

**Benefits:**

- Up to 50% time to market reduction
- 25 to 35% savings in development costs
- Software solution to reduce the cost of software development and support
- Pre-tested software minimize project risks
- Integrated solution delivery by AFORE R&D design services
- Tested on reference hardware platform

**Standards:**

- RFC 4553 - Structure-Agnostic Time Division Multiplexing (TDM) over Packet (SAToP)
- RFC 5086 - Structure-Aware Time Division Multiplexed (TDM) Circuit Emulation Service over Packet Switched Network (CESoPSN)
- Emulation of PDH Circuits over Metro Ethernet Networks (CESoETH, MEF.8)
- Emulation of TDM Circuits over MPLS Using Raw Encapsulation (MFA 8)
- IEEE Std 802.1ag Connectivity Fault Management; ITU-T Y.1731 - OAM functions and mechanisms for Ethernet based networks
- ITU-T G.8031/Y.1342 Ethernet Protection Switching
- TDM (ANSI T1.403, ITU-T G.703, etc.)
- Ethernet (VLAN, S-VLAN)



**InterPort™ PWE3 Solutions for Wireless Backhaul**

Today's wireless technologies are rapidly changing from 2G to 3G and 4G networks and from voice centric to data centric. Service providers and networking equipment manufacturers are scrambling to adapt existing infrastructure networks to the new wireless challenges. Common to them all, is the need for packet based mobile backhaul with strong interworking functionality that can bridge packet transport network with ever changing mobile access technologies. AFORE's Pseudowire Emulation Edge to Edge (PWE3) Solutions can significantly accelerate your mobile backhaul products development with much lower risk.

The InterPort™ PWE3 solution is designed to provide emulation of TDM native services over a packet switched network (PSN), such as Ethernet network. The PWE3 solution supports both Structure Agnostic and Structure Aware emulation of TDM services over PSN. Structure agnostic PWC can be used for emulating unstructured TDM streams while structure aware PWC can be used for emulating structured T1/E1 streams or nxDS0 bundles.

The InterPort™ PWE3 package contains PWE3 over Ethernet PSN control software, system level management API, Data path API to WinPath3 NPU, and reference Linux OS and boot software to support TDM PWE3 (SAToP, CESoPSN, MEF.8, MFA 8, and IEEE1588).

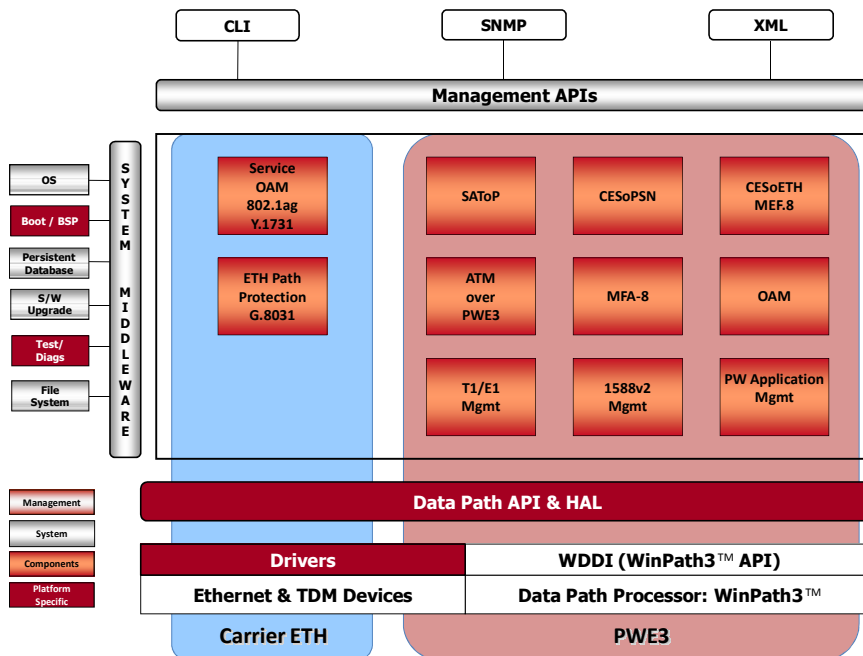
**Features**

The AFORE InterPort™ PWE3 Solution includes a complete set of Application Programming Interfaces (APIs) to implement control plane components as defined by PWE3 specifications.

Feature	InterPort™ PWE3 Solution
PWE3 based backhaul	Yes
Any Service Any Port (ASAP)	Yes
SAToP	Yes
CESoPSN	Yes
CESoETH (MEF.8)	Yes
MFA 8	Yes
TDM (T1/E1)	Yes
Ethernet VLAN, S-VLAN	Yes
IEEE 1588 v2 (3 <sup>rd</sup> party algorithm)	Yes
Synchronous Clock, Adaptive Clock, Differential Clock	Yes
Ethernet OAM	Yes
PSN Path Protection	Yes
TDM OAM (trunk conditioning, loopbacks)	Yes
Integration with WinPath3	Yes
High Availability Support	Yes
Linux OS and Boot	Yes

## Architecture

The AFORE InterPort™ PWE3 solution has well defined interfaces including Data Path & Hardware Abstraction Layer (HAL) APIs and Management APIs. These APIs enable portability to various platforms using different operating systems and different system designs.



## Deliverables

- Source code in C
- API reference guide
- System design/porting guide

## About AFORE Solutions

AFORE is a leading provider of innovative technology solutions for network equipment providers spanning both wireline and wireless network infrastructures and applications. AFORE's solutions are based on advanced design capabilities, system expertise and InterPort™ software technology for Carrier Ethernet, Wireless Backhaul, Broadband Access and Enterprise Backbone networks. Our unique blend of technical expertise and Intellectual Property building blocks enables Service Provider and Enterprise focused network equipment providers to accelerate innovation and deployment of differentiated solutions. Visit: [http://www.aforesolutions.com/ip\\_products.php](http://www.aforesolutions.com/ip_products.php).

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