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Recent Developments in LFC

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The LFC (LCG File Catalogue) allows retrieving and registering the
location of physical replicas in the grid infrastructure given a
LFN (Logical File Name) or a GUID (Grid Unique Identifier).
Authentication is based on GSI (Grid Security Infrastructure) and
authorization uses also VOMS.
The catalogue has been installed in more than 100 sites. It is
essential to provide consistent and user-friendly tools to manage
the catalogue. The LFC is based on a hierarchical namespace with a
POSIX interface. The LFC API is similar to UNIX commands and
includes functions to start/end a session or a transaction. The
support of secondary groups and ACLs (Access Control Lists) allow
a flexible management of file permissions.
An automated recovery strategy based on a retry mechanism offers a
better reliability. Accessed very often by many tools, the
catalogue needs to guarantee a fast response time. Performance
issues have been studied and tuned by implementing bulk queries.
Several other tests are being conducted such as the impact of the
size of the communication buffer between the client and a
local/remote LFC server on the response time.

Primary authors: FROHNER, Akos (CERN); SMITH, David (CERN); BAUD, Jean-Philippe (CERN); NIEN-
ARTOWICZ, Krzysztof (CERN); ABADIE, Lana (CERN); MOLLON, Remi (CERN); LEMAITRE, Sophie (CERN)

Presenter: LEMAITRE, Sophie (CERN)

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