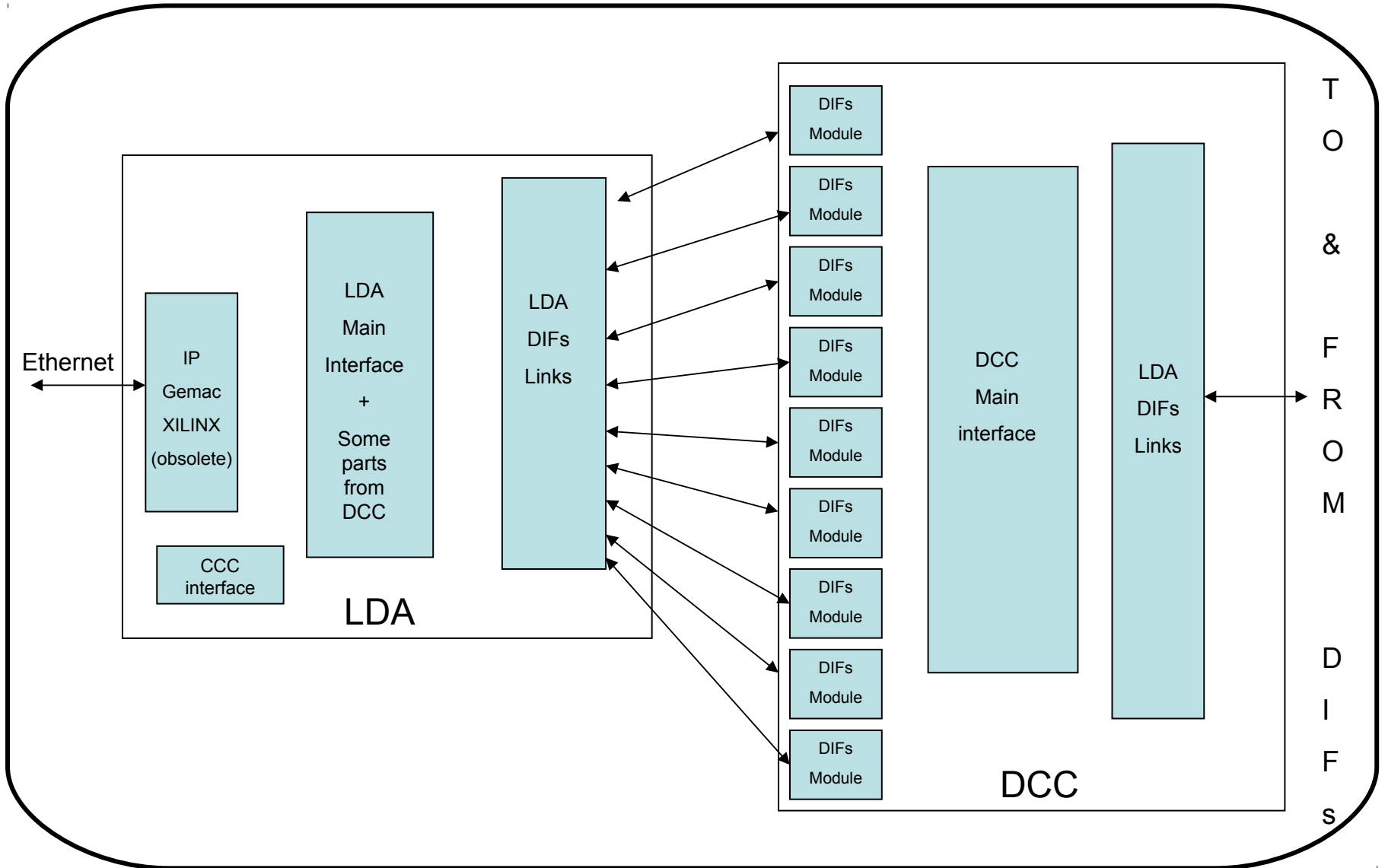


GDCC

Gigabit Data Concatrator Card

LDA - DCC overview



GDCC project

- Why?
 - Improve the LDA
 - The LDA is a good prototype card but...
 - Not enough reliable & rugged for our experience environment
 - » Grounding & shielding
 - » Strength of connections
 - Complex maintenance for the firmware
 - GEMAC Xilinx IP core obsolete
 - We are not owner of this license
 - Must be use with XILINX software ISE11
 - » Nota : the currently version is ISE13
- How ?
 - Firmware
 - Reusing some blocs from LDA and DCC
 - Replace the GEMAC IP by a free module with the same behavior
 - Make several simulations to ensure a correct behavior compared with the current DAQ
 - Card
 - In first step:
 - Using an evaluation card (located in the LLR) to validate the concept associated with a HDMI mezzanine card (also located in the lab)
 - Evaluation of gigabit Ethernet transceiver chip : Marvell 88E1111
 - In second step :
 - fabricate a card with VME standard format and reliable the HDMI connection.
- For the future...
 - A little early but think at the integration in ILC: connection, card size, maybe new communication protocol,...
- And don't forget the grounding and shielding...

GDCC overview (draft)

