

Future-proof storage with DPM

Wednesday, 10 April 2013 14:00 (30 minutes)

Impact

DPM is a storage solution, supported by an international community, that sites and communities can adopt with confidence. With its standards compliance and easy integration with 3rd party storage solutions it represents an attractive and proven storage choice for scientific computing.

Summary

The Disk Pool Manager (DPM) is a lightweight and proven solution for grid enabled disk storage management. It has emerged from EMI with strong standards support, in particular concerning HTTP access, and is now supported by an international collaboration of stakeholders. We present the advantages of DPM as a storage system for distributed scientific computing, explain its role in an ecosystem of HTTP solutions for data management, and report on future plans.

Description

We present the status of the DPM project at a time when a collaboration dedicated to its maintenance is taking over responsibility from the EMI project. The status of the numerous modern features of DPM are explained. Standards based access through HTTP and NFSv4.1 are reviewed. New backends designed to allow integration of flexible and powerful storage solutions such as S3 and HDFS are presented. Improvements to areas such as administrative utilities and nameserver performance are covered. DPM's role in an HTTP based ecosystem for data management, in conjunction with other tools such as FTS, is examined. Finally, the future of community driven development for both DPM and the derived catalogue LFC is covered, with particular reference to the "dmlite" framework which has been successful in accelerating DPM developments during EMI.

Primary authors: FURANO, Fabrizio (CERN); KEEBLE, Oliver (CERN)

Presenter: FURANO, Fabrizio (CERN)

Session Classification: Community Platforms

Track Classification: Community Platforms (Track Lead: P Solagna and M Drescher)