

# VSC6803API

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

The VSC6803API Open Application Programming Interface (Open 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 VSC6803API, available as an MIT-licensed (<https://opensource.org/licenses/MIT>) software package, 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 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

The VSC6803API package includes:

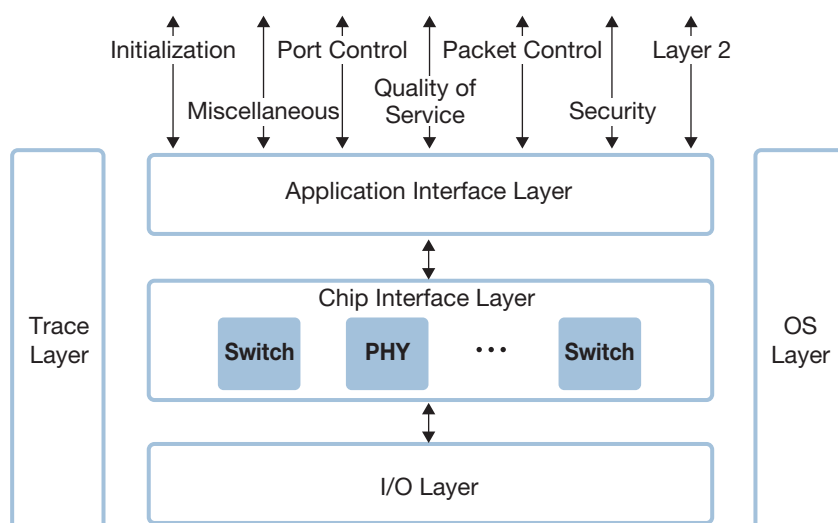
- Driver software in standard C
- Application example and documentation

### 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



# VSC6803API

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

### 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 time stamping 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](http://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



**Microsemi Corporate Headquarters**  
One Enterprise, Aliso Viejo, CA 92656 USA  
Within the USA: +1 (800) 713-4113  
Outside the USA: +1 (949) 380-6100  
Fax: +1 (949) 215-4996  
Email: [sales.support@microsemi.com](mailto:sales.support@microsemi.com)  
[www.microsemi.com](http://www.microsemi.com)

©2016 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions, security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, California and has approximately 4,800 employees globally. Learn more at [www.microsemi.com](http://www.microsemi.com).

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.