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Implementation and performances of a DPM federated storage and integration within the ATLAS environment

Tuesday, 5 November 2019 15:00 (15 minutes)

With the increase of storage needs at the HL-LHC horizon, the data management and access will be very challenging for this critical service. The evaluation of possible solutions within the DOMA, DOMA-FR (IN2P3 project contribution to DOMA) and ESCAPE initiatives is a major activity to select the most optimal ones from the experiment and site point of views. The LAPP and LPSC teams have put their expertise and computing infrastructures in common to build the FR-ALPES federation and setup a DPM federated storage. Based on their experience of their Tier2 WLCG site management, their implication in the ATLAS Grid infrastructure and thanks to the flexibility of ATLAS and Rucio tools, the integration of this federation into the ATLAS grid infrastructure has been straightforward. In addition, the integrated DPM caching mechanism including volatile pools is also implemented. This infrastructure is foreseen to be a test bed for a DPM component within a DataLake. This presentation will describe the test bed (infrastructures separated by few ms in Round Trip Time unit) and its integration into the ATLAS framework. The impact on the sites and ATLAS operations of both the test bed implementation and its use will also be shown, as well as the measured performances on data access speed and reliability.

Consider for promotion

No

Primary authors: ADAM BOURDARIOS, Claire (Centre National de la Recherche Scientifique (FR));   CHOL-LET, Frederique (Centre National de la Recherche Scientifique (FR));   CREPE-RENAUDIN, Sabine (LPSC-Grenoble, CNRS/UGA (FR));   GONDRAND, Christine Nicole (Centre National de la Recherche Scientifique (FR));   GOUGEROT, Murielle Anne Lise (Centre National de la Recherche Scientifique (FR));   JEZEQUEL, Stephane (LAPP-Annecy CNRS/USMB (FR));   SERAPHIN, Philippe (CNRS)

Presenter: JEZEQUEL, Stephane (LAPP-Annecy CNRS/USMB (FR))

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