

21st International Conference on Computing in High Energy and Nuclear Physics (CHEP2015)



Contribution ID: 345

Type: **oral presentation**

CMS data distributed analysis with CRAB3

Monday 13 April 2015 17:30 (15 minutes)

The CMS Remote Analysis Builder (CRAB) provides the service for managing analysis tasks isolating users from the technical details of the distributed Grid infrastructure. Throughout the LHC Run 1, CRAB has been successfully employed by an average 350 distinct users every week executing about 200,000 jobs per day.

In order to face the new challenges posed by the LHC Run 2, CRAB has been significantly re-factored. The pieces of the new system are a lightweight client, a central server exposing a REST interface accepting user requests, a number of servers dealing with user analysis tasks and submitting jobs to the CMS resource provisioning system, and a central service to asynchronously move user data from the execution node to the desired storage location. The new system improves the robustness, scalability and sustainability of the service.

This contribution will give an overview of the new system, reporting the status, experience and lessons learnt from the commissioning phase and the production rollout for the initial data taking. It will address all aspects of the project from development to operations and support.

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Session Classification: Track 4 Session

Track Classification: Track4: Middleware, software development and tools, experiment frameworks, tools for distributed computing