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Using the glideinWMS System as a Common Resource Provisioning Layer in CMS

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CMS will require access to more than 125k processor cores for the beginning of Run2 in 2015 to carry out its ambitious physics program with more and higher complexity events. During Run1 these resources were predominantly provided by a mix of grid sites and local batch resources. During the long shut down cloud infrastructures, diverse opportunistic resources and HPC supercomputing centers were made available to CMS, which further complicated the operations of the submission infrastructure. In this presentation we will discuss the CMS effort to adopt and deploy the glideinWMS system as a common resource provisioning layer to grid, cloud, local batch, and opportunistic resources and sites. We will address the challenges associated with integrating the various types of resources, the efficiency gains and simplifications associated with using a common resource provisioning layer, and discuss the solutions found. We will finish with an outlook of future plans for how CMS is moving forward on resource provisioning for more heterogenous architectures and services.

Primary author: GUTSCHE, Oliver (Fermi National Accelerator Lab. (US))

Co-authors: MC CREA, Alison (Univ. of California San Diego (US)); BOCKELMAN, Brian Paul (University of Nebraska (US)); WISSING, Christoph (Deutsches Elektronen-Synchrotron (DE)); Dr MASON, David Alexander (Fermi National Accelerator Lab. (US)); Dr COLLING, David (Imperial College Sci., Tech. & Med. (GB)); HUFNAGEL, Dirk (Fermi National Accelerator Lab. (US)); KHAN, Farrukh Aftab (National Centre for Physics (PK)); Mr SFILIGOI, Igor (University of California San Diego); LETTS, James (Univ. of California San Diego (US)); BALCAS, Justas (Vilnius University (LT)); LARSON, Krista (Fermi National Accelerator Lab. (US)); MASCHERONI, Marco (Universita & INFN, Milano-Bicocca (IT)); SAIZ SANTOS, Maria Dolores (Univ. of California San Diego (US)); PIPEROV, Stefan (Brown University (US)); BELFORTE, Stefano (Universita e INFN (IT))

Presenter: LETTS, James (Univ. of California San Diego (US))

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