



Contribution ID: 282

Type: **Parallel**

## Upgrade of the CMS Event Builder

*Monday 21 May 2012 17:00 (25 minutes)*

The Data Acquisition (DAQ) system of the Compact Muon Solenoid (CMS) experiment at CERN assembles events at a rate of 100 kHz, transporting event data at an aggregate throughput of 100 GB/s. By the time the LHC restarts after the 2013/14 shut-down, the current compute nodes and networking infrastructure will have reached the end of their lifetime. We are presenting design studies for an upgrade of the CMS event builder based on advanced networking technologies such as 10 Gb/s Ethernet. We report on tests and performance measurements with small-scale test setups.

**Student? Enter 'yes'. See <http://goo.gl/MVv53>**

no

**Authors:** Mr FLOSSDORF, Alexander (DESY); HOLZNER, Andre Georg (Univ. of California San Diego (US)); PETRUCCI, Andrea (CERN); SPATARU, Andrei Cristian (CERN); Dr RACZ, Attila (CERN); DUPONT, Aymeric Arnaud (CERN); DELDICQUE, Christian (CERN); HARTL, Christian (CERN); PAUS, Christoph (Massachusetts Inst. of Technology (US)); SCHWICK, Christoph (CERN); SHPAKOV, Dennis (Fermi National Accelerator Lab. (US)); GIGI, Dominique (CERN); MESCHI, Emilio (CERN); GLEGE, Frank (CERN); MEIJERS, Frans (CERN); BAUER, Gerry (Massachusetts Inst. of Technology (US)); Dr POLESE, Giovanni (CERN); SAKULIN, Hannes (CERN); Mr BRANSON, James (UC San Diego); Dr HEGEMAN, Jeroen (CERN); 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)); BOWEN, Matthew (University of the West of England); SIMON, Michal; RAGINEL, Olivier (Massachusetts Inst. of Technology (US)); 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)); BEHRENS, Ulf (Deutsches Elektronen-Synchrotron (DE)); O'DELL, Vivian (Fermi National Accelerator Laboratory (FNAL)); HWONG, Yi Ling (CERN)

**Presenter:** PETRUCCI, Andrea (CERN)

**Session Classification:** Online Computing

**Track Classification:** Online Computing (track 1)