## 21st International Conference on Computing in High Energy and Nuclear Physics (CHEP2015)



21st International Conference on Computing in High Energy and Nuclear Physics CHEP2015 Okinawa Japan: April 13 - 17, 2015

Contribution ID: 251

Type: oral presentation

## A first look at 100 Gbps LAN technologies, with an emphasis on future DAQ applications

Monday 13 April 2015 15:45 (15 minutes)

The LHCb experiment is preparing a major upgrade of both the detector and the data acquisition system. A system capable of transporting up to 50 Tbps of data will be required. This can only be achieved in a manageable way using 100 Gbps links. Such links recently became available also in the servers, while they have been available between switches already for a while.

We present first measurements with such links (InfiniBand EDR, Ethernet 100 GbE) both using standard benchmarks and using a prototype event-building application. We analyse the CPU load effects by using Remote DMA technologies, and we also show comparison with previous tests on 40 G equipment.

**Primary authors:** OTTO, Adam Jedrzej (Ministere des affaires etrangeres et europeennes (FR)); CAMPORA PEREZ, Daniel Hugo (CERN); PISANI, Flavio (Universita e INFN, Roma I (IT)); NEUFELD, Niko (CERN); SCHWEMMER, Rainer (CERN)

Presenter: OTTO, Adam Jedrzej (Ministere des affaires etrangeres et europeennes (FR))

Session Classification: Track 6 Session

Track Classification: Track6: Facilities, Infrastructure, Network