

# InterPort™ PBB/PBB-TE software module

The InterPort™ Ethernet Provider Backbone Bridges (PBB) – Provider Backbone Bridge - Traffic Engineering (PBB-TE) Software Module is a portable implementation of all management and control plane components of IEEE 802.1ah and 802.1Qay. IEEE 802.1ah specifies the operation of Provider Backbone Bridges and IEEE 802.1Qay specifies protocols, procedures, and managed objects for provisioning Ethernet backbone traffic engineered paths by disabling unknown destination address forwarding, source address learning and spanning tree protocols.

The standard compliant and pre-tested InterPort PBB/PBB-TE software module enables networking equipment providers to rapidly and cost-effectively offer carrier-grade features on their next-generation Ethernet transport. PBB/PBB-TE functionality is distinct between the edge and the core of a Provider Backbone Bridge Network (PBBN). The InterPort PBB-PBB-TE Software Module supports both Backbone Edge Bridge and Backbone Core Bridge functionality.

## features

The InterPort PBB-PBB-TE Software Module includes a complete set of Application Programming Interfaces (APIs) to implement control plane components as defined by the standards. The module assures a seamless integration with the Kuatro InterPort Service OAM module, InterPort RSTP/MSTP module (for PBB mode) and InterPort Advanced Protection Switching (G.8031) module for ESP path protection. The module also provides easy integration with MEF EVC and UNI 2.2 constructs.

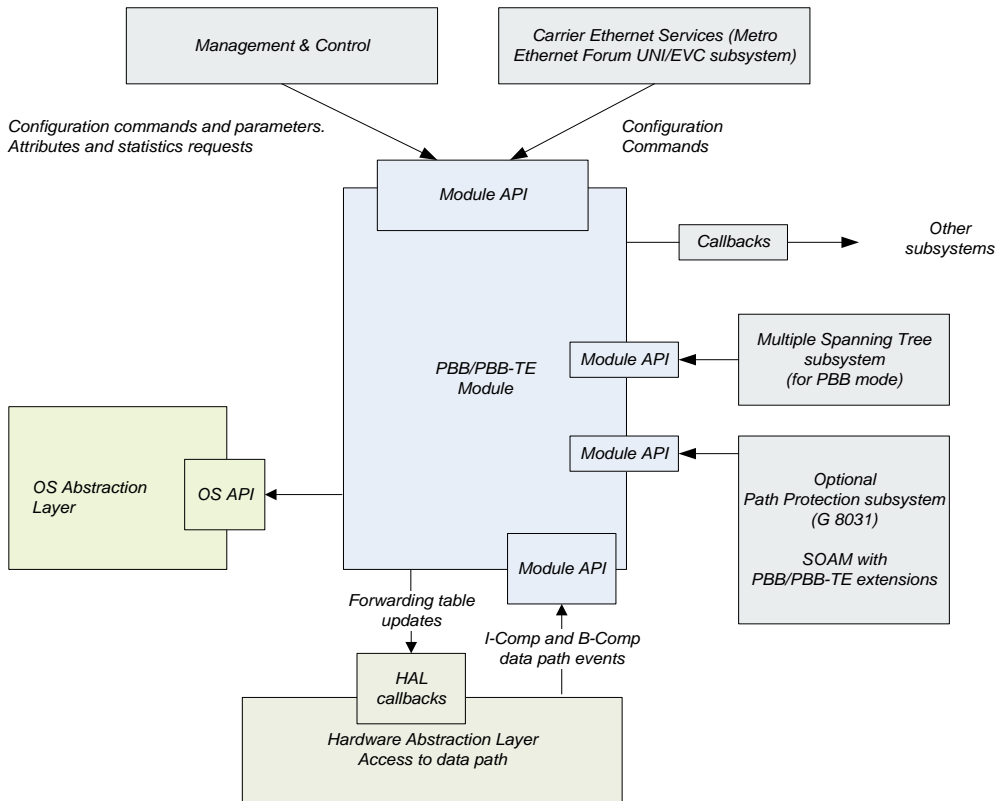
## benefits

- > Up to 50% time to market reduction
- > 25 to 35% savings in development costs
- > Pre-tested software modules minimize project risks
- > Integrated solution delivery by Kuatro's R&D design services
- > Portable to any OS and hardware platform

Feature	InterPort™ PBB-PBT software
Support PBB-TE and PBB-only operations of Provider Backbone Edge Bridge	Yes
Support PBB-TE and PBB-only operations of Provider Backbone Core Bridge	Yes
Support I-component, B-component, and combination of I/B-components	Yes
Support full I-component learning with per I-VLAN learning table; support full B-component learning	Yes
Support independent B-DA Mac Addresses per PIP interface and distinct B-DA for multicast and unknown multicast traffic	Yes
Support Virtual Instance Port (VIP) and Provider Instance Port (PIP)	Yes
Support EVC, ESP and ESP Selector for Path Protection	Yes
Seamless integration with Path Protection module	Yes
Seamless integration with Service OAM module	Yes

## architecture

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



## supported standards

- > PBB (IEEE 802.1ah-2008)
- > PBB-TE (IEEE 802.1Qay-2009)
- > APIs based on standard MIBs (IEEE 802.1ap-2008)

## deliverables

- > Source code in C
- > Programmer’s Reference Guide
- > Porting Guide and Release Notes



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