Contribution ID: **115** Type: **oral presentation**

ATLAS Distributed Analysis

Thursday 30 September 2004 15:20 (20 minutes)

The ATLAS distributed analysis (ADA) system is described. The ATLAS experiment has more that 2000 physicists from 150 insititutions in 34 countries. Users, data and processing are distributed over these sites. ADA makes use of a collection of high-level web services whose interfaces are expressed in terms of AJDL (abstract job definition language) which includes descriptions of datasets, transformations and jobs. The high-level services are implemented using generic parts of these objects while clients and endpoint applications additionally make use of experiment-specific extensions. The key high-level service is the analysis service which receives a generic job request and creates and runs a corrresponding job, typically as a collection of sub-jobs each handling a subset of the input dataset. The submitting client is able to monitor the progress of the job including partial results. The system is capable of running a wide range of applications but the emphasis is on event processing, in particular simulation, reconstruction and analysis of ATLAS data. Other high-level services include catalogs and dataset splitters and mergers. The ATLAS production system has been used to construct an analysis service that makes production activities available to ATLAS users. An analysis service with interactive response is provided by DIAL. Another analysis service based on the EGEE middleware is being constructed in the context of the ARDA project. All are accessible from ROOT and python command lines and from the user-friendly graphical interface provided by GANGA.

Authors: SOROKO, A. (Oxford University); HAEBERLI, C. (Bern); KANNAN, C. (Stonybrook); TAN, C.L. (Birmingham); ADAMS, D. (BNL); LIKO, D. (CERN); FASSI, F. (IFIC Valencia); ORELLANA, F. (CERN); RYBKINE, G.; FULACHIER, J. (LPSC, Grenoble); LOZANO, J. (IFIC Valencia); HARRISON, K. (Cambridge University); BRANCO, M. (CERN); CHETAN, N. (Stonybrook); ALBRAND, S. (LPSC, Grenoble); SAMBAMURTHY, V. (Stonybrook); DENG, W. (BNL)

Presenter: ADAMS, D. (BNL)

Session Classification: Distributed Computing Systems and Experiences

Track Classification: Track 5 - Distributed Computing Systems and Experiences