

InterPort™ ethernet APS software module

Kuatro Technologies' InterPort Ethernet APS Software is a portable implementation of Ethernet Automatic Protection Switching (APS) protocol and linear protection switching mechanisms for point-to-point EVCs used in Ethernet transport networks, as defined in ITU-T G.8031/Y.1342 standard.

Today's legacy networks offer a rich set of management and monitoring capabilities but cannot match the flexibility and economic benefits of Ethernet-centric architectures. As a result, the industry is embracing a suite of extensions to Ethernet standards to meet protection switching requirements. Kuatro's InterPort Ethernet APS module significantly improves network resilience, enabling deployment of robust and reliable Ethernet services. The standards compliant and field proven InterPort Ethernet APS 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 InterPort Ethernet APS implementation complies with ITU-T G.8031/Y.1342 (2006) standard specifications for linear protection switching mechanisms. Kuatro's Ethernet Protection software operates over configured working and protected transport paths, automatically switching to alternate paths on active path failures. When a failure occurs, the solution will automatically switch the traffic to a live link providing rapid protection of critical customer applications. In addition, the software also provides 1:1 protection, which allows extra traffic on the backup path. As ITU G.8031/Y.1342 builds upon notifications and path level state information provided by IEEE 802.1ag and ITU-T Y.1731 Service OAM to detect failures and repair paths, customers can rely on Kuatro's InterPort Service OAM Software for a complete solution.

InterPort Ethernet APS software module also provides support for PBB-TE ESP protection mechanisms according to IEEE 802.1Qay-2009, and supports stateless and stateful High Availability.

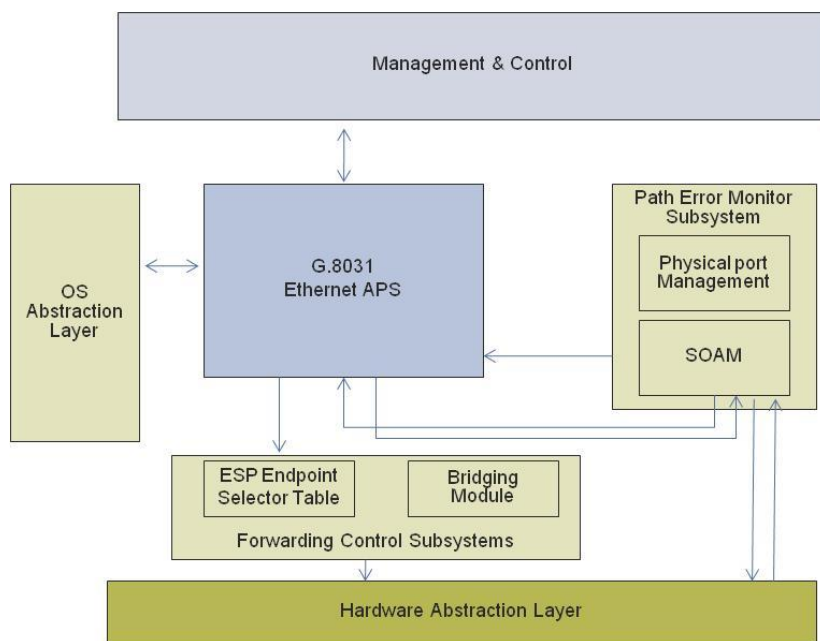
benefits

- > Up to 50% time to market reduction
- > Up 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 various OS and hardware platforms
- > Target Carrier Ethernet and broadband access and wireless backhaul applications

Feature	InterPort™ Ethernet APS Software
Unidirectional 1+1 protection	Yes
Bidirectional 1+1 protection	Yes
Bidirectional 1:1 protection	Yes
Automatic protection mode negotiation	Yes
Manual switchover	Yes
Configurable revertive option	Yes
EXER support	Yes
High Availability in stateless mode	Yes
High Availability in stateful mode	Yes

architecture

InterPort Ethernet APS has well defined interfaces including OS abstraction APIs, Hardware Abstraction Layer (HAL) callbacks and APIs to management and control layer software. APIs and callbacks are defined, using abstract entities, towards the path error detection subsystem (typically, SOAM CCM procedures) and towards the Forwarding Control Subsystem which may be either an 802.1ad bridging subsystem or an 802.1Qay PBB-TE ESP selector. These APIs enable the portability to various platforms using different operating systems and different data plane designs whether FPGA, network processor, Ethernet silicon or virtualized platform based.



supported standards

- > Ethernet Protection Switching (ITU-T G.8031/Y.1342 (2006))
- > PBB-TE Protection (IEEE 802.1Qay 2009)

deliverables

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



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