

# The gLite File Transfer Service: Middleware Lessons Learned from the Service Challenges

*Tuesday 14 February 2006 16:00 (20 minutes)*

In this paper we report on the lessons learned from the Middleware point of view while running the gLite File Transfer Service (FTS) on the LCG Service Challenge 3 setup. The FTS has been designed based on the experience gathered from the Radiant service used in Service Challenge 2, as well as the CMS Phedex transfer service. The first implementation of the FTS was put to use in the beginning of the Summer 2005. We report in detail on the features that have been requested following this initial usage and the needs that the new features address. Most of these have already been implemented or are in the process of being finalized. There has been a need to improve the manageability aspect of the service in terms of supporting site and VO policies. Due to different implementations of specific Storage systems, the choice between 3rd party gsiftp transfers and SRM-copy transfers is nontrivial and was requested as a configurable option for selected transfer channels. The way the proxy certificates are being delegated to the service and are used to perform the transfer, as well as how proxy renewal is done has been completely reworked based on experience. A new interface has been added to enable administrators to perform Channel Management directly by contacting the FTS, without the need to restart the service. Another new interface has been added in order to deliver statistics and reports to the sites and VOs interested in useful monitoring information. This is also presented through a web interface using javascript. Stage pool handling for the FTS is being added in order to allow pre-staging of sources without blocking transfer slots on the source and also to allow the implementation of back-off strategies in case the remote staging areas start to fill up.

**Author:** Dr KUNSZT, Peter (CERN)

**Co-authors:** Dr MCCANCE, Gavin (CERN); Mr BADINO, Paolo (CERN)

**Presenter:** Mr BADINO, Paolo (CERN)

**Session Classification:** Grid Middleware and e-Infrastructure Operation

**Track Classification:** Grid middleware and e-Infrastructure operation