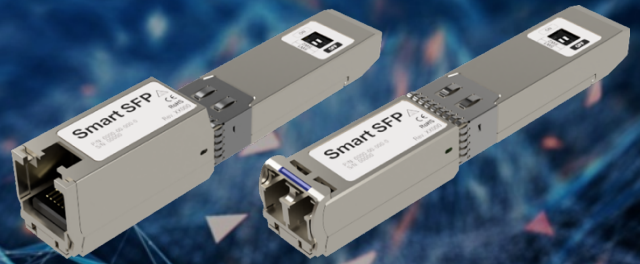# PlumSpace

Smart SFP IP SLA Probe

Network performance monitoring

Smart SFP IP SLA Probe is a network performance monitoring and diagnostic device in the SFP form factor. Smart SFP is installed in any network device with an SFP slot and simultaneously acts as both a standard SFP module and an IP SLA Probe.

IP SLA uses active traffic monitoring to measure end-to-end performance across of a network. The traffic generated simulates network applications such as data, voice, video, and collects real-time information on bandwidth, jitter, latency and loss network performance information.

Accurate and precise SLA performance is critical for any network infrastructure. Smart SFP IP SLA Probe is the unique high-performance, scalable and compact hardware device that combines service assurance with granular monitoring and performance testing. Mobile operators, service providers and enterprises can use it for performance monitoring or by for service assurance.

Smart SFP IP SLA Probe provides the ability to perform Y.1564, TWAMP testing, enable Smart Loopback on L2-L4 and analyze traffic statistics.
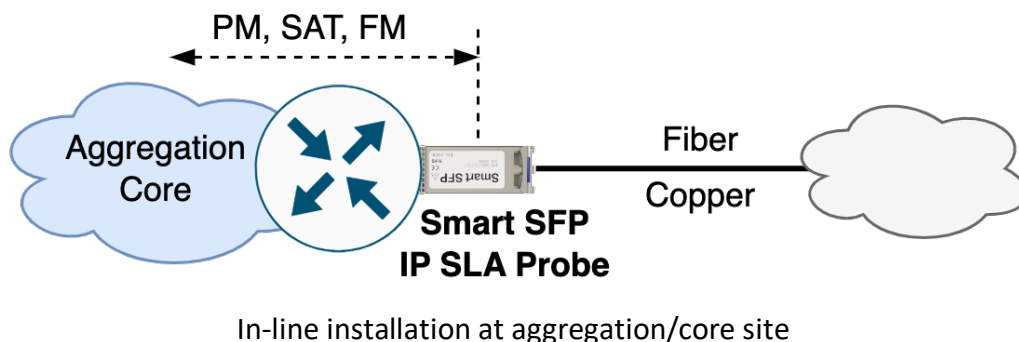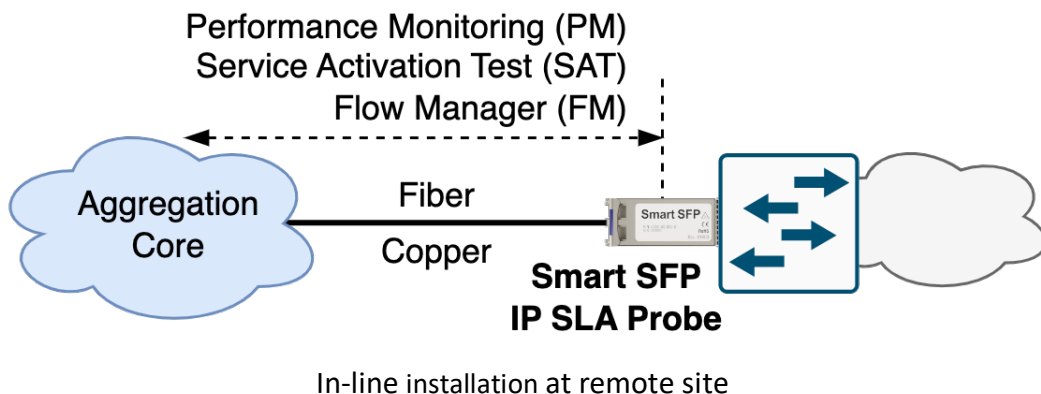
Smart SFP IP SLA Probe seamlessly integrates with any active network monitoring platform. The central platform provides an integrated dashboard to monitor your network and services at scale.
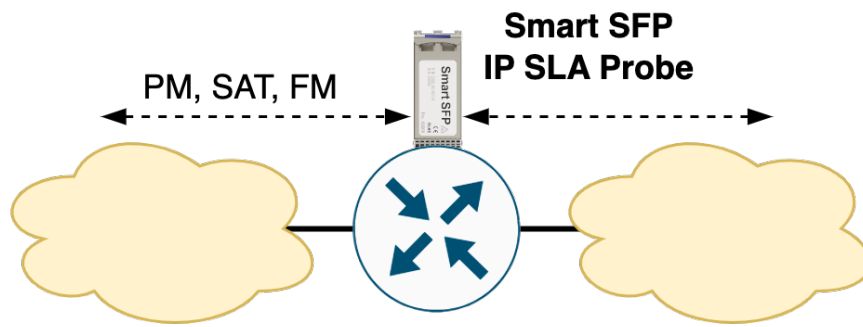
Applications:
- IP SLA monitoring
- Network visibility
- Performance analytics and troubleshooting

Key features:
- Y.1564
- TWAMP
- 1-way and 2-way measurements
- Microsecond accuracy
- Flow statistics
- Smart Loopback
- Line-rate performance
- IP address saving with Loaned IP
- Compatible with all IP SLA platforms

In-line installation at remote site

In-line installation at aggregation/core site

Smart SFP IP SLA Probe

PM, SAT, FM

Out-of-line installation at any point in the network

Y.1564:
- Y.1564, 4 streams, 1-way, 2-way
- Line rate packet generator and analyzer
- Measurements with microsecond accuracy

Smart Loopback:
- MACs, IPs and TCP/UDP ports swap
- Persistent, on-demand
- Condition: own MAC dst or by filter
- Filter by fields: VLAN ID, IP src/dst, TCP/UDP src/dst ports
- 12 filters on each port
- Redirect packets to another MAC/IP (headers rewrite)
- TWAMP Light at line rate (HW offload)
- Smart Loopback and TWAMP Light on behalf of another device (another MAC dst)
- Up to 3 VLAN tags and MPLS labels
- Statistics
- Compatible with testers of any vendor

Flow manager:
- Actions by filters
- Actions: stat, drop, pass
- Filter with mask by fields: VLAN ID, Protocol, IP src/dst, TCP/UDP src/dst ports
- 32 filters
- Statistics

Performance monitoring:
- TWAMP sender and responder
- iPerf

Timestamp insertion:
- Timestamp insertion in transit packets
- 8 bytes pattern lookup and replace
- Any point in a frame/packet
- NTP Timestamp format

Management:
- CLI over SSH, SNMP, REST API
- Static IP, DHCP
- IPv4, IPv6, VRF
- VLAN
- Loaned IP
- ACL, VPN
- PTP slave, NTP client
- LED status indicator
- Remote software upgrade

General:
- 1/10 Gigabit Ethernet
- Max frame size 9600 bytes
- Up to 3 VLAN tags and MPLS labels
- Inline and out-of-line installation
- Digital Diagnostics Monitoring (DDM)
- SFP/SFP+ MSA compliant
- Multi-vendor compatibility
- Industrial temperature

Ordering information
Models:
Intelligent SFP module, ARM CPU, FPGA, Gigabit Ethernet, DDM, 1310 nm, 20 km, 2xSMF, LC
Intelligent SFP module, ARM CPU, FPGA, Gigabit Ethernet, DDM, Tx: 1310 nm, Rx: 1550 nm, 20 km, SMF, LC
Intelligent SFP module, ARM CPU, FPGA, Gigabit Ethernet, DDM, Tx: 1550 nm, Rx: 1310 nm, 20 km, SMF, LC
Intelligent SFP module, ARM CPU, FPGA, Gigabit Ethernet, 10/100/1000BASE-T, RJ-45
Intelligent SFP module, ARM CPU, FPGA, 1/10 Gigabit Ethernet, DDM, 1310 nm, 10 km, 2xSMF, LC
Feature sets:
Loaned IP, PTP, Smart Loopback, Y.1564
Loaned IP, PTP, Smart Loopback, Flow manager, Timestamp insertion

Find out more: plumspace.com, info@plumspace.com   We are open for partnership