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Resumo	Research has become dependent on processing power and storage, one crucial aspect being data sharing. The Open Science Data Federation (OSDF) project aims to create a scientific global data distribution network based on the Pelican Platform. OSDF relies on the XRootD and Pelican projects. Nevertheless, OSDF must understand the XRootD limits under various configuration options, including transfer rate limits, proper buffer configuration, and storage type effect. We have thus executed a set of benchmarks to create a set of recommendations to share with the XRootD and Pelican teams. This work describes the tests and results performed using National Research Platform (NRP) hosts. The tests cover various file sizes and parallel streams and use clients from various distances from the server host. We also used several standalone clients (<i>wget</i> , <i>curl</i> , <i>pelican</i>) and the native HTCondor file transfer mechanisms. Applying the methodology creates a possibility to track how XRootD and the Pelican layer perform in different scenarios.
Fomento	-