

Status of CERN Tape Archive operations during Run3

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The CERN Tape Archive (CTA) is CERN's physics data archival storage solution for Run-3. Since 2020, CTA has been progressively ramping up to serve all the LHC and non-LHC tape workflows which were previously handled by CASTOR. 2022 marked a very successful initial Run-3 data taking campaign on CTA, reaching the nominal throughput of 10 GB/s per experiment and setting new monthly records of archived data volume.

In this presentation, we review key production service lessons learnt during the beginning of Run-3. The transition of Tier-0 tape from a Hierarchical Storage Model (HSM) to a pure tape endpoint has enabled multiple optimisations, initially targetting low-latency archival write performance of DAQ data. We will discuss how the redesign of tape workflows has led to gains in terms of performance and automation, and present several ongoing activities which improve production feedback to the experiments. Finally, we will present upcoming challenges for CTA, as tape storage is becoming “warmer” in all workflows.

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