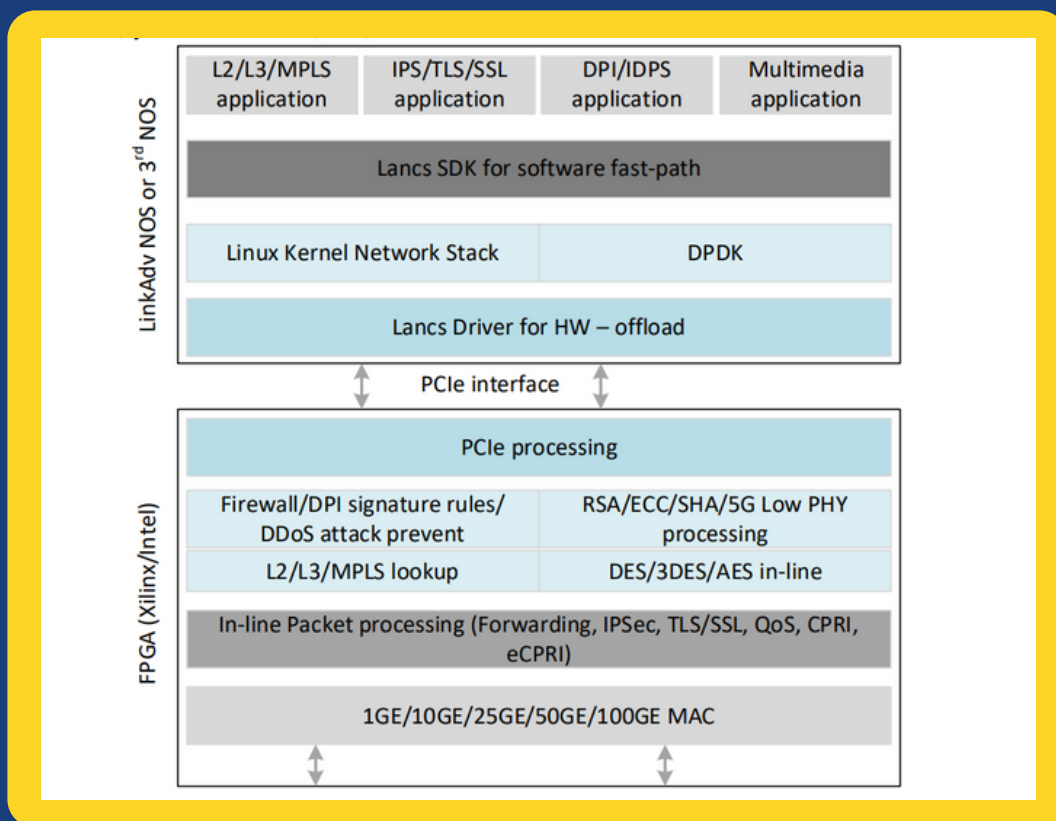


# | CORE TECHNOLOGY

## PLATFORM TECHNOLOGY

### LANCS FPGA

Lancs FPGA is a high-speed packet processing technology solution (from layer 2 to layer 7), such as Multi-layer forwarding acceleration, analysis, encryption, DPI (Deep Packet Intrusion) features. Lancs FPGA is a platform to develop network devices, solutions, and security of Lancs Networks, allowing Vietnamese people to control their own Technology chips, approaching the technologies of leading companies in the world such as Intel FPGA, Xilinx.



Lancs FPGA directly competes with product lines of Arista, Palo Alto Network or high-end product lines of Juniper, Cisco, Fortigate. Lancs FPGA is the base of network devices, all information for government agencies, organizations with a special level of security requirements.

# OUTSTANDING FEATURES OF LANCS FPGA

## NETWORK INTERFACE

10Mbps – 200Gbps.

### PATENT

Registered 01 patent.



## ANALYSIS AND PROCESSING PACKET CAPABILITIES

Support analysis packet from layer 2 to layer 7

## FORWARDING PACKETS CAPABILITY

Layer 2 - 7 with bandwidth up to 2Tbps with ultra-low polarization forwarding for special applications.



## HANDLING ENCRYPTION PROTOCOLS CAPABILITY (SUCH AS IPSEC, TLS/SSL)

Up to 200Gbps with ultra-low latency.

## ACCELERATION FOR KEY EXCHANGE ALGORITHMS, DIGITAL SIGNATURES

RSA, ECDSA, SHA, already integrated with OpenSSL.



## IDPS CAPABILITY

Up to 100Gbps.

## SUPPORT TO HANDLE 5G NETWORK PROTOCOLS

L – PHY, CPRI, eCPRI.



## SUPPORT ON CHIP PLATFORMS OF XILINX, INTEL

# DETAILED TECHNICAL FEATURES OF LANCS FPGA

## Switching

- 256K Entries - M AC address lookup table (depend on FPGA chip)
- 4K VLAN active (802.1q VLAN & Trunk)
- VLAN Q-in-Q
- IEEE 802.1x (Port Security & MAC Security)
- Link Aggregation
- QoS and HQoS
- Jumbo 9K byte

## Routing

- Pv4 & IPv6 routing
- 256K entries LPM IPv4 (depend on FPGA chip)
- 64K entries LPM IPv6 (depend on FPGA chip)
- NAT (static & dynamic)
- QoS and HQoS

## Firewall

- Connection tracking
- Traffic Control
- Based on: Port, MAC address, IP address, Protocol, Port Number or Application ID, UserID.

## MPLS

- 5 labels
- 256 entries MPLS table
- QoS and HQoS

## Data Encryption

- Support AH/ESP IPsec
- DTLS/TLS v1.2; v1.3 & SSL v2.0; v3.0  
Encrypt/Decryp: DES, 3DES, AES (256/192/128).
- Authentication: SHA1, SHA - 224/256/384/512.
- Hash: SHA-1/2; SM3; HMAC, SHA-3;
- Throughput: up to 50Gbps
- CCS: up to 1M
- CCPS: up to 30K

## Security Offload

- Flow classification and packet processing using CAMs/TCAMs.
- Stateless Firewall up to 1M rules with 100k rules very high speed using HW - offload
- Stateful Firewall up to 100M rules with 100k rules very high speed using HW - offload.
- DDoS attack prevention up to 200k IPv4 or 50k IPv6 whitelist
- permit/deny using Application ID / URL or User ID