MODULE BRIEF

INTERPORT™ EFM OAM SOFTWARE MODULE

The InterPort™ Ethernet First Mile (EFM) Operations, Administration and Maintenance (OAM) Software Module is a portable implementation of all management and control plane components of IEEE 802.3ah Clause 57. Clause 57 defines the OAM sublayer (also known as "Link OAM") to operate at the level of an Ethernet single link, including mechanisms for monitoring link operation, such as remote fault indication, remote loopback or unidirectional mode.

The migration to Ethernet as the transport technology of choice for both enterprise backbones and service providers has been well documented, but until recently the technology has been lacking some key features required to manage and deliver a robust solution for the most demanding applications. To truly replace legacy technologies such as SONET/SDH, ATM or Fibre Channel technologies, Ethernet must offer appropriate OAM and network restoral capabilities that match or improve on the existing technology solutions and choices. Comprehensive connectivity fault management and performance monitoring are required to enable Ethernet networks to deliver quality services meeting committed service-level agreements (SLAs) and mission critical applications. AFORE's InterPort EFM OAM module significantly improves network's OAM capabilities and enable robust and reliable Ethernet/IP services to be deployed. The standard compliant, pre-tested and field proven InterPort EFM OAM software module enables networking equipment providers to rapidly and cost-effectively offer carrier-grade features on their next-generation Ethernet, broadband access and wireless product lines.

FEATURES

The AFORE InterPort EFM OAM Software Module includes a complete set of Application Programming Interfaces (APIs) to implement control plane components as defined by the standard and by MEF specifications. The module supports unidirectional operations, for devices which provide appropriate hardware support. The solution is designed to enable advanced capabilities at service and link layers to allow for end-to-end OAM in order to simplify monitoring and troubleshooting from the aggregation point to the demarcation points in carrier networks. In addition, AFORE InterPort EFM OAM integrates seamlessly with the AFORE InterPort Service OAM (802.1ag/Y.1731) module, as well as providing stateless High Availability support.

Feature	InterPort™ EFM OAM Software
Support both active and passive modes	Yes
Remote Discovery	Yes
Remote Loopback	Yes
Remote Failure Indication	Ys
Link Monitoring and unidirectional mode	Yes
MIB variables retrieval	Yes
Able to enable OAM on per port basis	Yes
High Availability Dual Stateless mode	Yes

BENEFITS

- Up to 50% time to market reduction
- 35% to 50% savings in development costs
- Pre-tested software modules minimize project risks
- Integrated solution delivery by AFORE R&D design services
- Portable to any OS and hardware platform
- Accelerates failure recovery

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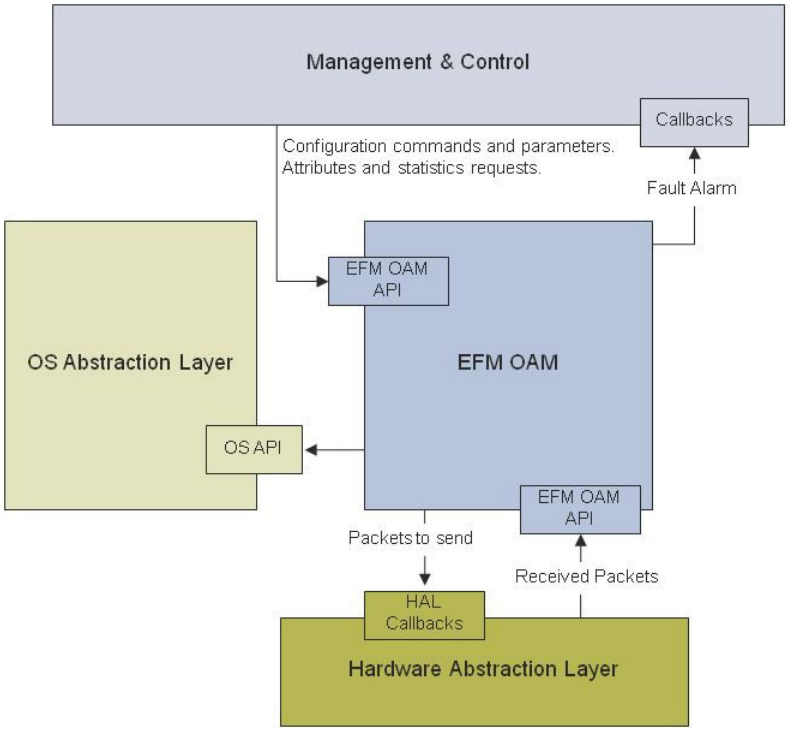
INTERPORT™ EFM OAM SOFTWARE MODULE

ARCHITECTURE

InterPort EFM OAM has well defined interfaces including OS abstraction APIs, Hardware Abstraction Layer (HAL) callbacks and APIs to management and control layer software. These APIs enable the portability to various platforms using different operating systems and different data plane designs whether FPGA, network processor or Ethernet silicon based.



DELIVERABLES

- Source code in C
- Programmer's Reference Guides
- Porting Guide and Release Notes

SUPPORTED STANDARDS

- EFM OAM (IEEE 802.3ah (2004), Ethernet in the First Mile, Clause 57)
- Supports all attributes specified in MIBs for OAM Functions on Ethernet Like Interfaces (rfc4878)
- Supports MEF 20 and MEF 21

For more information please contact us at **afore_info@aforesolutions.com** or visit our website **www.aforesolutions.com**.

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