

# Evaluation of distributed file systems using trace and replay mechanism

*Wednesday, May 4, 2011 12:15 PM (30 minutes)*

Reliable benchmarking of file systems is a complex and time consuming task when one has to test against a production environment to achieve relevant results.

In case of the HEP community, this eventually leads to setting up a particular experiments' software environment, which could be a rather complicated task for a system administrator.

To simplify this task, we developed an application for exact replaying of IO requests to reliably replicate an IO behavior of the original applications without a need of installing the whole working environment.

Using the application, we present performance comparison of Lustre, GPFS and Hadoop file systems by replaying traces of LHCb, CMS and ATLAS jobs.

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**Session Classification:** Storage & FileSystems

**Track Classification:** Storage & Filesystems