Marvell Prestera 98DX8216/24

Next-generation Packet Processor for 10GbE-enabled Platforms

PRESTERA®
packet processors

PRODUCT OVERVIEW

The Marvell® Prestera® DX family of packet processors enables secure, high-density and intelligent 10GbE/1GbE switching solutions at the access/edge of Service Provider, Campus Industrial, small-to-medium size business (SMB) and enterprise (SME) networks.

The Marvell Prestera 98DX8216/24 are eighth generation packet processors of the Prestera DX family. They enable line-rate packet processing with up to 16/24 ports of 10 GbE. With a full complement of virtualization and tunneling capabilities, the Marvell Prestera 98DX8216/24 enable highly differentiated service delivery paradigms and native 10GbE server connectivity in evolving business deployments.

Native integration of PHYs enables direct-attached copper or fiber-based 10GbE network connections, as well as multi-system stacking. Support for the IEEE 802.1BR tunneling schemes, coupled with other products in the Prestera DX family, enable centralized modular switching architectures and the port extender model of deployment in the access and aggregation layers of next-generation networks.
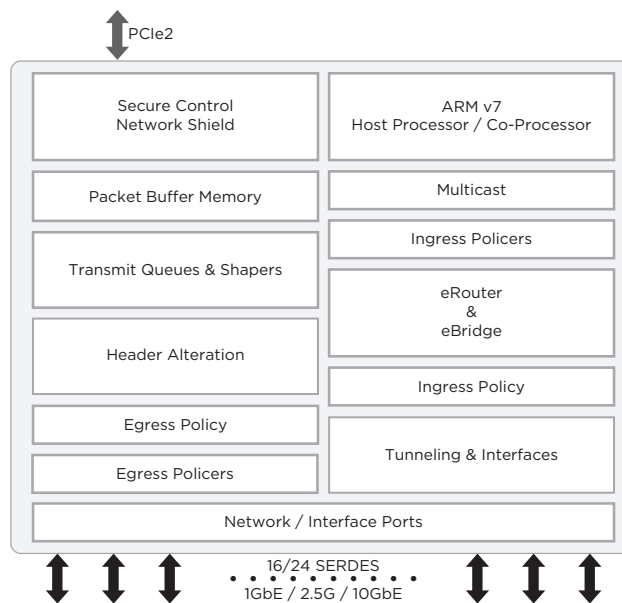

Fig 1. 98DX8216/24 System Block Diagram

SPECIAL FEATURES	BENEFITS
• eBridging Technology	• Highly flexible mechanisms for virtualization of physical resources - Suitable for standard, hybrid or Software Defined Networking (SDN) environments with capabilities beyond OpenFlow 1.4
• Port-Extender Capability	• 802.1BR-compliant bridge port extension capability - Ability to extend and expand a port on a centralized managed switch
• Datacenter Bridging	• Congestion management capabilities - Priority Flow Control and Congestion Notification enable lossless mode of operation, as well as burst isolation
• Integrated 10G PHY	• Native connectivity to SFP+ or Direct Attached Cables - For cost-effective 10GbE networking

APPLICATIONS

The Marvell Prestera DX family enables performance- and cost-optimized solutions for 10GbE-enabled platforms in the SME and Campus environments. With advanced virtualization capabilities, coupled with highly flexible L2/L3/L4 forwarding and an advanced classification and policy engine, the Marvell Prestera DX family of devices are ideal for SDN leveraging OpenFlow 1.4, 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

THE MARVELL ADVANTAGE: Marvell chipsets come with complete reference designs which include board layout designs, software, manufacturing diagnostic tools, documentation, and other items to assist customers with product evaluation and production. Marvell's worldwide field application engineers collaborate closely with end customers to develop and deliver new leading-edge products for quick time-to-market. Marvell utilizes world-leading semiconductor foundry and packaging services to reliably deliver high-volume and low-cost total solutions.

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