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Rucio framework in the Bulk Data Management System for the CTA Archive –Release 0 [remote]

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In this talk we are going to describe the operational and conceptual design of the bulk archive management system involved in prototyping activities of the Cherenkov Telescope Array Observatory (CTAO) Bulk Archive. This particular archive in the CTA Observatory takes care of storage and management of the lower data level products coming from the Cherenkov telescopes, incuding their cameras, auxiliary subsystems and simulations. Scientific raw data produced from the two CTAO telescope sites, one in the Northern hemisphere and the second in the Southern, will be transferred to four off-site data centers where they will be accessed and automatically reduced to higher level data products. This Archive system will provide a set of tools based on the OAIS (Open Archive) standards, including a data transfer system, a general and replicated catalog to be queried, an easy interface to retrieve and access data as well as a customized and versatile data organization depending on the user requirements.

We have already developed the first version of the user's interface based on Rucio package which can perform thr
- a newly recorded data file is ingested as a replica into Rucio cluster using a JSON schema file as input and it

- an already ingested file can be searched through its DID («scope»:«filename») or its unique PFN
- finally, an already ingested file can be retrieved and saved locally using the existing interface again only t

Currently, we are working on a database kubernetes module in order to store all relevant metadata information s

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