
ADC Operations and the US Cloud

Facilities - Argonne - December 2018
WBS 2.3.5.2

Outline

- US Cloud Support
- ADCoS Coordination
- ADC Reliability
 - On behalf of Armen, Jose, Xin

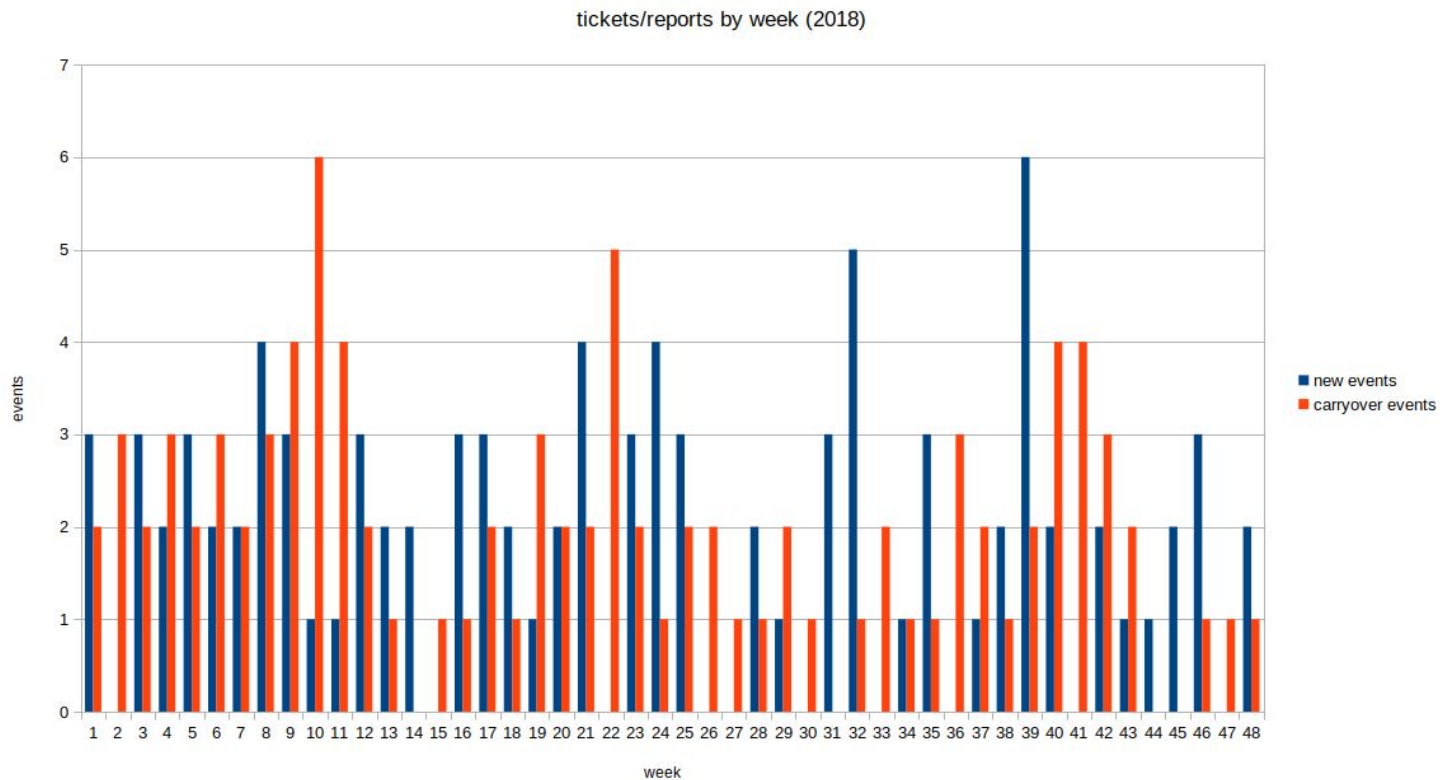
Cloud Support

- Not a new topic in ATLAS
- Cloud support is actually widespread / distributed
- 29 members in US list:
<https://e-groups.cern.ch/e-groups/Egroup.do?egroupId=139638>
- Goals:
 - Point of contact for US cloud
 - Track issues / tickets in the cloud
 - Try to minimize acknowledgement / resolution times
- Sites are very responsive - only “bug” people when issues linger...

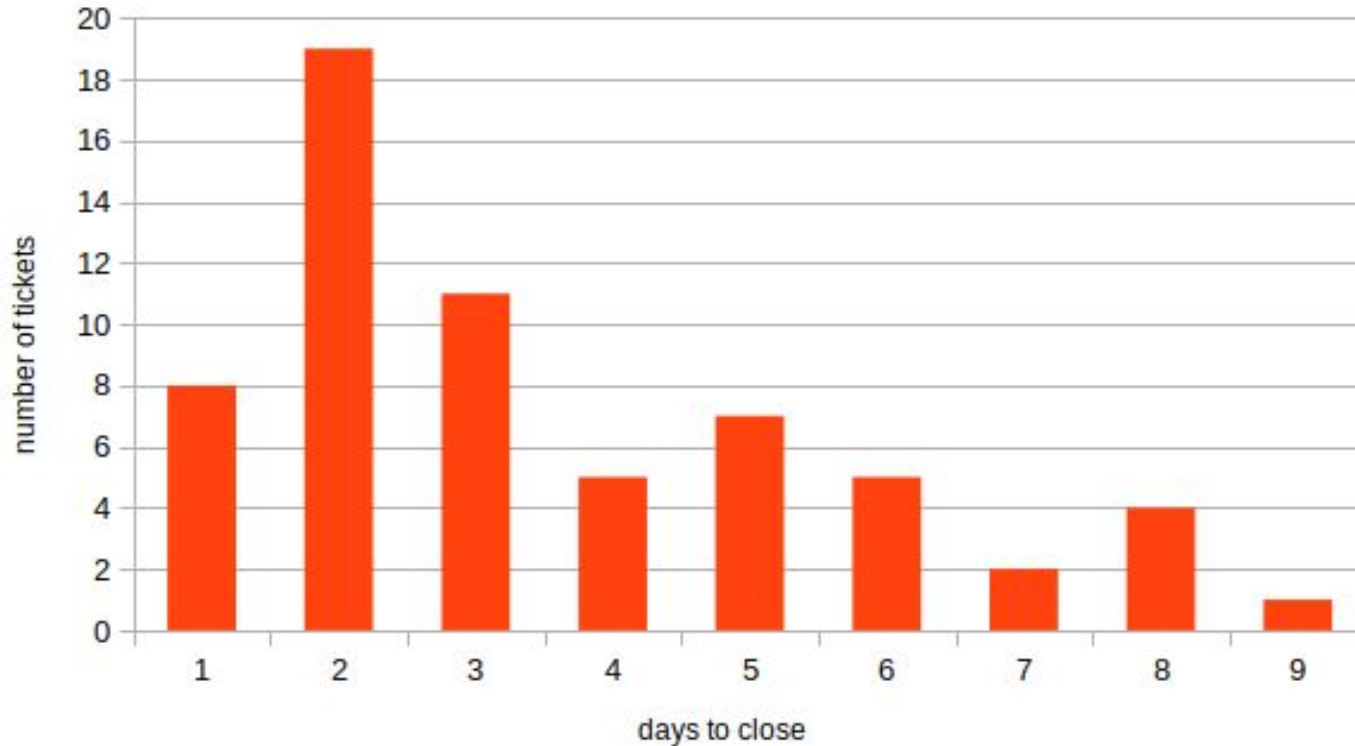
How are issues identified?

- ADCoS shifters
 - DDM
 - PanDA production
 - Site services
 - GGUS, JIRA, eLOG
- DAST
 - Users report a problem => forwarded to cloud support
 - Shifters notice an issue
- ADC Ops
 - CRC, expert shifters, etc.

US Cloud Tickets/Events - 2018



How Long Do Tickets Remain Open?



Tickets and Events - More Details

- 79 total tickets this year in the US cloud (through November)
- 43/48 weeks had three or fewer issues reported
 - 31/48 weeks two or fewer
- 42/48 weeks had three or fewer carryover issues
 - 35/48 weeks two are fewer
- 62 tickets shown in “Days To Close” plot - where are the rest?
- Some of the 17 others remained open for > 10 days, but...
 - on hold
 - closed and re-opened
 - non-critical services
 - incorrectly opened
 - Some could (and should) have been closed sooner

Useful Links

- https://adcos.web.cern.ch/adcos/For_ADCoS_Shifters/ (lots of monitoring pages here)
- <https://twiki.cern.ch/twiki/bin/view/AtlasComputing/SquadHowTo> (some information out of date...)
- <http://dashb-atlas-ddm-acc.cern.ch/dashboard/request.py/ddmaccounting> (DDM accounting)
- <https://twiki.cern.ch/twiki/bin/viewauth/AtlasComputing/ADCOperationsDailyReports2018> (ADC Ops Daily Reports)

ADCoS Coordination

- What is ADCoS?
- Organization of shifts
- ADCoS management structure
- Documentation
- Communication channels
- Current developments

What Is ADCoS?

- 24 x 7 shifts to monitor ATLAS distributed computing
- Across three time zones (US, EU, AP)
- On a given day there are generally:
 - Expert shifter (1)
 - Senior shifters (3, one per time zone)
 - Possibly new shifters in the process of training
- ADCoS shifts can be done remotely (i.e., home institutions, etc.)

Shifts - by the numbers

- Expectation is that ~20 shifts will be taken per year
- At a minimum (full coverage): ~18 (=365/20) shifters needed per time zone
- This leads to: ~20 expert and ~54 senior shifters
- ADCoS is counted as Class 2 service in OTP
- OTP credits:
 - 1 for expert shifts
 - 0.78/1.55 (weekday/weekend) for senior shifts
 - 0.5 credit for trainee shifts (limited to 12 shifts)

ADCoS Management

- Coordinator (Armen):
 - General shift organization
 - Follow day-to-day operations
 - Organize meetings (ADCoS Weekly: Tuesdays 17:00 CET / 16:00 UTC)
 - Optimize shift procedures and policies
- Coordination Group:
 - (active) expert shifters
 - Discussions involving:
 - evaluation of new tools
 - Maintain documentation - keep it up-to-date
 - evaluation of trainee shifters (i.e., approve promotions, etc.)
- Contact:
 - atlas-adc-adcos-coordinators@cern.ch coordination group

Documentation

- ADCoS TWiki: primary source for information about ADCoS :
 - <https://twiki.cern.ch/twiki/bin/view/AtlasComputing/ADCoS>
- Checklists and operational procedures
- “Most Common Mistakes” by shifters...
- How to use the ticketing systems (GGUS, JIRA, eLOG, etc.)
- In addition - Known Problems:
 - <https://twiki.cern.ch/twiki/bin/view/AtlasComputing/ADCoSKnownProblem>
- Both of these pages can provide useful information for site admins (i.e., shifter’s views into the sites, etc.)

New Tools for Shifters

- SAM Tests and Monitoring
- Potentially beneficial to both SAM experts and shifters:
 - SAM experts are interested in ADCoS using the product and debugging it
 - Can help ADCoS with site monitoring and debugging problems (but, perform cross-checks and verification with other monitoring tools)
- BigPanDA: correlation between job failures and sites:
 - <https://bigpanda.cern.ch/errorsscat/>
- Debugging job failures can be a difficult / tedious task for shifters
- This new view in the PanDA monitor should help

Other Recent Developments

- Lots of ADCoS input and feedback (requests / testing / debugging):
 - DDM dashboard
 - DDM accounting dashboard
 - SSB (Site Status Board) - for example Frontier/Squid monitor

Final Thoughts

- Develop the objectives and procedures that fall under the new WBS category
- Take advantage of the time afforded by LS2 to refine operations in the US cloud
- ADCoS: continue to work with developers to refine the new monitoring tools coming on-line
- Near-term: US action on issues discussed at this meeting (unified PanDA queues, etc.)