GLITE COMPUTING ELEMENT

1. RELEASE DESCRIPTION

This release contains the gLite Computing Element module v. 2.0.2. The following sections provide additional information about the release content, the module dependencies, the know bugs and issues and a list of bugs closed since the previous release. For information about installing and using the gLite Computing Element, please refer to the gLite Installation and User Guides.

2. CHANGES IN THIS RELEASE

This release includes the following changes (more information can be found on the gLite Installation Guide):

- New CE Monitor web application with better control on notifications and on activation and expiration of subscriptions
- Use a new security model in the authentication/authorization with WMS server based on GSI. No need to specify the Condor queue superusers to match real WMS accounts
- New BLAHP Log Parser daemon allows installing the CE and the LRMS on separate servers
- New option to discover existing pool accounts created with external systems
- New option to avoid pre-configuring the pool accounts when the home directories are on shared file systems (inaccessible to the root user) (it should be used together with a relocation of the glite_setenv.sh file to /etc/profile.d). This functionality is activated using the modify.user.env parameter in the glite-global.cfg.xml file
- The configuration script now has a new --configure command line switch to execute the configuration steps only without starting the services. The --start switch must be used to start the services. Running the script without options print usage instructions
- R-GMA Service Publisher parameters updated to use new common conventions (please make sure you use the new configuration templates)
- The following additional parameters have been added to the configuration file:
  use.log.parser   (user parameter)
  log.parser.address   (user parameter)
  account.discovery   (advanced parameter)
  notifications.condition   (advanced parameter)
  pbs.log.parser.port   (advanced parameter)
  lsf.log.parser.port   (advanced parameter)
  ce-monitor.DOCBASE (system parameters)
- Bug fixes

3. RELEASE CONTENTS

The gLite Computing Element v. 2.0.2 is composed of the following gLite components:

Component name	Description	Version	File
org.glite.ce.blahp	CE Blahp	1.2.4	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-ce-blahp-1.2.4-1.i386.rpm
org.glite.ce-ce.plugin	Monitor plugin for CE management	1.2.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-ce-ce-plugin-1.2.0-1.noarch.rpm
org.glite.ce-common-java	Common classes for	1.2.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rh

Release Notes

	CE.Monitor and CREAM		el30/noarch/RPMS/glite-ce-common-java-1.2.0-0.noarch.rpm
org.glite.ce.config	gLite Computing Element node configuration files	2.0.1	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-ce-config-2.0.1-5.noarch.rpm
org.glite.ce.config	gLite Computing Element node configuration files	2.0.2	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-ce-config-2.0.2-1.noarch.rpm
org.glite.ce.monitor	CE monitor	1.2.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-ce-monitor-1.2.0-1.noarch.rpm
org.glite.ce-monitor-api.java	Monitor API for Java	1.2.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-ce-monitor-api-java-1.2.0-1.noarch.rpm
org.glite.ce.wsdl	CE wsdl	1.2.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-ce-wsdl-1.2.0-1.noarch.rpm
glite-config	gLite configuration scripts	1.2.1	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-config-1.2.1-1.noarch.rpm
org.glite.lb.client	L&B client API and tools	1.0.5	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-lb-client-1.0.5-1.i386.rpm
org.glite.lb-client.interface	L&B client library header files	1.0.3	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-lb-client-interface-1.0.3-1.i386.rpm
org.glite.lb.common	L&B common subroutines library	1.1.6	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-lb-common-1.1.6-1.i386.rpm
org.glite.lb.logger	L&B local logger	1.0.3	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-lb-logger-1.0.3-1.i386.rpm
org.glite.rgma-api-java	Java API for R.GMA	4.1.5	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-rgma-api-java-4.1.5-1.noarch.rpm
org.glite.rgma-base	R.GMA basic configuration and documentation	4.1.19	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-rgma-base-4.1.19-1.noarch.rpm
org.glite.rgma-common.config	gLite rgma common configuration items installation	5.0.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-rgma-common-config-5.0.0-1.noarch.rpm
org.glite.rgma-gin	R.GMA Gin	4.1.16	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-rgma-gin-4.1.16-1.noarch.rpm
org.glite.rgma-gin-config	gLite R.GMA gin installation	5.0.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-rgma-gin-config-5.0.0-1.noarch.rpm
org.glite.rgma-servicetool	R.GMA service tool	4.1.19	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-rgma-servicetool-4.1.19-3.noarch.rpm
org.glite.rgma-servicetool-config	gLite R.GMA servicetool installation	5.0.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-rgma-servicetool-config-5.0.0-1.noarch.rpm
org.glite.rgma-stubs-servlet-java	Java client implementation stubs for R.GMA	4.1.12	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-rgma-stubs-servlet-java-4.1.12-1.noarch.rpm
org.glite.security-gatekeeper	The (EDG/gLite) gatekeeper derived from globus_gatekeeper.2.1 (GT 2.2.4)	2.3.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-gatekeeper-2.3.0-4.i386.rpm
org.glite.security.lcas	Local Centre Authorization Service (LCAS)	1.2.4	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcas-1.2.4-1.i386.rpm
org.glite.security-lcas.interface	Public interface to LCAS	1.2.4	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcas-interface-1.2.4-1.i386.rpm
org.glite.security-lcas-plugins.basic	Basic plugins for Local Centre Authorization Service (LCAS)	1.2.4	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcas-plugins-basic-1.2.4-1.i386.rpm
org.glite.security-lcas-	VOMS plugins for	1.2.4	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rh

plugins.voms	Local Centre Authorization Service (LCAS)		el30/i386/RPMS/glite-security-lcas-plugins-voms-1.2.4-1.i386.rpm
org.glite.security.lcmaps	Local Credential MAPping Service (LCMAPS)	1.2.7	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcmaps-1.2.7-1.i386.rpm
org.glite.security-lcmaps.interface	Public interface to LCMAPS	1.2.7	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcmaps-interface-1.2.7-1.i386.rpm
org.glite.security-lcmaps-interface-without.gsi	Public interface to LCMAPS	1.2.7	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcmaps-interface-without-gsi-1.2.7-1.i386.rpm
org.glite.security-lcmaps-plugins.basic	The basic plugins for LCMAPS	1.2.7	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcmaps-plugins-basic-1.2.7-1.i386.rpm
org.glite.security-lcmaps-plugins.voms	The VOMS plugins for LCMAPS	1.2.7	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcmaps-plugins-voms-1.2.7-1.i386.rpm
org.glite.security-lcmaps-without.gsi	Local Credential MAPping Service (LCMAPS)	1.2.7	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-lcmaps-without-gsi-1.2.7-1.i386.rpm
org.glite.security.trustmanager	The java certificate path checkin for proxy certs in SSL with plugins for tomcat and axis.	1.7.3	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-security-trustmanager-1.7.3-1.noarch.rpm
org.glite.security-util.java	The java utilities library for security	1.1.2	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-security-util-java-1.1.2-2.noarch.rpm
org.glite.security-utils.config	gLite Security Utilities configuration files	1.0.2	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/noarch/RPMS/glite-security-utils-config-1.0.2-2.noarch.rpm
org.glite.security-voms-api.c	VOMS APIs for C	1.5.9	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-security-voms-api-c-1.5.9-2.i386.rpm
org.glite.wms-utils.exception	Base WMS exception	1.0.1	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-wms-utils-exception-1.0.1-1.i386.rpm
org.glite.wms-utils.jobid	JobID handler	1.0.0	http://glite.web.cern.ch/glite/packages/R1.2/R20050715/bin/rhel30/i386/RPMS/glite-wms-utils-jobid-1.0.0-1.i386.rpm

4. DEPENDENCIES

The gLite Computing Element module v. 2.0.2 has the following dependencies:

Component name	Version	RPM file name
GPT	VDT 1.2.2	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/gpt-VDT1.2.2rh9-1.i386.rpm
VDT Globus Essentials	VDT 1.2.2	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/vdt_globus_essentials-VDT1.2.2rh9-1.i386.rpm
VDT Globus RM Essentials	VDT 1.2.2	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/vdt_globus_rm_essentials-VDT1.2.2rh9-1.i386.rpm
VDT Globus RM Server	VDT 1.2.2	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/vdt_globus_rm_server-VDT1.2.2rh9-1.i386.rpm
Condor	6.7.9	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/condor-6.7.6-1.i386.rpm
LCG Information Providers Templates	1.0.6	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/lcg-info-templates-1.0.6-1.noarch.rpm
LCG Information Generic Provider	1.0.6	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/lcg-info-generic-1.0.6-1.noarch.rpm
LCG Information Provider	1.0.5	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/lcg-info-dynamic-

Release Notes

for PBS		pbs-1.0.5-1.noarch.rpm
LCG Information Provider for LSF	1.0.3	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/lcg-info-dynamic-lsf-1.0.3-1.noarch.rpm
gt4-ws-core	3.9.4	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/gt4-ws-core-3.9.4-2_EGEE.noarch.rpm
gt4-workspace-service-tech_preview	1.0.0	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/gt4-workspace-service-tech_preview-1.0.0-1_EGEE.noarch.rpm
Tomcat5	5.0.28	http://glite.web.cern.ch/glite/packages/externals/bin/rhel30/RPMS/tomcat5-5.0.28-9_EGEE.noarch.rpm
Java SDK/JRE	1.4.2	http://java.sun.com/j2se/1.4.2/download.html

5. KNOWN BUGS AND ISSUES

This release has the following bugs and issues. Bug numbers refer to the gLite Bug Tracking system database hosted on the CERN Savannah system at https://savannah.cern.ch/bugs/?group=jra1mdw .

- Currently jobs get a full proxy rather than a restricted one as done in LCG. This is needed for multi-hop submission (as e.g. to condor pools but also eventually for CE – CE submission) and apparently GT4 abandoned support for restricted proxies. Security implications need to be better understood. Currently being discussed in the MWSCG (Bug 7425)
- During the execution of the CE configuration script, a number of Globus configuration scripts are executed. One of these scripts outputs the following error (BUG #5992):

  […]

  running /opt/globus/setup/globus/setup-globus-gram-reporter-fork..[Changing to /opt/globus/setup/globus]
  Setting up fork gram reporter in MDS

  Error fork GRAM reporter entry jobmanager-fork. Aborting!
  ERROR: Command failed

  […]

  This error doesn't affect the correct functionality of the CE and can be ignored.
- The CE Monitor doesn't correctly publish Condor queues. This will be fixed in a future release
- This release include a tech preview of the GT4 Workspace Service that can be used as an alternative to the pool accounts method for creating and configuring the user execution space. This preview can be activated by using the alternative configuration script glite-ce-wss-config-py. This script requires Apache Ant v. 1.6.1 or greater to be installed and properly configured on the server. Please refer to the Apache Ant user manual for the details
- No removal procedure is provided with this release apart from the removal of the RPMS. Any account, group or other resource created during the module configuration must be manually cleaned up.

Known open bugs and requests:

Bug number	Description	

#8427	rgma-gin problem: "Gin is aborting because of a fatal error"	
#8841	CE configuration parameter "condor.wms.user" is not correctly described in the Installation Guide	
#8845	CE parameters "cemon.wms.host" and "cemon.wms.port" not clearly described in the Installation Guide (see also #8841)	
#9003	Gin is aborting because of a fatal error	
#9116	condor/blah tool config does not respect XML config params	
#9125	blahpd operation intricately tied to pbs logging level	
#9374	cannot remove pool account creation from config script	
#9401	pool account creation	
#9518	something in workload management is fragile against unexpected results	

Fixed in this or previous releases, but not yet tested:

Bug number	Description	
#8414	CE doc	
#8827	condor user configured by default on CE, WMS, LB	
#8864	CE: explicit configuration of WMS names on the CE needed even working in PUSH mode	
#8873	/etc/init.d/gLite status fails in the CE	
#8946	forever running jobs on lxb2077 CE	
#8970	It seems it is not possible to have the torque server installed separately from the CE	
#9342	CE LCMAPS: Can't alter the VOMSDIR for in the lcmaps.db file through XML conf file	
#9343	CE LCMAPS: Can't place the groupmapfile in another directory then the grid-mapfile	
#9550	Service publisher config for CEMON is still insecure	
#9588	CEmon/WMS loosing CEIds	

6. BUGS CLOSED SINCE LAST RELEASE

This release fixes the following bugs and issues. Bug numbers refer to the gLite Bug Tracking system database hosted on the CERN Savannah system at https://savannah.cern.ch/bugs/?group=jra1mdw

Bug number	Description	
#7580	lots of pbs_status.sh processes in the CE when a job is submitted	
#8347	Problems in the configuration on the gLite CE (Version gLite 1.0)	
#8575	CE installer fails to download RGMA gin	
#8790	link to CE user guide refers to WMS one	
#9202	Wrong setting of JAVA_HOME in /etc/tomcat5/toncat5.conf after installing a	

Release Notes

	CE with the CE installer script	
#9299	gLite Computing Element install script can't download an rpm	
#9344	CE LCMAPS: Can't relocate some files and directories seperate from the grid-mapfile	
#9389	blahp external behavior under permission error identical to normal behavior	