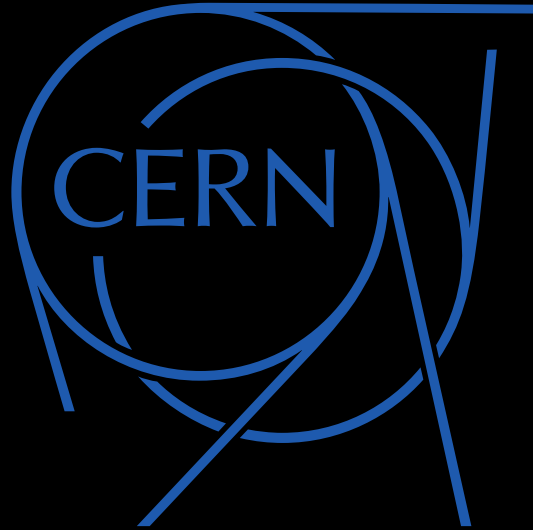


Dynamic resource provisioning of the CMS online cluster using a cloud overlay



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Highlights

- Classical DAQ High Level Trigger farm made dual purpose
 - Used for DAQ during the LHC collisions periods
 - Running Offline CMS computing jobs out of those periods
- Made possible using a cloud overlay service
 - Based on an Openstack infrastructure
 - Running offline VMs
 - Getting jobs via standard submission interfaces
- Significant resource
 - Comparable in size to all Tier1 sites of CMS
 - Available during 40-50% of the year
- Usage of the farm fully automated
 - Follows the fill pattern of the LHC
 - VMs are suspended or resumed according to DAQ needs or availability of resources
 - Highly efficient means of using the available resources
- Looking to resume jobs during the fill as requirements of DAQ reduce