

## Product Brief: OAM Smart SFP™ Ethernet OAM

### Overview

Designed in conformance with the Small Form Factor Pluggable 20-pin Multi-Source Agreement (MSA), Ethernet OAM Smart SFP™ provides Operations, Administration and Maintenance (OAM) tools for Service Activation Test and Service Level Assurance in Carrier Ethernet network.

Ethernet OAM Smart SFP™ uses standardized protocols and tools to monitor and troubleshoot a network:

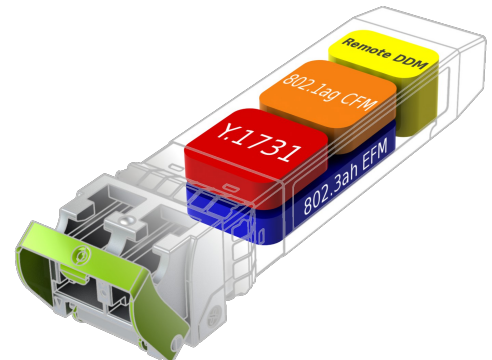
- Physical layer monitoring via remote digital diagnostics and Link OAM
- Service Assurance using Ethernet OAM, Y.1731
- Service Activation Test Loopback for Y.1564 and RFC2544
- Service Creation and Demarcation with VLAN tag<sup>2</sup>

The integrated OAM capabilities are complemented with Gigabit Ethernet wire speed throughput with a low latency.

By reducing system and network complexity, Ethernet OAM Smart SFP™ offers lower carbon footprint and brings CAPEX and OPEX savings.

An API and SNMP MIBs are available to facilitate the integration in existing equipment and management systems. The Saturn Management gateway provides a highly scalable platform for configuration and monitoring of all service parameters.

Ethernet OAM Smart SFP™ is available in a wide range of optical and reach applications: duplex, single, or bidirectional with reaches up to 80 km in versions for Link OAM, Service OAM Initiator, Service OAM Responder and Multi-Service including Service Activation Test loopback.



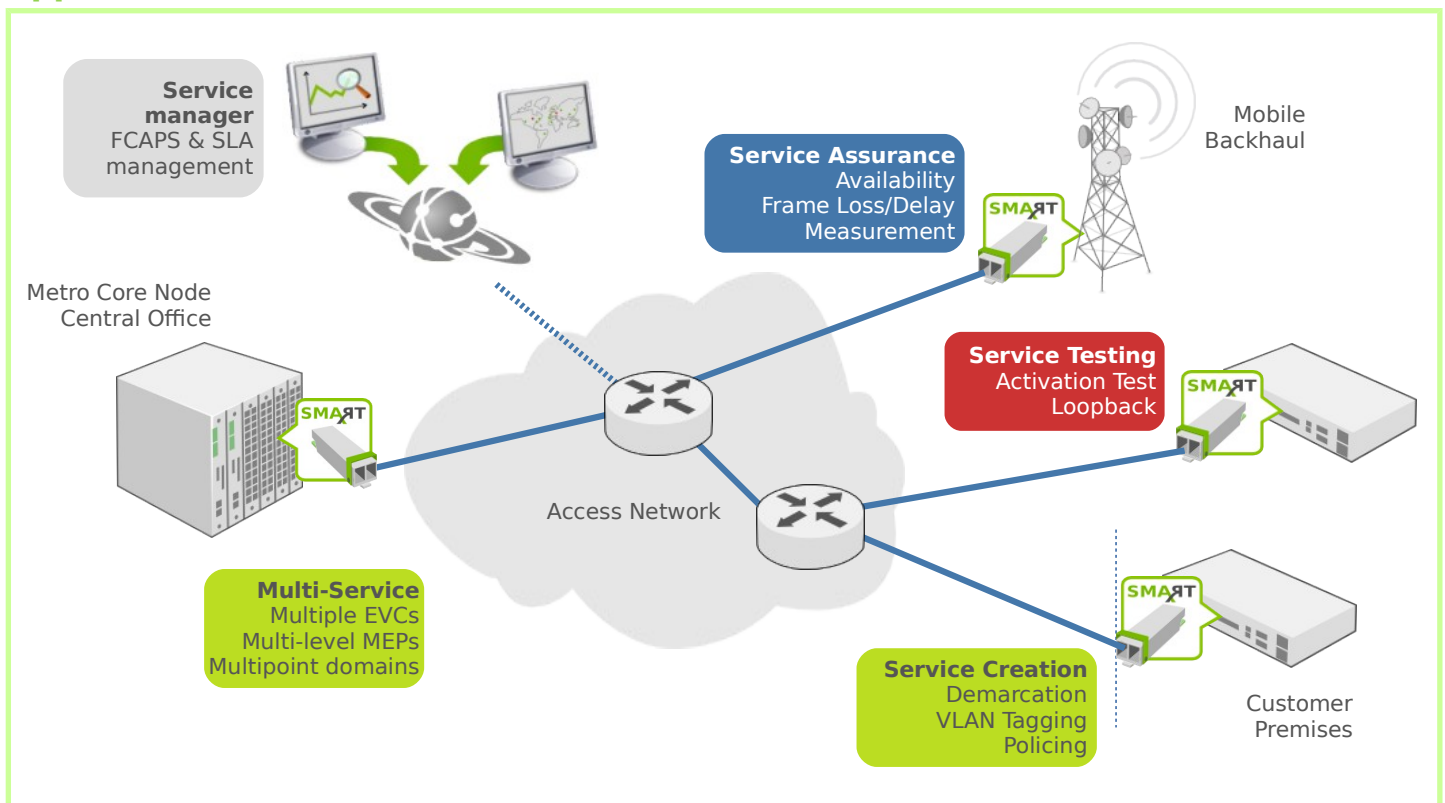
### Application Highlights

- GbE network demarcation
- End-to-end service assurance
- Link and Service OAM (CFM and Y.1731)
- Service Activation Test loopback (Y.1564)

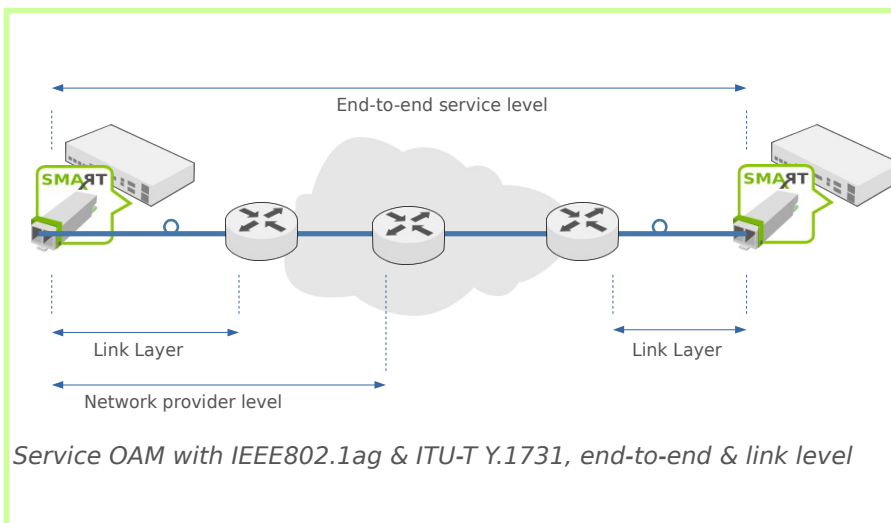
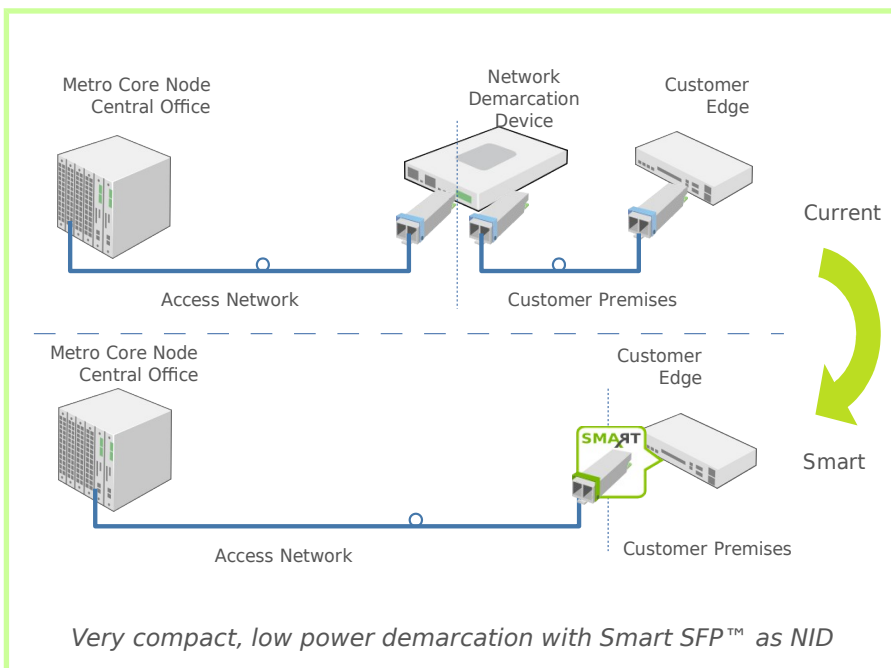
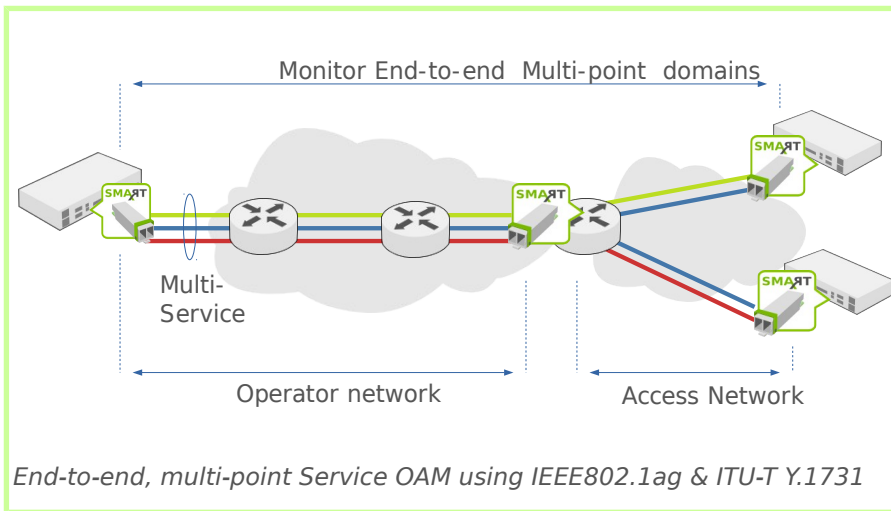
### Benefits

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

### Applications



Very compact, low power demarcation with Smart SFP™ as NID



## Features

- SFP INF-8074<sup>1</sup>, and DDM SFF-8472 compliant<sup>1</sup>
- Software API and MIBs for remote management
- Remote access to Digital Diagnostics Monitoring
- Link OAM IEEE 802.3ah
- CFM Service OAM IEEE 802.1ag
- ITU-T Y.1731 Frame Loss and Delay Measurement using SL, LM and DM messages
- MEF 30 & 35 Fault and Performance Management
- Multiple VLAN-aware Up or Down MEPs
- Multi-point maintenance domains
- Service Activation Test Loopback: Y.1564, RFC2544
- Service Activation Traffic generator: MEF<sup>2</sup>
- Service creation with VLAN tagging and policing<sup>2</sup>
- Bi-directional transparent Synchronous Ethernet
- Link Pass Through a.k.a. Link Loss Forwarding
- Low latency and wire speed GbE throughput
- Upgradeable protocol processor

## 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
- Operating temperature range:
  - Industrial: -40°C to 85°C

## Contact Information

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<sup>1</sup> Exception: power consumption exceeds MSA limit  
<sup>2</sup> Future release