Contribution ID: **50** Type: **Poster**

Online Metadata Collection and Monitoring Framework for the STAR Experiment at RHIC

Thursday 24 May 2012 13:30 (4h 45m)

The STAR Experiment further exploits scalable message-oriented model principles to achieve a high level of control over online data
streams. In this report we present an AMQP-powered Message Interface and Reliable Architecture framework (MIRA), which allows STAR to orchestrate the activities of Metadata Collection, Monitoring, Online QA and several Run-Time / Data Acquisition system components in a very efficient manner. The very nature of the reliable message bus suggests parallel usage of multiple independent storage mechanisms for our metadata. We describe our experience of a robust data-taking setup employing MySQL and HyperTable based archivers for metadata processing. In addition, MIRA has an AJAX-enabled web GUI, which allows real-time visualisation of online process flow and detector subsystem states, and doubles as a sophisticated alarm system when combined with complex event processing engines like Esper, Borealis or Cayuga. Reported data and suggested path forward are based on our experience during the 2011-2012 running of STAR.

Authors: ARKHIPKIN, Dmitry (Brookhaven National Laboratory); VAN BUREN, Gene (Brookhaven National Laboratory); Dr LAURET, Jerome (BROOKHAVEN NATIONAL LABORATORY); BETTS, Wayne (Brookhaven National Laboratory)

Presenter: ARKHIPKIN, Dmitry (Brookhaven National Laboratory)

Session Classification: Poster Session

Track Classification: Online Computing (track 1)