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Performance of Cluster File System Backed by an HDD-Based Data Storage System Under True Concurrent Read-Write Load

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Despite of the growing number of flash-based data storage systems the usage of spinning disks (HDDs) for large on-line data storage systems is still advantageous. Measurements of the read-write behaviour of a cluster file system using external storage controllers backed by HDDs are presented. Contrary to commonly expected balanced read and write rates, resp., or even read rates slightly outbalancing write rates by far prevailing write rates were seen. Starting point was the test procedure required in a Call for Tenders which turned out to be totally inadequate to characterize the system behaviour. A more thorough approach showed that in true parallel read-write traffic attempting to maximise both data streams the read rate is about one order smaller than the write rate. Possible Explanations are considered and some discussion of the results is given.

Desired slot length

12

Speaker release

Yes

Author: FALKE, Uwe (KIT SCC , GridKa)

Presenter: FALKE, Uwe (KIT SCC , GridKa)

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