ALICE WLCG operations report

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IT-SDC

ALICE T1-T2 Workshop

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v1.2

AliEn vs. OpenSSL (1)

- 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

- WLCG anyway wants to move to RFC proxies → standard → better supported

- Ergo: now is the time to do that!

AliEn vs. OpenSSL   (2)

- ## Legacy proxy:

```
$ grid-proxy-info
subject  : [...]/CN=proxy/CN=proxy/CN=proxy/CN=proxy
issuer   : [...]/CN=proxy/CN=proxy/CN=proxy
identity : [...]
type     : full legacy globus proxy
strength : 1024 bits
path     : /var/lib/vobox/alice/proxy_repository/[...]
timeleft : 47:47:34  (2.0 days)
```

- ## RFC proxy:

```
$ grid-proxy-info
subject  : [...]/CN=1690539221/CN=925500684/CN=173197385/CN=2083576435
issuer   : [...]/CN=1690539221/CN=925500684/CN=173197385
identity : [...]
type     : RFC 3820 compliant impersonation proxy
strength : 1024 bits
path     : /var/lib/vobox/alice/proxy_repository/[...]
timeleft : 47:44:50  (2.0 days)
```

AliEn vs. OpenSSL   (3)

- RFC proxies are not supported by the old gLite VOBOX (still used at 3 small sites)
  - https://twiki.cern.ch/twiki/bin/view/LCG/WLCGvoboxDeployment

- They work with the current AliEn "v2-19.223"

- Therefore the plan is as follows:
  1. Switch each WLCG VOBOX to an RFC proxy
     - Everything keeps working as before
  2. Make the new AliEn v2-19.271 the default
     - The gLite VOBOXes keep using the old version, but should be upgraded ASAP

AliEn vs. OpenSSL (4)

- RFC proxies are not the default yet
  - That may change later this year
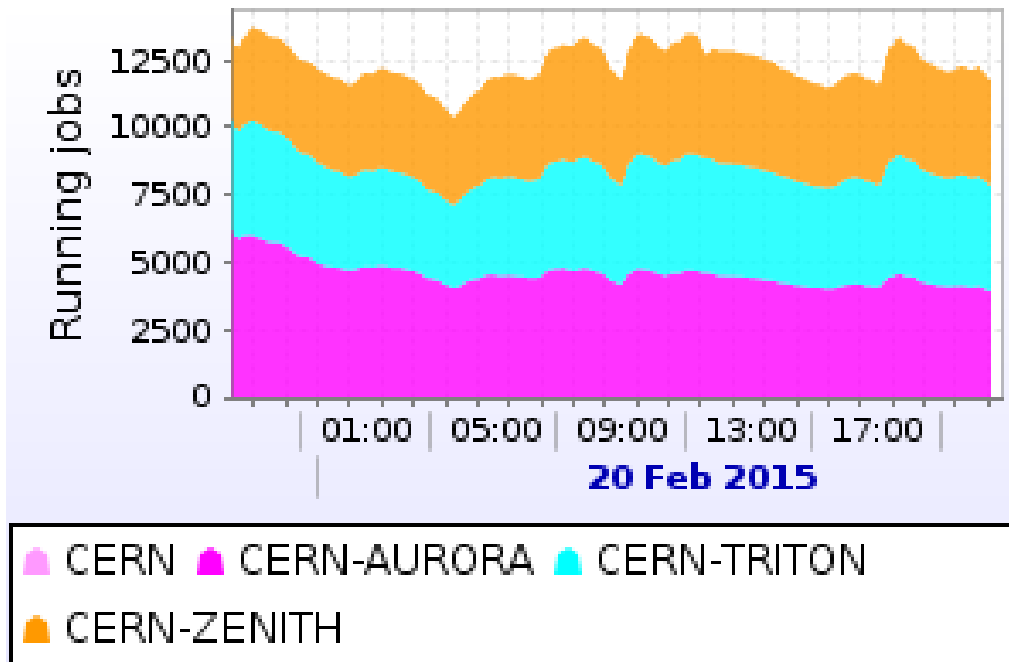- To switch a WLCG VOBOX to an RFC proxy one just needs to upload a new "myproxy" of that type:

```
export GT_PROXY_MODE=rfc
myproxy-init –d –n –t 48 –c 3000
```

- Please let us know when you do that!
- The proxy renewal daemon will discover and handle the change automatically

AliEn vs. OpenSSL (5)

- ## The WLCG VOBOXes at CERN already run the new AliEn with RFC proxies:

- ## More in Miguel's talk

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 (gsissh) 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
- 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)

- Proposal for new A/R formula as of March:
  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…

- Discussion…

SAM-3 Availability/Reliability computation (4)

- NDGF is a special case
    - The computing is spread over 5 sites
    - There is a shared SE
    - One site has its own SE
    - SAM-3 is flexible by design → we think we can implement a reasonable A/R determination

- ARC CE tests
    - Currently via a WMS at RAL
    - Direct submission probe expected soon
- SAM-3 overview → see Pablo's talk

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