

## Summary of status as of 14/1/08

The new developments on the CREAM service have been basically finalized. In particular the two major changes that have been being applied are:

- The integration of a DB for the backend, to address the proxy renewal problem (task 4.10 of the CE checklist) and to address other scalability issues
- A revision of the CREAM interface, to optimize some operations (in particular the lease operation, which proved to be not scalable). Just to fasten the testing and the debugging, the old interface has been preserved (i.e. to be able to submit and cancel jobs from the "old" ICE client, while the new one is being implemented).

Some tests (also stress tests, lasting 6 days, but not including proxy renewal tests) have been done using the old ICE client.

The new ICE client is being finalized (estimation time: 1-2 days): the changes of the interface in CREAM introduced some interoperability issues that needed to be addressed.

Then (this week) we will start functionality and stress tests (including also the proxy renewal).

When we see that there are no major problems (rough estimation: 10 days, but it depends on which/how many problems will have to be addressed) tests can be done by "independent" testers.

Then the CREAM and ICE software can be released for certification.

Other relevant tasks of the CREAM CE checklist:

- The installation procedure of CREAM via yaim (task 2.1) already implemented for the old CREAM software, has been modified since the new CREAM developments require also some changes in the installation and the configuration. An installation with this new yaim installation procedure has already been done and proved to work, even if there is something to fix. Estimation to finalize the yaim based installation procedure: 1 week. Please note that, since yaim-lsf-utils doesn't exist yet, for the time being it is possible to test the installation procedure only for PBS/Torque
- For what concerns the batch system support and the porting to new batch systems (task 4.6), the interaction with the batch system is fully managed by BLAH, which already supports Torque/PBS and LSF (submissions to these batch systems via CREAM has been verified). As already reported, the BLAH BLparser has been reimplemented (basically referring to the the batch system status/history commands instead of parsing the batch system log files), also to facilitate the porting to new batch systems. A first implementation of this new BLAH BLParser with the relevant "plugin" supporting Condor has been done, and also the relevant changes in the CREAM software have been implemented. The PIC SA3 persons have been contacted, and they are going to let us make available their Condor environment to test and debug this BLAH and CREAM integration.

Some issues:

- The CREAM client software (CREAM CLI and ICE) requires VOMS 1.8 (which has been released about 2 months ago). The issue is that the WMS now in certification is still using VOMS 1.7
- For what concerns the CREAM CLI (task 4.4) it must be decided if it must be included in the "standard" WMS UI, or if a specific CREAM UI profile have to be created

## Summary of next steps (as of 14/1/08)

- 17-Jan-2008: new ICE client is finalized

- 21-Jan-2008: yaim based installation procedure updated
- 17-Jan-2008: ICE and CREAM ready for stress tests (done by developers)
- 31-Jan-2008: ICE and CREAM ready for stress tests done by independent testers
- 10-Feb-2008: ICE and CREAM ready for certification

## Detailed Check List

These notes describe the check list for a release candidate CE.

Nr	Task	Who	Priority	Needed when	Verified	Status	
<b>1. Installation</b>							
1.1	Package dependencies defined	Luigi (JRA1) - Sara, Simone (SA1)	10	before first certification	No	Done according to development team. To be confirmed by SA3	
1.2	No redundant packages	Luigi (JRA1) - Sara, Simone (SA1)	5	a.s.p.	No	Done according to development team. To be confirmed by SA3	
1.3	Common packages, including external packages, versions should be consistent with other node types	(JRA1) - Sara, Simone (SA1)	4	a.s.p.	No	Done according to development team. To be confirmed by SA3	
1.4	The file locations should follow the standard convention	Luigi, Alvisè (JRA1)	6	before first rollout	No	Done according to development team (logs moved to /opt/glite/var/log).  To be confirmed by SA3	
1.5	Build on ETICS for SL4 with VDT-1.6	(JRA1)	10	before first rollout	OK	Done	
<b>2. Configuration</b>							
2.1	YAIM will be used and should be compatible with the component centric YAIM architecture and only	Sara, Simone, Cristina (SA1)	10	before first rollout	No	Done according to development team.  To be verified by SA3	

	configure what is needed						
<b>3. Documents</b>							
3.1	Release notes	Luigi, Alvisè (JRA1)	10	before PPS	No	Done according to development team. To be confirmed by SA3	CREAM release notes published at <a href="http://grid.pd.infn.it/cream/field.php">http://grid.pd.infn.it/cream/field.php</a> updated whenever a new version is
3.2	User guide for the clients	(JRA1) - (SA3)	8	before PPS	No	Done according to development team. To be confirmed by SA3	For submissions to CREAM via WMS the WMS guide is the proper document type is not important. For direct submissions (the WMS) a CREAM user guide is available in the CREAM web site
3.3	Basic guide for operations covering the different deployment scenarios	(SA3) - (SA1) - (JRA1)	8	before prod	No	In progress	Besides the documentation for the configuration, some documentation is available in the CREAM web site ( <a href="http://grid.pd.infn.it">http://grid.pd.infn.it</a> ) "Administrator Guides". This is be
<b>4. Functionality</b>							
4.1	Accounting system, APEL has to work	Alessio, Elisabetta (SA3)	10	before PPS	No	In progress	This was tested for LSF. The record looks like there is a bug in APEL (Torque).
4.2	Information system, BDII will be used and should be able to publish VO tag (gridftp server is needed) and other runtime environment, correctly publish static and dynamic information using glue schema (version >= 1.3), sanity check	Cristina, Sara, Simone (SA1)	10	before PPS	No	Done according to development team. To be confirmed by SA3	There isn't anything specific to CREAM used in LCG CE and gLite CE. Do
4.3	Security, proxy with VOMS extension has to be supported, CRL update	Luigi (JRA1)	9	before PPS	No	Done according to development team. To be confirmed by SA3	-
4.4	Job submission through	Luigi (JRA1)	9	before PPS	Yes	Done	Job submissions to CREAM is already interacting directly with CREAM. "official" CREAM CLI exists

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	WMS and CLI on UI						
4.5	Job submission through Condor-G	Massimo, Francesco, Luigi (JRA1) - Condor	7	later	No	In progress	Some work was done  Need to re-contact Condor guys since requirements changed
4.6	Batch system support, start with torque and LSF, Condor and SGE later	Alessio, Elisabetta, Mezzadri, Prelz (SA3) - Luigi (JRA1)	8	before PPS	No	In progress	The interaction with the batch systems which already supports Torque/PBS and LSF batch systems via CREAM has been being reimplemented, also to facilitate direct submissions to the batch systems. This modification requires modifications in the CREAM code as well. A first implementation of the Condor support via WMS and via CREAM-CLI has been done. Basic tests have been performed (a known problem is that the ReallyRun batch system does not support LRMS: to be investigated).  PIC people are going to do more tests.  When the new BLAH model will be implemented, it will be also for LSF and PBS.
4.7	Support passing parameters to the batch systems	Luigi, Alvise (JRA1) - Elisabetta (SA3)	7	later	No	Done according to development team. To be confirmed by SA3	CREAM implements this feature via gLite CE. So the JDL 'Requirements' attribute can be used (as 'CERequirements' in the classad scripts, invoked by the BLAH submission script customized by the local sysadmin. See <a href="https://savannah.cern.ch/patch/?fid=1174">https://savannah.cern.ch/patch/?fid=1174</a> in <a href="https://twiki.cern.ch/twiki/bin/view/EGEE/Requirements">https://twiki.cern.ch/twiki/bin/view/EGEE/Requirements</a> for direct submissions to the CREAM CE. The 'CERequirements' attribute can be used in the JDL guide
4.8	Support stdout and stderr monitoring	Luigi, Paolo (JRA1)	5	later	No	Done according to development team. To be confirmed by SA3	Supported via 'Job perusal', for jobs submitted directly from UI and also directly from UI
4.9	Support MPI	Luigi, Paolo (JRA1) - Barbera (NA4)	5	later	No	Done according to development team. To be confirmed by SA3	MPI jobs supported for jobs submitted directly from UI. Implemented the MPI WG of TCG
4.10	Proxy renewal	Alvise, Moreno, Luigi (JRA1) Alessio, Elisabetta (SA3)	10	before PPS	no	In progress	Done  Known issue:  from time to time BLAH reports that the proxy renewal is not successfully done, while the proxy is still valid
4.11	Support more than 5000 simultaneous jobs, less than 0.5% jobs fail	(JRA1)	9	before PPS	yes	In progress	This was demonstrated in the CREAM test results.  Being re-tested with the redesigned BLAH

5. Operations							
5.1	Port list	(JRA1) - (SA3)	10	before certification	no	Done according to development team. To be confirmed by SA3	List published in <a href="http://grid.pd.infn.it/cream/field.ph">http://grid.pd.infn.it/cream/field.ph</a> and communicated to John White <a href="http://org.glite.site-info.ports/doc/middle">org.glite.site-info.ports/doc/middle</a>
5.2	Long time unattended running, more than 5 days, eventually extend to 1 month	(JRA1) - (SA3)	8	later	No	In progress	To be tested
5.3	Logfile rotation	Sara, Simone, Cristina (SA1)	7	before prod	No	Done according to development team. To be confirmed by SA3	CREAM and CEMon log file rotation other log files (glxexec, blah) log rotation
5.4	Audit trace management	Luigi (JRA1)	10	before PPS	No	Done according to development team. To be confirmed by SA3	All the accesses are properly logged (the verbosity can be tuned)
5.5	All services should be up after rebooting, and less than 0.5% jobs lost	Paolo (JRA1)	6	later	no	Blocked	This was already demonstrated during the service very few jobs got lost. However there is a known issue handling the service (bug #22437). The new version address this issue. Its integration requires code (being done), but first the integration of authz-framework and delegation-j
5.6	Clean up pool accounts for dynamic mapping	Sara, Simone, Cristina (SA1) - (JRA1)	10	before prod	No	Done according to development team. To be confirmed by SA3	Done by lcg-expiregridmapdir cron
5.7	Clean up obsolete and temporary files, specially the files under the home directories of pool accounts	Alessio, Elisabetta (SA3)	5	before prod	No	Done according to development team. To be confirmed by SA3	Done by cleanup-grid-accounts cron
5.8	SAM monitoring integration	Sara, Simone, Cristina (SA3)	8	later	no	in progress	Need to contact SAM people to understand what is done (e.g. are there some templates to be start when task 2.1 is done)
5.9	Verify that no serious memory leaks are present	Alvise (JRA1)	9	before prod	No	In progress	CREAM and ICE seems ok. There were some. Pinged many times Condor people and leak fixed. For the time being need to be patched one as post-install task.  Serious leaks in ICE fixed, but some are still present.  Implemented suicidal patch (under

Test results for LCG-CE on SL4: LCG-CE

Test results for gLite-CE on SL3: gLite-CE SL3

Test results for cream on SL3: cream SL3

-- Main.markusw - 09 Aug 2007 -- DiQing - 09 Aug 2007

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