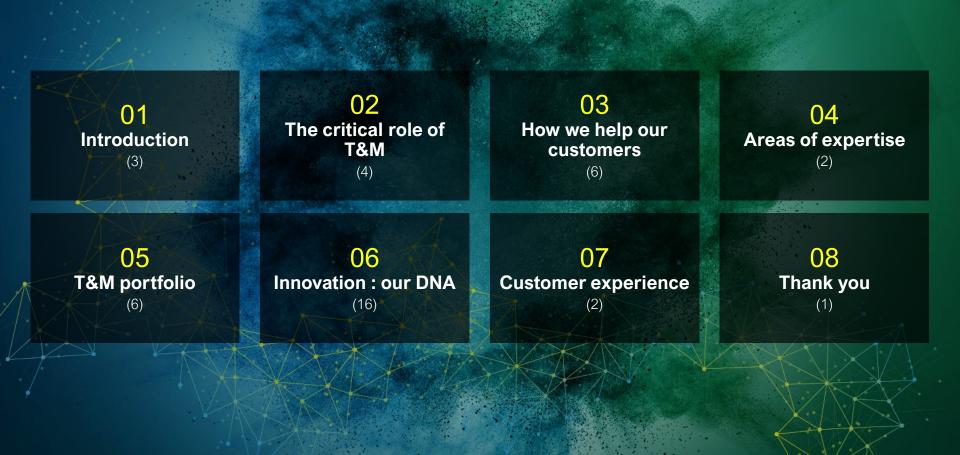
# TEST & MEASUREMENT

## PORTFOLIO OVERVIEW-PART 1



MaxTes

EXFO



## We're the communications industry's test, monitoring and analytics experts.

## Who we help

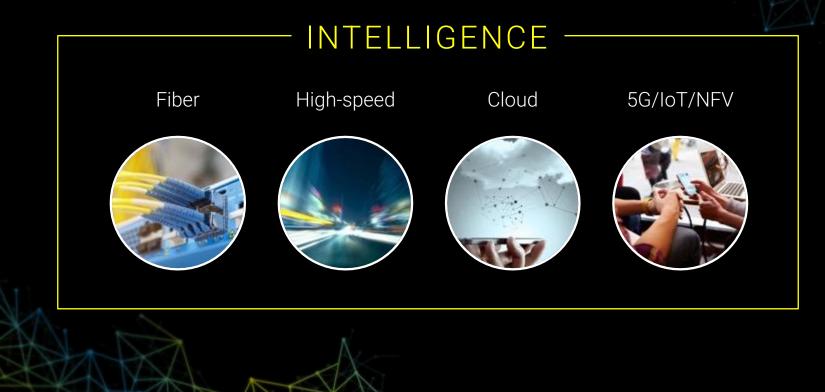


Webscale and large enterprises

Contractors and managed services

Enabling your transformation from dream to reality.

## Our industry is evolving. . .



Designing a society relying intimately on your networks.

Communication interactions. Transaction. Dependency.

Interconnect humans with business, devices, machines and robots

Access to work, to food, to daily services and transportation

Healthcare, security and mission critical systems

Today, more than ever, the **quality and reliability** of the network **infrastructure** is the **foundation** enabling next-gen applications and monetization.



## Rising infrastructure challenges



#### UNSEEN LEVEL OF COMPLEXITY

Fast pace evolution of technologies

Overlaying legacy with next-gen technologies

Cope with current and future network requirements (interoperability)



#### UNDER PRESSURE

Reduce costs (OPEX/CAPEX) Shorten delays and MTTR Avoid impact on SLAs and customer experience (QoE)

Achieve viable ROI



#### VISIBILITY, CONTROL AND EXECUTION

Gain real-time visibility into performance

Keep control over quality of outsourced jobs

Trust in your capability to scale

Intelligent and automated solutions and processes to evolve with the assurance and agility you need to scale.



# The power of intelligent data analytics and test automation.



## Efficiencies at each level of your business

Intelligent and automated test solutions and processes drive visibility and ROI.



#### DEPLOYMENT SCALE

- Visibility into your deployment sites
- Automatic audit process and real-time reaction
- Performance assessment of I&R jobs
- Access to historical test data for root-cause analysis

#### **MANAGEMENT & OPERATIONS**

- Automate MoPs across the teams
- Standardize execution from various teams and contractors
- Reduce level-2 expert on-site support and truck rolls
- Improve MTTR and turn-up delays



#### **FIELD TECHNICIANS & CONTRACTORS**

- Upskill frontline teams to close jobs better and faster
- Simplify test tools, cutting out complex manipulations
- Reduce training
- Remove the risk of human error

## Empowered at each step





Locate, D& fix your frontline crews. Maissues Jastefent, closDriving MTTR downhile eto exceed SLAs and t ensure seamless CX.



# no.

We know fiber.

worldwide in fiber optic test solutions

## Smarter insights across your entire lifecycle 🔅

LAB TO LIVE

Lab, R&D & manufacturing **PIC testing** Passive component testing Transceiver manufacturing 400G & beyond Load testing & simulation (EPC, IMS, 5G, IoT)

# Find, solve & optimite

#### **AUTOMATED REAL-TIME INSIGHTS**

**Closed-loop** automation Network, service & subscriber analytics Advanced use cases CEM

#### PHYSICAL VIRTUAL

End-to-end Layer 0 to 7 Fiber monitoring RAN & RF monitoring NFV service assurance Dynamic topology Operate & assure

## EXFO

#### FIELD TEST AUTOMATION

Broadband access FTTH/PON **Residential services** Data centers Small cell rollout

#### WIRELESS CORE TO SUBSCRIBERS

**Backhaul & fronthaul RF** interference **RAN** optimization Service & infrastructure

Activate

Design & build



## High-speed optical transformation, done right.

FIBER / PHYSICAL LAYER



Next-gen optical components (5G, PIC) Fiber deep, fiber densification & convergence (FTTH & 5G) Mass deployment for residential broadband & business services





Fast pace evolution of transceivers High-speed migration (100G/400G+) from labs & trials into field Technology interoperability e.g., Ethernet IP, eCPRI, RF over CPRI

## T&M portfolio Intelligent and automated solutions



# Lab, manufacturing & research



Loss characterization



System verification and design



Transceivers validation and mfg.



PIC testing



Passive component testing

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Automation/ Industry 4.0

## Physical-layer field testing



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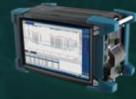


Optical fiber multimeters

OLTS and fiber certifiers



OTDR and iOLM





Dispersion



Automation and reporting

Optical spectrum analyzers (OSA)



## Transport & datacom testing



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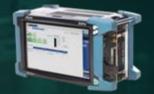
Gigabit & WiFi test solution



Dedicated 10M to 10G Ethernet test solution



1G to 100G Ethernet & multiservice test solution



100G-400G Ethernet & multiservice test solution



4G/5G all-in-one fronthaul & RAN test solution

i **D**ptics

High-speed transceiver validation



Intelligent service activation methodology based on ITU-T Y.1564 & RFC 6349 iorr | intelligent Optical RF

> Intelligent RF spectrum analysis over CPRI



Floating & temporary software licenses

# Field test automation & software solutions



### i **D**ptics

High-speed

transceiver validation



Intelligent service activation methodology based on ITU-T Y.1564 and RFC 6349



Floating and temporary software licenses

# Intelligent & connected test platforms

EXFO

Adapted for your dedicated applications

Common Windows-based architecture, with built-in third-party apps

Connected anywhere, anytime



LTB-2

LTB-8

FTB-1/FTB-1 Pro FTB-2/FTB-2 Pro FTB-4 Pro

KFC

XFO

FTB-500

# hnovation

# 12

innovations that changed the game



## Fix the no.1 cause of network failure.

### **FIP-435B**

Fully automated wireless fiber inspection probe

WiFi

FAST & EASY **ONE-STEP** CONNECTIVITY INSPECTION (NO WIRES OR PROCESS ADAPTORS)

100%

automated



PASS

PASS/FAIL

ANALYSIS BASED

ON INDUSTRY

STANDARDS (IEC/IPC)

STATUS

LED INDICATOR

**FNABLING** 

SCREENLESS, ONE-HAND

OPERATION

PASS



SHARE FILES &

SYNC WITH

DATABASE VIA

A SMART DEVICE

EXF

0

FULL-DAY

ONBOARD

BATTERY

RECHARGEABLE DESIGNED FOR

AG

FULLY FEATURED INSPECTION SOFTWARE SMART DEVICES

ConnectorMax



I like the latest versions of EXFO's automated testers, they work very well. Started using the wireless inspection probe. . . Very hard to beat at this point!

### John Sharp

Lead Operations Technician



## Assess the quality of fiber deployments in seconds.

Optical Xplorer" 5-star fiber testing made simple for frontline techs



Simpler.



Faster.

Better.



Leaner.

Stronger.





# Pioneering FTTH tests from day one.

When FTTH was first deployed, EXFO was there to test it with a concurrent upstream/downstream measurement technique via a pass-through connection.

#### The PPM-350D

EXFO innovated again with the first PON-aware<sup>™</sup> power meter to automatically detect and test next-gen and legacy PON technologies.

- 29



## Go beyond OTDR. Leave no faulty links behind.

#### Intelligent optical link mapper—iOLM

EXFO's iOLM turns traditional OTDR testing into clear, automated and first-time-right results for technicians of any experience level.

- Dynamic multipulse acquisition
- Intelligent trace analysis
- All results in a single view
- Comprehensive diagnosis

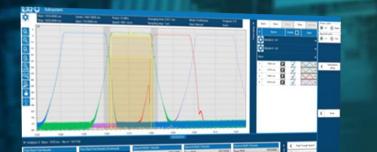
EXFO

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# The industry's **best-selling** OTDR!

#### MaxTester 700 OTDR Series

Compact, intuitive and powerful-this tablet-inspired OTDR is designed for ease of use in the field without compromise on performance and accuracy.



## Take the PIC when it's hot! Unmatched specs.

#### The CTP-10

Passive optical component testing platform for DWDM networks and photonic integrated circuits (PIC). Industry-leading speed to resolution ratio.





## See and analyze RF interference & PIM issues

#### See through the noise

Identify interferences impacting your services, where others were in the blind. All at the touch a button. Boundless Ethernet rates combinations & optical mix.

OTDR/iOLM, OLTS, OSA with 10G/25G/50G/100G simultaneous test capabilities

Optimal optical and Ethernet test capabilities under one roof.

FTB-1v2 and FTB-1v2 Pro dual carrier and high-power options

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## Test 400G and pluggables. Whatever shape they come in.

- Unmatched versatility and scalability with unique
  Open Transceiver System (OTS) supporting today's and
  tomorrow's optical interfaces
- Solution supports the full 400G ecosystem: 400GE, FlexE, OTUCn/FlexO
- Test in the lab, field or on the production floor
- Test up to 800G coupling 2 modules with LTB-8 platform





## Fast, simple and accurate validation

of SLAs for Ethernet services GigE to 100 GigE through an automated test processes.



## Sisam Sethersam



First solution to quickly and accurately validate any pluggable transceiver from 10M to 400G

## Make it right with test automation

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**11** ^

Process optimization Test limits analysis Contractor/vendor selection Systems engineer

Progress Efficiency Ouality ₽ Compliance Construction director

Validate

results

FastReporter

(圓)

12



manager Progress Efficiency Quality

Project

TestFlov

Compliance

Assign

TestFlow

ЈОВ 🚉



Upload results



➢ iOLM fiber characterization Optical power meter

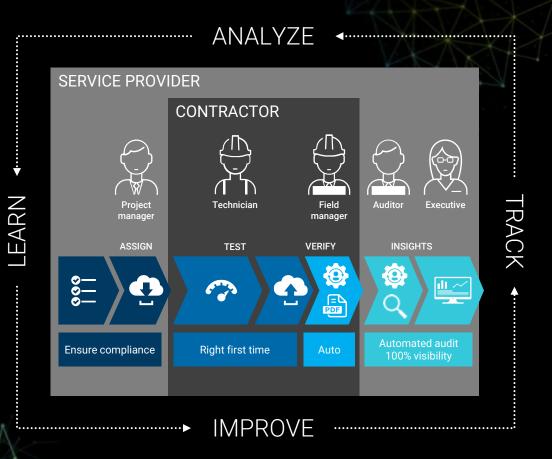
Generic tasks

Test results

auditor

# Business improvement process

### Do MORE for LESS



# It's all about **YOUr** experience

### Expert advisor

Acting as a consultant and partner across the entire projects



#### Leverage our expertise

Training and consulting sessions



#### Talk with humans

Dedicated post-sales customer service and technical support people

Presales support



A dedicated sales team with an excellent grasp of the project's challenges

## Exceeding expectations.

#### YOUR TRUSTED ADVISOR

We work closely with your technicians & managers to understand their issues. We help them in defining their methods of procedures (MOPs) and training requirements.

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#### **APPROVED &** ACKNOWLEDGED Our products are approved and used by industry leaders such

as Verizon, Corning Inc. & Panduit.

UNIOUE SELLING PROPOSALS Features & benefits that

the competition can't match such as automation & ease of use. Our test solutions will give you an edge on your competitors.

**ON-TIME DELIVERY** We deliver our products, services and solutions globally, securely & on time.

#### **FAST TRACK OUDTATION & INSIDE SALES SUPPORT**

four working hours. Access to technologically savvy agents means quickly finding the right solution for the end-user. This also facilitates upselling for our partners at later stages.

#### TRAINING SERVICES

Our Be-an-Expert program offers online & onsite training courses to get you up to speed about the latest technology trends & best testing practices. EXFO also produces a wealth of webinars, product videos, quides & educative documentation.

#### EXFO QUALITY SEAL-GET THE BEST TEST DATA

We take pride in our continued high standards of quality, accuracy & reliability over the past 30 years (TL-9000 accredited).

#### GLOBALLY **RECOGNIZED PRE &** POST SALES CUSTOMER SUPPORT Global service and repair facilities worldwide. including premium technical support available anytime.

#### INNOVATION THAT TRANSLATES INTO REAL **BUSINESS**

We are continuously developing new solutions & bringing innovative breakthroughs to the table. We keep on adding value for our customers to generate new business opportunities.

CUSTOMER CARE

"The support I received was second to none. The Tech was extremely helpful & knowledgeable. My issue was completely resolved." -John Lockman, Century Link

... at each step of your journey with us

## Worldwide presence

for exceptional customer support

Valued partners and distributors in 135 countries

Certified Service Centers in 21 countries on top of EXFO offices

Active participation in alliances & standards bodies



## Collaborating with industry leaders

## **Tektronix**<sup>®</sup>

NOKIA Bell Labs SADVA

(intel)

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# Awards

### Recent industry-acclaimed solutions



**Diamonds Broadband** Technology Reviews **Test Equipment** ConnectorMax Multifiber Source

2018



Lightwave Innovation Awards Labs/Production Test Equipment 400G Solution

2018



Lightwave

**Innovation Awards Field Test Equipment** FIP-435B Fiber Inspection Probe



2018



**Cabling Installation** & Maintenance

Innovators **Awards Program TestFlow** 



2017

# Thank you!

#### Name

Phone: 0123456789 Mobile: 0123456789 email@EXF0.com

### Address

This is a sample text. Insert your text here.



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