KM3NeT CLBv2

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Todo list

- Software: Communication interface between LM32_2nd and LM32_WR
  - SFP readout and setting (loopback, PRBS, wavelength tuning)
  - Auto negotiation control (pay attention to deadlock)
- Ethernet flow control (received pause frame implementation in the CLB) => asked Emilio (*and need to ask again*) to add Rx Pause Frame handling to WR repo.

- Currently testing git@ohwr.org:hdl-core-lib/wr-cores.git branch fixes-by-greg-and-peter. This should solve the 4 ns issue, Ethernet frame padding and Tx Flow control (reported April 9, 2014 and temporarily fixed for KM3NeT) and will be part of the official wr repository in the next release.

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WR Switch VLAN tests

- Reported last time: Flashed one switch to V4.1.1

```
wrs-#shw_ver
PCB:3.30, FPGA:LX240T; version: v4.1.1-34-g7693965 (); compiled at Nov 26 2014 13:39:48
wrs-#
```

- Emilio (7-Solutions) provided a guide to go back to V3.3.1 (not trivial due to Switch Core Board Hardware Rev 3.4 (and not v3.3). Not yet tried…
- Meanwhile CTA reports (with their custom switch running V4.1.1) that VLANs are operational.
  - Two VLANs (i.e two separate up links in a 2 times 8 to 1 configuration).
  - If the switch management port is setup to be one of the switch ports (not default, but handy in CTA and our case) then there is an issue using VLANs since the ARM processor in the switch doesn't tag/untag the packets by default. Needs study… (latest news: it seems this issue can be overcome.)

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General

- Shouldn't we use the relative scilence (with respect to firmware) to update our tool set?

- Xilinx ISE 14.5 => Vivado 2014.4
  - Needs scripting revision but will give us uniform Linux/Windows scripts (using TCL)
- SVN -> GIT
  - GIT is the future version control tool
  - This would line up with the WR community
  - GIT is must faster than SVN (GIT = local repo)
  - Branching (for testing) is much easier than for SVN (where we forget about branches because the are complicated).
  - GIT uses SHA-1 consistency.

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Backup slides

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