Marvell Prestera 98DX8212

SME Aggregation, Control Plane and Interconnect Packet Processors

PRODUCT OVERVIEW

The Marvell® Prestera® DX family of packet processors enables secure, high-density and intelligent 10GbE/2.5GbE/1GbE switching solutions at the access/edge and aggregation layers of Campus, Industrial, Small Medium Business (SMB) and Service Provider networks.

The Marvell Prestera 98DX8212/08 are eighth generation packet processors of the Prestera DX family. These devices are highly optimized solutions for 10GbE/40GbE server and appliance connectivity in the Small Medium Enterprise (SME) environment. In addition, they provide cost effective and power efficient solutions in the low port count 10GbE enabled control plane and interconnect applications.
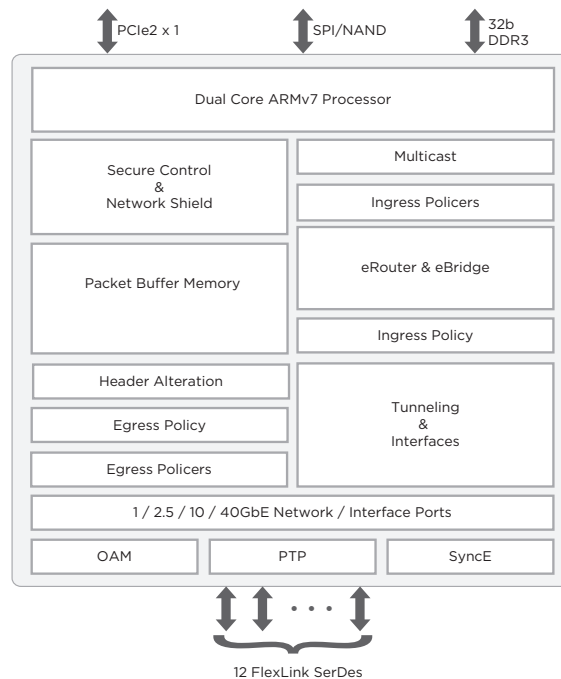

Fig 1. 98DX8212 System Block Diagram

SPECIAL FEATURES	BENEFITS
• Integrated FlexLink SerDes	• Support for 1GbE/2.5GbE/10GbE/40GbE port speeds • Flexible configuration for next generation server aggregation in SMB and campus environments • Low port interconnect/control plane applications

• eBridge™ Technology	• Highly flexible mechanisms for virtualization of physical resources
	  – ePort and eVLAN architecture for abstraction of physical interfaces
	  – Suitable for a standard, hybrid or software-defined networking environments with capabilities beyond OpenFlow 1.4

• Tunneling and Virtual interfaces	• Variety of new tagging formats and tunneling mechanisms – VxLAN, NvGRE, EVB, SPB, Geneve and NSH • Enables coexistence in SDN and cloud-centric models
• Integrated processor	• Dual-core ARMv7 running up to 800 MHz • Enables native host processing for standard switching and routing applications • Additional core enables value added services (PTP servo, OAM, soft DPI etc)

APPLICATIONS

The Prestera 98DX8212 is a 120 Gbps packet processor that enables performance and cost optimized solutions for 1GbE and 10GbE enabled platforms in the Small Medium Enterprise and Campus environments. With flexible 1GbE / 2.5G / 10GbE and 40GbE port speeds, these devices are ideally suited for low port count, high bandwidth control plane and interconnect applications. Advanced virtualization capabilities coupled with a highly flexible L2/L3/L4 forwarding and advanced classification / policy engine, make the DX8212/DX8208 family of devices ideally suited for Software Defined Networking (SDN) solutions 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.
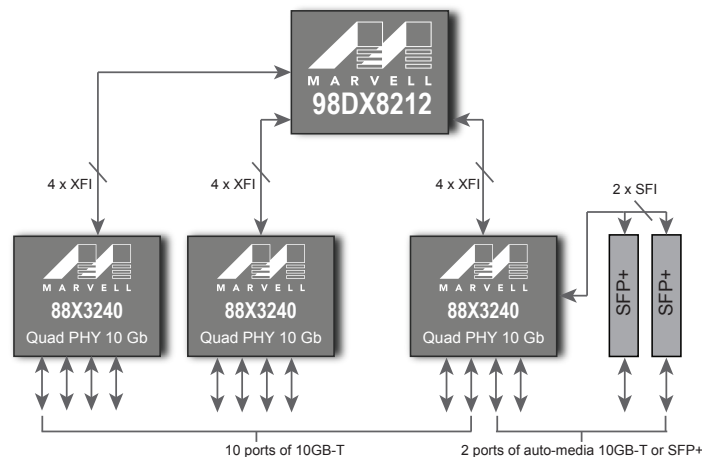
Fig 2. Example of a 12 port server aggregation solution with DX8212