



CREAM: Update on the ALICE experiences

WLCG GDB Meeting

Patricia Méndez Lorenzo (IT/GS)

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2nd phase of the CREAM-CE tests

- After a debug phase of the CREAM module in January 2009, the new module in production the **19th of February** (2nd testing phase started)
 - Stability and performance are currently the most important test issues at the sites providing CREAM-CE
 - The deployment of a 2nd VOBOX ensures that the production will continue on parallel through the WMS
 - A unique VOBOX would require a fully and dedicated babysitting of the system (not realistic)
 - Feedback of all issues are directly provided to the CREAM developers
- As of today, **9** sites are providing CREAM CE

Current Site Situation (10/03/09)

| Site | queues | Status of the queues | 2 nd VOBOX | VOBOX with clients | General Status |
|---------|--------|----------------------|-----------------------|--------------------|-----------------|
| FZK | 4 | OK | YES | YES | IN PRODUCTION |
| KOLKATA | 2 | OK | YES | YES | IN PRODUCTION |
| ATHENS | 1 | OK | NO | NO | NOT READY |
| KISTI | 1 | OK | YES | YES | IN PRODUCTION |
| GSI | 1 | OK | NO | YES | IN * PRODUCTION |
| IHEP | 1 | NOT OK | NO | NO | NOT READY |
| RAL | 1 | OK | NO | YES | IN PRODUCTION |
| CNAF | 1 | NOT OK | YES | YES | NOT READY |
| CERN | 2 | Provided yesterday | YES | YES | READY |

* Performing special production

Status of the sites (I)

- **FZK**
 - Minor actions required during the 2nd phase test
 - Delete some sandbox directories (hitting file limit again 32K subdirs)
 - Procedure not necessary in the next CREAM versions
 - 46380 jobs since the 19th of Feb through the FZK CREAM-CE
- **RAL**
 - No special actions reported by the site for service maintenance
 - 2350 jobs executed using the local CREAM-CE
- **Kolkata**
 - Debugging phase performed directly with the developer (Massimo Sgaravatto)
 - In production from 9th of March

Status of the sites (II)

- **CERN**
 - Two CEs have been provided the 9th of March to ALICE for testing
 - Affected by the service bug #47152 (in LCMAPS).
 - Problems if many-to-one static accounts mapping is used. This results in a glxec failure. voms pool account should be used instead of static ones
 - Problem visible both on the LCG and the CREAM CEs. This prevents from using voms pool accounts. This can be done for one role only
 - **CREAM-CE at CERN in working since this morning**
- **GSI**
 - Still pending the setup of a 2nd VOBOX
 - The CREAM-CE performing well
- **CNAF**
 - CREAM-CE ready to enter production at the end of February
 - Currently suffering from some instabilities
 - Most probably related to the CREAM CE version run at the site.
 - Under my credentials, the max limit of sandbox files seems to have been achieved (32K)
 - However the current production version of CREAM should made the purge automatically

Status of the sites (III)

- **KISTI**
 - System put in production yesterday night
- **Athens**
 - The CREAM-CE is working but the site cannot be put in production
 - No CREAM clients on the VOBOX
- **IHEP**
 - CREAM-CE is not working yet
 - Missing infrastructure - no 2nd VOBOX and no CREAM-CE clients on the primary)

Reminder: How to provide CREAM-CE services for ALICE

- **2nd VOBOX**
 - Each ALICE VOBOX submits to an specific backend
 - One VOBOX → LCG-CE OR CREAM-CE submission: replacement approach
 - Two VOBOXES → LCG-CE AND CREAM-CE submission: parallel approach
- **Setup of the ALICE production queue behind the CREAM-CE**
 - This procedure puts the CREAM-CE directly in production
- **Setup of a gridftp server**
 - Required to retrieve the job (agent) outputs
 - No specific wish for the placement of this service

Conclusions

- The ALICE experience with the current CREAM-CE service is very positive
 - Stable (and maintenance-free) operation is achieved quickly after the initial debugging period
 - High performance and scalability (FZK 2000+ parallel jobs) served by a single CREAM-CE
- Excellent support provided by the developers
 - Special thanks to Massimo Sgravatto (INFN Padova)
- ALICE is working with all sites to install a CREAM-CE
 - In full production before start of data taking