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# Seeking an alternative to tape-based custodial storage

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In November 2018, the KISTI Tier-1 centre started a project to design, develop and deploy a disk-based custodial storage with error rate and reliability compatible with a tape-based storage. This project has been conducted in the collaboration between KISTI and CERN, especially the initial system design was laid out from the intensive discussion with CERN IT and ALICE. The initial system design of the disk-based custodial storage accommodated high density JBOD enclosures and the erasure coding implemented in EOS, the open-source storage management developed at CERN. In order to balance among system reliability, data security and I/O performance, we investigated the possible SAS connections of JBOD enclosures to the front-end node managed by EOS and the technology constraints of interconnections in terms of throughput to deal with the large number of disks. This project targets to have a production system before the start of LHC RUN3 in 2021. This year we will procure and deploy the disk-based custodial storage with the hardware specification derived from the initial system design. In this paper we present the detailed description on the initial system design, the brief results of test equipments for the procurement, the deployment of the system and the further plan of the project.

## Consider for promotion

No

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