

CESGA Status Report

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- **Main Achievements since November**
- **Work on Deliverables/Milestones**
- **Issues/Problems**
- **Next Steps**

Main achievements since November

- **VM mounted like image files: New testbeds can be easily made only migrating files.**
- **Xen Virtual Machines (Dell Poweredge 1955):**
 - CE/site-BDII: VM SL4 sa3-ce.egee.cesga.es
 - WN: VM SL4 sa3-wn001.egee.cesga.es
 - MON: VM SL4 sa3-mon.egee.cesga.es
 - SE_DPM: VM SL4 sa3-se.egee.cesga.es
- **CREAM CLI installed for testing purposes.**

- **NOTE: This task is a joined effort between IC, LIP and CESGA**
- **SGE Integration with LCG-CE SL4**
 - Yaim 4.x and SGE scripts developed
 - Glite-yaim-sge-utils-4.1.0-2
 - New SGE Information Dynamic Plugin 0.903 released
 - glite-info-dynamic-sge-4.0.903-1

- **Integration with CreamCE SL4**

- Tested new version 0.40 SGE blah scripts with Cream-CE

- includes:

- BupdaterSGE
 - sge_submit.sh
 - sge_status.sh
 - sge_cancel.sh
 - sge_hold.sh
 - sge_resume.sh

- Tested sge-info-reporter 0.903 to support SGE on Cream-CE

- **Integration with CreamCE SL4**

- New specific blah.config options for SGE (thanks to Francesco Prelz for his support):

- `bupdater_path=/opt/glite/bin/BUpdaterSGE`
- `bnotifier_path=/opt/glite/bin/BNotifierCondor`
- `bupdater_pidfile=/var/tmp/cream_tomcat_bupdater.pid`
- `bnotifier_pidfile=/var/tmp/cream_tomcat_bnotifier.pid`
- `async_notification_host=<host_name>`
- `async_notification_port=<port#>`
- `job_registry=/var/tmp/cream_tomcat_registry.db`

- **Certified Patches:**

- Patch #2720 New Information Dynamic Plugin and SGE yaim utils.
Includes:
 - New IP v0.903 which uses lcg-info-dynamic-scheduler to show Estimated Response Time correctly.
 - Fix for Bug #43396 “Vulnerability in the SGE job manager”. Now user proxy is not accessible into job scripts.
 - SGE yaim modules were enhanced to "NOT OVERWRITE" site admin SGE configurations.

Work on Deliverables/Milestones

- **Task #8089: Write the script for SGE for the Info provider to show response time (DONE)**
- **Task #8270: SGE Cream-CE implementation (in progress)**
- **Task #9126: Pre-certification of SGE integration with the CREAM CE (in progress)**
- **Task #8271: SGE MPI Job support (in progress)**

- **Opened bugs:**
 - Testing CREAM:
 - Bug #47708: Mysql daemon is not started correctly running creamCE yaim conf.
 - Bug #48047: CREAM glite-ce-job-suspend command shouldn't be accepted for PBS if the job is already running.
 - Testing MPI:
 - Bug #43369: Syntax error on MPI torque JobManager.
 - Bug #41007: Missing Dependency libtorque.so.0 by package mpiexec.

- **Issues:**

- SGE blah scripts (sge_helper) are written in perl. (?)
- There is an external dependency. Perl-XML-Simple is needed by sge_helper & SGE information provider.
- Some SGE blah scripts does not work correctly when used directly from blahp:
 - SGE scripts uses internally a <sge_jobid>.<cell> schema instead of <lrms_type>/<sensible_info_for_the_scripts>/<batch_job_id>

- **SGE and MPI support:**
 - Write new SGE JobManager to allow MPI jobs using int.eu.grid mpi-start script.
 - Develop a new MPI yaim function for SGE.
 - Improve yaim to automatically configure MPI job support (parallel environments PE) in SGE batch system.

- **SGE Cookbook**
 - <https://edms.cern.ch/document/858737/1.3>
- **Xen Virtualization @CESGA**
 - https://swe-wiki.egee.cesga.es/cgi-bin/moin.cgi/XEN3_Virtual_Machines_-_CESGA-EGEE
- **SGE Wiki Page**
 - <https://twiki.cern.ch/twiki/bin/view/LCG/ImplementationOfSGE>