

VSC6802API

Application Programming Interface (API) for Microsemi Ethernet Switches and PHYs

Microsemi Unified API delivers a comprehensive, user-friendly, and robust function library that supports all Microsemi Ethernet switch and PHY products.

The VSC6802API unified Application Programming Interface (API) provides a comprehensive, user friendly, and robust function library that supports all Microsemi Ethernet switch, MAC, PHY, and Optical Transport Network (OTN) Mapper products. The VSC6802API is portable to any Operating System (OS) and was developed with 32-bit CPUs as intended targets. The driver software was developed in standard C and supports multi-instance device targets.

The VSC6802API package includes:

- Driver software in standard C
- Application example and documentation

The architecture of the API includes five different layers:

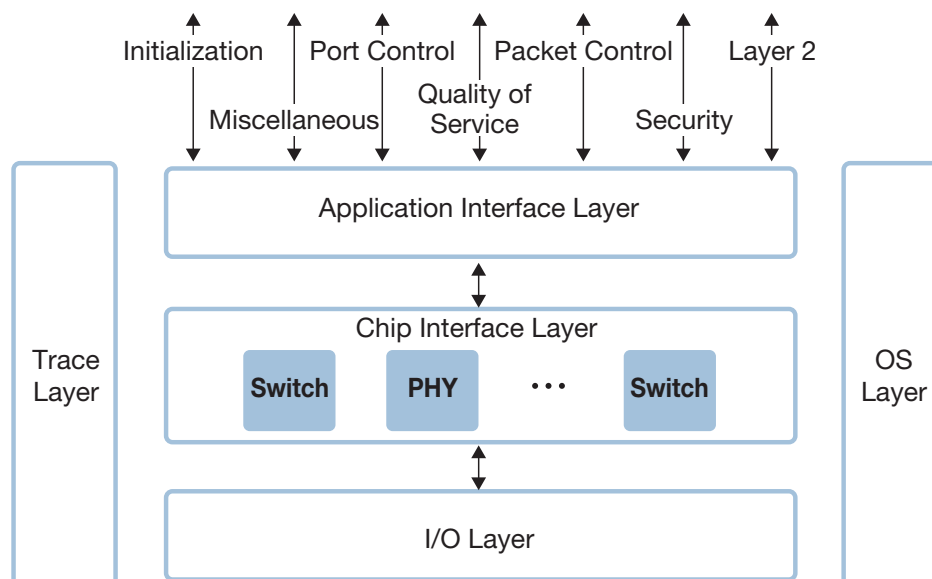
- Application Interface Layer (function groups)
- Chip Interface Layer (register mappings)
- I/O Layer (register access)
- OS Layer (Linux, VxWorks, eCos)
- Trace Layer

Highlights

- Robust, user-friendly, and widely deployed
- Operating system independent
- Supports all Microsemi Ethernet switches and PHYs

Applications

- Enterprise, Small-Medium Enterprise (SME) switches
- Carrier Ethernet switches and routers
- Industrial Ethernet switches



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Basic Functions

- Device initialization
- Port map setup
- Port reset and configuration
- Port status polling and configuration based on auto-negotiation
- Statistics
- Trace system integration
- Board-specific register access and port mapping

Advanced Functions

- Quality of Service (QoS) configurations
- CPU interface functions for packet control
- Port filters and access control lists
- Layer 2 configurations
- Stacking configurations
- MEF EVC setup
- Synchronization
- 1588v2 timestamping API
- MPLS-TP

Key Specifications

- Source code in standard C
- Portable to any operating system (eCos, Linux, VxWorks)
- Portable to 32-bit CPUs such as MIPS and ARM
- Supports all Microsemi Ethernet switches and PHYs

Related Products

Visit www.microsemi.com for information about these related products:

- Microsemi Carrier Ethernet Switch Engines
- Microsemi Enterprise Ethernet Switches
- Microsemi Gigabit Ethernet and 10 Gigabit Ethernet PHYs



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