Carrier Class Ethernet Solutions

Product Brief

Innovaide Network Family	Applications
1. Programmable Classifier 2. Scalable Forwarding Engine 3. Carrier Class QoS & Traffic Management	1. Carrier Ethernet triple/quad play Services 2. Ethernet Services Over Sonet/SDH 3. Data Center

Features

Programmable Classifier
- Flexible classification methods based on 802.1Q, MAC Addresses, Q in Q , MAC in MAC encapsulations & Combinations (like VLAN ID & MAC)
- Supports Provider Backbone Transport (PBT)
- Flexible flow based classification
- MPLS L2 tunnels
- MPLS Labels
- Support for OAM Ethernet PDUs
- Service Level Virtualization
- Jumbo (9Kbyte) packet support

Scalable Forwarding Engine
- Provides Switched Path Ethernet Forwarding
- 10.0 Gigabit/sec full duplex switching and forwarding capacity Line Rate Forwarding for 64 byte packets
- Point-to-Point (p2p) and Point-to-Multipoint (p2mp) forwarding

Carrier Class QoS & Traffic Management
- True traffic shaping with credit based schedulers
- Flexible allocation of priority queues to customers – SP, WFQ or GBR/MBR
- Maintain fairness/priority and SLAs per service in network congestion and oversubscription
- Identify and protect the network from bandwidth abusers

Solution	Benefits
• FPGA / ASIC • Verilog design and verification environment • APIs and Drivers	• Treats both SDH/Sonet and Ethernet generically – same features & QoS • Flexible design to implement new features

Innovaide's Network Family Solution

Innovaide provides a comprehensive intelligent solution for Next Generation Carrier Ethernet. The solution leverages advanced algorithms and techniques to adapt itself to the emerging requirements for Next generation triple and quad play services. The generic solution provides same features and QoS for both Ethernet and SDH/Sonet services.
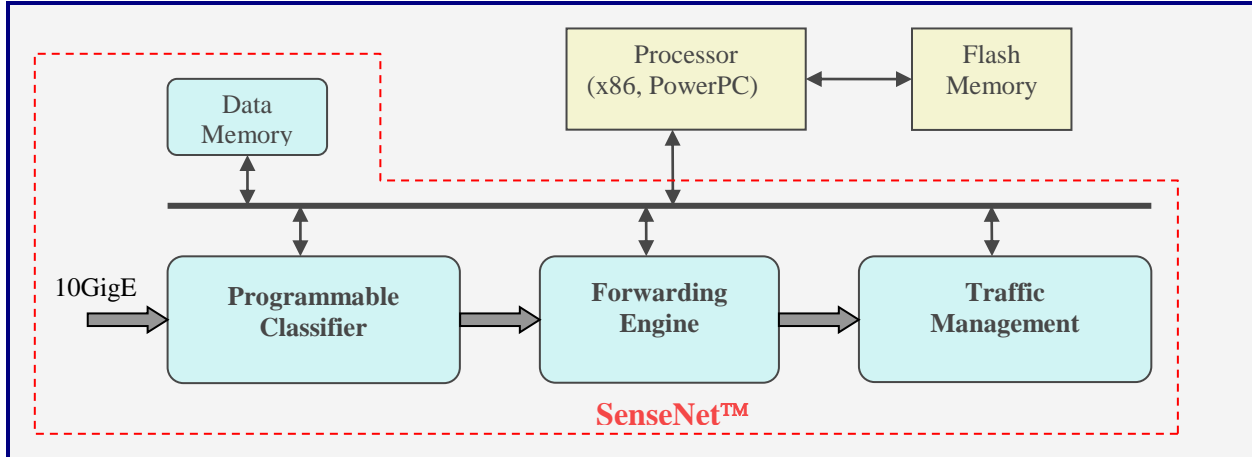
Configurability

Innovaide provides an integrated solution that can be configured at functionality level as well as at feature level.

Flexible Solution

Innovaide provides a flexible solution that can be implemented in FPGA and ASIC. The solution includes drivers and APIs for a quick integration into existing systems.

Application

The following diagram shows various SenseNet components implemented in silicon (FPGA or ASIC) for use in a typical application.

Innovaide Deliverables

ASIC / FPGA
- Verilog Source code
- Verilog test bench for block and system level design
- Test environment (C and Verilog) for System level Verification
- Test Cases in Verilog and C language for extensive simulation

Application Software
- P2P and P2MP Ethernet services over SONET/SDH and Ethernet
- Embedded management Agent to communicate with Network Management Applications
- Drivers and API's for integration with custom applications

Service and Support
- Annual support and maintenance
- On-site training and knowledge transfer
- Customization services