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Tools for the management of stored data and transfer of data: DPM and FTS

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As a part of the EGEE project the data management group at CERN has developed and support a number of tools for various aspects of data management:

A file catalog (LFC), a key store for encryption keys (Hydra), a grid file access library (GFAL) which transparently uses various byte access protocols to access data in various storage systems, a set of utilities (lcg_utils) for higher level operations on data are all supported. However, in this presentation we will focus on giving an overview of two components in particular:

A disc pool manager (DPM) which provides a service to coordinate the storage of files across discs. The DPM features POSIX ACLs on files and pools, file lifetime with garbage collection, optional replication of data within the DPM and authorization based on VOMS grid certificates. The DPM offers an SRM interface, versions 1.1 and 2.2, along with its own control interface. Access to data is supported via gsiftp, rfiio and an optional xrootd module is also available.

A file transfer service (FTS) allows the replication of data from one data store to another. The FTS features individually configurable, unidirectional management channels. The channels allow allocation of parameters such as number of concurrent transfers, number of parallel streams or TCP buffer size.

SRM (version 1.1 or 2.2) is used to send requests to the storage systems. Third party gridftp or SRMCopy initiated transfers are supported.

Summary

Summary of EGEE data management components FTS and DPM.

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