

The ALICE Workload Management System: Status before the real data taking

Thursday, March 26, 2009 6:10 PM (20 minutes)

With the startup of LHC, the ALICE detector will collect data at a rate that, after two years, will reach 4PB per year. To process such a large quantity of data, ALICE has developed over ten years a distributed computing environment, called AliEn, integrated with the WLCG environment. The ALICE environment presents several original solutions, which have shown their viability in a number of large exercises of increasing complexity called ALICE Data Challenges. Also during the past Common Computing Readiness Challenge (CCRC'08), proposed during the WLCG workshop in 2007 for the four LHC experiments together, ALICE has run their Full Dress Rehearsals exercises collecting more than 70TB in few weeks and achieving a sustained outgoing data rate of 125MB/s for more than one week.

Within the ALICE distributed computing environment, the AliEn Workload Management Structure (WMS) was created to submit to the WLCG infrastructure, and has played a crucial role to achieve the mentioned results. ALICE has more than 70 sites distributed all over the world and this WMS together with the operations management structure defined by the experiment has demonstrated a reliability and performance level ready to begin the data taking at the end of the year.

In this talk we will focus on the description and the current status of the AliEn WMS, emphasizing the last functionalities that have been included to handle from a single entry point the different matchmaking services of WLCG (lcg-RB, gLite WMS) and also the future CREAM-CE; the latter has been extensively tested by the experiment during summer 2008. The talk will describe the ALiEn WMS structure and will expose the results achieved in 2008-2009, since the CCRC'08 exercise until the CREAM-CE testing phase

Presentation type (oral | poster)

Oral

Primary authors: Dr GRIGORAS, Alina (CERN PH/AIP); Dr PETERS, Andreas Joachim (CERN IT/DM); Dr GRIGORAS, Costin (CERN PH/AIP); Dr FURANO, Fabrizio (CERN IT/GS); Dr CARMINATI, Federico (CERN PH/AIP); Dr BETEV, Latchezar (CERN PH/AIP); Dr SAIZ, Pablo (CERN IT/GS); Dr MENDEZ LORENZO, Patricia (CERN IT/GS); Dr BUNCIC, Predrag (CERN PH/SFT); Dr BAGNASCO, Stefano (INFN/Torino)

Presenters: Dr GRIGORAS, Alina (CERN PH/AIP); Dr PETERS, Andreas Joachim (CERN IT/DM); Dr GRIGORAS, Costin (CERN PH/AIP); Dr FURANO, Fabrizio (CERN IT/GS); Dr CARMINATI, Federico (CERN PH/AIP); Dr BETEV, Latchezar (CERN PH/AIP); Dr SAIZ, Pablo (CERN IT/GS); Dr MENDEZ LORENZO, Patricia (CERN IT/GS); Dr BUNCIC, Predrag (CERN PH/SFT); Dr BAGNASCO, Stefano (INFN/Torino)

Session Classification: Grid Middleware and Networking Technologies

Track Classification: Grid Middleware and Networking Technologies