

Data Lake. Configuration and testing of distributed data storage systems.

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The need for an effective distributed data storage has appeared important from the beginning of LHC, and this topic has become particularly vital in the light of the preparation for the HL-LHC run and the emergence of data-intensive projects in other domains such as nuclear and astroparticle physics.

LHC experiments have started an R&D within the DOMA project and we report the recent results related to the federated data storage systems configuration and testing. We will emphasize on different system configurations and various approaches to test storage federations. We are considering EOS and dCache storage systems as a backbone software for data federation and xCache for data caching. We'll also report about synthetic tests and experiments specific tests developed by ATLAS and ALICE for federated storage prototype in Russia. Recently, the execution of the test has been automated and now it is conducted using the Hammer-Cloud toolkit. Data Lake project launched in the Russian Federation in 2019 and its prospects will be covered distinctly.

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Speaker release

Yes

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Primary authors: ALEKSEEV, Aleksandr (M.V. Lomonosov Moscow State University (RU)); KLIMENTOV, Alexei (Brookhaven National Laboratory (US)); Mr KIRLANOV, Andrey (NRC Kurchatov Institute PNPI (RU)); ZAROCHENTSEV, Andrey (St Petersburg State University (RU)); JEZEQUEL, Stephane (LAPP-Annecy CNRS/USMB (FR)); MITSYN, Valeri (Joint Institute for Nuclear Research (RU)); ESPINAL, Xavier (CERN)

Presenter: ZAROCHENTSEV, Andrey (St Petersburg State University (RU))

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