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The CMS openstack, opportunistic, overlay, online-cluster Cloud (CMSooooCloud)

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The CMS online cluster consists of more than 3000 computers. During the normal work it is used for the Data Acquisition of the CMS experiment at CERN. The sofisticated design and the dedicated software runned on the farm allows to collect up to 20TBytes of data per day.
Considering the huge amount of computing resources under control of the HLT farm, an Openstack cloud layer has been deployed on part of the cluster (13000 cores) allowing the opportunistic usage of the cluster.
We will present the benefits of virtualization technology taking as an example the CMSooooCloud. The architecture choices, the usage of openstack cloud controller and openvswitch will be shown. The presentation will cover the design and performance aspects of the current installation.

Primary author: OZGA, Wojciech Andrzej (AGH University of Science and Technology (PL))

Co-authors: HOLZNER, Andre Georg (Univ. of California San Diego (US)); PETRUCCI, Andrea (CERN); SPATARU, Andrei Cristian (CERN); Dr RACZ, Attila (CERN); DUPONT, Aymeric Arnaud (CERN); NUNEZ BARRANCO FERNANDEZ, Carlos (CERN); DELDICQUE, Christian (CERN); HARTL, Christian (CERN); PAUS, Christoph (Massachusetts Inst. of Technology (US)); SCHWICK, Christoph (CERN); WAKEFIELD, Christopher Colin (Staffordshire University (GB)); GIGI, Dominique (CERN); MESCHI, Emilio (CERN); STOECKLI, Fabian (Massachusetts Inst. of Technology (US)); GLEGE, Frank (CERN); MEIJERS, Frans (CERN); BAUER, Gerry (Massachusetts Inst. of Technology (US)); Dr POLESE, Giovanni (University of Wisconsin (US)); SAKULIN, Hannes (CERN); BRANSON, James Gordon (Univ. of California San Diego (US)); Dr COARASA PEREZ, Jose Antonio (CERN); SUMOROK, Konstanty (Massachusetts Inst. of Technology (US)); MASETTI, Lorenzo (CERN); ORSINI, Luciano (CERN); Dr DOBSON, Marc (CERN); PIERI, Marco (Univ. of California San Diego (US)); SANI, Matteo (Univ. of California San Diego (US)); CHAZE, Olivier (CERN); RAGINEL, Olivier (Massachusetts Inst. of Technology (US)); ZEJDL, Petr (CERN); Dr MOMMSEN, Remi (Fermi National Accelerator Lab. (US)); GOMEZ-REINO GARRIDO, Robert (CERN); ERHAN, Samim (Univ. of California Los Angeles (US)); BUKOWIEC, Sebastian (CERN); CITTOLIN, Sergio (Univ. of California San Diego (US)); MOROVIC, Srecko (Institute Rudjer Boskovic (HR)); BEHRENS, Ulf (Deutsches Elektronen-Synchrotron (DE)); O'DELL, Vivian (Fermi National Accelerator Laboratory (FNAL))

Presenter: OZGA, Wojciech Andrzej (AGH University of Science and Technology (PL))

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