The Globus Data Replication Service

The function of the Globus Data Replication Service (DRS) is to replicate a specified set of files onto a local storage system and register the new files in appropriate catalogs. The DRS builds on lower-level Grid data services, including the Globus Reliable File Transfer (RFT) service and Replica Location Service (RLS). The DRS ensures that a specified set of files exists on a storage site by locating copies of the files in the Grid using the RLS, creating new replicas of those files at the local site using RFT, and registering the files in the RLS so that other sites may discover newly-created replicas. Throughout DRS replication operations, the service maintains state about each file, including which operations on the file have succeeded or failed.

The DRS is implemented as a Web service that complies with the Web Services Resource Framework (WS-RF) specifications and is available as a technical preview component in the Globus Toolkit Version 4.0.1 release.

The functionality of the Data Replication Service (DRS) is based on the publication capability of the LIGO Lightweight Data Replicator (LDR) system.

For more information:

Data Replication Service Documentation:
http://www.globus.org/toolkit/docs/4.0/techpreview/datarep/

"Wide Area Data Replication for Scientific Collaborations", A. Chervenak, R. Schuler, C. Kesselman, S. Koranda, B. Moe, in Proceedings of 6th IEEE/ACM Int'l Workshop on Grid Computing (Grid2005), November 2005.

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