LCG Storage Workshop

"LFC and POOL Integration"

David Smith, IT-GD, CERN

CERN, 7th April 2005

Overview

- Provide a POOL backend to interact with an LFC catalogue

- Should support all the expected methods

  - e.g. adding, removing and querying entries

- Some complications with queries

Query interface

- POOL supports queries:
  - for LFN, PFN and GUID based on SQL like query expressions involving those three
  - With equality and 'like' comparators
  - AND (and OR)

- LFC has hierarchical LFN (with aliases)
  - Must agree on behavior of wildcard matching in the LFN

- Wildcard matching on PFN, GUID likely to be expensive
  - To be decided at what level and with which behavior wildcard matches on PFN, GUID need to be supported

Testing

- Testing of the POOL – LFC interface needed for
  - Functionality verification
  - Resource usage
  - Performance evaluation and/or optimisation

- The interface needs to support various operations such as:
  - Finding distinct entries in lists of search results
  - Computing unions and intersections of results

- Likely the performance will depend strongly on complexity and size of queries

Summary

- Currently writing POOL – LFC interface
  - Still some functionality decisions to be confirmed

- Aim to have version in testing this month
  - It is possible that we may need to iterate one or more times
    - on the results of wider tests *or*
    - performance results for individual use cases