

## Product Brief: TSoP Smart SFP™ Transparent SONET/SDH over Packet

### Overview

TSoP (Transparent SONET/SDH over Packet) Smart SFP™ converts SONET/SDH TDM traffic to a packet stream.

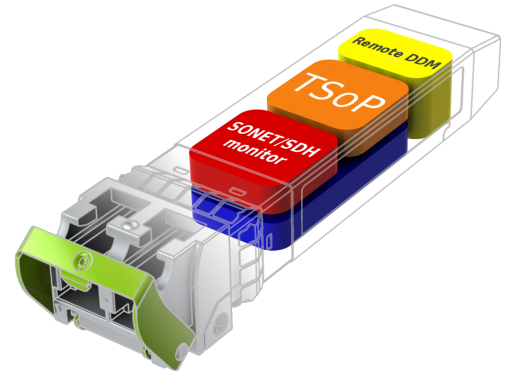
Designed in conformance with the Small Form Factor Pluggable 20-pin Multi-Source Agreement (MSA), TSoP Smart SFP™ can replace an existing SFP in a router or a switch and transport SONET or SDH traffic across a packet network.

TSoP Smart SFP™ forwards SONET/SDH signal fully transparent, while embedded payload structure, protection protocols and synchronization end-to-end are maintained. The process simplifies the configuration and service turn-up of SONET/SDH connections across a packet network.

The integration of TSoP into an SFP greatly reduces system and network complexity, offers lower carbon footprint, and brings CAPEX and OPEX savings.

TSoP capabilities are complemented with a Gigabit Ethernet system interface. The Smart SFP™ serves a wide range of optical and reach applications: OC-3/STM-1 or OC-12/STM-4 duplex fiber with reaches up to 80 km at industrial temperature range.

Optionally, an API and SNMP MIBs are available to facilitate the integration in existing equipment and management systems. This management interface allows for configuration and monitoring of relevant parameters.



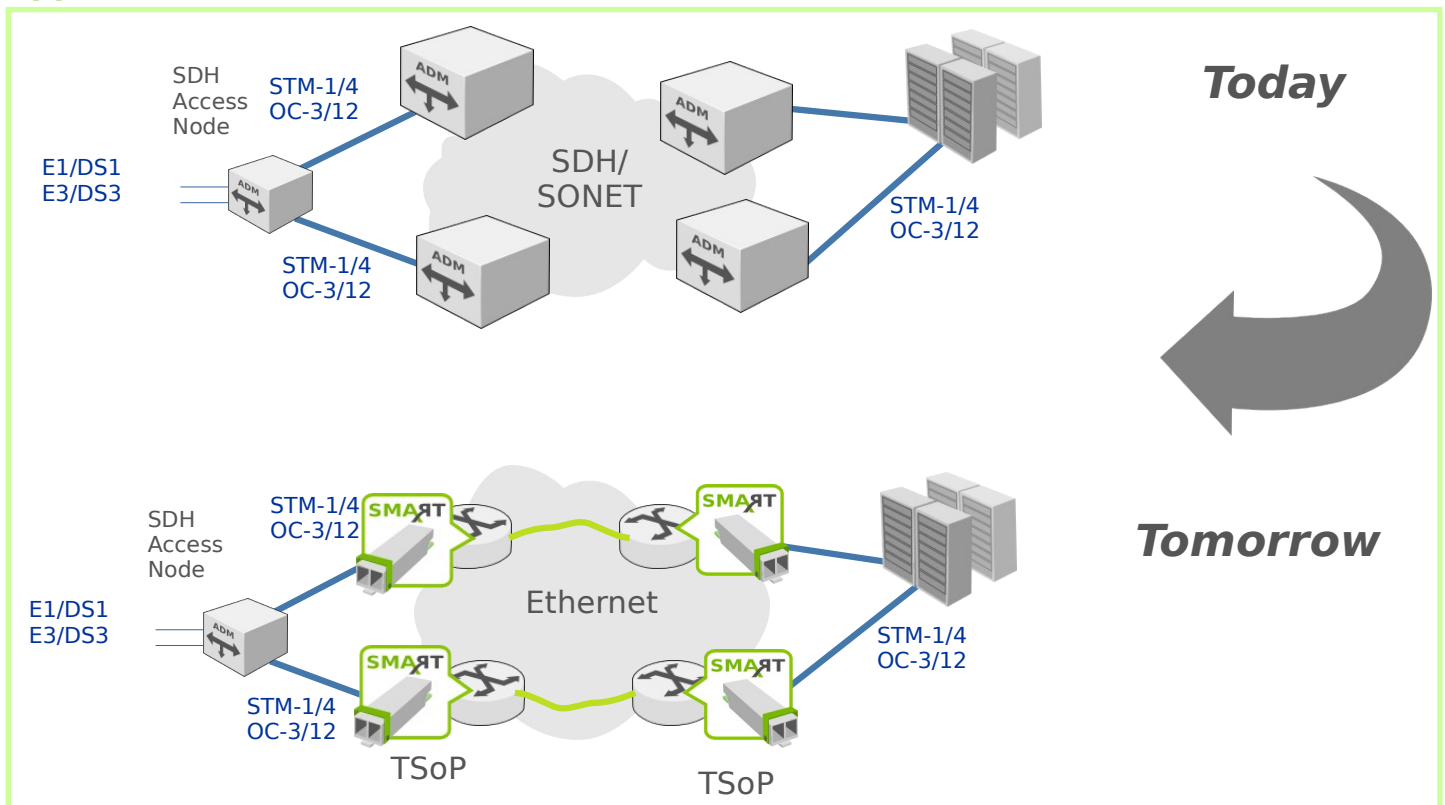
### Application Highlights

- Upgrade microwave radio to packet
- Efficient use of WDM wavelengths
- Migrate SONET/SDH access to packet

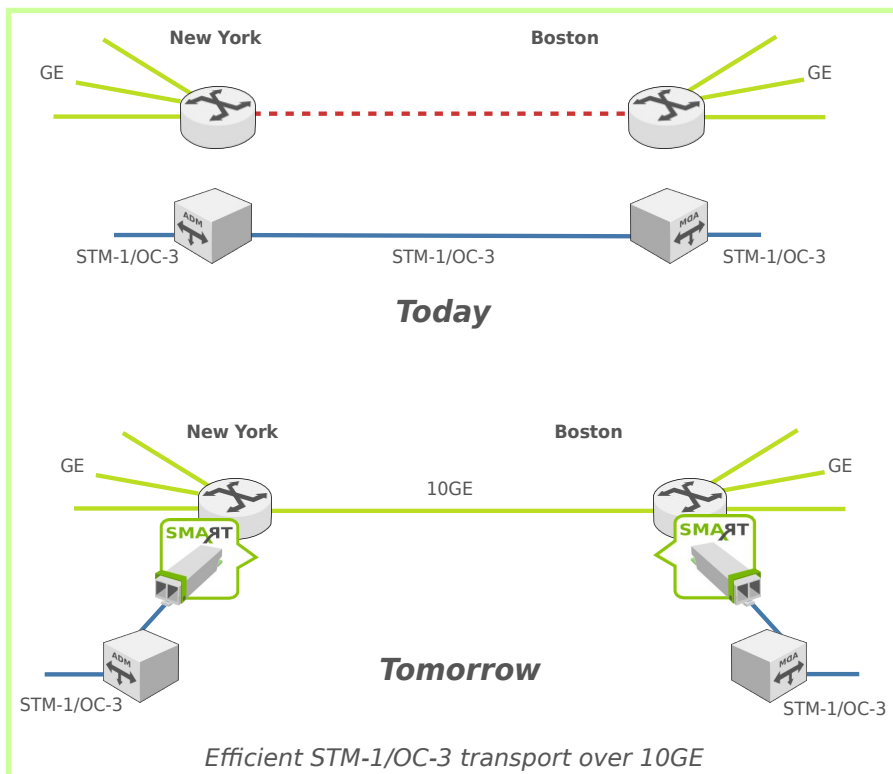
### Benefits

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

### Applications



*Migrate SONET/SDH core to packet using TSoP for OC-3/OC-12 over packet network*

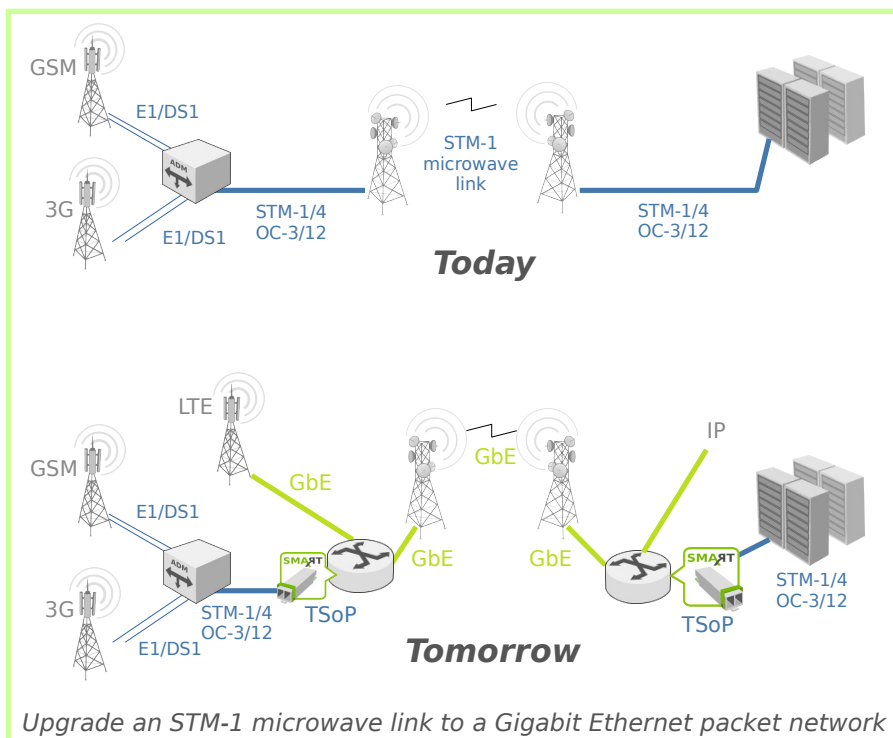


## Features

- SFP INF-8074 compliant<sup>1</sup>
- DDM SFF-8472 compliant
- Software API and MIBs for remote management
- Remote access to Digital Diagnostics Monitoring
- Transparent SONET/SDH over Packet protocol
- Fully transparent transport of:
  - Payload structures
  - Overhead bytes and protection protocols
  - Synchronization
- Low latency
- SONET/SDH line rates:
  - OC-3/STM-1
  - OC-12/STM-4

## Interfaces

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



## Contact Information

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