20th International Conference on Computing in High Energy and Nuclear Physics (CHEP2013)

Contribution ID: **275** Type: **Oral presentation to parallel session**

The ATLAS Distributed Analysis System

Thursday 17 October 2013 13:52 (22 minutes)

In the LHC operations era, analysis of the multi-petabyte ATLAS data sample by globally distributed physicists is a challenging task. To attain the required scale the ATLAS Computing Model was designed around the concept of grid computing, realized in the Worldwide LHC Computing Grid (WLCG), the largest distributed computational resource existing in the sciences. ATLAS currently stores over 140 PB of data and runs about 140,000 concurrent jobs continuously at WLCG sites. During the LHC´s first run, the ATLAS Distributed Analysis (DA) service has operated stably and scaled well. More than 1600 users submitted jobs 2012, with 2 million or more analysis jobs per week, peaking at about a million jobs per day. The system dynamically distributes popular data to expedite processing and maximally utilize resources. The reliability of the DA service is high but steadily improving; grid sites are continually validated against a set of standard tests, and a dedicated team of expert shifters provides user support and communicates user problems to the sites. Both the user support techniques and the direct feedback of users have been effective in improving the success rate and user experience when utilizing the distributed computing environment. In this contribution a description of the main components, activities and achievements of ATLAS distributed analysis is given. Also several future improvements being undertaken will be described.

Author: LEGGER, Federica (Ludwig-Maximilians-Univ. Muenchen (DE))

Presenter: LEGGER, Federica (Ludwig-Maximilians-Univ. Muenchen (DE))

Session Classification: Distributed Processing and Data Handling B: Experiment Data Processing, Data Handling and Computing Models

Track Classification: Distributed Processing and Data Handling B: Experiment Data Processing, Data Handling and Computing Models