



**Timing &
Synchronization**



**Test &
Measurement**



**Underground Locating
Equipment**



**Remote Fiber Testing
& Monitoring Solutions**

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• **DELHI**

• **BANGALORE**

• **MUMBAI**

ABOUT US

Your Partner in Network Precision & Performance

We are a technology-driven solutions provider specializing in **Timing & Synchronization, Test & Measurement, Remote Fiber Testing & Monitoring, GPON Protocol Analysis, and Network Performance & Cybersecurity.**



With a strong focus on innovation and reliability, we aim to empower service providers, data centre, utilities, enterprises and research institutes with state-of-the-art tools and systems. Our solutions are designed to ensure accuracy, visibility, and security across complex network infrastructures. At the core of our mission is a consistent drive to introduce the latest technologies and expand our product and service offerings. We stay ahead of industry trends to meet—and exceed—the evolving demands of our customers and the markets we serve.

Whether it's optimizing network performance, ensuring precise synchronization, or enhancing fiber monitoring and security, we deliver solutions that offer measurable value and long-term reliability.

OUR PARTNERS



LIST OF PRODUCTS

1 Timing and Synchronization

- 5G xHaul Transport & Timing Switch with PTP GM
- PTP Grandmaster & NTP Server
- Time & Frequency Distributor & GPS Accessories

2 Test & Measurement

- Transport, Datacom & Optical
- GPON Protocol Analyzer & OLT Emulator
- Network Emulator
- TAPs (Copper & Fiber)
- Network Packet Brokers
- Network Packet Aggregators
- Traffic Capture & Analysis
- RF Spectrum Analyzer
- Optical Spectrum Analyzer
- Electrical BER Testing , MCB & Loopbacks and Sampling Oscilloscope
- Fiber Optics

3 Underground Locating Equipment

4 Remote Fiber Testing & Monitoring Solutions

Timing and Synchronization

5G xHaul Transport & Timing Switch with PTP GM

Integrated PTP GM

OCXO / Rubidium Osc

Supports LLS C1-C4

OC, BC, TC Support



μFalcon-RX

- 6 x 1/2.5/10G (SFP/SFP+)
- 2 x 1/2.5/10/25G (SFP/SFP+/SFP28)
- L2 Throughput: 110Gbps
- OCXO



μFalcon-MX/G

- 4 x 1/2.5G (SFP) | 2 x 1G (RJ45)
- 2 x 1/2.5/10G (SFP/SFP+)
- L2 Throughput: 34Gbps
- OCXO



Falcon-RX

- 12 x 1/10G (SFP/SFP+)
- 8 x 1/10/25G (SFP/SFP+/SFP28)
- L2 Throughput: 200Gbps
- OCXO / Rubidium



Falcon-MX/G

- 24 x 1G (SFP)
- 4 x 1G (RJ45)
- 4 x 1/2.5/10G (SFP/SFP+)
- L2 Throughput: 160 Gbps
- OCXO / Rubidium

PTP Grandmaster & NTP Server



Net.Time

- 2x 1GbE RJ45/SFP Combo Ports
- GNSS, PTP, NTP and SyncE Support
- OCXO/Rubidium Oscillator
- I/O: BITS, MHz, 1PPS, 1RIG-B, ToD etc



μFalcon-ST/G

- 4x 1GbE RJ45 Ports | 4x 1GbE SFP ports
- 8x E1/MHz Balanced Port (120 ohm)
- OC, BC & TC configuration supported
- GNSS, PTP, NTP and SyncE Support
- OCXO Oscillator

Time & Frequency Distributor & GPS Accessories



TFD-100/TFD-200

- 1U, 19" Rack mount
- Frequency from 1PPS up to 10MHz
- Time Code Signals: IRIG, AFNOR, NASA
- Decoded signals GNSS, DCF77, TDF, WWVB
- GNSS, PTP, NTP input option available
- TCXO/OCXO Oscillator option
- 1 to 32 Signal Splitter



GNSS Antenna



GPS In-Line Amplifier



Surge Arrestor



GPS Repeater
Indoor GPS Coverage



GPS Splitter

Test and Measurement

Transport, Datacom & Optical



FTB Platforms

Hand-held Multi-test Platform (1/2/4)

- Designed for Field/Lab & MDR applications



LTB Platforms

Rack-mountable Multi-test Platform (2/8/12)

- Designed for Lab & Manufacturing applications

► Modules (Ethernet/SDH/PDH/OTN/OSA/OTDR/PM/LS/ Fiber Channel/eCPRI)



FTBx-8870/8880
10G Multiservice



FTBx-88260
100G Multiservice Test



FTBx-88460
400G Ethernet



FTBx-88800 Series
800G Ethernet



FTBx-750C
metro/longhaul OTDR



FTBx-570
Single ended CD/PMD Analyzer



FTBx-2150
Light Source



FTBx-5245/5255
Optical Spectrum Analyzer



Max-800 Series
Ethernet & Transport Tester upto 100G

The MAX-800 Series is an easy-to-use, portable test solution designed to meet the most stringent test requirements when installing, activating and troubleshooting Ethernet connections and transport links from 10M to 100G.



MAX-840
Ethernet Tester upto 400G

The MAX-840 is a compact, upgradeable Ethernet tester supporting 1G to 400G, designed for flexibility and future-proofing. It offers key tests like EtherBERT, TGEN, BERT, RFC2544, and Fibre Channel (1X-32X) and supports various Transceivers (SFP28 to OSFP). With iOptics, it quickly validates pluggable optics from 1G to 400G.



xGenius
PTP/NTP Sync Tester

- PTP/SyncE/NTP Emulation & Test
- Clock Testing (MHz, BITS, ToD, PPS & 1R1G-B)
- MTIE/TDEV Measurement & TE Measurement
- BC/TC Testing
- 5G-ORAN Sync Testing
- Built in GNSS Receiver
- Clock Module: Ocxo/ Rubidium
- Dual port 10GbE Eth./IP traffic generation & monitoring
- Packet Capture



Zeus
1GbE/Sync/C37.94/ Datacom/
GOOSE/SV

- Dual port 1GbE Eth./IP traffic generation & monitoring
- Performance Test: RFC 2544,RFC 6349, eSAM, Y.1731, L1-L4 BERT
- C37.94, GOOSE, SV
- E1/T1 & Datacom Testing
- OWD Testing
- Built in GNSS Receiver
- PTP/SyncE/NTP Emulation & Test
- Clock Testing (MHz, BITS, ToD, PPS & 1R1G-B)
- MTIE/TDEV & TE Measurment



Ether.Genius
1GbE/Sync/E1/T1/ Datacom Tester

- Dual port 1GbE Eth./IP traffic generation & monitoring
- Performance Test: RFC 2544, eSAM, Y.1731
- Ping/Traceroute
- L1-L4 BERT
- PTP/SyncE Emulation & Test
- Clock Testing (MHz, BITS, ToD)
- MTIE/TDEV Measurement
- E1/T1/Datacom Testing



AT.2048/AT.ONE
E1/T1 BER & Datacom

- Dual Port 2048 kbps (E1)/1544 Kbps(T1)/ Generation/Analysis
- E0(Nx64Kbps) Generation/Analysis
- Datacom (V.11, V.24, V.35, V.36, EIA-530)
- Jitter & Wander Generation/Analysis
- Pulse Mask Analysis
- Voice Frequency Test
- Latency/Round Trip Delay Test
- Performance Test (G.821, G.826 & M.2100)
- Event Insertion & Pattern Analysis
- CAS signalling generation and monitoring

GPON Protocol Analyzer & OLT Emulator



GPON DOCTOR 4K7/9K7/10K7
GPON/XGS-PON Protocol Analyzer

- Portable battery Operated; Chip-set Independent operation
- Diagnosis and analysis of incidents and operation in an established XGS-PON/GPON network
- Evaluation of compliance with the protocol in the development of OLTs/ONTs XGS
- ITU-T G.9807.x / ITU-T G.984.x / ITU-T G.988 interoperability test
- Evaluates the degree of compliance with the ITU-T G.9807.x, ITU-T G.984.x and ITU-T G.988 standard
- Captures OAM + PLOAM control data and OMCI messages + negotiation in real time
- Bandwidth analysis per T-CONT for each ONT



GPON DOCTOR OLT-e
OLT Emulator

- Meets the requirements of ITU-G984.3
- Supports management entities defined in ITU-T G.988
- Assess protocol compliance in OLT/ONT development
- Generation of PLOAM messages to activate and configure a detected ONT
- Generating and forwarding Ethernet traffic encapsulated in GEM frames

Network Emulator



WanRaptor
Multiport Network Emulator (up to 40G)

- 2U 19" Rack mountable modular design
- Traffic generation & emulation up-to 40 Gb/s
- Emulation Supported:
Bandwidth, Latency, Jitter, BER, Packet Loss, Packet re-ordering, Packet duplication
- Bridge & Router mode operation for Ethernet & IP traffic
- HTTP web browser based GUI for real-time statistics



PDS - 1/10G
LAN/WAN Emulator (up to 10G)

- 1U desktop design
- Fixed 1G/10G Electrical & Optical slots
- Emulation Supported:
Bandwidth, Latency, Jitter, BER, Packet Loss, Packet re-ordering, Packet duplication
- Bridge & Router mode operation for Ethernet & IP traffic
- HTTP web browser based GUI for real-time statistics



Net.Storm
Impairment Generator (1G)

- Hand-held, battery operated & in-built display
- Fixed 1G Electrical & optical slots
- Emulation Supported:
Bandwidth, Latency, Jitter, Packet Loss, Packet duplication
- Real time statistics
- VNC based remote control

TAPs (Copper & Fiber)



Copper TAPs (100M/1G/10G)

Portable / Rack Mountable (Multiple Links)

- Portable & modular (up-to 3) chassis-based design
- Non-intrusive, zero failover, redundant power supply operation
- Link speed: 100M/1000M/10G
- Smooth operation up-to 100 meters
- IEEE 802.3/802.3af, VoIP and PoE compliant



Fiber TAPs (1-400Gbps)

Portable / Rack Mountable (Multiple Ports)

- Portable & modular (24 TAP) chassis-based design
- Non-intrusive, zero failover, Passive operation
- Fiber TAPs: Diode, LC, SC, MTP & BiDi
- Link Speed: up-to 400G
- Single mode and Multi mode fiber support
- Available Split Ratio: 50/50, 60/40 70/30

Network Packet Brokers

- L2-L7 Filtering, DPI
- Load Balancing
- Any-to-any Replication and Aggregation
- Passive SSL/TLS decryption SSL 3.0, TLS 1.0 – TLS 1.2
- Data masking, Packet deduplication
- TCP packet reordering and fragments re-assembling
- Full tunnelling capability, Packet Slicing
- IMSI Filtering, Timestamping
- Export NetFlow V5/V9
- Redundant AC/DC power supply
- Management: Local CLI, SSH, SNMPv2/v3, HTTP/HTTPS



X2/X3 Series

Advanced Network Packet Brokers

Network Traffic Aggregators



XX-720G

XX-720G is a high-density Network Packet Broker, bringing you the power and flexibility of network traffic management with a total throughput of 720 Gbps in a 1U rack space. XX-720G features 48 x SFP+ ports (1/10 GbE) and 6 x QSFP+ ports (40 GbE).



XX-1800G

XX-1800G is a high-density Network Packet Broker, bringing you the power and flexibility of network traffic management with a total throughput of 1800 Gbps in a 1U rack space. XX-1800G features 48 x SFP28 ports (1/10/25 GbE) and 6 x QSFP28 ports (40/100 GbE).



X2-3200G

X2-3200G is a Next-Generation Network Packet Broker (NGNPB) with a total throughput of 3.2 Tbps. It offers an extensive set of features, such as packet slicing, GTP IP filtering, GRE de-tunneling, VXLAN de-tunneling, ERSPAN tunneling & de-tunneling, and timestamping.

Traffic Capture & Analysis



IOTA (Probe, Capture & Analyze)

All-in-One Network Traffic Monitoring Solution

- Portable 1G/10G Non-intrusive monitoring
- SPAN and In-Line modes
- Integrated software to help analyze the captured data in real-time
- Packet slicing
- Programmable autonomous capture functions
- 8 ns hardware timestamp
- Real-time traffic analysis
- 1 TB or 2 TB swappable SSD in-built storage
- GNSS (GPS/GLONASS) UTC timestamping



Profishark (1G/1G+/10G/10G+)

TAP with Traffic Capture & Analysis

- Portable 1G/10G Non-intrusive monitoring
- SPAN and In-Line modes
- Hardware filtering, deep packet inspection
- Packet slicing
- Capture and configuration options, through the ProfiShark Manager
- 5 ns hardware timestamp
- Real-time traffic analysis
- Direct capture to disk over 3.0 USB
- GNSS (GPS/GLONASS) UTC timestamping

RF Spectrum Analyzer



5G Pro

5G FR1/FR2 Spectrum Analyzer

- Compact & Modular RF testing solution
- Real-time spectrum analyzer (RTSA)
- FR1 (450 MHz - 6 GHz)
- FR2 (24.25 GHz - 40 GHz)
- Spectrum and signal analysis bandwidth up to 100MHz
- 5G NR signal and beam analysis (upto 64 beams)
- LTE signal analysis
- Digital RF power measurements
- TDD support
- OTDR, RF over CPRI, CPRI/eCPRI, timing and synchronization
- Ethernet testing up to 100G

Optical Spectrum Analyzer



FTBx-5235

- Covers CWDM and DWDM wavelengths
- Features auto-discovery of active channels
- Accepts low power channel discovery via a non-intrusive monitor port on the MUX
- Measures OSNR for systems with amplification
- WDM and drift mode



FTBx-5245 / 5255

- High-speed DWDM, with OSNR measurements from 10G to 400G, including In-service Pol-Mux OSNR
- CWDM spectral analysis
- Spectral analysis of pluggable transceivers (CFP, XFP, etc.) on the O-band, 1300 nm region, as well as L-band transceivers

Electrical BER Testing , MCB & Loopbacks and Sampling Oscilloscope



Transceivers



FPGA



Subassemblies (TOSA and ROSA)



Module Compliance Board (MCB)



Host Compliance Board (HCB)



BA-1600
1.6T Bit Analyzer

The BA-1600 1.6T Bit Analyzer provides full lifecycle coverage from lab to fab, delivering both speed and simplicity through API-controlled automation. It supports 8-channel PAM4 coding with data rates of 106.25, 53.125, and 26.5625 GBd per lane.



BA-4000
Bit Analyzer

Electrical BER tester supporting NRZ and PAM4 coding, with advanced FEC tools and with testing capabilities up to 800G.



BA-4000-L2
Combiner L1 BER Tester & L2
Traffic Analyzer

DR4/FR4/LR4 & 800G LPO transceivers Combined L1 BER tester and L2 traffic analyzer for 800G transceivers including DR4/FR4/LR4 and linear-drive pluggable optics (LPO).



EA-4000 Eye Analyzer
Optical & Electrical Sampling
Oscilloscope

The EA-4000 is the fastest eye analyzer for production, supporting all fiber types with ultra-low jitter for top performance.



CD-4000 Clock Data Recovery
Optical & Electrical CDR

Protocols enable fast serial data transfer between locations. At the receiver, clock and data recovery (CDR) ensures accurate data retrieval with timing integrity.



MA-4000 Module Analyzer
All in One BER tester – MCB

The all-in-one solution for transceiver qualification on the production floor, including a bit-error-rate tester, module compliance board (MCB) and power supply.



Module Compliance Board (MCB)
Test Next Generation Transceivers

The module compliance board (MCB) enables serial communication between the bit error rate (BER) tester and the optical transceiver.

Fiber Optics

OTDR



MAX Tester
715D/720D/730D/735D



FTB Lite Series
720D/730D/735D/750C



AXS-120/ AXS-130
Mini OTDR



Mercury Series
OTDR (up to 46dB)



FTB-1v2 Pro Platform with OTDR
720D/730D/735D/750C



Tunable Optical Filter, Optical Component Tester and Optical Switch



XTA-50
Tunable Optical Filter



CTP-10
Passive Optical Component
Testing Platform



MXS-9100
MEMS Matrix Optical Switch

Tunable Laser Source Optical Spectrum Analyzer & PMD and CD Analyzer



T200S/T500S/T100
Tunable Laser Source



OSA20
Optical Spectrum Analyzer



FTB-500 with FTB-5500B
PMD and CD Analyzer

Handheld Optical Testers



Optical Power Expert
Optical Power Meter



PPM-350D
Next-gen PON Power meter



KI-2600XL Series
POF Optical Power Meter



FLS-600
Light Source



FOT-600
Optical Loss Test Set



FVA-600
Variable Optical Attenuator



FIP-500
Fiber Inspection Scope



LED-300B / TG-300B
Fiber Identifier



ARGUS-300
10GbE/GPON/Optical/Wi-Fi Testing



EX-1
Gigabit, GPON & Wi-Fi testing

Underground Locating Equipment

Cable Fault Locator



Venus-120
Cable Fault Locator

- Pulse reflection testing(TDR) & Intelligent Bridge testing can test broken lines, crossing lines, poor insulation and other type of faults in copper cables.
- Distance range up to 32 km
- Large color LCD display
- Record memory up to 200 groups to USB(optional)



Max Tester-610
Smart Copper Testing

- Advance Cable maintenance tester
- TDR, RFL, ground Resistance, multimeter functions, circuit loss, Leakage and many other functions can be tested.
- SmartR™ features allow users to quickly and accurately determine physical copper circuit quality and locate faults, in addition to performing high-voltage balance testing on inactive pairs

Cable Route Locator/Tracer



SR-24LE
Bluetooth® & GPS Line Locator

Easily detect and map underground utilities and service lines, Omnidirectional antennas that measures electromagnetic signals and calculates the signal's orientation strength, depth, and degree of distortion or interference. Bluetooth and GPS, integrated GNSS receiver, Trace any frequency from 10 Hz to 35 KHz.



SR-20 Locator
SeekTech SR-20 Locator

Easily detect and map underground utilities and service lines, Omnidirectional antennas that measures electromagnetic signals and calculates the signal's orientation strength, depth, and degree of distortion or interference. Bluetooth and GPS, integrated.



ST-305
Line Transmitter

The 5 Watt SeekTech ST-305 Line Transmitter energizes metallic lines for tracing and can transmit two frequencies simultaneously.

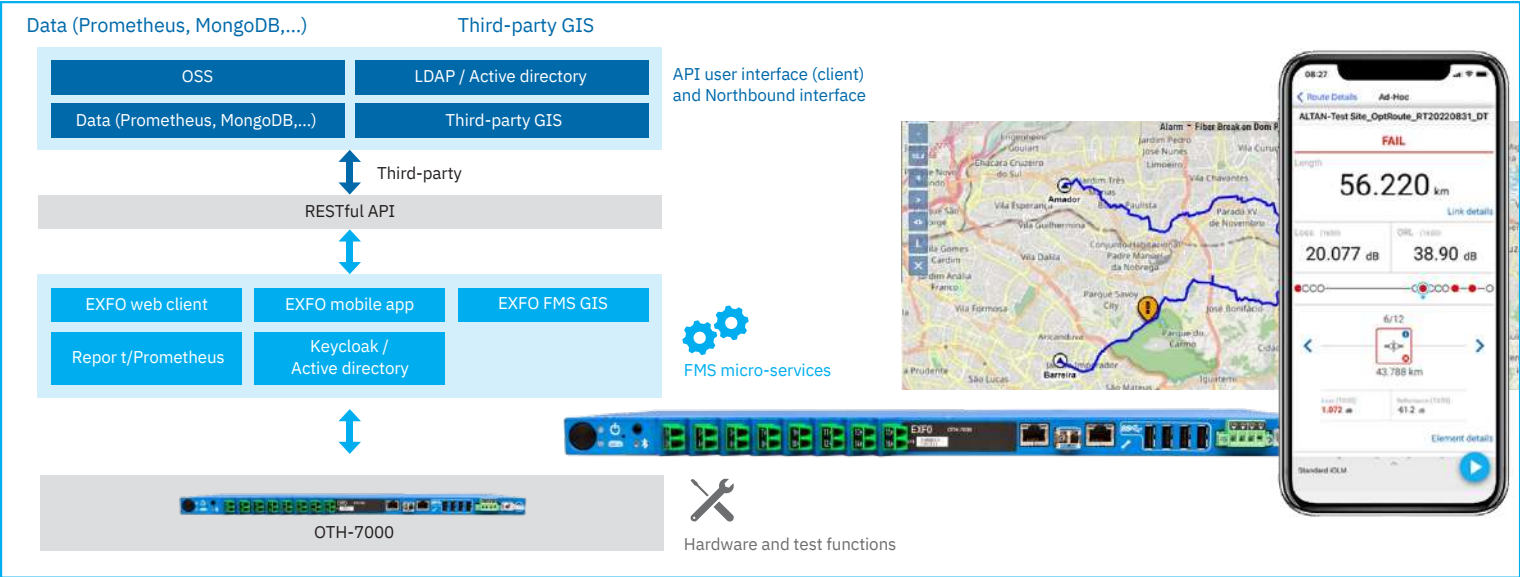


ST-510
Line Transmitter

The SeekTech ST-510 Line Transmitter is designed to energize metallic lines, making them traceable using a locator.

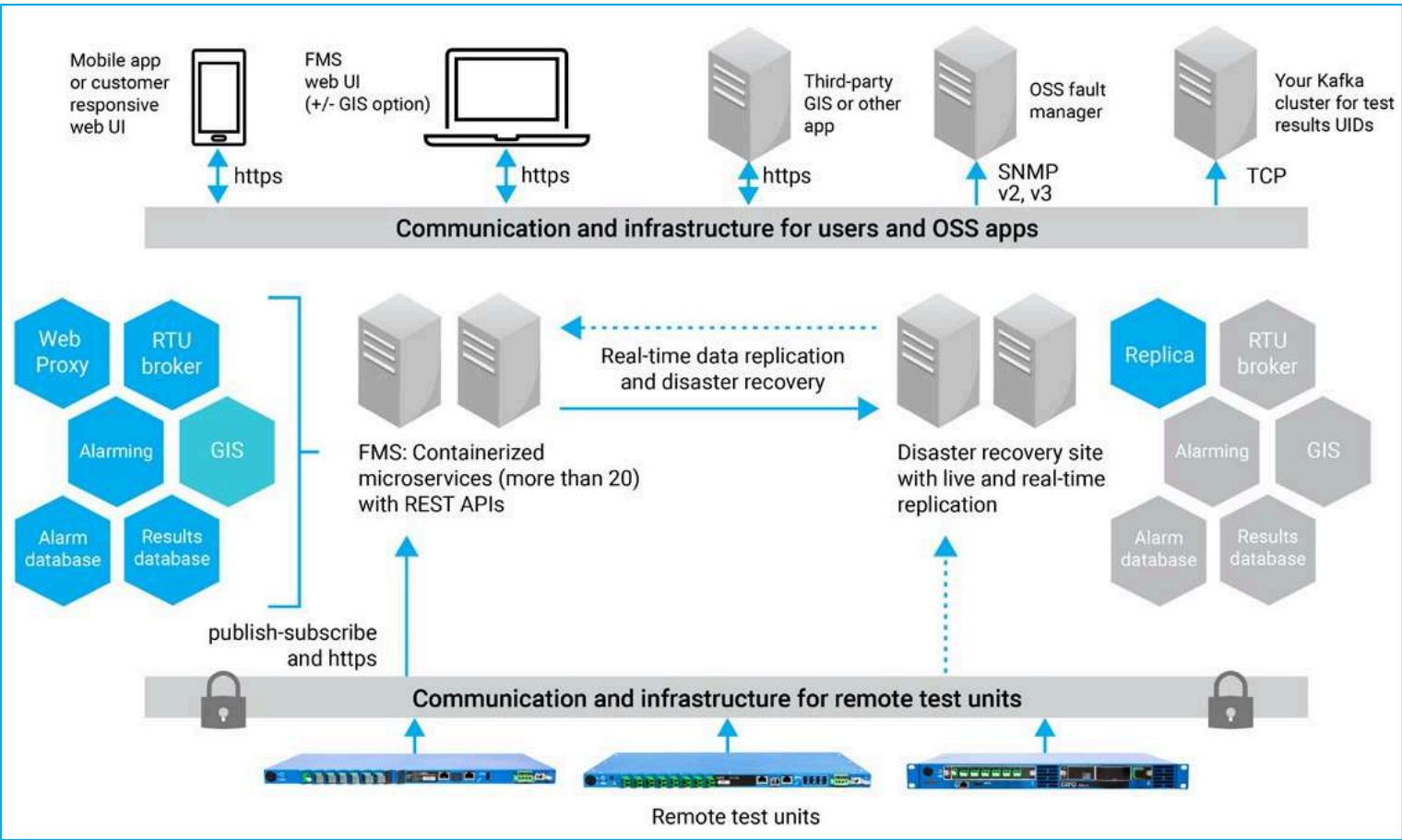
Remote Fiber Testing and Monitoring Solutions

OTH-7000 Remote Optical Test Head & Scalable System with Great Flexibility



Compact OTDR-based remote test unit designed for FTTx PON deployments, fiber-optic network monitoring and troubleshooting.

Key Functions & Features of FMS



The Fiber Management System (FMS) functions as an Element Management System (EMS) within a client-server architecture, overseeing test units configured as clients. Communication is event-driven, with FMS managing subscribers for each queue initiated by the test units, ensuring scalability and efficient load distribution.



SUPPORT & SLA

Service Level Agreement		GOLD	SILVER
TECHNICAL SUPPORT Response Time/Initial Troubleshooting	04/08 Hours	08/24 Hours	
ONSITE RESPONSE Resolution/Timeline	Included 03 working days	Paid 05 working days	
ADVANCE REPLACEMENT Resolution/Timeline	Included 05 working days	Paid Sub. Availability	
REPAIR & RETURN Timeline/Logistics	Within 30 days Both Ways	Within 30 days One Way	
HARDWARE REPAIR	Full Repair	Full Repair	
SOFTWARE RELEASE	Full Support	Full Support	

Our Services



Repair
Calibration Services



I&C and
Acceptance Testing



Rentals & Engineering
Services



Synchronization
Audit & Testing



SLA, Support &
Maintenance



Training



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