GT 4.2.0 Delegation Service Release Notes

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1. Component Overview

The Delegation Service provides an interface for the delegation of credentials to a hosting environment. This enables a single delegated credential to be shared across multiple invocations of services on that hosting environment (e.g. it could be used for multiple GRAM job submissions or across GRAM and RFT submissions.) It also provides a means for credential renewal.

2. Feature summary

Features new in GT 4.2.0:

• Added support for GetResourceProperties and QueryResourceProperties interface.

Other Supported Features:

• Provides an interface for the delegation and renewal of credentials to a host.

• Allows for a single delegated credential to be reused across multiple service invocations (e.g. GRAM jobs).

Deprecated Features:

• None.

3. Summary of Changes in the Delegation Service

The following changes have occurred for the Delegation Service since the last stable release, GT 4.0.x:

• Underlying Java WS Authentication library supports RFC 3820 proxies by default as described in Release Notes. The Delegation Service will also default to RFC 3820 proxies.

• Added support for GetResourceProperties and QueryResourceProperties interface. This allows for a client to query for the lifetime of the delegated credential.
• The command line client options have been changed to use options that are standard across the toolkit. Note that all features that were supported before are still supported, but some of the option names have changed.

• Bug 4593¹: C WS-Delegation Utils (Refresh/Program/Tests)

4. Bug Fixes

• Bug 2973²: Delegation clients have inconsistent arguments

• Bug 2978³: Delegation succeeds of client does not authorize server

• Bug 3076⁴: ArrayIndexOutOfBoundsException if argument not specified for globus-credential-delegate and globus-credential-refresh

• Bug 3077⁵: Issues with globus-credential-delegate and globus-credential-refresh

• Bug 3412⁶: Staging delegation host address needs to use logical host name

• Bug 3446⁷: simple mistake in globus_delegation_client_util.c

• Bug 3955⁸: Service must release all of its resources on deactivation

• Bug 4236⁹: globusrun-ws and delegation server problem in HEAD

• Bug 4300¹⁰: Delegation Service does not implement GetRP interface

• Bug 4300¹¹: Delegation client API should allow for explicit X509Extensions to be set

• Bug 4926¹²: DelegationUtil's delegate() doesn't use EPRs

• Bug 5782¹³: Delegation client util defaults to old proxy format

5. Known Problems

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

5.1. Limitations

• No known limitations exist.

¹ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=4593
² http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=2973
³ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=2581
⁴ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=3077
⁵ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=3077
⁶ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=3412
⁷ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=3446
⁸ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=3955
⁹ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=4300
¹⁰ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=4300
¹¹ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=4769
¹² http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=4926
¹³ http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=5782
5.2. Outstanding bugs

- **Bug 2354** Query the delegated credentials
- **Bug 4717** Delegation Resources need to provide more flexibility in the selection of the persistence mechanism
- **Bug 5078** Support for cascading refresh and renewal in the Delegation Service
- **Bug 5256** Persist DS information to a database.

6. Technology dependencies

The Delegation Service depends on the following GT components:

- WS Authentication and Authorization
- Java WS Core

The Delegation Service depends on all third party software Java WS Core depends on.

7. Tested platforms

Tested Platforms for Delegation Service:

- Windows XP
- Linux (Red Hat 7.3)

Tested Containers for Delegation Service:

- Java WS Core container
- Tomcat 5.0.30

8. Backward compatibility summary

Delegation Service has been updated to use the latest version of Java WS Core, which now supports the final version of WSRF/WSN specification. This service is not compatible with the previous stable versions, GT 4.0.x.

The Java WS Authentication and Message component has been updated to support RFC 3820 proxies by default as described here. This implies that credentials delegated in the previous stable version are incompatible with this version.

9. Associated Standards

- **WS-Security**

14 [http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=2354](http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=2354)
15 [http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=4717](http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=4717)
16 [http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=5078](http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=5078)
17 [http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=5256](http://bugzilla.globus.org/bugzilla/show_bug.cgi?id=5256)
19 [http://www.globus.org/toolkit/docs/4.2/4.2.0/common/javawscore/rn/index.html#id2534919](http://www.globus.org/toolkit/docs/4.2/4.2.0/common/javawscore/rn/index.html#id2534919)
• WS-Security: X.509 Certificate Tokens\textsuperscript{21}
• WS-Trust\textsuperscript{22}
• RFC 3820\textsuperscript{23} Proxy Certificates

10. For More Information

See Delegation Service for more information about this component.

\textsuperscript{21} http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-x509-token-profile-1.0.pdf
\textsuperscript{22} http://www-106.ibm.com/developerworks/library/specification/ws-trust/
\textsuperscript{23} http://www.faqs.org/rfcs/rfc3820.html