GPONDOCTOR
autofinder

FTTH installation Auditor

GPONDOCTOR
FTTH analysis & monitoring tools

DESCRIPTION

Fiber optic networks continues to multiply exponentially, and, in several regions, one every two homes already have an FTTH connection.
Several hundreds of millions of connections within the “Access Network” link the customer to its correspondent port within the Telecom Operator Headend.
Telecom Operators rely on contractors to deploy their fiber connections to the home. And though everything is well planned and executed, it is not rare to see customers not connected to the right port.
This is difficult to detect because even if the customer is connected to a different port, it is still registered, and services are provisioned as if it were in the right position.
But once a problem arises — it will might take ages to locate where this customer is located and troubleshoot it accordingly.
A situation that could be affordable for one user but as the number grows, it becomes a REAL NIGHTMARE for field engineers leading to an uncontrolled OPEX and CHURN.
FTTH Network auditing it is the best way to have a faithful documentation and keep your OPEX under control.

Audit your FTTH in 1 click

GPONDoctor™ autofinder gathers all information from the PON needed to verify that each optical network termination is connected to the correspondent PON port as stated in the FTTH deployment documentation. With an easy to use interface any technician is ready to use it from the very first day. All the data obtained by GPONDoctor autofinder can feed any Cloud and complement the data provided by the OSS. Any deviation from the planned deployment is fast identified and its key to get “As-Built” documentation.

100% independency from NMS

GPONDoctor™ autofinder does not require to be registered in the OLT. Thus, it does not interfere in the upstream direction. All data is gathered in a completely “Passive” way. Installation + Maintenance departments can audit the network without the need to be supported by the FTTH Operator OSS department.

“Cross-connections” identification

The most common problem during network deployments is “CROSS-CONNECTIONs”. GPONDoctor autofinder allows to solve it by identifying, in less than a minute, where any Fiber Termination location within the PON distribution network (ODN) is connected to.

Accurate Power Meter

GPONDoctor™ autofinder measures the Optical Power received (1490nm) with a precision compared to professional power meters (max uncertainty +- 0.5dB, check table). As the OLT advertises the output power is possible to know attenuation of the ODN up to that point.

Point of Measurement GeoLocation

As it is of prime importance to link the data with the installer position, GPONDoctor autofinder includes the GPS coordinates where the measurement was taken from. Other data about the location can also be added.

PON Audit

GPONDoctor™ autofinder is also capable to get all the Serial Numbers of the ONUs connected to the PON Port as well as their state “Active/Deactivate”

Simple User Interface

Any popular Web browser at your SMART PHONE, TABLET or LAPTOP allows to get full control of GPONDoctor autofinder (through WIFI/Ethernet).

Portable and Autonomous

Small (11x11cm) with a weight of less than 0,5Kg and with the option of a Power bank

NEW FEATURE “**ROGUE ONU**”

Any PON should quickly identify the presence of Rogue ONUs in the PON and isolate them before they impact in their customers Quality of Experience. GPONDoctor autowinder has a “Rogue ONU” emulation mode to check the behavior of the OLT under the presence of such devices.

INTERFACES

- GPON Downstream: Single mode: 1490nm (2.5Gbp) module.
- GPON Upstream: Single mode 1310nm (1.25Gbps)
- Ethernet: Gigabit LAN port
- Wi-Fi (Optional)
- LED Dimming
- Power Bank (Optional) 12DC and USB outputs (120/240V AC input)

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PHYSICAL INFO

RX POWER MEASUREMENT	TIMESTAMP (S)	INTERVAL DURATION (S)
-16.635402 dBm	2073.319113120	6.577249120

BIP ERROR BITS	BIP ERROR BLOCKS
436	138

FEC CODEWORDS UNCORRECTED	PLEN FAIL COUNTER
0	0

Rogue ONT

PON-ID

• • •

POWER MEASUREMENT

RX POWER MEASUREMENT
-16.798536 dBm

PON

PONID
201030208a000000ffff

POWER LEVEL	TRANSMIT OPTICAL LEVEL	BUDGET CLASS OF THE PLANT	RESERVE FOR FUTURE USE
0:TOL reports the OLT's power level	0xFFFF:Default value, TOL not supported	2:Class B+	0:Reserved for Future Use

VENDOR SPECIFIC (IN HEX)	VENDOR SPECIFIC (IN ASCII)
0x1030208a000000	0

OLT MANUFACTURER	OLT IDENTIFIER	OLT CARD/PORT	TECHNOLOGY
Nokia		/	

Stop Monitoring

NETWORK AUDIT

ONU-ID	Serial Number	State
0	454443525010ADE8 / EDCR-5010ADE8	Active
1	5841564900000028 / XAVI-00000028	Active
2	414C434CFAB85C56 / ALCL-FAB85C56	Active

Clear

LOCATION

LATITUDE	LONGITUDE
43.254055199999996	-2.9452697999999997

POSTAL CODE *	CITY	STREET *
488	Zalla	Jose Etxezarraga N1

SPLITTER	PORT *	COMMENTS
SP-011	2	Connectors in bad conditions

Download Report

Rogue ONT

Disable Rogue ONT

GPONDoctor Autofinder

TEST DETAILS

Date	Autofinder - ID	Rx Power Level
13-3-2019	GPDR0256FC00	-16.840296 dBm

PON-ID

PON-ID	201030208a000000ffff
Power Level	0:TOL reports the OLT's power level
Transmit Optical Level	0xFFFF:Default value, TOL not supported
Budget Class of the Plant	2:Class B+
Reserve For Future Use	0:Reserved for Future Use
Vendor Specific (In HEX)	0x1030208a000000
Vendor Specific (In ASCII)	0 ß
OLT Manufacturer	Nokia
OLT ID	3
OLT Card/Port	2/8
Technology	GPON
Technology	GPON

LOCATION

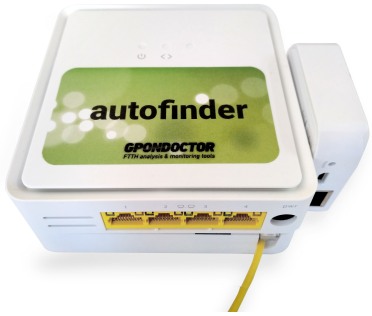
Latitude	43.2540954	Longitude	-2.9453136
Postal Code	48002	City	Zalla
Street	Jose Etxezarraga N1		
Splitter	SP-011	Port	2
Comments	Connectors in bad conditions		

NETWORK AUDIT

ONU-ID	Serial Number	State
0	5841564900000028 / XAVI-00000028	Active
1	454443525010ADE8 / EDCR-5010ADE8	Active
2	414C434CFAB85C56 / ALCL-FAB85C56	Deactivate

PHYSICAL INFO

Interval Duration (s)	6.31116480		
BIP Bits Errors	0	BIP Block Errors	0
FEC Codewords Uncorrected	0	PLEN Fail Counters	0



RX Power Force 1490nm	Measured RX Power	Error (dB)
-35dBm	-35,23dBm	0,23 dB
-33dBm	-33,01dBm	0,01dB
-30dBm	-30dBm	0 dB
-27dBm	-26,99dBm	-0,01dB
-20dBm	-20dBm	0 dB
-10dBm	-9,98dBm	-0,02dB
-9dBm	-9dBm	0 dB

CONTACT INFORMATION

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