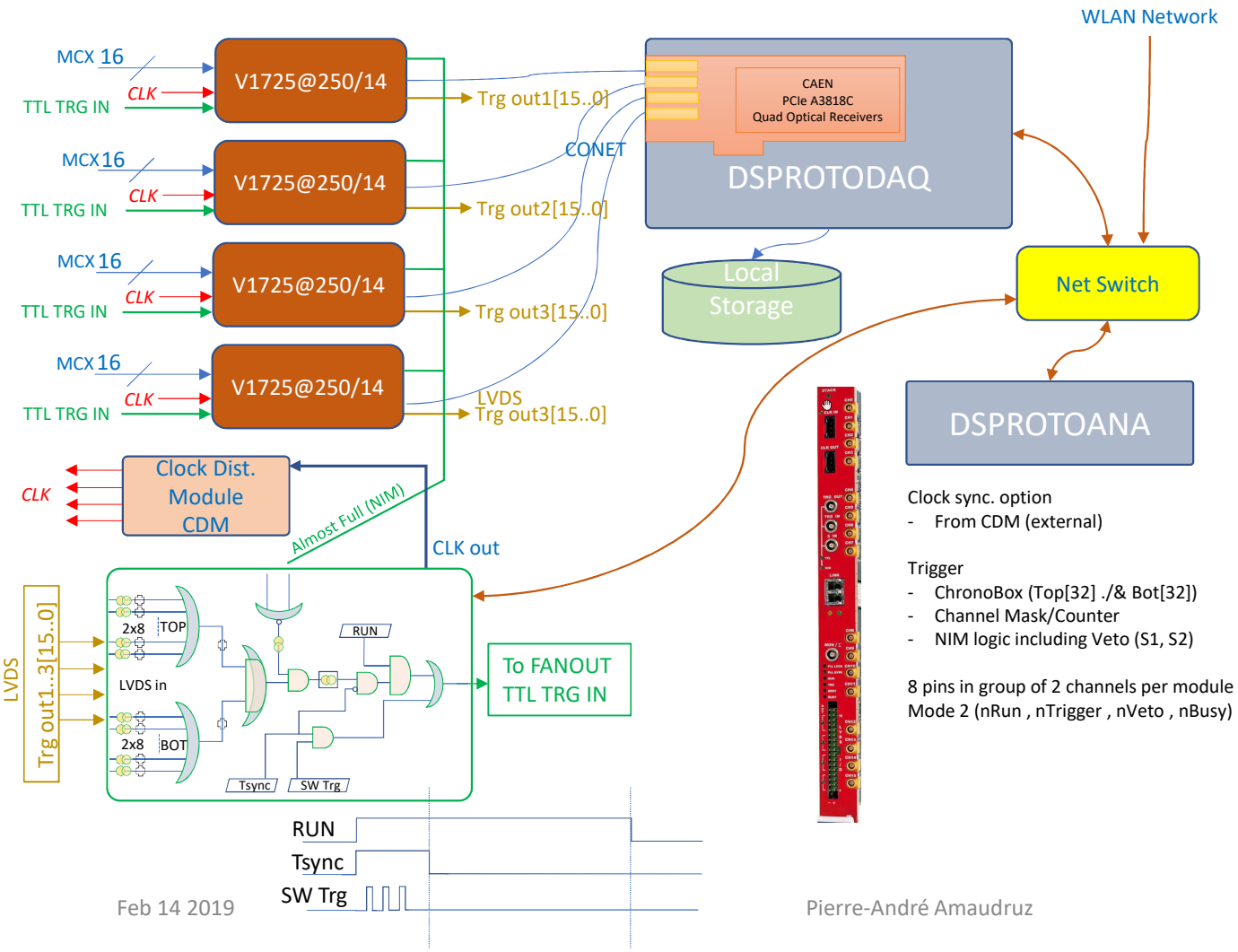
DAQ proposal for DS-proto-0 @ CERN, period March'19 …



Clock sync. option
- From CDM (external)

Trigger
- ChronoBox (Top[32] ./& Bot[32])
- Channel Mask/Counter
- NIM logic including Veto (S1, S2)

8 pins in group of 2 channels per module
Mode 2 (nRun , nTrigger , nVeto , nBusy)

Applications running on DSPROTODAQ

Midas frontend: V1725 readout
Midas data server (mserver)
Midas web server (mhttpd)
Midas data logger (mlogger)
Midas data monitor (mdsproto, root based)

Applications running on DSPROTOANA
Root: Online/Offline data analyzer (root based)

System: Running Mode : Event-by-Event
- Up to 64 input
- Midas event composed of data collected after global trigger generation.
- Each event composed of 4 Midas banks (one per module) AND ChronoBox bank.

- Each V1725 bank is composed of N samples for each channels in RAW format.
- ChronoBox bank composed of Global trigger timestamp AND trigger primitive mask, counters.
- HW clock Synchronized across all 4 V1725 + ChronoBox
- Timestamps across banks are checked
- LVDS inputs width extension
- Enable on each pair of LVDS
- Enable for Top/Bot grouping
- Logic selection at the group level
- Time Sync pattern at start of run
- Busy with time extension