

CMS Connect

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The CMS experiment collects and analyzes large amounts of data coming from high energy particle collisions produced by the Large Hadron Collider (LHC) at CERN. This involves a huge amount of real and simulated data processing that needs to be handled in batch-oriented platforms. The CMS Global Pool of computing resources provide +100K dedicated CPU cores and another 50K to 100K CPU cores from opportunistic resources for these kind of tasks and even though production and event processing analysis workflows are already managed by existing tools, there is still a lack of support to submit final stage condor-like analysis jobs familiar to Tier-3 or local Computing Facilities users into these distributed resources in an integrated (with other CMS services) and friendly way. CMS Connect is a set of computing tools and services designed to augment existing services in the CMS Physics community focusing on these kind of condor analysis jobs. It is based on the CI-Connect platform developed by the Open Science Grid and uses the CMS GlideInWMS infrastructure to transparently plug CMS global grid resources into a virtual pool accessed via a single submission machine. This paper describes the specific developments and deployment of CMS Connect beyond the CI-Connect platform in order to integrate the service with CMS specific needs, including specific Site submission, accounting of jobs and automated reporting to standard CMS monitoring resources in an effortless way to their users.

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