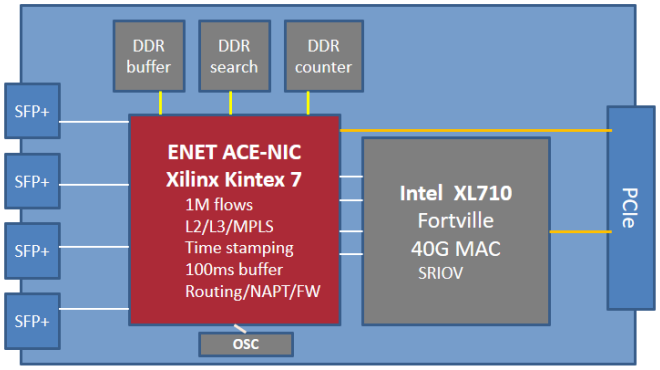
ACE NIC
Flow Processing Network Functions Acceleration Server Adapter

Product Overview

ACE-NIC is an Open Flow enabled software acceleration NIC, operated on top of COTS servers. ACE-NIC accelerates performance of vCPE and vEPC NFV platforms by 50 times, dramatically reducing end-to-end latency associated with NFV platforms.
ACE NIC offers the simplest integration into any Server due to use of standard components. It is boosting application performance through on-board hardware buffers and FPGA networking accelerator engine.

Key Features

- OF 1.4 and OVS offload ready
- Large on-board DDR3 for Receive data packet buffer to support up to 100ms buffering.
- Can be used with standard Intel drivers or Intel DPDK
- On-board oscillator to enhance time stamping solution
- Ethernity flow processing engine equipped with:
  - 100ms buffering with per-VM queue
  - Millions of search entries, implementing search through external DDR3, eliminating the need for expensive TCAM
  - Time stamping and load balancing,
  - Protocol offloading: MPLS, XVLAN, GRE, PBB and other, routing, NAT
  - IP frame fragmentation
  - Header/data compression



ACE-NIC – Functional Block Diagram

Technical Specifications

Interface standard	PCI-Express Base Specification Revision X8 / Gen 3.0 (8GT/s) 4 x 10GE, 40GE
Board size	Standard height: 241.3 x 111.15mm (9.5” x 4.376”)
On-board memory packet buffer	DDR3: 2GByte on HP (packet data), 1.5 GB on HR (search, counter, and user application)

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