

StriaEdge™ –VPN, Firewall Router Platform Application

Features:

- 1 Gbps wire-speed processing using Intel® IXP2350
- 2 Gbps wire-speed processing using Intel® IXP2400
- External crypto co-processor support
- IPv4 routing
- Stateful Filtering
- Network Address Translation (NAT)
- Port Address Translation (PAT)
- QoS traffic management
- Linux XScale OS
- WLAN Switch Support

Benefits:

- Satisfies next generation enterprise networks performance requirements
- Programmable and extensible platform
- Standard routing function
- Conceals internal network addresses
- Protects networks from external attacks
- Handles traffic management

The **StriaEdge** from Parallogic Corporation is an integrated hardware / software extensible platform that deliver **1 and 2 gigabit** Ethernet VPN, Firewall processing at unprecedented, functionality and cost. The wire-speed software is optimized for the Intel® IXP2350 and IXP2400 Network Processors with support for IA based control plane function.

The **StriaEdge** is an embedded software solution especially designed to take advantage of latest in network processor technology. It is a highly optimized data and control plane software that implements an enterprise-class VPN router. OEMs can extend the **StriaEdge** to develop next generation systems and products. The **StriaEdge** application is ported and optimized for specific hardware platforms. This allows OEMs to reduce product development efforts from man-years to man-months.

Specifications:

- 1 Gigabit line rate processing using IXP2350
- 2 Gigabit line rate processing using IXP2400
- Crypto coprocessor support
- Network Address Translation (NAT)
- Stateful Firewall Filtering
- IPSec / IKE VPN gateway Function
- IPv4 routing
- QoS traffic management
- Data Plane + example control plane software
- Control plane APIs

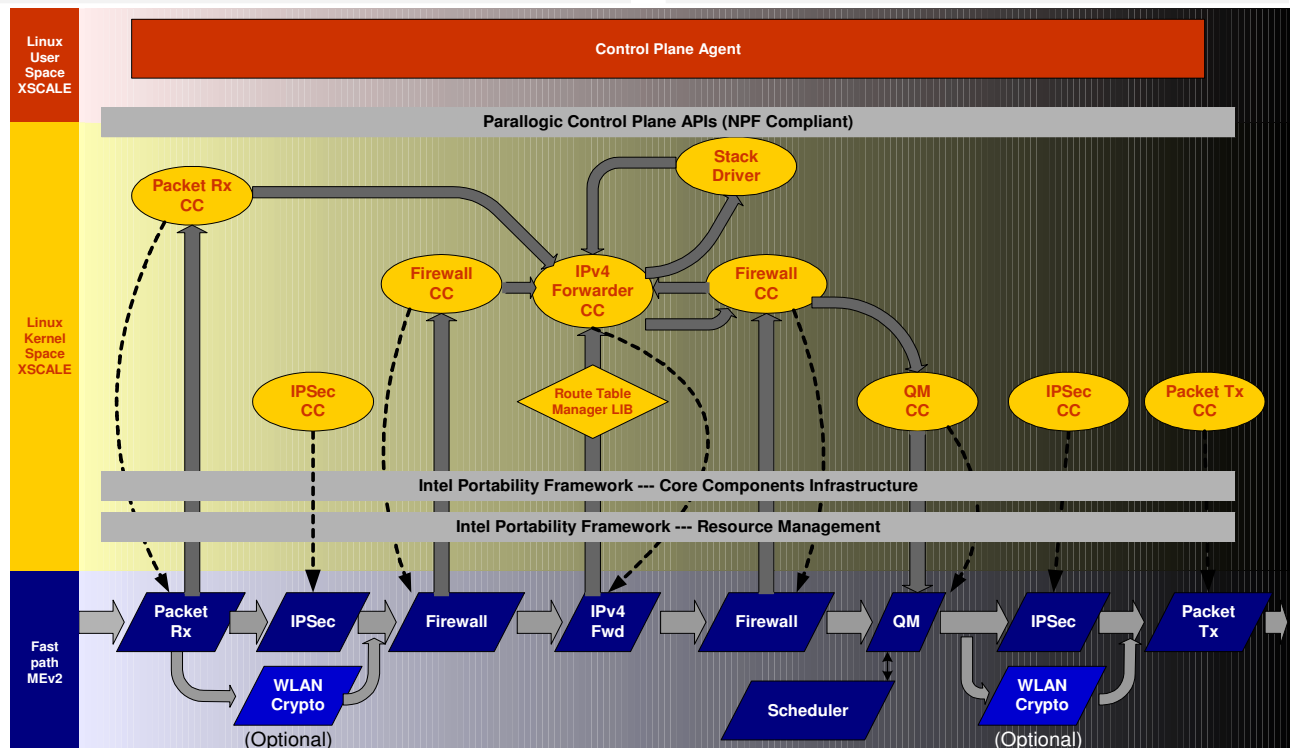
Applications:

- Enterprise VPN router
- PON access router
- WLAN switch with Light-AP crypto offload

NPU Based Hardware Platforms:

- Standalone appliances, PCI NIC
- Compact PCI (cPCI), Advanced TCA

Also available: "Application-in-a-FLASH" format



Stateful Packet Inspection

- Inspect port/address family/protocol/IP address/port/User/Group/packet flags/TOS etc
- State tracking for TCP/UDP/ICMP and IP fields
- Packet scrubbing
- Anti-spoof
- Source tracking
- TCP state modulation

Network Address Translation

- Traditional NAT
- Port Address Translation (PAT)
- Connection redirection
- FTP proxy

Load Balancing

- Support input and output load balancing
- Round robin/random/source hash/bitmask

VPN

- Support AH/ESP
- DES/3DES/AES/ARC4 encryption
- MD5/SHA-1/HMAC-MD5/HMAC-SHA-1 authentication
- RSA/Diffie-Hellman
- Manual and IKE key negotiation

WLAN Support (Optional)

- Light AP Crypto offload
- CCMP, WPAv1

Logging

- Syslog

IPv4 Routing

- Static routing
- RIPv2 dynamic routing
- OSPFv2 dynamic routing
- Source based routing

QoS Traffic Management

- Support priority queue (PQ)/class based queue (CBQ)/Hierarchical Fair Service Curve (HFSC)
- RED/ECN congestion control

User Interface

- Web based
- Command Line

Performance

Function	IXP2350	IXP2400
Routing	1.5 Gbps	2.5 Gbps
Filtering	1 Gbps	2 Gbps
NAT	1 Gbps	2 Gbps
Crypto-SPI	1 Gbps	2 Gbps
Crypto-PCI	500 Mbps	500 Mbps

System Capabilities

- Routes: 10,000
- Filtering/NAT flows: 150,000
- Concurrent VPN tunnels: 10,000
- Tunnel interfaces: 10,000

Tools

- Micro Engines: Intel® SDK 3.5
- Language: Intel's MicroC
- XScale: MontaVista Linux
- Simulation: Intel® Workbench

Processors:

Network Processor Unit (NPU)

- Data Plane function
- Intel® IXP2350
 - Clock Speed: 600MHz to 900 MHz
 - Processors: 1 XScale, 4 MEv2s, 2 NPEs
 - Interfaces: 2 GbE, 2 FE, SPI 3.1, PCI
 - Memory: DDR DRAM, Optional QDR SRAM
- Intel® IXP2400
 - Clock Speed: 600MHz
 - Processors: 1 XScale, 8 MEv2s,
 - Interfaces: SPI 3.1, PCI
 - Memory: DDR DRAM, 2 banks QDR SRAM

IA-32 Pentium M

- Control Plane function
- 1.6GHz low power, 1MB L2 cache
- 400Mhz system bus

Security Co-Processor:

- Inline SPI or PCI look-aside
- Bulk Data Encryption: DES, 3DES, AES
- Public Key Processor: RSA, Diffie-Hellman

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