Contribution ID: **10**   Type: **not specified**

The CMS Submission Infrastructure deployment

Thursday, 23 September 2021 15:00 (30 minutes)

The CMS experiment at CERN requires vast amounts of computational power in order to process, simulate and analyze the high energy particle collisions data that enables the CMS collaboration to fulfill its research program in Fundamental Physics. A worldwide-distributed infrastructure, the LHC Computing Grid (WLCG), provides the majority of these resources, along with a growing participation from international High Performance Computing facilities. The combined processing power is harnessed for CMS use by means of a number of HTCondor pools operated by the CMS Submission Infrastructure team. This contribution will present a detailed view of our infrastructure, encompassing multiple HTCondor pools running in federation, aggregating hundreds of thousands of CPU cores from all over the world. Additionally, we will describe our High Availability setup, based on distributed (and in some cases replicated) infrastructure, deployed between the CERN and Fermilab centres, to ensure that the infrastructure can support critical CMS operations, such as experimental data taking. Finally, the present composition of this combined set of resources (WLCG, CERN, OSG and HPC) and their roles will be explained.

Desired slot length

Speaker release

Yes

Primary authors: PEREZ-CALERO YZQUIERDO, Antonio (Centro de Investigaciones Energéticas Medioambientales y Tecnológicas); MASCHERONI, Marco (Univ. of California San Diego (US)); HALEEM, Saqib (National Centre for Physics (PK))

Presenter: PEREZ-CALERO YZQUIERDO, Antonio (Centro de Investigaciones Energéticas Medioambientales y Tecnológicas)

Session Classification: Workshop session

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