

The CREAM-CE: First experiences, results and requirements of the 4 LHC experiments

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In a few months, the four LHC detectors will collect data at a significant rate that is expected to ramp-up to around 15PB per year. To process such a large quantity of data, the experiments have developed over the last years distributed computing models that build on the overall WLCG service. These implement the different services provided by the gLite middleware into the computing models of the experiments.

From the point of view of the middleware, the current LCG-CE used by the 4 LHC experiments is about to be deprecated. The new CREAM service (Computing Resource Execution And Management) has been approved to replace the previous service. 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 experiments 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.

In this talk we present the current testing results of the four LHC experiments concerning this new service. The experiments requirements and the expectations for both the sites and the service itself 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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Primary authors: Dr DI GIROLAMO, Alessandro (CERN IT/GS); Dr SCIABA, Andrea (CERN IT/GS); Dr RETICO, Antonio (CERN IT/GD); Dr LANCIOTTI, Elisa (CERN IT/GS); Dr RENSHALL, Harry (CERN IT/GS); Dr SHIERS, Jamie (CERN IT/GS); Dr THACKRAY, Nick (CERN IT/GD); Dr MAGINI, Nicolo (CERN IT/GS); Dr MENDEZ LORENZO, Patricia (CERN IT/GS); Dr SANTINELLI, Roberto (CERN IT/GS); Dr CAMPANA, Simone (CERN IT/GS); Dr MICCIO, Vincenzo (CERN IT/GS)

Presenters: Dr DI GIROLAMO, Alessandro (CERN IT/GS); Dr SCIABA, Andrea (CERN IT/GS); Dr LANCIOTTI, Elisa (CERN IT/GS); Dr MAGINI, Nicolo (CERN IT/GS); Dr MENDEZ LORENZO, Patricia (CERN IT/GS); Dr SANTINELLI, Roberto (CERN IT/GS); Dr CAMPANA, Simone (CERN IT/GS); Dr MICCIO, Vincenzo (CERN IT/GS)

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