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Type: **Parallel Talk**

Large Scale Data Handling experience at INFN-CNAF Data Center

Saturday, 9 July 2022 17:00 (15 minutes)

INFN CNAF is the National Center of INFN (National Institute for Nuclear Physics) for research and development in the field of information technologies applied to high energies physics experiments.

CNAF hosts the largest INFN data center which also includes WLCG Tier1 site (one of 13 around the world), providing resources, support and services needed for computing and data handling in the Worldwide LHC Computing Grid (WLCG) framework. The data center also represents a key data facility for many astroparticle and nuclear physics experiments.

The Data management team manages and makes available all the Tier1 storage resources to the scientific community. Currently, such resources consist of more than 50 PB of disk storage and more than 110 PB of tape storage.

We describe the adopted technologies for Data Management and Data Transfer and how our services are evolving to cope with the requirements imposed by the High Luminosity-LHC era, in the context of a worldwide transition to new protocols and authorization approaches for bulk data transfers between WLCG sites.

Also, we report on our work to provide POSIX filesystems with different technologies: along with the bulk of data center storage, which is based on GPFS deployments, we provide CephFS as well as object and block storage service for data access requirements beyond WLCG use cases.

In-person participation

Yes

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