

OSG-CAF - A single point of submission for CDF to the Open Science Grid

Monday, 13 February 2006 17:20 (20 minutes)

The increasing instantaneous luminosity of the Tevatron collider will cause the computing requirements for data analysis and MC production to grow larger than the dedicated CPU resources that will be available. In order to meet future demands, CDF is investing in shared, Grid, resources. A significant fraction of opportunistic Grid resources will be available to CDF before the LHC era starts and CDF could greatly benefit from using them. CDF is therefore reorganizing its computing model to be integrated with the new Grid model. In the case of Open Science Grid (OSG), CDF has extended its CDF Analysis Farm (CAF) infrastructure by using Condor glide-in and Generic Connection Brokering (GCB) to produce a CDF portal to the OSG that has an identical user interface to the CAF infrastructure used for submissions to the CDF dedicated resources, including its semi-interactive monitoring tools. This talk presents the architecture of the OSG-CAF and its current state-of-the-art implementation. We also present the issues we have found in deploying the system, as well as the solution we adopted to overcome them. Finally, we show our early prototype which uses the OSG opportunistic workload management system and Edge Services Framework to harvest the opportunistically schedulable resources on the OSG in ways that are transparent to the CDF user community.

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Session Classification: Distributed Event production and Processing

Track Classification: Distributed Event production and processing