

Storage Operations at CERN: CERNBox

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CERNBox is a cloud synchronisation service for end-users: it allows syncing and sharing files on all major mobile and desktop platforms (Linux, Windows, MacOSX, Android, iOS) aiming to provide offline availability to any data stored in the CERN EOS infrastructure.

The success of EOS/CERNBox has been demonstrated by the high demand in the community for such easily accessible cloud storage solution which recently crossed 8000 users and by its role as integration point for different CERN services.

The system has been integrated in major work-flows for scientific computing and with existing scientific data repositories at CERN. It provides an authenticated file access (KRB5, GSI) using a range of access protocols and tools: physics data analysis applications access CERNBox via xrootd protocol; Jupyter Notebooks interact with the storage via file-system interfaces provided by EOS FUSE mounts; Grid jobs can access using GridFTP protocol and Windows clients can profit from the SAMBA endpoint.

We report on our experience with this technology and applicable use-cases, also in a broader scientific and research context and its future evolution into a CERN Home directory service.

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