

GT 4.2.0 Release Notes: CoG jGlobus

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<titleabbrev>Release Notes</titleabbrev>

1. Component Overview

Java CoG Kit (jGlobus API, also referred to as GSI Java) provides a client-side API to the GT2-based services such as GRAM, GASS, and MDS. It also provides a client-side API for GridFTP, MyProxy and has extensive GSI support. Please see the [Java CoG Kit](#)¹ for more information.

2. Feature Summary

Features new in release GT 4.2.0:

- Added support for partial 3rd party transfers to the `UrlCopy` library.
- Added support for `SelfHost` authorization method.

Other Supported Features

- Support for Globus legacy, pre-draft, and RFC 3820 proxy formats
- GT2 GRAM client library
- GT2 MDS client library
- GridFTP client library
- GT2 GASS library
- MyProxy client library

Deprecated Features

- None.

¹ <http://www.globus.org/cog/java/>

3. Summary of Changes in CoG jGlobus

The following changes have occurred for CoG jGlobus since the last stable release, 4.0.x:

- Added support for signing policy.
- Changed CRL validation to raise an exception when expired CRLs are detected.
- Changed default proxy credential generated to be RFC 3820 compliant. Support for legacy, draft compliant and RFC 3820 remains as it was.
- Support for partial 3rd party transfers to the UriCopy library.
- Added support for SelfHost authorization method.
- Improved handling of SSLv2 client hello messages.
- Optimized obtaining a default credential using the GSSAPI.
- Optimized CA certificate and CRL file refresh functions.
- Added error codes to all error messages generated by the GSI library.
- Updated 3rd party libraries:
 - BouncyCastle 1.31
 - Apache Log4j 1.2.13
 - Apache Commons Logging 1.1

4. Bug Fixes

The following bugs were fixed for Java CoG Kit:

- [Bug 4414](http://bugzilla.globus.org/globus/show_bug.cgi?id=4414):² Clarify lifetime parameter in myproxy documentation
- [Bug 4323](http://bugzilla.globus.org/globus/show_bug.cgi?id=4323):³ Public utility method to read X.509 certificate string
- [Bug 4733](http://bugzilla.globus.org/globus/show_bug.cgi?id=4733):⁴ [patch] try all myproxy server addresses
- [Bug 4806](http://bugzilla.globus.org/globus/show_bug.cgi?id=4806):⁵ set MyProxy lifetime to 12 hours by default
- [Bug 4842](http://bugzilla.globus.org/globus/show_bug.cgi?id=4842):⁶ Incorrect default ports used in ServiceURL

5. Known Problems

The following problems and limitations are known to exist for the JavaCoG Kit at the time of the 4.2.0 release:

² http://bugzilla.globus.org/globus/show_bug.cgi?id=4414

³ http://bugzilla.globus.org/globus/show_bug.cgi?id=4323

⁴ http://bugzilla.globus.org/globus/show_bug.cgi?id=4733

⁵ http://bugzilla.globus.org/globus/show_bug.cgi?id=4806

⁶ http://bugzilla.globus.org/globus/show_bug.cgi?id=4842

5.1. Limitations

- None.

5.2. Known Bugs

- [Bug 1056](http://bugzilla.globus.org/globus/show_bug.cgi?id=1056):⁷ FTP client in extended block mode after receiving EODC does not wait for EOD on the same channel
- [Bug 2277](http://bugzilla.globus.org/globus/show_bug.cgi?id=2277):⁸ GridFTPClient bug Parallel, Passive, EBlockImageDCReader does not receive EOF
- [Bug 2345](http://bugzilla.globus.org/globus/show_bug.cgi?id=2345):⁹ Allow for a way to set cert and key location using environment variables
- [Bug 2413](http://bugzilla.globus.org/globus/show_bug.cgi?id=2413):¹⁰ A rare decrypt error
- [Bug 3299](http://bugzilla.globus.org/globus/show_bug.cgi?id=3299):¹¹ Extended Key Usage certificate extension not supported
- [Bug 4304](http://bugzilla.globus.org/globus/show_bug.cgi?id=4304):¹² Class does not represent an RSA key

6. Technology Dependencies

The Java CoG Kit depends on the following 3rd party software:

- [PureTLS](http://www.rtfm.com/puretls/)¹³
- [BouncyCastle](http://www.bouncycastle.org/)¹⁴
- [Cryptix](http://www.cryptix.org/)¹⁵
- [Log4j](http://jakarta.apache.org/log4j/)¹⁶
- [Commons Logging](http://jakarta.apache.org/commons/logging/)¹⁷

7. Supported Platforms

Java CoG Kit should work on any platform that supports J2SE 1.3.1 or higher.

Tested Platforms for Java CoG Kit:

- Linux (Debian 3.1)
- Windows XP
- Solaris 9

⁷ http://bugzilla.globus.org/globus/show_bug.cgi?id=1056

⁸ http://bugzilla.globus.org/globus/show_bug.cgi?id=2277

⁹ http://bugzilla.globus.org/globus/show_bug.cgi?id=2345

¹⁰ http://bugzilla.globus.org/globus/show_bug.cgi?id=2413

¹¹ http://bugzilla.globus.org/globus/show_bug.cgi?id=3299

¹² http://bugzilla.globus.org/globus/show_bug.cgi?id=4304

¹³ <http://www.rtfm.com/puretls/>

¹⁴ <http://www.bouncycastle.org/>

¹⁵ <http://www.cryptix.org/>

¹⁶ <http://jakarta.apache.org/log4j/>

¹⁷ <http://jakarta.apache.org/commons/logging/>

Tested JVMs for Java CoG Kit:

- [Sun JVM](#)¹⁸ 1.4.2, 1.5.0, and 1.6.0 RC
- [IBM JVM](#)¹⁹ 1.3.1, and 1.4.2

JVM notes:

- [GCJ](#)²⁰ is not supported.

8. Backward Compatibility Summary

Protocol changes since GT version 4.0.x:

- None.

API changes since GT version 4.0.x:

- The default port number of the HTTPS URL protocol handler was changed to 443 (from 8443) to comply with the standard.

Schema changes since GT version 4.0.x:

- None.

9. Associated Standards

Associated standards for Java CoG Kit:

- [RFC 959](#)²¹ FTP
- [RFC 2251](#)²² LDAP
- [RFC 2222](#)²³ SASL
- [RFC 2853](#)²⁴ GSSAPI: Java Bindings
- [RFC 3820](#)²⁵ Proxy Certificates
- [RFC 2818](#)²⁶ TLS

10. For More Information

Please see [CoG JGlobus](#) for more information or see the [API documentation](#)²⁷.

¹⁸ <http://java.sun.com/j2se/>

¹⁹ <http://www-106.ibm.com/developerworks/java/jdk/>

²⁰ <http://gcc.gnu.org/java/>

²¹ <http://www.faqs.org/rfcs/rfc959.html>

²² <http://www.faqs.org/rfcs/rfc2251.html>

²³ <http://www.faqs.org/rfcs/rfc2222.html>

²⁴ <http://www.faqs.org/rfcs/rfc2853.html>

²⁵ <http://www.faqs.org/rfcs/rfc3820.html>

²⁶ <http://www.faqs.org/rfcs/rfc2246.html>

²⁷ <http://www-unix.mcs.anl.gov/~gawor/jglobus-nightly/HEAD/javadoc/>