1. Component Overview

The Replica Location Service (RLS) is a standalone server (i.e., it is not deployed in a Web services container) that provides for the registration and lookup of replica information. Within the RLS, there are two types of services, a catalog service and an index service.

2. Feature summary

Features New in GT 4.2.1

• None since GT 4.2.0.

Other Supported Features

• Comprehensive C and Java library for replica registration, replica lookup, replica attributes, index queries, and administrative tasks.

• Command line (globus-rls-cli) tool for client operations on catalogs and indexes.

• Command line (globus-rls-admin) tool for administrative tasks.

Deprecated Features

• None

3. Summary of Changes in RLS

• No changes since GT 4.2.0.
4. Bug Fixes

- **Bug 5999**: [WS-RLS] UndefineAttributeClient fails to set values for non-nillable parameters
- **Bug 6009**: Failure to build on FreeBSD
- **Bug 6100**: some bulk operations on attributes are no-ops
- **Bug 6103**: RLS server crashes on 64-bit FC6
- **Bug 6104**: getmethodargs does not protect against corrupt method or args

5. Known Problems

The following problems and limitations are known to exist for RLS at the time of the 4.2.1 release:

5.1. Limitations

- **Threading/Libc Problems**: set `LD_ASSUME_KERNEL=2.2.5` in your environment and see Section 2, “Debian” for more information.

5.2. Outstanding bugs

- **Threading/Libc Problems**: set `LD_ASSUME_KERNEL=2.2.5` in your environment and see Platform Notes for more information.

- **Bug 3656**: ACLs cannot be modified dynamically
- **Bug 4141**: regexec call in auth.c's auth_getperms
- **Bug 4142**: globus-rls-admin -s always indicates RLI does not exist
- **Bug 4512**: RLS query returns incomplete result on 64bit system (*patch available*)
- **Bug 6085**: RLS server crash with GLOBUSTHREAD: pthread_mutex_lock() failed
- **Bug 6239**: Wildcard queries with underscores don't work with SQLite
- **Bug 6322**: RLS crash on a Sparc/Solaris 10 box (possible duplicate of bug 6356)
- **Bug 6356**: RLS crash on x86/Solaris 10 box (*patch available*)

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6. Technology dependencies

RLS depends on the following GT components:

- globus_core
- globus_common
- globus_io
- globus_gssapi_gsi
- globus_usage

RLS depends on the following 3rd party software:

- RDBMS: SQLite*, MySQL, PostgreSQL, or Oracle
- ODBC manager: iODBC, unixODBC
- ODBC driver: SQLite-ODBC*, MyODBC, psqlODBC, or Oracle

* The RLS comes installed with and configured to use these components.

7. Tested platforms

Tested platforms for RLS include most 32-bit flavors of Linux and UNIX, including RedHat, Debian, CentOS, SUSE, Solaris/Sparc, Solaris/x86, and others.

8. Backward compatibility summary

Protocol changes since GT 4.0.x
- None

API changes since GT 4.0.x
- None

Exception changes since GT 4.0.x
- None

Schema changes since GT 4.0.x
- None

9. Associated Standards

Associated standards for RLS:

- The RLS is implemented as a conventional service and, as such, does not conform to the WSRF or other WS set of specifications.
10. For More Information

See Replica Location Service (RLS) for more information about this component.

Glossary