Product Brief

Marvell® Prestera® 98DX4251

Next-generation Packet Processor for Service Delivery Applications

PRODUCT OVERVIEW

The Marvell® Prestera® DX family of packet processors enables high-density 10GbE/1GbE solutions in service provider and campus applications. Prestera 98DX4251 is the eighth-generation Prestera DX product that enables line-rate packet processing with a mix of 1GbE, 10GbE or Interlaken interfaces. With five levels of carrier class hierarchical QoS enabled via an on-chip traffic manager coupled with a full complement of virtualization and tunneling capabilities, Prestera 98DX4251 enables a highly differentiated service delivery paradigm in the access and aggregation layers of next-generation networks.

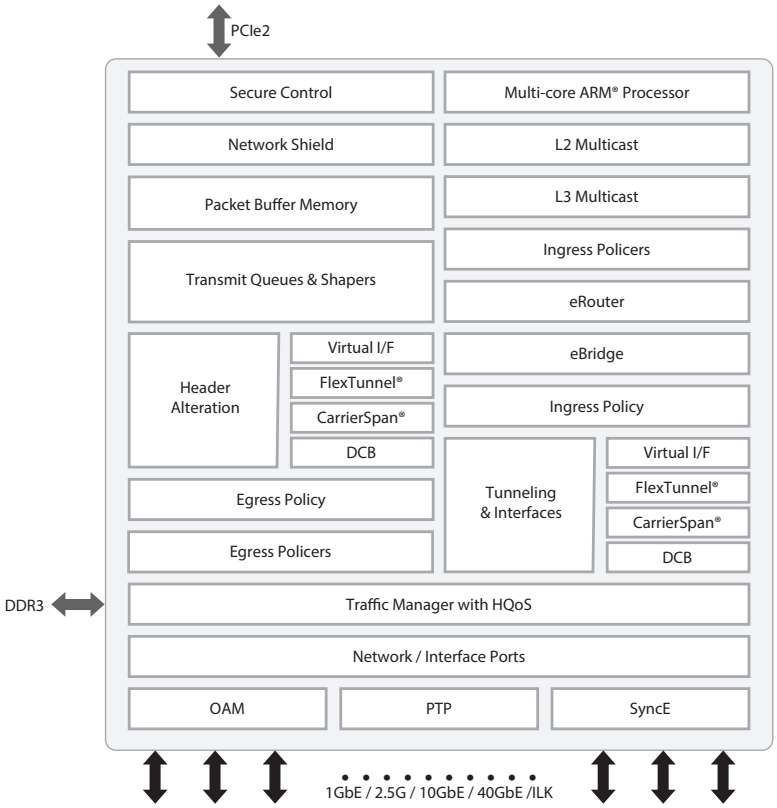

Fig 1. 98DX4251 System Block Diagram

SPECIAL FEATURES	BENEFITS
• eBridging Technology	• Highly flexible mechanisms for virtualization of physical resources - Enable powerful service instantiation, forwarding and monetization - Suitable for a standard, hybrid or software-defined networking environment with capabilities beyond OpenFlow 1.3.1
• CarrierSpan®	• Full complement of metro Ethernet standards along with the latest service delivery techniques like viz L2/L3 VPN, Q-in-Q, TR-101, etc. - Enables business and consumer networking services
• Datacenter Bridging	• Prioritization and congestion management capabilities for next-generation datacenter solutions - Priority flow control and congestion notification enable lossless mode of operation as well as burst isolation
• On-chip Traffic Manager	• Enables carrier class five-level HQoS on chip - Provides application-level resource allocation and management capabilities - Enables up to 5 GB of buffering via external memories

APPLICATIONS

The Prestera 98DX4251 packet processor enables performance- and cost-optimized solutions for a broad range of platforms in the service provider and campus environments. With advanced virtualization capabili-ties coupled with highly flexible L2/L3/L4 forwarding and highly flexible classification and policy engine, the Prestera 98DX4251 family of devices is ideal for software-defined networking (SDN), leveraging OpenFlow 1.3.1 with support for additional extensions in a virtualized or hybrid system design.

To shorten system manufacturers' design cycles and accelerate time to market, Marvell provides complete development platforms and reference designs with schematics, layout files and related documentation.

Fig 2. Reference Design

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