

RapidIO as a multi-purpose interconnect

Tuesday, October 11, 2016 2:00 PM (15 minutes)

RapidIO (<http://rapidio.org/>) technology is a packet-switched high-performance fabric, which has been under active development since 1997. Originally meant to be a front side bus, it developed into a system level interconnect which is today used in all 4G/LTE base stations world wide. RapidIO is often used in embedded systems that require high reliability, low latency and scalability in a heterogeneous environment - features that are highly interesting for several use cases, such as data analytics and data acquisition networks.

We will present the results of evaluating RapidIO in a Data Analytics environment, from setup to benchmark. Specifically, we will share the experience of running ROOT and Hadoop on top of RapidIO.

To demonstrate the multi-purpose characteristics of RapidIO, we will also present the results of investigating RapidIO as a technology for high-speed Data Acquisition networks using a generic multi-protocol event-building emulation tool.

In addition we will present lessons learned from implementing native ports of CERN applications to RapidIO.

Primary Keyword (Mandatory)

High performance computing

Secondary Keyword (Optional)

DAQ

Tertiary Keyword (Optional)

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