

Implementation of new WLCG services into the AliEn Computing model of the ALICE experiment before the data taking

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By the time of this conference the LHC ALICE experiment at CERN will have collected a significant amount of data. To process the data that will be produced during the life time of the LHC, ALICE has developed over the last years a distributed computing model across more than 90 sites that build on the overall WLCG (World-wide LHC Computing Grid) service. ALICE implements the different Grid services provided by the gLite middleware into the experiment computing model.

During the period 2008-2009 the WLCG project has deployed new versions of some services which are crucial for the ALICE computing as the gLite3.2 VOBOX, the CREAM-CE and the gLite3.2 WMS. In terms of Computing systems, the current LCG-CE used by the four LHC experiments is about to be deprecated in benefit of the new CREAM service (Computing Resource Execution And Management). CREAM is a lightweight service created to handle job management operations at the CE level. It is able to accept requests both via the gLite WMS service and also via direct submission for transmission to the local batch system.

This flexible duality provides the users with a large level of freedom to adapt the service to their own computing models, but at the same time it requires a careful follow up of the requirements and tests of the experiments to ensure that their needs are fulfilled before real data taking.

ALICE has been the first Grid community to implement the CREAM into the experiment computing model and to test it to a production level. Since 2008 ALICE is providing the CERN Grid deployment team and the CREAM developers with important feedback which have lead to the identification of important bugs and issues solved before the real data taking. In addition ALICE has been also leader in testing and implementing other generic services as the gLite3.2 VOBOX and WMS before their final deployment.

In this talk we present a summary of the ALICE experiences by using these new services also including the testing results of the other three LHC experiments. The experiments requirements and the expectations for both the sites and the services themselves are exposed in detail. Finally, the operations procedures, which have been elaborated together with the experiment support teams will be included in this presentation

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