



WLCG



Middleware Status

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Overview



- Middleware baseline
- Middleware roadmap
- Client distribution

gLite releases



The screenshot shows a Windows Internet Explorer browser window displaying the gLite website. The address bar shows the URL <http://glite.web.cern.ch/glite/packages/R3.1/>. The page content is titled "Available deployment modules / node types" and lists various modules categorized into several groups:

- User Interface**
 - glite-UI [i386](#) gLite User Interface (UI)
- Information Systems**
 - glite-BDII [i386](#) Berkley Database Index (BDII)
 - glite-MON [i386](#) gLite Monitoring system collector server
- Resource Brokers**
 - glite-WMS [i386](#) gLite Workload Management Server (WMS)
 - glite-LB [i386](#) gLite Logging and Bookkeeping Server (LB)
- Computing Elements**
 - lcg-CE [i386](#) LCG Computing Element (CE)
- Data Management**
 - glite-FTM [i386](#) File Transfer Monitor
 - glite-LFC_mysql [i386 x86_64](#) gLite LCG File Catalog (LFC) for MySQL
 - glite-LFC_oracle [i386 x86_64](#) gLite LCG File Catalog (LFC) for Oracle
 - glite-SE_dcache_admin_gdbm [i386 x86_64](#) dCache admin (deprecated server, gdbm based PNFS)
 - glite-SE_dcache_admin_postgres [i386 x86_64](#) dCache admin (recommended server, Postgres based PNFS)
 - glite-SE_dcache_info [i386 x86_64](#) dCache Info Provider
 - glite-SE_dcache_pool [i386 x86_64](#) dCache Pool Node
 - glite-SE_dpm_disk [i386 x86_64](#) gLite Disk Pool Manager (DPM) Storage Element (SE) for disk
 - glite-SE_dpm_mysql [i386 x86_64](#) gLite Disk Pool Manager (DPM) Storage Element (SE) for MySQL
- Worker Node and other deployment modules**
 - glite-WN [i386 x86_64](#) gLite Worker Node (WN)
 - glite-TORQUE_client [i386](#) gLite TORQUE clients
 - glite-TORQUE_server [i386](#) gLite TORQUE server
 - glite-TORQUE_utils [i386](#) gLite TORQUE utils
 - glite-MPI_utils [i386](#) gLite MPI Utils
 - glite-LSF_utils [i386](#) gLite LSF Utils

Summary page for DPM_disk



EGEE > gLite > gLite 3.1 > glite-SE_dpm_disk - Windows Internet Explorer provided by CERN

http://glite.web.cern.ch/glite/packages/R3.1/deployment/glite-SE_dpm_disk/glite-SE_dpm_disk.asp

Supported platform

The gLite 3.1 software stack is supported on [Scientific Linux 4 \(SL4\)](#).

Installation

The service is available in **RPM** format. **The recommended installation is via the gLite YUM repository.** You can find the installation instructions [here](#).

RPM Installation via YUM

The yum-module name is **glite-SE_dpm_disk**.

More information about the YUM installation can be found [here](#).

Installation via individual RPMs

For the list of RPMs needed to install the service, please see the individual versions below.

Version	Date	Priority	Update details	List of RPMs
3.1.15-0	01.09.2008	High	Details	RPM list
3.1.14-0	18.08.2008	High	Details	RPM list
3.1.13-0	06.08.2008	Normal	Details	RPM list
3.1.12-0	22.05.08	Normal	Details	RPM list
3.1.11-0	13.05.08	Normal	Details	RPM list
3.1.10-0	22.04.08	High	Details	RPM list
3.1.9-0	15.04.08	High	Details	RPM list
3.1.8-0	07.04.08	Normal	Details	RPM list
3.1.7-0	06.03.08	Normal	Details	RPM list
3.1.6-0	27.02.08	Normal	Details	RPM list
3.1.5-0	21.02.08	Normal	Details	RPM list
3.1.4-0	08.02.08	Normal	Details	RPM list
3.1.3-0	24.01.08	Normal	Details	RPM list
3.1.2-1	18.01.08	Normal	Details	RPM list
3.1.1-0	14.12.07	Normal	Initial Release	RPM list

The rpm list



gLite 3.1

glite-SE_dpm_disk V. 3.1.15-0

[RPM list in .txt format](#)

Packages provided by gLite repository

Name	Version	Architecture	Description
DPM-DSI	1.6.10-3sec.slc4	i386	DPM-DSI for the Globus GridFTP2 server
DPM-client	1.6.11-3sec.slc4	i386	APIs and CLIs for the DPM/DPNS
DPM-httpd	1.2.1-1sec.slc4	noarch	DPM Apache httpd service
DPM-interfaces	1.6.11-3sec.slc4	i386	Disk Pool Manager Interfaces
DPM-rfio-server	1.6.11-3sec.slc4	i386	DPM RFIO server
DPM-xrootd	2.0.2-1sec.slc4	i386	DPM-xrootd interface
edg-mkgridmap	3.0.0-1	noarch	A tool to build the grid-mapfile
fetch-crl	2.6.3-1	noarch	Tool for periodic retrieval of Certificate Revocation Lists
glite-SE_dpm_disk	3.1.15-0	i386	gLite metapackage (glite-SE_dpm_disk)
glite-security-voms-api	1.8.3-3.slc4	i386	org.glite.security.voms-api v. 1.8_3_3
glite-security-voms-api-c	1.8.3-4.slc4	i386	org.glite.security.voms-api-c v. 1.8_3_4
glite-version	3.1.0-1.slc4	i386	glite-version
glite-yaim-core	4.0.4-2	noarch	glite-yaim-core
glite-yaim-dpm	4.0.1-1	noarch	The glite-yaim-dpm module configures DPM Storage Elements for mysql.
glue-schema	1.3.0-3	noarch	glue-schema
gridsite-shared	1.1.18.1-1	i386	GridSite shared library and core documentation
gridview-wsclient-common	1.1.1-1	noarch	Gridview Common Web Service Client is Library for Gridview Web Service Publisher for various log Files
gridview-wsclient-gridftp	1.1.0-2	noarch	Gridview Gridftp Web Service Client is Publisher of gridftp logs to Gridview Web Service Archiver.
lcg-dm-common	1.6.11-3sec.slc4	i386	LCG Data Management common libraries and man pages.
lcg-expiregridmapdir	2.0.0-1	noarch	lcg-expiregridmapdir
lcg-service-proxy	1.0.3-2	noarch	LCG Service Proxy

Baseline wiki



LCG Wiki Home
LCG Web Home

Changes
Index
Search

LCG Wikis

LCG Service Challenges

LCG Grid Deployment

LCG Applications Area

LCG Planning

CERN Webs

ABATBEA
ACPP
ADCgroup
AfricaMap
ALICE
AliceEbyE
AliceSSD
AliceTOF
AliFemto
ALPHA
AliceSPD
ArdaGrid
AthenaFCalTBAna
Atlas
AXIALPET
CAE
CALICE
CERNSearch
CDS
CMS
Cloud
Controls
DefaultWeb
DESgroup
EGEE
ELFms

You are here: TWiki > LCG Web > GSSD > GSSDCCRCBaseVersions r52 - 25 Aug 2008 - 15:26:18 - FlaviaDonno

Base versions of services and client tools for WLCG operations

The following list is intended to be continually monitored and updated in the daily WLCG Operations Meetings. It does **not** necessarily reflect the latest versions of packages available in the gLite repository.

This list has not yet been validated

Service	Version	Availability	Notes
FTS	2.0	gLite 3.0 / SL3	
FTM	2.0	gLite 3.1 / SL4	Distributed as glite-FTM-3.1.5-0
dCache	1.8.0-15-p11	DESY	
CASTOR Core Services/Stager	2.1.7-16		
CASTOR SRM 2.2 Server	1.3-28 on SLC3 and 2.7-3 on SLC4		
DPM server	1.6.7	gLite 3.1 / SL4	Distributed as glite-SF_dpm_mysql-3.1.9-0
DPM disk	1.6.7	gLite 3.1 / SL4	Distributed as glite-SF_dpm_disk-3.1.9-0
LFC/mysql	1.6.8-1	gLite 3.1 / SL4	Distributed as glite-LFC_mysql-3.1.9-0
LFC/oracle	1.6.0-1	gLite 3.1 / SL4	Distributed as glite-LFC_oracle-3.1.9-0
STORM	1.3.20	release plan	
lcg-CE	lcg-CE- 3.1.16-0	gLite 3.1 / SL4	rpm list
WN	glite-WN-3.1.14-0	gLite 3.1 / SL4	rpm list
UI	glite-UI-3.1.14-0	gLite 3.1 / SL4	rpm list
WMS	glite-WMS-3.1.2-0	gLite 3.1 / SL4	rpm list
LB	glite-LB-3.1.1-1	gLite 3.1 / SL4	rpm list
RB	3.0.19-1	gLite 3.0 / SL3	
ARC server	0.6		

-- [OliverKeeble](#) - 06 Aug 2008

What's also available



- **DPM 1.6.11**
 - Bugfix release
- **DPM 1.6.10**
 - Major release, DICOM, IPv6, many bugfixes
- **DPM 1.6.7-4**
 - Umask issue fixed (#34799)
- **LFC 1.6.11**
 - Bugfix release
- **LFC 1.6.8-1**
 - Bulk methods for LCHb and ATLAS
- **Clients**
 - gfal 1.10.17-2
 - lcg_util 1.6.15-1

WLCG Middleware Baseline



- How should this list be interpreted?
 - As a set of recommended versions?
 - As a set of minimum versions?
- How is this list maintained?
 - WLCG Daily ops meetings
 - This is basically still at the CCRC08 May level
 - Except CASTOR and dCache
- How should 'compliance' be monitored?
 - Service version info providers will help

OSG



Middleware roadmap



- What is on the way, and how does it map onto the LHC schedule?
- Given the inherent uncertainty in both the LHC schedule, and in the middleware development, attempting synchronisation is risky
- In any case, what is the real effect of the "shutdown"?
 - Raw data transfer reduced but otherwise,
 - Reprocessing
 - MC
 - Analysis
 - It's a good time to update FTS, but maybe not the CE.

Middleware roadmap



- Clients on new 'platforms'
 - SL5 WN 32/64, SL5 UI 32
 - SL4/SL5 Python 2.5
 - Debian4/32 WN
 - SL4/SL5 + changed compiler ???
 - which one, 3 aren't an answer.
 - gcc4.3?
- Imminent or available updates
 - FTS/SL4 (available)
 - Globus bugfixes (available)
 - lcg-CE - further performance improvements
 - Results of WN working group - cluster publishing

New Services



- **glexec/SCAS**
 - glexec is being verified for use with experiment frameworks in the PPS (setuid mode, **without SCAS**)
 - SCAS still in 'developer testing'
- **CREAM**
 - First release to production imminent
 - NOT as a replacement for lcg-CE
 - Issues with proxy renewal
- **WMS/ICE**
 - Patch under construction
- **Glue2**
 - OGF Public Comments are now over
 - Glue WG will incorporate these during October
 - Will be deployed in parallel as it is non backward compatible

SL5



- Schedule announce by CERN envisaged SLC5 lxbatch nodes in October
 - *"Formal certification not yet started"*
- Middleware can progress anyway with SL5 or CENTOS5
- We are on course, barring surprises in runtime testing...
- Based on VDT1.8 - hope to upgrade to 1.10 very soon and base the rest of the release on this
- Contemplating an approach to build which would no longer allow co-location of services, apart from explicit exceptions
- Full schedule;
 - Clients
 - VOBOX
 - Storage 32/64
 - CE (NOT LCG-CE)
 - Target - whenever ready but before 6/2009

Client distribution



- A proposal has been circulated about using the experiments' software installation mechanism to distribute middleware clients.
 - Installation in an 'ops/dteam' shared area and publishing of availability via the InfoSys
- Advantages
 - Rapid deployment
 - Parallel Versions
 - Rollback
 - Allows definition of confidence levels 'old', 'default', 'new'
 - Patch #1641 introduced gfal-1.10.7 which
 - Fixed some segfault problems
 - Introduced bug #33288 (creation of non-existent sub-directories)
 - Multiplatform
 - Finer grained publishing of what's installed
 - This is possible outside of the proposal

Alternative #1



- Can this be done in 'experiment space'?
- We provide versioned tarballs via the Application Area, and these are integrated and distributed by the experiments
- Advantages
 - Uses an accepted distribution model
 - No need to use a separate VO
- Disadvantages
 - Extra effort for the experiments
 - Duplication of installations
 - Not clear that reactivity would be improved
 - The would still need the mechanism for choosing the environment

Alternative #2



- Sites are simply encouraged to install parallel versions of the middleware and publish appropriately
- Issues
 - Does not speed up deployment
 - Requires proactive participation from all sites
 - Symbolic tags 'default', 'latest' would be hard to coordinate

Some responses



- The standard process will disappear
 - No site would be asked to remove rpms!
- This is a centralising process (contrary to EGEE policy)
 - This is a symptom of the fact that the sites concerned already share a middleware distribution
- RPM provides built-in integrity checking which is not available via the tarballs
 - The tarballs are built from rpm-installed nodes
- This would affect local users and default installations
 - This system would be invisible unless explicitly requested by a user
- Admins have to be available during upgrades
 - Multiple versions would be available simultaneously, thus a bad installation can easily be fixed or removed easily. In any case, it would not be published until it had been validated

Issues



- Network shared storage is not up to it
 - This may be true... but what happens then with the experiment areas?
- Who would support this?
 - This would have to be supported by whatever team was managing the installations, not the site