

Connecting restricted, high-availability, or low-latency resources to a seamless Global Pool for CMS

Thursday, October 13, 2016 4:30 PM (15 minutes)

The connection of diverse and sometimes non-Grid enabled resource types to the CMS Global Pool, which is based on HTCondor and glideinWMS, has been a major goal of CMS. These resources range in type from a high-availability, low latency facility at CERN for urgent calibration studies, called the CAF, to a local user facility at the Fermilab LPC, allocation-based computing resources at NERSC and SDSC, opportunistic resources provided through the Open Science Grid, commercial clouds, and others, as well as access to opportunistic cycles on the CMS High Level Trigger farm. In addition, we have provided the capability to give priority to local users of beyond WLCG pledged resources at CMS sites. Many of the solutions employed to bring these diverse resource types into the Global Pool have common elements, while some are very specific to a particular project. This paper details some of the strategies and solutions used to access these resources through the Global Pool in a seamless manner.

Tertiary Keyword (Optional)

Distributed workload management

Secondary Keyword (Optional)

Computing middleware

Primary Keyword (Mandatory)

Computing facilities

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Session Classification: Posters B / Break

Track Classification: Track 3: Distributed Computing