

FermiGrid - Highly Available Grid Services

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Fermilab supports a scientific program that includes experiments and scientists located across the globe. To better serve this community, Fermilab has placed its production computer resources in a Campus Grid infrastructure called 'FermiGrid'.

The FermiGrid infrastructure (common grid services and standard grid interfaces) allows the large experiments at Fermilab to have priority access to their own resources (Compute Elements and Storage Elements), enables sharing of these resources in an opportunistic fashion, and movement of work (jobs, data) between the Campus Grid and National Grids such as Open Science Grid and the Worldwide LHC Computing Grid Collaboration.

Efficient operation of these resources is in turn supported by a set of centrally administered core grid services that provide site authentication, authorization and grid user mapping services.

We will report on our deployment of Linux Virtualisation, Linux Virtual Server and MySQL replication within the FermiGrid infrastructure to provide highly available Grid services.