

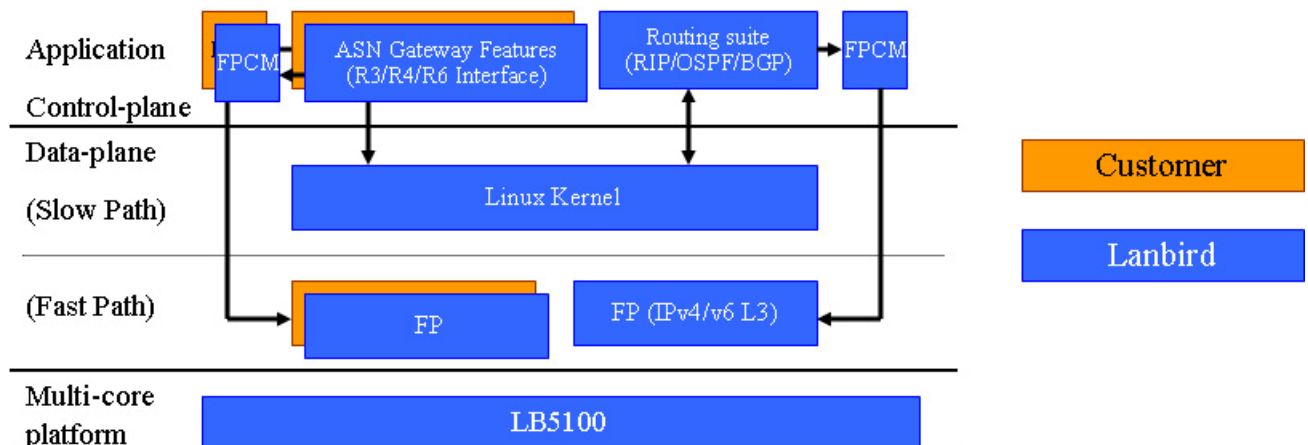
## ASN-Gateway Software Feature

- a) standards
  - IEEE 802.16
  - IEEE 802.16e
  - WIMAX forum Network Architecture Stage 3 Release 1, version 1.2.1, Profile C
- b) Interfaces
  - R6 Interface to the Base Station
  - R4 Interface for Inter-gateway
  - R3 Interface to Radius and the Home Agent
- c) Network Management
  - SNMP Agent and CLI Interface
- d) Performance
  - higher than 2Gbps throughput

## ASN-Gateway Software Components

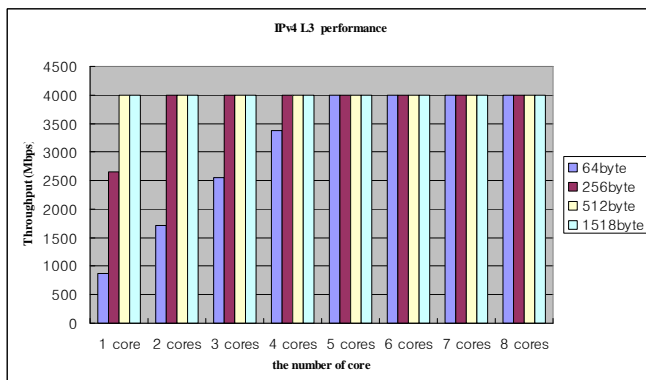
- a) Lanbird Linux OS - Kernel + driver + utilities
- b) SDK from Cavium Networks -- toolchain (cross/native)
- c) Routing Suite (Quagga)
- d) FPCM (Fast-Path Control Manager)
- e) FP (Fast-Path code) - IPv4/v6 L3 forwarding
- f) ASN Gateway Features (R3/R4/R6 Interface)

## ASN-Gateway Software Architecture

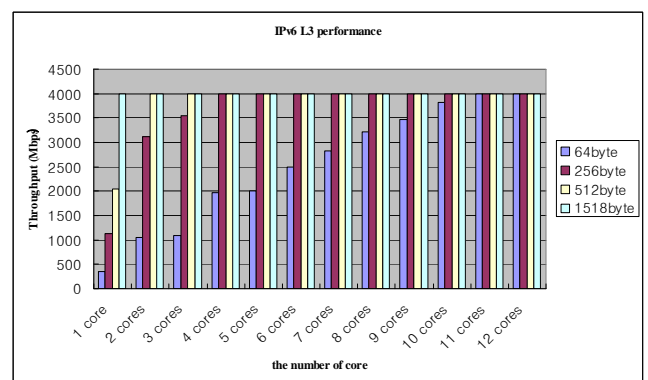


## Performance Result of Lanbird LB5100 ASN-Gateway

### IPv4 Performance



### IPv6 Performance



100% packet forwarding completed at only using 5 Cores.

100% packet forwarding completed at only using 11 Cores

## Lanbird LB5100 Feature

- Single OCTEON CN3860
- /OCTEON+ CN5860 Processor
- DDR2 Registered DIMM with ECC Memory
- On-board NOR Flash Memory(512Mbit)
- Optional DFA Memory (option)
- Compact Flash Socket (Type-1)
- Maximum 8-port GbE Network Interface
- Selectable I/O Card Type
- 4X Cooper GbE (RJ45)
- 4X Fiber GbE (SFP)
- Removable SATA HDD Rack
- Hi-speed USB2.0 Port
- PCI-X Slot (Max 133M/64b)
- Easy Console Port(DB9M)
- System & Port Status LEDs
- Temperature, Voltage Sensors
- Redundant ATX Power System
- Standard 19-inch / 2U Height

Item	Specification	
Main Processor	OCTEON CN3860/5860 MIPS64 (16-core)	
	- Integrated 1/2MB L2 Cache - Integrated High-Performance Network Interface	
Flash	On-board Flash	
	- Default 512Mbit(Up to 1024Mbit)	
CF	Compact Flash Memory Socket Type-I	
Memory	2x DDR-II Registered DIMM with ECC	
	DRAM	- Double-slot (Up to 8Gbyte) - Default 533MHz data-rate(Max.677MHz)
	DFA (option)	RLDRAM component - 288Mb x4 onboard-type component - Default 400MHz data-rate(Max.667MHz)
Network Interface I/O-Card (optional)	4-port Cooper Gigabit Ethernet(RJ45) Type - 10/100/1000Base-T, Auto-Nego, Auto-MDIX	
	4-port Fiber Gigabit Ethernet(SFP) Type - 1000Base-X	
PCI Slot	64bit/66MHz PCI2.3 or 64bit/133MHz PCI-X 1.0b	
USB Port	Hi-speed USB port(Up to USB2.0(480Mbps))	
	- Front Panel 2-port & Board Header 2-port(option)	
Serial ATA	SATA2(3.0Gbit/s) of transfer rate - Removable SATA HDD Rack	
Serial Port	1-port RS232C Serial (Board Header)	
Real Time Clock	RTC w/t Time keeping L/I battery(CR2032)	
Management	Console	1-port RS232C Serial (DB9M)
	Reset	Front push-button switch
	LED	Power, RUN, Alarm, HDD and Port Status LEDs
	Sensor	Voltage Monitoring, FAN Alarm, Temperature, ...
Size	Board (WxD)	315mm x 240mm
	Case	435mm x 430mm x 88.5mm (w/o Side bracket)
	(WxDxH)	482.6mm x 430mm x 88.5mm (w/t Side bracket)
Power	Type	Redundant ATX Power Module System - Optional AC/DC or DC/DC
	Voltage	100-240Vac/ 50-60Hz
	Watts	< 200W



## Lanbird LB5100 Block Diagram

