

## GLITE MIDDLEWARE

### 1. RELEASE DESCRIPTION

This release contains the gLite Middleware v. 1.0 (1.0.12). The following sections provide additional information about the release content, the module dependencies and known issues. The gLite Middleware is a suite of several gLite Services and clients. Please refer to the individual gLite Services and Clients release notes for additional information. For information about installing and using the gLite Middleware, please refer to the gLite Installation and User Guides.

### 2. CHANGES IN THIS RELEASE

This release is the General Availability (GA) gLite v 1.0.

In this release all components have been updated with bug fixes found since the previous release. In particular the following major changes are included:

- Fixed proxy renewal issue in WMS and CE
- UI and WN can be installed as non privileged user in custom locations
- CE uses LCG Info Providers instead of local static files
- R-GMA Server module now includes by default the Flexible Archiver and the Site Publisher (the Flexible Archiver and Site Publisher are not currently supported as separate modules)
- All services include the R-GMA Service Publisher to publish status information
- All services include a high-level init.d script to restart the services in the correct order and start/stop completely a node when necessary
- Bug fixes

### 3. RELEASE CONTENTS

The gLite Middleware v. 1.0 (1.0.12) is composed of the following gLite modules:

Module name	Version	File
gLite Computing Element	1.2.1	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-ce_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-ce_installer.sh</a>
gLite Workload Management System	1.0.6	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-wms_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-wms_installer.sh</a>
gLite Logging and Bookkeeping Server	1.2.2	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-lb_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-lb_installer.sh</a>
gLite I/O Server	1.2.3	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-io-server_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-io-server_installer.sh</a>
gLite I/O Client	1.3.0	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-io-client_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-io-client_installer.sh</a>
gLite Data Management Local Transfer Service	0.1.5	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-data-local-transfer-service_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-data-local-transfer-service_installer.sh</a>
gLite Data Management Single Catalog (MySQL)	1.0.0	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-data-single-catalog_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-data-single-catalog_installer.sh</a>

gLite Data Management Single Catalog (Oracle)	1.0.0	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-data-single-catalog-oracle_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-data-single-catalog-oracle_installer.sh</a>
gLite Standard Worker Node	1.0.0	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-wn_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-wn_installer.sh</a>
gLite R-GMA Server	4.3.3	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-rgma-server_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-rgma-server_installer.sh</a>
gLite R-GMA Client	4.3.0	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-rgma-client_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-rgma-client_installer.sh</a>
gLite R-GMA Service Publisher	4.1.5	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-rgma-servicetool_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-rgma-servicetool_installer.sh</a>
gLite VOMS Server and Admin Tools	1.0.0	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-voms-server_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-voms-server_installer.sh</a>
gLite User Interface	1.0.0	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-ui_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-ui_installer.sh</a>
gLite Service Discovery APIs	1.0.0	<a href="http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-service-discovery_installer.sh">http://glite.web.cern.ch/glite/packages/R1.0/R20050331/installers/glite-service-discovery_installer.sh</a>

## 4. PREREQUISITE AND DEPENDENCIES

The gLite modules have a number of pre-requisites. All information can be found on the individual modules release notes and the gLite Installation Guide.

For a list of the external dependencies, please refer to the individual gLite Service and Clients release notes.

## 5. KNOWN ISSUES

The known issues with each module in this release are detailed in the individual release notes. The most important issues are:

- The VOMS Admin Tools use a VO creation method, which has known bugs. A better method is being developed and will be released next. For the moment, only creation of one VO per server is reliable and reasonably automated. Other scenarios may require manual interventions by a system administrator
- This release fixes various issues with renewal of grid and VOMS proxies. However, an issue still exists with the proxy renewal daemon "losing" one thread is still being addressed. This may cause occasional delays and hangs
- An issue with the communication of match results from the WMS to the Network Server have been identified another potential cause of delays and hangs that are observed in the match-making loop
- The use of Condor-based batch systems in the CE is not fully supported. A number of issues exist and are being investigated
- Many error messages and logs can be improved in all services. Work on rationalizing the errors and log formats is being carried on
- This version of gLite allows the installation of multiple R-GMA Registries. However, only a single R-GMA Schema server can be used per infrastructure. Work on multi-schema architecture and schema replication is being carried on

- There is a known issue with Java 1.4.2 running with the Scientific Linux 3 SMP kernel on dual processor machines, where the Java Virtual Machine can crash without warning. The current solution is to use a non-SMP kernel. This should be fixed in Java 1.4.2 08, but there is no release date for this yet. The problem does not seem to occur in RH7.3 or RHEL4.
- The Local Transfer Service is presented as a preview. A more reliable and powerful version for both MySQL and Oracle RDBMS is being implemented and will be released next
- The UI and the WN modules can be installed as root or normal users. The normal user installation is RPM based to allow exploiting the RPM package management feature (dependency checking, updates, etc). However, the drawback is that installation is possible only on OSs supporting the RPM format. Other methods may be provided in the future.

## 6. ISSUES CLOSED SINCE LAST RELEASE

For a list of the closed bugs and issues, please refer to the individual gLite Services and Clients release notes.

## 7. LICENSING

All gLite code is open source and developed as part of the EU-funded EGEE project. For more information on the licence and copyright statements, please refer to the EGEE web site. The licence can be found at <http://public.eu-egee.org/license/license2.html> .

## 8. PREVIOUS RELEASES

### 8.1. RELEASE 1.0 RC1 (1.0.9)

#### 8.1.1. Release Description

This release contains the gLite Middleware v. 1.0 RC1 (1.0.9). The following sections provide additional information about the release content, the module dependencies and known issues. The gLite Middleware is a suite of several gLite Services and clients. Please refer to the individual gLite Services and Clients release notes for additional information. For information about installing and using the gLite Middleware, please refer to the gLite Installation and User Guides.

#### 8.1.2. Changes in this release

In this release all existing components have been updated with bug fixes found since the previous release. In particular the following changes are included:

- First public release of the gLite User Interface module
- First public release of the Data Management Single catalog for Oracle module
- R-GMA Flexible Archiver (AKA Data Archiver) added to the R-GMA Server installation
- R-GMA Servicetool status publisher in CE and LB
- The gLite I/O Server configuration scripts provides now support for multiple VOs and the possibility of using either the host certificates as service certificates or specific service certificates
- Bug fixes

#### 8.1.3. Release contents

The gLite Middleware v. 1.0 RC1 (1.0.9) is composed of the following gLite components:

Component name	Version	File
gLite Computing Element	1.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-ce_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-ce_installer.sh</a>
gLite Workload Management System	1.0.4	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-wms_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-wms_installer.sh</a>
gLite Logging and Bookkeeping Server	1.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-lb_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-lb_installer.sh</a>
gLite I/O Server	1.2.1	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-io-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-io-server_installer.sh</a>
gLite I/O Client	1.0.0	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-io-client_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-io-client_installer.sh</a>
gLite Data Management Local Transfer Service	0.1.4	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-data-local-transfer-service_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-data-local-transfer-service_installer.sh</a>
gLite Data Management Single Catalog (MySQL)	0.1.3	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-data-single-catalog_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-data-single-catalog_installer.sh</a>
gLite Data Management Single Catalog (Oracle)	0.1.2	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-data-single-catalog-oracle_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-data-single-catalog-oracle_installer.sh</a>
gLite Standard Worker Node	0.5.0	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-wn_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-wn_installer.sh</a>

gLite R-GMA Server	4.2.1	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-rgma-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-rgma-server_installer.sh</a>
gLite R-GMA Client	4.1.2	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-rgma-client_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-rgma-client_installer.sh</a>
gLite R-GMA Site Publisher	4.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-rgma-site-publisher_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-rgma-site-publisher_installer.sh</a>
gLite R-GMA Service Tool	4.1.2	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-rgma-servicetool_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-rgma-servicetool_installer.sh</a>
gLite VOMS Server	0.1.1	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-voms-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-voms-server_installer.sh</a>
gLite Service Discovery APIs	0.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-service-discovery_installer.sh">http://glite.web.cern.ch/glite/packages/I20050225/installers/glite-service-discovery_installer.sh</a>

### 8.1.4. Prerequisite and Dependencies

This release removes some of the constraint of previous releases and includes modules for setting up the authentication framework based on VOMS and doesn't require anymore a BD-II server to publish information between WMS and CEs.

The gLite UI is provided for the first time in this release for both root and non-privileged installations (some issues and problems are known and reported on the gLite UI release notes document).

For a list of the external dependencies, please refer to the individual gLite Service and Clients release notes.

### 8.1.5. Known issues

The known issues with each module in this release are detailed in the individual release notes. The most important issues are:

- The VOMS Server administrator can be set up using the configuration script only if the database has not been configured yet. Once the administrator has been created, the script is unable to change it
- The Condor service on the CE node doesn't renew user proxies. A new version of Condor providing this functionality is under test and will be available in a future release
- It's not possible to configure the R-GMA client to use multiple registries. The functionality exist, but it's not configurable using the deployment module configuration script
- The UI installation especially for normal users is not very flexible and has some external dependencies problems. A version fixing these issues is under test and will be released next
- The Worker Node doesn't contain the Data Management transfer and catalog clients and APIs. These packages will be included in the next release
- The Worker Node packages can only be installed as root. This is fixed in the release currently being integrated.

### 8.1.6. Issues closed since last release

For a list of the bugs and known issues, please refer to the individual gLite Services and Clients release notes.

## 8.2. RELEASE 1.0 RC1 (1.0.8)

### 8.2.1. Release Description

This release contains the gLite Middleware v. 1.0 RC1 (1.0.8). The following sections provide additional information about the release content, the module dependencies and known issues. The gLite Middleware is a suite of several gLite Services and clients. Please refer to the individual gLite Services and Clients release notes for additional information. For information about installing and using the gLite Middleware, please refer to the gLite Installation and User Guides.

## 8.2.2. Changes in this release

In this release all existing components have been updated with bug fixes found since the previous release. In particular the following changes are included:

- Updated WMS and CE components
- Secure R-GMA services
- R-GMA Servicetool status publisher in WMS
- Boot-time service start up for most types of nodes
- Better dependencies management (gLite Security Utilities is now automatically installed with most modules, no need to install it separately)

## 8.2.3. Release contents

The gLite Middleware v. 1.0 RC1 (1.0.8) is composed of the following gLite components:

Component name	Version	File
gLite Computing Element	1.0.3	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-ce_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-ce_installer.sh</a>
gLite Workload Management System	1.0.3	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-wms_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-wms_installer.sh</a>
gLite Logging and Bookkeeping Server	1.0.2	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-lb_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-lb_installer.sh</a>
gLite I/O Server	1.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-io-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-io-server_installer.sh</a>
gLite I/O Client	1.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-io-client_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-io-client_installer.sh</a>
gLite Data Management Local Transfer Service	0.1.4	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-data-local-transfer-service_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-data-local-transfer-service_installer.sh</a>
gLite Data Management Single Catalog	0.1.3	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-data-single-catalog_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-data-single-catalog_installer.sh</a>
gLite Standard Worker Node	1.0.1	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-wn_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-wn_installer.sh</a>
gLite R-GMA Server	4.1.1	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-rgma-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-rgma-server_installer.sh</a>
gLite R-GMA Client	4.1.1	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-rgma-client_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-rgma-client_installer.sh</a>
gLite R-GMA Site Publisher	4.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-rgma-site-publisher_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-rgma-site-publisher_installer.sh</a>
gLite R-GMA Service Tool	4.1.1	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-rgma-servicetool_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-rgma-servicetool_installer.sh</a>
gLite VOMS Server	0.1.2	<a href="http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-voms-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050218/installers/glite-voms-server_installer.sh</a>

gLite Service Discovery APIs	0.1.0	<a href="http://glite.web.cern.ch/glite/packages/T20050218/installers/glite-service-discovery_installer.sh">http://glite.web.cern.ch/glite/packages/T20050218/installers/glite-service-discovery_installer.sh</a>
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## 8.2.4. Prerequisite and Dependencies

This release removes some of the constraint of previous releases and includes modules for setting up the authentication framework based on VOMS and doesn't require anymore a BD-II server to publish information between WMS and CEs.

No formal package for the gLite UI is provided. However, the gLite services are compatible with the current LCG-2 UI and WMS python clients can be found at [http://egee-jral-wm.mi.infn.it/egee-jral-wm/ui\\_Python\\_CLI\\_install.shtml](http://egee-jral-wm.mi.infn.it/egee-jral-wm/ui_Python_CLI_install.shtml) (installation) and [http://egee-jral-wm.mi.infn.it/egee-jral-wm/ui\\_Python\\_CLI\\_configuration.shtml](http://egee-jral-wm.mi.infn.it/egee-jral-wm/ui_Python_CLI_configuration.shtml) (configuration).

For a list of the external dependencies, please refer to the individual gLite Service and Clients release notes.

## 8.2.5. Known issues

The known issues with each module in this release are detailed in the individual release notes. The most important issues are:

- R-GMA Site Publisher doesn't publish correctly to R-GMA unless the flexible archiver is installed on the target server. However the flexible archiver is not part of this release
- The VOMS Server administrator can be set up using the configuration script only if the database has not been configured yet. Once the administrator has been created, the script is unable to change it
- The Condor service on the CE node doesn't renew user proxies
- It's not possible to configure the R-GMA client to use multiple registries. The functionality exist, but it's not configurable using the deployment module configuration script
- There is no support for multiple VOs in the gLite I/O Server configuration script. This is fixed in the next release. If it is necessary to support multiple VOs, separate instances of the glite I/O Server must be configured and started manually on separate ports
- The Local Transfer Service and the Single catalog only supports MySQL. Oracle support is provided by the gLite Data Management services, but it's not yet been added to a standard deployment module. This will come in the next releases.

## 8.2.6. Issues closed since last release

For a list of the bugs and known issues, please refer to the individual gLite Services and Clients release notes.

## 8.3. RELEASE 1.0 RC1 (1.0.6)

### 8.3.1. Release Description

This release contains the gLite Middleware v. 1.0 RC1 (1.0.6). The following sections provide additional information about the release content, the module dependencies and known issues. The gLite Middleware is a suite of several gLite Services and clients. Please refer to the individual gLite Services and Clients release notes for additional information. For information about installing and using the gLite Middleware, please refer to the gLite Installation and User Guides.

### 8.3.2. Changes in this release

In this release all existing components have been updated with bug fixes found since the previous release. In particular the following changes are included:

- New VOMS Server module
- New Service Discovery APIs module
- New remote site configuration mechanism to load configuration from centralised URLs
- Configuration scripts added to Data Local Transfer Service and Single Catalog modules
- Revised and improved WMS and CE with CE Monitor and pull functionality
- Additional cron job helpers on WMS to purge the storage, check services and renew network service proxies
- Various bug fixes

### 8.3.3. Release contents

The gLite Middleware v. 1.0 RC1 (1.0.6) is composed of the following gLite components:

Component name	Version	File
gLite Computing Element	1.0.2	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-ce_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-ce_installer.sh</a>
gLite Workload Management System	1.0.2	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-wms_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-wms_installer.sh</a>
gLite Logging and Bookkeeping Server	1.0.1	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-lb_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-lb_installer.sh</a>
gLite I/O Server	1.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-io-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-io-server_installer.sh</a>
gLite I/O Client	1.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-io-client_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-io-client_installer.sh</a>
gLite Data Management Local Transfer Service	0.1.3	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-data-local-transfer-service_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-data-local-transfer-service_installer.sh</a>
gLite Data Management Single Catalog	0.1.2	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-data-single-catalog_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-data-single-catalog_installer.sh</a>
gLite Standard Worker Node	1.0.1	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-wn_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-wn_installer.sh</a>
gLite R-GMA Server	4.0.0	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-rgma-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-rgma-server_installer.sh</a>
gLite R-GMA Client	4.0.0	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-rgma-client_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-rgma-client_installer.sh</a>
gLite R-GMA Site Publisher	4.0.1	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-rgma-site-publisher_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-rgma-site-publisher_installer.sh</a>
gLite R-GMA Service Tool	4.0.0	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-rgma-servicetool_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-rgma-servicetool_installer.sh</a>
gLite VOMS Server	0.1.1	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-voms-server_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-voms-server_installer.sh</a>
gLite Service Discovery APIs	0.1.0	<a href="http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-service-discovery_installer.sh">http://glite.web.cern.ch/glite/packages/I20050204/installers/glite-service-discovery_installer.sh</a>

### 8.3.4. Prerequisite and Dependencies



This release removes some of the constraint of previous releases and includes modules for setting up the authentication framework based on VOMS and doesn't require anymore a BD-II server to publish information between WMS and CEs.

No formal package for the gLite UI is provided. However, the gLite services are compatible with the current LCG-2 UI and WMS python clients can be found at [http://egee-jral-wm.mi.infn.it/egee-jral-wm/ui\\_Python\\_CLI\\_install.shtml](http://egee-jral-wm.mi.infn.it/egee-jral-wm/ui_Python_CLI_install.shtml) (installation) and [http://egee-jral-wm.mi.infn.it/egee-jral-wm/ui\\_Python\\_CLI\\_configuration.shtml](http://egee-jral-wm.mi.infn.it/egee-jral-wm/ui_Python_CLI_configuration.shtml) (configuration).

For a list of the external dependencies, please refer to the individual gLite Service and Clients release notes.

### **8.3.5. Known issues**

In this release, the installed services are not configured to start automatically when a computer is booted. This functionality will be added in a future version before the final release.

### **8.3.6. Issues closed since last release**

For a list of the bugs and known issues, please refer to the individual gLite Services and Clients release notes.

notes.