

Central Services

monitoring for ADC Shifters

J. Schovancová (UTA)

ADC Shifters Jamboree
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“Central Services” for a Shifter

- Central Services: ADC services and products hosted at CERN, crucial for data export from T0 and data processing world-wide
 - DDM system (Rucio) - see Kai’s talk
 - PanDA - Michal’s talk
 - Databases
 - Frontier, Squid
 - FTS
 - CASTOR, EOS, AFS
- Instructions:
 - ADCoS: https://twiki.cern.ch/twiki/bin/view/AtlasComputing/ADCoS#Central_services
 - Former Comp@P1: https://twiki.cern.ch/twiki/bin/view/AtlasComputing/CompAtP1Shift#ATLAS_Central_and_Grid_Services

ADC Monitoring tools

<http://adc-monitoring.cern.ch/>



ADC Monitoring

The screenshot shows the ADC Monitoring dashboard with several sections highlighted by red boxes:

- Data Management**: Includes Central Deletion Monitoring, Functional Tests, Data Replication, Data Replication Details, Dataset Recovery Service, DDM Blacklisting, DDM Dashboard 2.0, WLCG Transfers Dashboard, and Single File Transfer Monitoring.
- DDM & Storage Accounting**: Includes DDM Accounting, DDM Popularity Prototype, PD2P Prototype, Storage Accounting, Storage Monitoring, and T1 Storage Space.
- Data Processing**: Includes PnDA Brokerage Monitor and BigPanDA Monitor.
- Data Processing Accounting**: Includes Historical Views Dashboard, Historical Views (BETA), and ICB Accounting.
- Sites and Services**: Includes AGIS, Hammercloud, Pilot factory, SLS Central Services, SLS Services for ATLAS, Site Status Board, SUM Visualization, and ABCD metric.
- Databases**: Includes DB dashboard, Frontier AWSTAT, Frontier SLS, and Squid.
- Point 1**: Includes contZole Tier-0 (11), contZole Tier-0 (12), and Detector Operation.
- Miscellaneous**: Includes ADC Monitoring JIRA and TWiki.

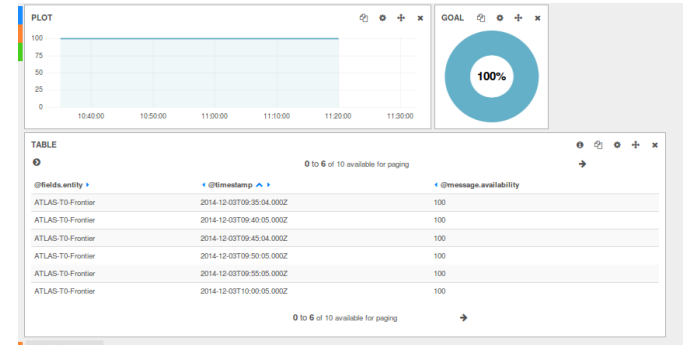
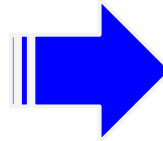
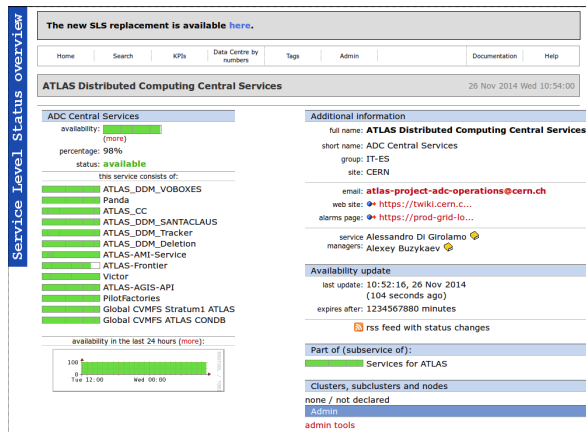
Contact: [adc-monitoring-dev\(at\)cern.ch](mailto:adc-monitoring-dev(at)cern.ch), Features/Bugs: JIRA

Old adc-monitoring.cern.ch page (contains task monitoring and classic/platform panda links)

Monitoring Central Services

... we are in a transition period:

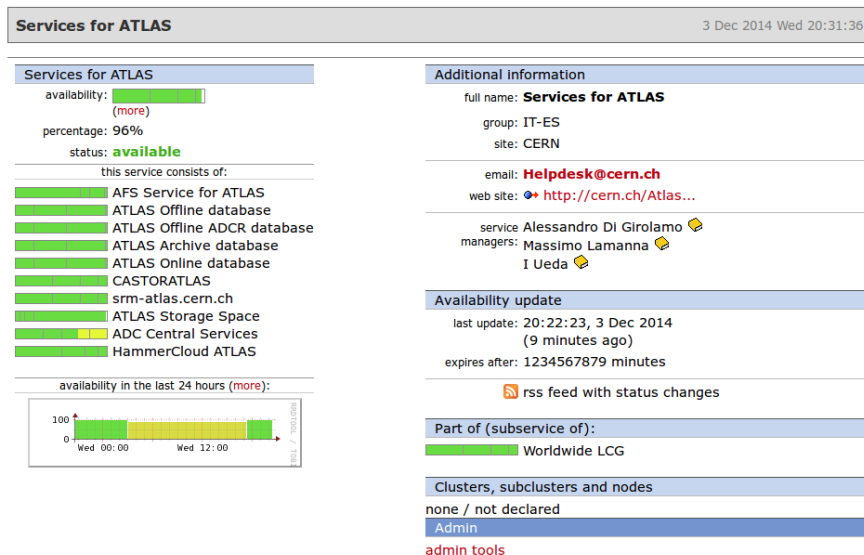
- Until 2014: in Service Level Status (SLS) monitor.
- From 2015: CERN Agile Infrastructure monitor.



Service Level Status monitor

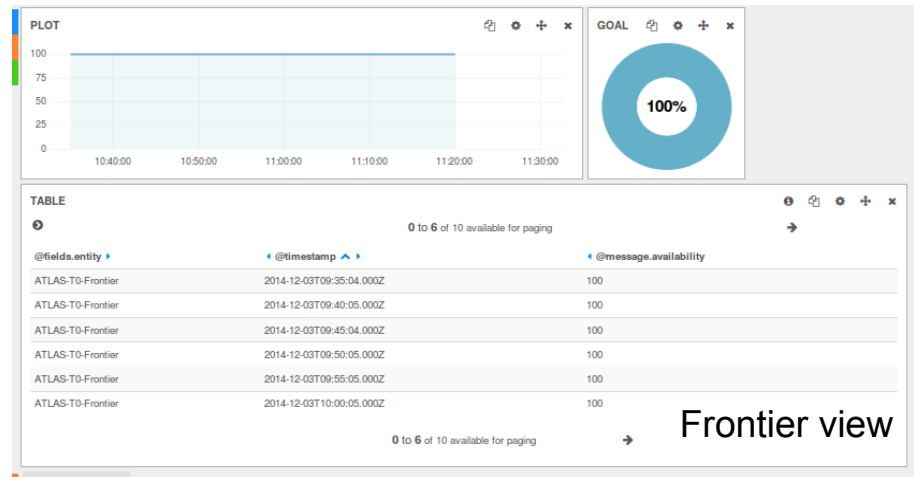
- SLS: <https://sls.cern.ch/sls/service.php?id=ServicesForATLAS>
- When something is not green - service responsible was already notified
- This monitor is just FYI to connect bits and pieces and get a full picture
- You see status of the machines hosting services at CERN, such as
 - Rucio
 - PanDA
 - Databases
 - Frontier
 - ATLAS databases
 - CASTOR
 - EOS
 - AFS
 - ...

Service Level Status overview



CERN Agile Infrastructure monitor

- Homepage: <https://dashboards.cern.ch>
- Monitors CERN AI machines \Rightarrow if something is wrong, machines responsible was notified
- Migration from SLS to AI mon is heavily in progress
 - List of the emerging views: https://twiki.cern.ch/twiki/bin/view/ITSDC/ExperimentCentralServicesMonitoring_inAI#Navigation
 - A self-study tutorial will be provided before the data taking starts



Databases

<http://cern.ch/adam/shifter/>

- Status of ATLAS Online and Offline databases

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Database Services Availability (SLS) Online Database Offline Database ADC Database TAG Database LCG Database Frontier Servers

Wednesday 03rd of December 2014 08:39:12 PM

Online Database ATONR

PVSS Insert Activity

Avg(rows/sec) Last 30 minutes: 804

Detail of PVSS activity

PVSS2COOL Replication Process information (UTC Timezone)

PVSS2COOL_STATUS	OLDEST_UPDATE	NEWEST_UPDATE
22/60	03-DEC-14 07.24.02 PM	03-DEC-14 07.34.11 PM

For more information: [ATONR Dashboard](#)

Replication to the Offline Server

DATA_SOURCE	CAPTURE_STATUS	PROPAGATION_STATUS	DELAY_SEC
PVSS DCS data	WAITING FOR TRANSACTION	SCHEDULE OPTIMIZED	0

List of applications replicated: [Streams Monitor](#)

Potential problem Troubleshooting

For more information: [ATONR Dashboard](#)

INSTANCE	Total Sessions	% CPU	Instance Load
1	460	2	0
2	375	1	0

timestamp: 03.DEC.2014 20:35:00

INSTANCE	USERNAME	Sessions over 80% of limit
1	ATLAS_COOL_READER_U	274/300

Offline Databases ATLR & ADCR

ATLR

ATLR Critical Service Availability

atlas_t0
atlas_coolprod

Replication to Offline Server - Apply Status and Delay in seconds

DATA_SOURCE	SOURCE_DATABASE	APPLY_STATUS	DELAY_SEC	SNAPSHOT_TIME
AMI	DBAMI.IN2P3.FR	ENABLED	2	03.12.14 20:39:10
Munich Muon Calibration	ATLMPI.MPPMU.MPG.DE	ENABLED	35	03.12.14 20:38:37
Rome Muon Calibration	ATLRROME.ROMA1.INFN.IT	ENABLED	35	03.12.14 20:38:37
PVSS DCS data	ATONR.CERN.CH	ENABLED	1	03.12.14 20:39:11
OGGSA_COOL	NULL	ENABLED	11	03.12.14 20:39:01
OGGSC_COOLOF	ATLR.CERN.CH	ENABLED	-567990000	02.12.32 19:39:12

For more information: [Streams Monitor](#)

Potential problem Troubleshooting

For more information: [ATLR Dashboard](#)

INSTANCE	Total Sessions	% CPU	Instance Load
1	128	1	1
2	132	1	0
3	147	2	1

timestamp: 03.DEC.2014 20:35:00

1 running scheduler jobs

ADCR

ADCR Critical Service Availability

adcr_dq2
adcr_dq2_location
adcr_dq2_tracer
adcr_panda
adcr_pandamon
adcr_prodisys

Potential problem Troubleshooting

For more information: [ADCR Dashboard](#)

INSTANCE	Total Sessions	% CPU	Instance Load
1	274	6	1
2	865	12	2
3	1060	10	1
4	88	1	1

timestamp: 03.DEC.2014 20:35:00

INSTANCE	USERNAME	Sessions over 80% of limit
3	ATLAS_RUCIO_W	1000/1000

Summary

- Monitoring tools for the Central Services are migrating to a new framework
- All CS monitoring tools are FYI, to get a better picture about status of the whole system
 - Service experts/responsible are notified automatically
- Despite the FYI character, these tools provide valuable information to spot issue in T0 export or world-wide data processing



<http://tinyurl.com/menfmhl>

Stay tuned for our next episode!