ETHERNITY
N E T W O R K S

➔ Privately held, Founded in 2004

➔ Management

- **David Levi - Co-Founder & CEO**
  - 25 years veteran in Communications/Networking Market and System
  - Founder & COO of Broadlight (Acquired by Broadcom)
    - David invented (FY2000) the GPON protocol , with two U.S patents related to GPON protocol .
  - ECI Telecom, RAD Data com, Tadiran, IDF
- **Shavit Baruch - Co-Founder & VP R&D**
  - 25 years veteran in Communications/Networking Market and System
  - Native Networks : Metro Etherenet System (acquired by ALU) : Chief Architect
  - Crascendo : ADC (acquired by F5) : Co – Founder
  - ECI Telecom, Lannet , IDF

➔ Business Model

- Network processor softcore **"System on Chip"** for telecom/Carrier Ethernet / mobile backhaul/ Data centers/ networking industry
  - Deliver FPGA code associated with key chip (plug) : Per FPGA use fee
  - Deliver code for ASIC : Per ASIC use and licensing fee
  - Structure ASIC

➔ Market Leading Platform Management

- *Hundreds of thousands of systems embedding Ethernity 's* **ENET** *devices deployed by global T-1/ T-2 network operators, including Telecom Italia, BT, FT, DT, Embarq, various operators in Americas , , etc.*
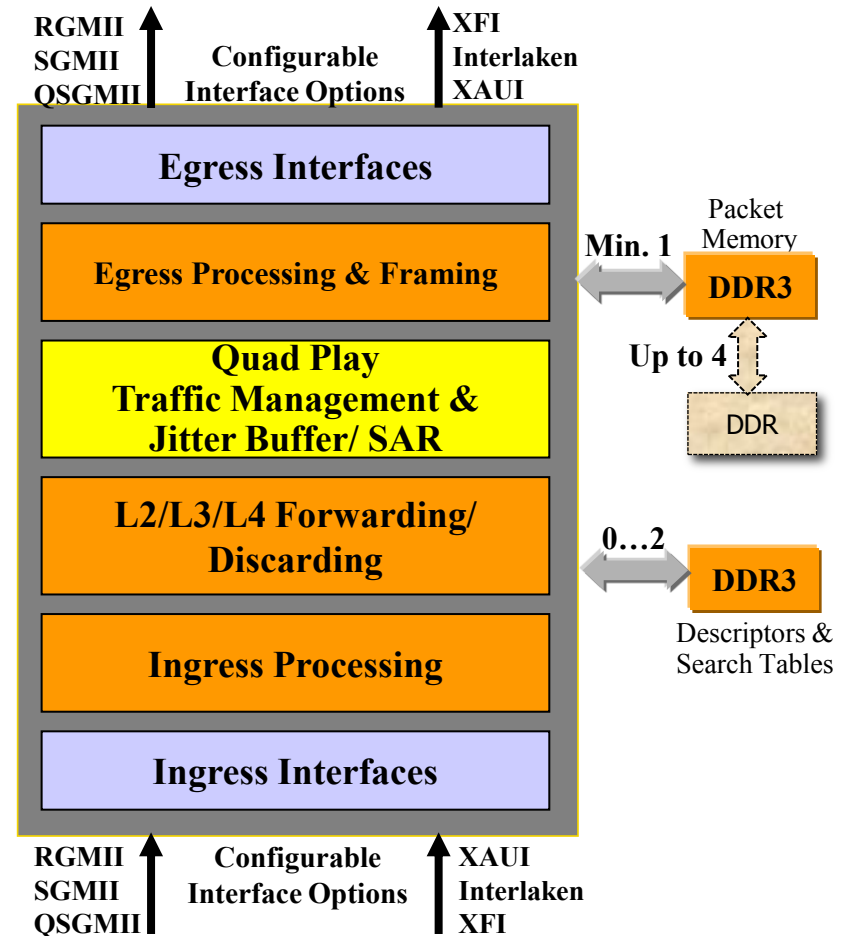
ETHERNITY NETWORKS

Packet Processor

- Flow based processor, complies with Open flow switch
- Virtual / Logical port connection less switching
- Policing / classification
- Integrated Search Engine
- Five level packet header & payload manipulation and marking : MPLS / PBB / QiQ
- Different Editing on duplicated packets
- G.999.1 standard Fragmentation (support both ATM,TDM, Ethernet) including fragment scheduling
- Y.1731, RFC2544, 802.1ag, OAM
- Jitter Buffer / Reordering engine / EFM Bonding
- PWE- CESoPSN
- IEEE 1588, Sync E
- Wire speed NAT/PAT
- TR-101, TR-156 , including AAL5
- Header Compression/decomp

Hierarchical Traffic Management

- Hierarchical QoS
- Hierarchical Scheduling
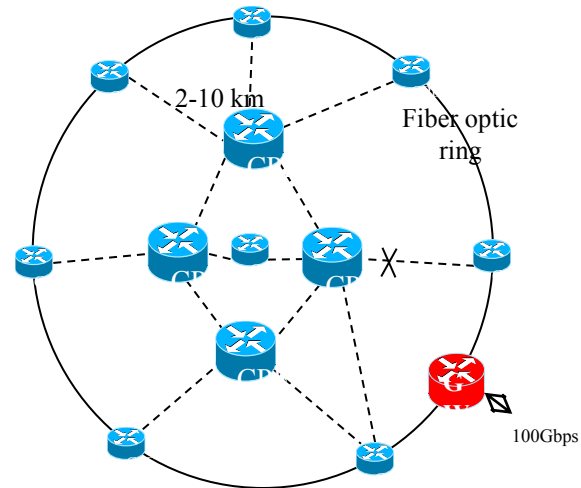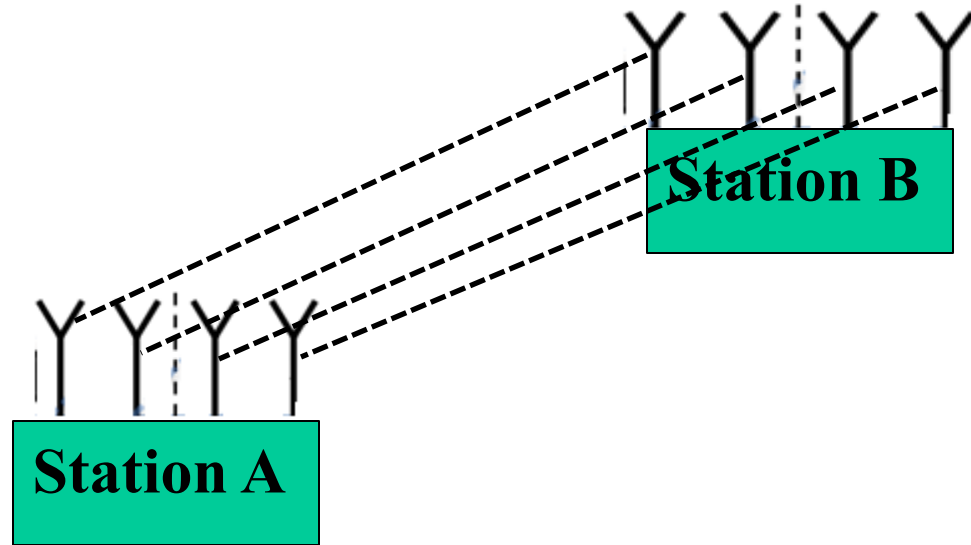- Hierarchical Metering
- Hierarchical Shaping

Patented **Unified Architecture SoC**

RGMII SGMII QSGMII — Configurable Interface Options — XFI Interlaken XAUI

Egress Interfaces

Egress Processing & Framing

Min. 1

Packet Memory

DDR3

Up to 4

DDR

Quad Play Traffic Management & Jitter Buffer/ SAR

L2/L3/L4 Forwarding/ Discarding

0…2

DDR3

Descriptors & Search Tables

Ingress Processing

Ingress Interfaces

RGMII SGMII QSGMII — Configurable Interface Options — XAUI Interlaken XFI

- 10Gbps bonding wireless link
- Bundle of several off the shelf lower speed wireless links
- Minor adaptation of EFM Bonding standard
  - Distributed 128B fragments over available links, utilization support for different speed
  - Enable transmission of high speed stream over multiple links eliminating the LAG limitation
- Can be extended to support wireless mesh

- Relevant to : P1 to P9 proposals

Station B

Station A

2-10 km

Fiber optic ring

100Gbps

3

SGW (Serving Gateway) and PGW (PDN Gateway) supporting multiple eNBs with SDN layer 7 application aware and interaction with NFV

Interact through Software define network with Layer 7 control software running on Intel Servers, to determine the right connection and the forwarding plane.

Data monitoring, mirroring, filtering and analyzing

Carrier Grade NAT/PAT

Header compression

Integrated Server to support distributed NFV

Combines Switch, router, PDN/ Serving Gateway and Layer 7 monitoring on single solution