Title: “Analysis Infrastructure: Integrating Dcache Storage with JupyterHub Notebook via Secure HTTPS Endpoint"

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Abstract

This project aims to enhance the current analysis facility and infrastructure through the seamless integration of a new Dcache-based storage system with the local JupyterHub server instance via a secure HTTPS endpoint.

The primary objective is to optimize the efficiency and security of analysis workflows. By establishing a robust connection between Dcache storage and JupyterHub, the project aims to offer users a streamlined and secure platform for accessing and analyzing data. This integration aligns with the overarching goal of improving the High-Energy Physics (HEP) data analysis experience, enabling users to leverage the capabilities of Dcache storage seamlessly through JupyterHub notebooks.Participating in this project will gain insights into distributed storage technologies like Dcache, JupyterHub server, the CMS user analysis framework, and the Grid computing infrastructure at TIFR.