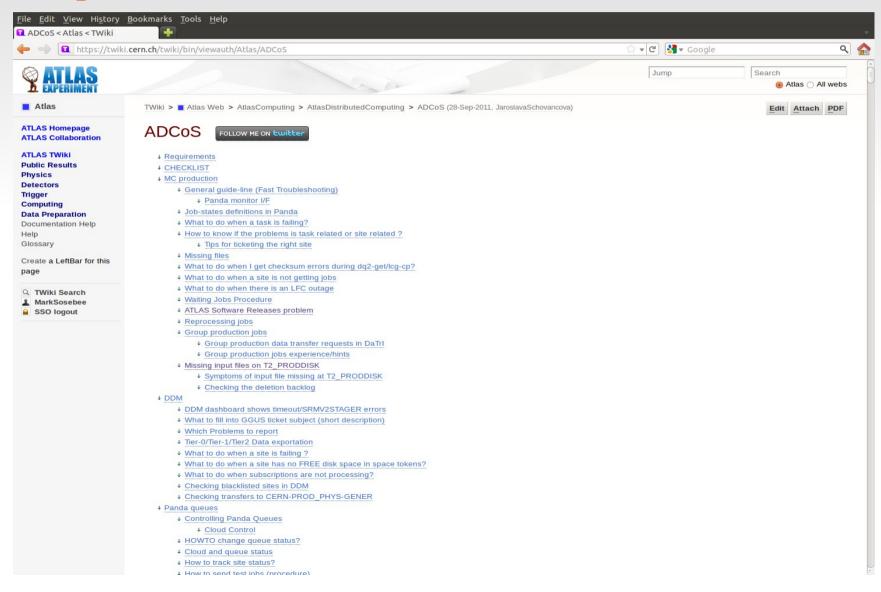# Shifter Perspective (II)

- ADCoS shifts are 8 hours x 3 time zones, including Sundays

- The full team includes:
  - AMOD
  - ADCoS "expert" shifter (US: Wensheng Deng, Yuri Smirnov, Douglas Smith)
  - ADCoS "senior" shifter (+ maybe a trainee)
  - Point1 shifter

Very Useful Twiki...
(Jarka Schovancova)

https://twiki.cern.ch/twiki/bin/viewauth/Atlas/ADCoS

Problem Reporting/Communicating Issues

- Three systems:

    - ggus (https://ggus.eu/pages/home.php)

    - eLog (https://atlas-logbook.cern.ch/elog/ATLAS+Computer+Operations+Logbook)

    - Savannah (https://savannah.cern.ch/)

    - <u>Note</u>: ggus tickets for U.S. sites should trigger a corresponding RT ticket

- Everything should be eLog'd – choice of ggus vs. Savannah depends on the problem

- Chat session always on-line for shift team (ADC VCR)

Shifter Tools
(might be useful for site admins?)

- Various panda monitor views:

    - Production summary

    - Error summary

    - Pilot information (see clouds views)

- DDM dashboard (v2.0)

- Site downtimes (GOCDB for EGEE & NDGF, OIM for US sites)

- DDM deletions information

- SSB (site status board)

- Much more here (ADCoS TWiki)

Contacts

- Shifters: atlas-project-adc-operations-shifts@cern.ch

- ADCoS expert: atlas-adc-expert@cern.ch

- atlas-support-cloud-US@cern.ch (or substitute any other cloud name: CA, DE, ES, FR, IT, ND, NL, TW, UK)

- US-specific mailing list: pandashift@hepmail.uta.edu

How Are We Doing?

- Shifts have become more involved over time:

    - Good news: we're tracking more information

    - Not-so-good news: a lot to keep up with

        - Issues can slip through?

- More shifters on the team:

    - Good: distributes the work load

    - (Sometimes) bad: new shifters need time to come up to speed

- Overall, issues are well-covered and reported

ATLAS Tier2D*

- T2D's: "directly connected Tier2" (F.Barreiro, S.Campana, I.Ueda…)

- A Tier2 with direct connections to all Tier1's, Tier2D's and CERN

- Tier2D selection criteria:

  - Robustness

  - Network bandwidth and performance

- Goal: commission <u>all</u> Tier2's as Tier2D's

* Alexei Klimentov, NEC 2011, Varna

How Do We Handle Tier2D Issues?

- At present, possibly room for improvement...

- Multiple examples of slow file transfers from U.S. => other clouds – jobs fail due to transfer timeouts

- Is cloud support sufficient to manage these kinds of problems?

- Rob suggested a "Hiro-like" contact in the other clouds – does cloud support suffice?

A Current Issue…

- On 10/9 shifter created:
    https://savannah.cern.ch/bugs/index.php?87589

- "MWT2_UC has many jobs transfer timeouts to TRIUMF"

- Discussion thread followed in eLog (so far no updates to the Savannah ticket, nor has a ggus ticket been created)

- See:

    https://atlaslogbook.cern.ch/elog/ATLAS+Computer+Operations+Logbook/30170

LCG Savannah

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💣 Atlas Distributed Computing Operation Support - Bugs: bug #87589, MWT2_UC has many jobs transfer...

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bug #87589: MWT2_UC has many jobs transfer timeout to TRIUMF

Submitted by: Wen Guan <wguan>

Submitted on: 2011-10-10 01:51

Submit Changes

Category:	None	Severity:	3 - Normal
Priority:	5 - Normal	Item Group:	None
Status:	None	Privacy:	Public
Assigned to:	None	Open/Closed:	Open

(-) Discussion

2011-10-10 01:51, **original submission:**

Wen Guan
<wguan>

Hi,

At MWT2 there are many jobs failed. The failed message is "taskBuffer: transfer timeout". The destination SE is TRIUMF.

(1)http://panda.cern.ch/server/pandamo...
(2)
http://panda.cern.ch/server/pandamo...=*&site=MWT2_UC&type=production&jobStatus=failed&hours=12

(-) Attached Files

No files currently attached

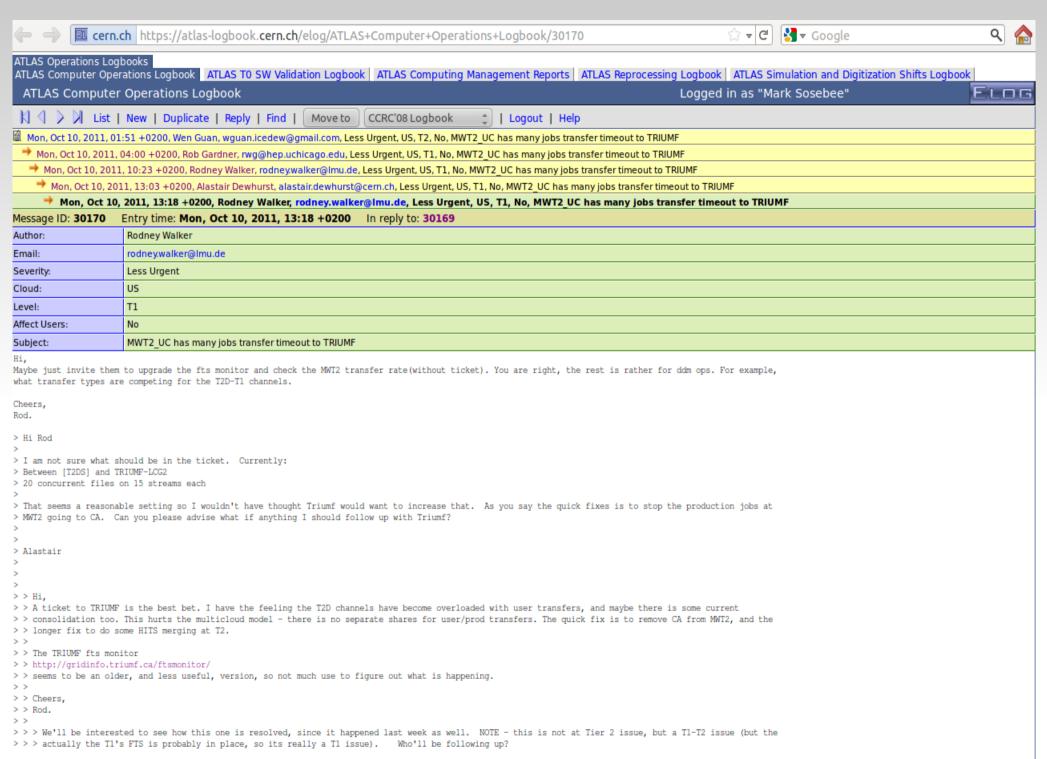**ATLAS Computer Operations Logbook**   Logged in as "Mark Sosebee"   ELOG

Mon, Oct 10, 2011, 01:51 +0200, Wen Guan, wguan.icedew@gmail.com, Less Urgent, US, T2, No, MWT2_UC has many jobs transfer timeout to TRIUMF

Mon, Oct 10, 2011, 04:00 +0200, Rob Gardner, rwg@hep.uchicago.edu, Less Urgent, US, T1, No, MWT2_UC has many jobs transfer timeout to TRIUMF

Mon, Oct 10, 2011, 10:23 +0200, Rodney Walker, rodney.walker@lmu.de, Less Urgent, US, T1, No, MWT2_UC has many jobs transfer timeout to TRIUMF

Mon, Oct 10, 2011, 13:03 +0200, Alastair Dewhurst, alastair.dewhurst@cern.ch, Less Urgent, US, T1, No, MWT2_UC has many jobs transfer timeout to TRIUMF

Mon, Oct 10, 2011, 13:18 +0200, Rodney Walker, rodney.walker@lmu.de, Less Urgent, US, T1, No, MWT2_UC has many jobs transfer timeout to TRIUMF

Message ID: 30170   Entry time: **Mon, Oct 10, 2011, 13:18 +0200**   In reply to: **30169**

Author:	Rodney Walker
Email:	rodney.walker@lmu.de
Severity:	Less Urgent
Cloud:	US
Level:	T1
Affect Users:	No
Subject:	MWT2_UC has many jobs transfer timeout to TRIUMF

```
Hi,
Maybe just invite them to upgrade the fts monitor and check the MWT2 transfer rate(without ticket). You are right, the rest is rather for ddm ops. For example,
what transfer types are competing for the T2D-T1 channels.

Cheers,
Rod.

> Hi Rod
>
> I am not sure what should be in the ticket.  Currently:
> Between [T2DS] and TRIUMF-LCG2
> 20 concurrent files on 15 streams each
>
> That seems a reasonable setting so I wouldn't have thought Triumf would want to increase that.  As you say the quick fixes is to stop the production jobs at
> MWT2 going to CA.  Can you please advise what if anything I should follow up with Triumf?
>
>
> Alastair
>
>
>
> > Hi,
> > A ticket to TRIUMF is the best bet. I have the feeling the T2D channels have become overloaded with user transfers, and maybe there is some current
> > consolidation too. This hurts the multicloud model - there is no separate shares for user/prod transfers. The quick fix is to remove CA from MWT2, and the
> > longer fix to do some HITS merging at T2.
> >
> > The TRIUMF fts monitor
> > http://gridinfo.triumf.ca/ftsmonitor/
> > seems to be an older, and less useful, version, so not much use to figure out what is happening.
> >
> > Cheers,
> > Rod.
> >
> > > We'll be interested to see how this one is resolved, since it happened last week as well.  NOTE - this is not at Tier 2 issue, but a T1-T2 issue (but the
> > > actually the T1's FTS is probably in place, so its really a T1 issue).    Who'll be following up?
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Options

- Instruct shifters about identifying these errors as inter-cloud transfer problems

  - Appropriate ticket, cc list, etc.

- Escalate this issue to ADC ops

- Try involving cloud support

- Other possibilities?

Summary

- ADCoS shifts have mostly been a success

    - Coverage 24x7 across all time zones

    - Integration across all clouds (PanDA)

- With the generalization of some Tier2's => Tier2D's job file transfer problems are an intermittent problem

- At present we need a strategy to address this problem more systematically

- Even if shifters more precisely report this type of problem still need to understand/fix root causes

Go Rangers