



Contribution ID: 329

Type: oral presentation

Belle II production system

Monday 13 April 2015 16:45 (15 minutes)

In Belle II experiment a large amount of physics data will be continuously taken and the production rate is equivalent to LHC experiments.

Considerable resources of computing, storage, and network, are necessary to handle not only the taken data but also substantial simulated data.

Therefore Belle II exploits distributed computing system based on DIRAC interware.

DIRAC is a general software framework to provide unified interface among heterogeneous computing resources.

As well as proven DIRAC software stack, Belle II is developing its own extension called BelleDIRAC.

BelleDIRAC gives a transparent user experience of Belle II analysis framework (basf2) on various environments and access to file information managed by LFC and AMGA metadata catalog.

With unifying DIRAC and BelleDIRAC functionalities, Belle II plans to operate automated mass data processing framework named a production system.

Belle II production system covers sizable raw data transfer from experimental site to raw data centers, followed by massive data processing, and smart output deployment to each remote site.

The production system is also utilized for simulated data production and data analysis.

Although development of the production system is still on-going, recently Belle II has prepared prototype version and evaluated it with large scale of simulated data production test.

In this presentation we will report the evaluation of the prototype system and future development plan.

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Session Classification: Track 4 Session

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