

Grid Infrastructure for Caltech CMS Production on Alliance Resources

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Abstract

The CMS experiment at the CERN Large Hadron Collider (LHC) will begin taking data in 2006. Along with the Petabytes of data expected to be collected, CMS will also generate an enormous amount of Monte Carlo simulation data. This paper describes solutions developed at Caltech to address the issue of controlled generation of large amounts of Monte Carlo simulation data using distributed Alliance resources. We will report on the results of production using Grid tools (Globus, Condor-G) to knit together resources from various institutions within Alliance in NPACI framework. The results of this effort will be discussed in addition to the design and implementation of the control system used.