

Product Brief: OAM Smart SFP™ IP OAM

Overview

The IP OAM Smart SFP™ provides operators with essential Operations, Administration and Maintenance (OAM) tools for service turn-up and Service Level Assurance in IP networks, by simply replacing a conventional module with a Smart SFP™.

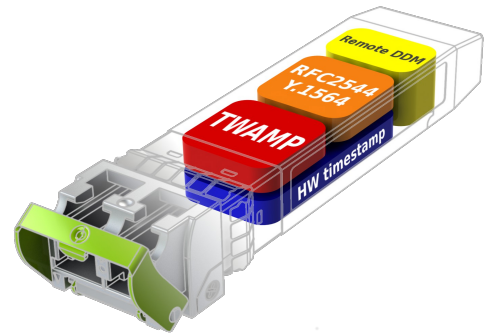
This solution reduces system and network complexity, saves premium rack space, eases maintenance, and offers lower carbon footprint while generating CAPEX & OPEX savings.

The IP OAM Smart SFP™ provides customers an easy solution for monitoring and troubleshooting using standardized protocols at various operational layers:

- IP layer service monitoring using TWAMP Light according to RFC5357
- L2/L3 service activation test for RFC2544/Y.1564
- Physical layer monitoring via remote DDMI digital diagnostics monitoring retrieval,

These integrated OAM capabilities are complemented with 1 Gb/s Ethernet wire speed and very low latency.

An API and SNMP MIBs are available to facilitate integration in existing equipment and management systems. This management interface allows for configuration and monitoring of relevant parameters. The Smart Device Manager (SDM), a Web based application with an intuitive user friendly GUI, is available for configuration of key parameters.



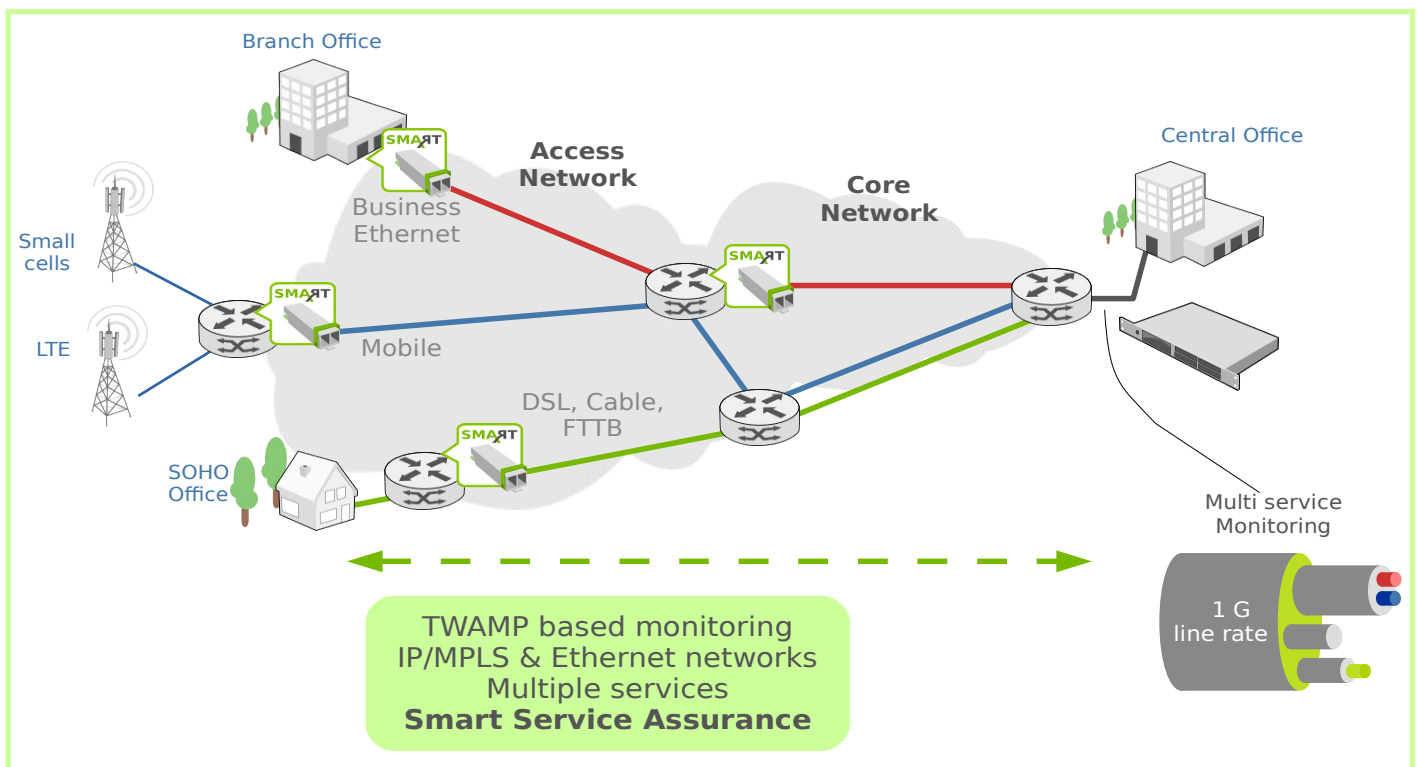
Application Highlights

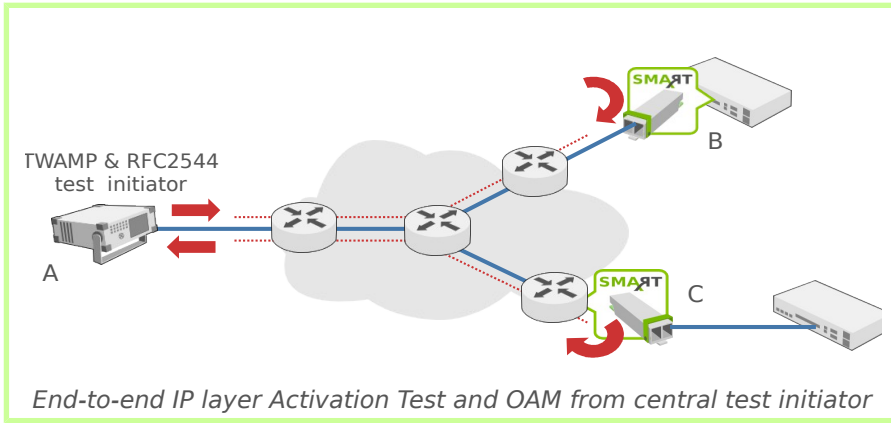
- GbE IP monitor and test
- L1/L2/L3 loopback and troubleshooting
- IP based Service Activation (Y.1564)
- IP frame Delay & Loss Measurement

Benefits

- Compact size
- Available in wide range of optics
- Industrial Temperature range
- Low Carbon footprint
- Total cost reduction

Applications

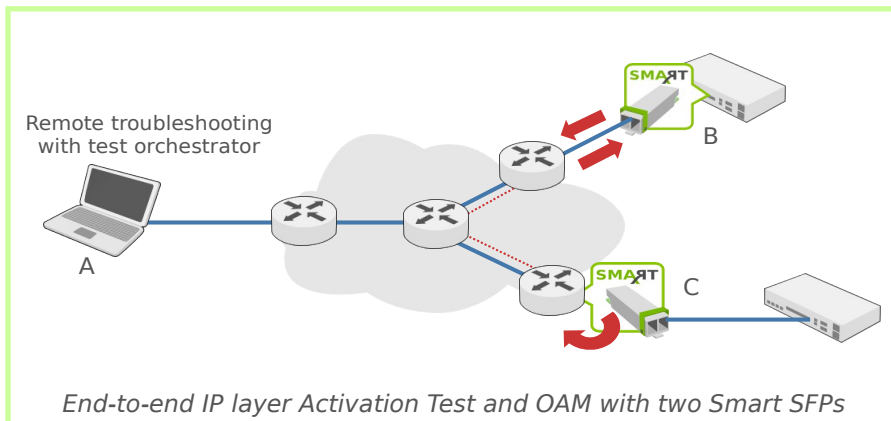




Upgrade IP networks with TWAMP and IP layer Service Activation Test capabilities using the Smart SFP™ module.

Standard TWAMP and RFC2544 traffic test equipment can be used to perform measurements between sites A and B, and sites A and C respectively. Multiple test sessions in parallel enable DSCP or per VLAN loss and delay monitoring.

Alternatively, the operator at site A performs testing between 2 Smart SFP™ modules at remote sites B and C, without the need for dedicated on-site test equipment.



Features

- IP and Ethernet loopback for RFC2544 testing
- Y.1564 Service Activation Testing
- 1 Gb/s line rate loopback
- MAC and IP/UDP¹ swap
- TWAMP Light Sender¹ & Reflector (RFC5357)
- Frame Loss and Delay measurement
- Nanosecond timestamp accuracy
- Up to 4 IP addresses and optional VLAN¹
- Parallel TWAMP test sessions per IP
- Network side and system side test sessions
- IPv4, ARP, UDP echo, ICMP echo/reply, DHCP
- SFP INF-8074² and DDM SFF-8472 compliant
- Remote access to Digital Diagnostics Monitoring
- Software API and MIBs for remote management via IP
- Upgradeable protocol processor
- Transparent for Synchronous Ethernet
- Link Pass Through - Link Loss Forwarding
- Low latency and wire speed 1 Gb/s throughput
- Jumbo frame support up to 9600 bytes

Interfaces

- Compatible with SFP electrical MSA
- LC connector type
- Wide range of optical transceiver options
 - Duplex or bidirectional fiber
 - Various optical reaches, up to 80 km
- Industrial operating temperature ranges:
 - -40°C to 85°C

Contact Information

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¹ Future release
² Exception: power consumption exceeds MSA limit