
GT 4.2.1 Release Notes: Reliable File Transfer (RFT) Service

Table of Contents

1. Component Overview	1
2. RFT Feature Summary	1
3. Summary of Changes in RFT	2
4. Bug Fixes	2
5. Known Problems	2
6. Technology dependencies	3
7. Tested platforms	3
8. Backward compatibility summary	4
9. Associated Standards	4
10. For More Information	4

<titleabbrev>Release Notes</titleabbrev>

1. Component Overview

The Reliable Transfer Service (RFT) Service implementation in GT 4.2.1 uses standard SOAP messages over HTTP to submit and manage a set of 3rd party GridFTP transfers and deletion of files and directories using GridFTP. The service also provides an interface to control various transfer parameters of the GridFTP control channel like TCP buffer size, parallel streams, DCAU etc. The user creates a RFT resource by submitting a Transfer Request (consisting of a set of third-party gridftp transfers) to the RFT Factory service. The resource is created after the user is properly authorized and authenticated. RFT service implementation exposes operations to control and manage the transfers (the resource). The resource the user created exposes the state of the transfer as a resource property to which the user can either subscribe for changes or poll for the changes in state periodically using standard WS-RF command line clients and other resource properties.

2. RFT Feature Summary

Features new in GT 4.2.1

Supported Features

- Delete files: Delete a set of files/directories on a GridFTP server.
- Exponential Backoff: Configurable exponential back off before a failed transfer is retried.
- Transfer All or None: If this option is set and one of the transfers in the request fails, RFT will stop transferring the remainder of the request and delete the files that were already transferred successfully.
- Transfer Permissions: File permissions are restored at the destination once the file is transferred successfully. This can be configured to throw a fatal error or a transient error depending on whether the GridFTP server supports the MLST command.
- Configurable number of concurrent transfers per container and per request.

- Better error reporting and faults.
- Database purge of the request and transfers after life time expiration.
- Cumulative (aggregate) Resource Properties on the factory provide some statistical information.
- One status Resource Property for the entire transfer.
- Recursive directory transfers and deletes.
- Parallel streams.
- TCP Buffer Size.
- Third-party directory transfers, file transfers and deletes.
- Data channel authentication (DCAU).
- NoTPT option.
- Different subject names for source and destination GridFTP servers for the authorization mechanism.
- Support for binary/ASCII type of transfers.
- Configurable number of retries for failed transfers per request.
- Block Size in bytes.

Deprecated Features

- None

3. Summary of Changes in RFT

- Updated to work with the new version of Derby.
- Extended logging has been added.

4. Bug Fixes

- No new bug fixes.

5. Known Problems

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

5.1. Limitations

Does not compile with JDK 1.3.1.

5.2. Outstanding Issues

- [3121](#)¹ - The configured maximum allowed active transfers constraint is not enforced.

6. Technology dependencies

RFT depends on the following GT components:

- Java WS Core
- WS Authentication and Authorization
- Delegation Service
- Service Groups
- MDS useful RP

RFT depends on the following 3rd party software:

- Optional : PostgreSQL 7.1 or later. Not tested with 8.0 yet.
- Optional : MySQL

7. Tested platforms

Tested platforms for RFT:

- Linux
 - Fedora Core 1 i686
 - Fedora Core 3 i686
 - RedHat 7.3 i686
 - RedHat 9 x86
 - Debian Sarge x86
 - Debian 3.1 i686
- Mac OS X
 - Mac OS X 10.3, 10.4

Tested containers for RFT:

- Java WS Core container
- Tomcat 5.0.30

¹ http://bugzilla.globus.org/globus/show_bug.cgi?id=3121

8. Backward compatibility summary

Protocol changes since GT 4.0.x

- Added All or None option, maximum attempts, and finishBy to the transfer request
- Not backwards compatible with the OGSII version

API changes since GT 4.0.x

- None

Exception changes since GT 4.0.x

- None

Schema changes since GT 4.0.x

- WSDL changes to work with the new Java WS Core

9. Associated Standards

Associated standards for RFT:

- [WSRF](#)²
- [WS-Addressing](#)³
- [WS-Security](#)⁴

10. For More Information

See [Reliable File Transfer \(RFT\) Service](#) for more information about this component.

² <http://docs.oasis-open.org/wsrp/2004/06/wsrp-WS-ServiceGroup-1.2-draft-02.pdf>

³ <http://msdn.microsoft.com/ws/2004/03/ws-addressing>

⁴ <http://msdn.microsoft.com/webservices/understanding/specs/default.aspx?pull=/library/en-us/dnglobspec/html/wssecurspecindex.asp>