

CORAL server: a middle tier for accessing relational database servers from CORAL applications

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The CORAL package is the CERN LCG Persistency Framework common relational database abstraction layer for accessing the data of the LHC experiments that is stored using relational database technologies.

A traditional two-tier client-server model is presently used by most CORAL applications accessing relational database servers such as Oracle, MySQL, SQLite.

A different model, involving a middle tier server solution deployed close to the database servers, has recently been discussed. This would provide several advantages over the simple client-server model in the areas of security (authentication via proxy certificates) and of scalability and performance (multiplexing for several incoming connections, etc.). Data caching is also available, by a “proxy server” component, deployed close to the database users.

A joint development of such a middle tier (CERN, SLAC), known as ‘CORAL server’, is ongoing.

This presentation will report on the status and outlook of the developments, solutions and test results for the new software components relevant to this project.

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