

The EOS disk storage system at CERN

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EOS was designed to fulfill generic requirements on disk storage scalability and IO scheduling performance for LHC analysis use cases following the strategy to decouple disk and tape storage as individual storage systems.

The project was setup in April 2010. Since October 2010 EOS was evaluated by ATLAS as a disk only storage pool at CERN for analysis use cases in the context of various WLCG demonstrator projects.

Since May 2011 analysis data has been migrated to the EOSCMS and EOSATLAS production instances. Each instance contains several thousand disks and provides few petabytes of storage capacity individually managed by EOS.

In this paper we summarize features available in the first release version of EOS and highlight some of the benefits as a user analysis disk pool in comparison with other storage solutions.

In the second part we will describe the current deployment and operation model of EOS in the CERN computer centre and its usage by the CMS and ATLAS experiments. We will conclude with a roadmap and future directions of EOS development and operations at CERN.

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