



ALICE operations report

Maarten Litmaath
CERN
IT-SDC

ALICE Offline week

March 20, 2015



- Please refer to Torino T1-T2 workshop presentations for further details:
 - <https://indico.cern.ch/event/354209/timetable/#all>
- Operations
- Run 2 & 3
- Xrootd 4, EOS
- Networks
- MonALISA
- AliEn

- And a whole lot more...

AliEn vs. RFC proxies



- AliEn needs to move to newer OpenSSL to close a potential vulnerability on the VOBOX
- Despite a big effort, recent OpenSSL builds for AliEn could **not** be made to work with **Globus legacy proxies** in use today
- But **RFC proxies** work fine
- We move WLCG VOBOXes to RFC proxies and then to the latest AliEn
 - Most sites in progress or done – **thanks!**

WLCG VOBOX firewall configuration



- Please open the firewall only as needed:
 - **8084/TCP** from CERN and the site WN - ClusterMonitor
 - **1093/TCP** from World - MonALISA FTD server
 - **8884/UDP** from the site WN and the site SE nodes - Monitoring info
 - **9930/UDP** from the site SE nodes - Xrootd metrics
 - **ICMP** incoming and outgoing - network topology for file placement and access

- Please allow inbound connectivity to port **1975** (gssissh) from **CERN networks**:
 - IPv4
 - **128.142/16**
 - **137.138/16**
 - **188.184/15**
 - IPv6
 - 2001:1458::/32
 - FD01:1458::/32

WLCG VOBOX VOMS configuration



- Reminder: the old VOMS servers should no longer be configured anywhere
- Please check `/etc/edg-mkgridmap.conf`:
 - `lcg-voms2.cern.ch` and `voms2.cern.ch` should both be present
 - `voms.cern.ch` still works today, but will soon be decommissioned
- Please check `/etc/vomses`:
 - Remove `*-voms.cern.ch`
- Documentation
 - <https://twiki.cern.ch/twiki/bin/view/LCG/VOMSLSCfileConfiguration>
 - <https://twiki.cern.ch/twiki/bin/view/LCG/WLCGvoboxDeployment>

SAM-3 Availability/Reliability computation (1)



- <http://wlcg-sam-alice.cern.ch/>
- SAM-Nagios machinery only tests **CE**
 - Mostly CREAM, a few ARC (with more to come)
- MonALISA forwards selected metrics to SAM
 - **VOBOX** and **SE** tests
- We now can and should include them in a **new formula** to determine if a site looks available / reliable for use by ALICE
- In particular this will allow sites without a CE to appear (again) in the WLCG A/R reports
 - Notably **NDGF** and **OSG**

SAM-3 Availability/Reliability computation (2)



- Considerations
 - Sites using a **CE** should have at least one working.
 - Sites not using a CE take full responsibility of their **VOBOX** → it has to look OK.
 - In particular the AliEn proxy must be valid.
 - Sites with an **SE** should at least have it working for **reading** files.
 - The write test is allowed to fail if the SE is (almost) full → not easy to determine reliably → warning only.
 - Sites without an SE should set one up!
 - Else can only be used efficiently for some workflows.

SAM-3 Availability/Reliability computation (3)



- Planned **new A/R formula** as of April:
Computing = (**any CE**) || (!CE && **VOBOX**)
Storage = **all SE**
Value = Computing && Storage

- Meaning
 1. If **any CE** is working → Computing OK
 2. If no CE is used and the **VOBOX** is working → Computing OK
 3. If **all SE** at the site are working → Storage OK
 - A T1 has multiple (logical) SE
 4. If the site has no SE → Storage OK (!)
 - For now...

SAM-3 Availability/Reliability computation (4)



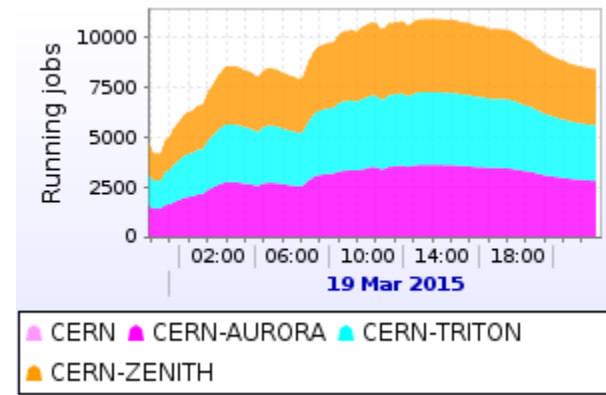
- **NDGF** is a special case
 - The computing is spread over 4 sites (plus 1 T2)
 - There is a shared SE
 - We add NDGF-T1 as a special case to the VO feed (i.e. grid topology from VO perspective)

- **ARC CE** tests
 - Currently via a WMS at RAL
 - Direct submission probe expected soon
 - **Pavlo** is finalizing the debugging – **thanks!**

Service changes at CERN



- User registration was migrated from the long-deprecated **VOMRS** to the supported **VOMS-Admin** service
 - Some improvements still on the to-do list
- The **old CAF** will be **retired** by April 30th
 - We intend to have a **new CAF** on **OpenStack + EOS** working by that time...
- The old HW VOBOXes were replaced by 3 **VOBOX VMs** nicely hosted in the central services cluster



Sites mostly OK - thanks!

However...



- VOBOX **issues**
 - CE not ready for jobs, wrong proxy being used, MyProxy running out, ...
 - Admins please check site issues page
 - <http://alimonitor.cern.ch/siteinfo/issues.jsp>
 - Subscribe to relevant notifications
 - <http://alimonitor.cern.ch/xml.jsp>
- Files unavailable due to SE **problem**
 - See above
- **Absence** of “system” library on WN
 - **HEP_OSlibs** rpm was created to avoid that