



FactOSys

Hardcoded Quality

FactOS-PON



OutSys delivers innovative carrier-grade solutions and services to implement, simplify, and speed up the integration, provisioning, management, and testing processes in the Broadband Service Providers Networks and their Information Technology Systems

Active Member of the Broadband-Forum



Solution

FactOS-PON

**OLT/ONT Interoperability
and ONT Conformance
Fully Automated
Testing Solution**



**FactOS-PON is part of the
CPE, IP Devices, and
Network Services
Laboratory Testing
Solutions Portfolio**



FULL AUTOMATION
is essential to achieve testing
speed, accuracy, precision,
consistency, and repeatability
while reducing its cost



PON Standards



Current

G-PON
XG-PON
XGS-PON

Near Future

NG-PON2



Test Standards



TR-255 – Issue 1

TR-247 – Issue 4

Providers Requirements
Field Configurations

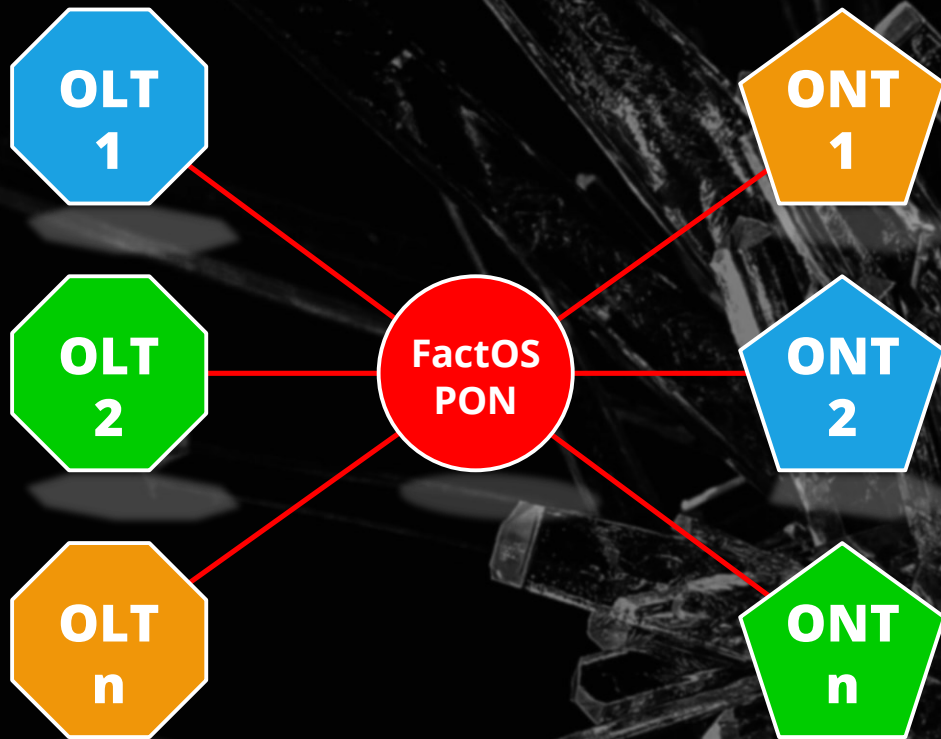


Interoperability

**Interoperability Testing
is the process of determining
if the DUT subsystems
can work in conjunction with
other software and hardware
systems**



OLT/ONT Interoperability



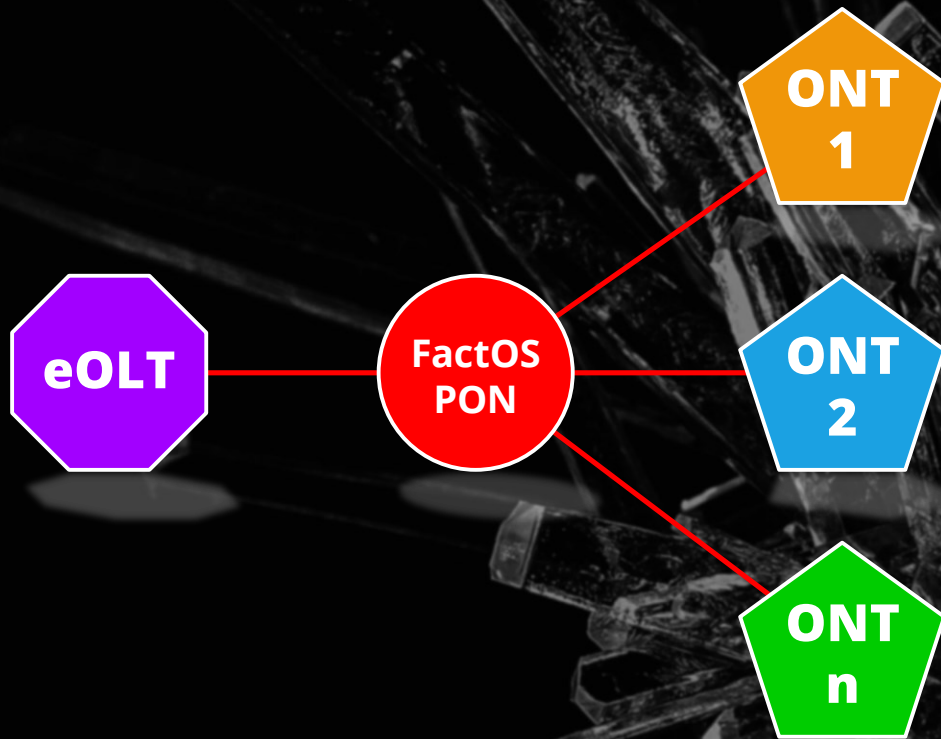
**FactOS-PON
automatically tests
the interoperability
of each ONT
against each OLT**



**Conformance Testing
is the process of determining
the DUT subsystems
compliance and adherence to
standard and custom
protocols & requirements**



ONT Conformance



**FactOS-PON
automatically tests
the conformance of
each ONT against
the eOLT**



**eOLT is a Software Defined
implementation of a OLT fully
compliant with all the
ITU-T and BroadBand-Forum
PON Standards**



Testing Paradigm

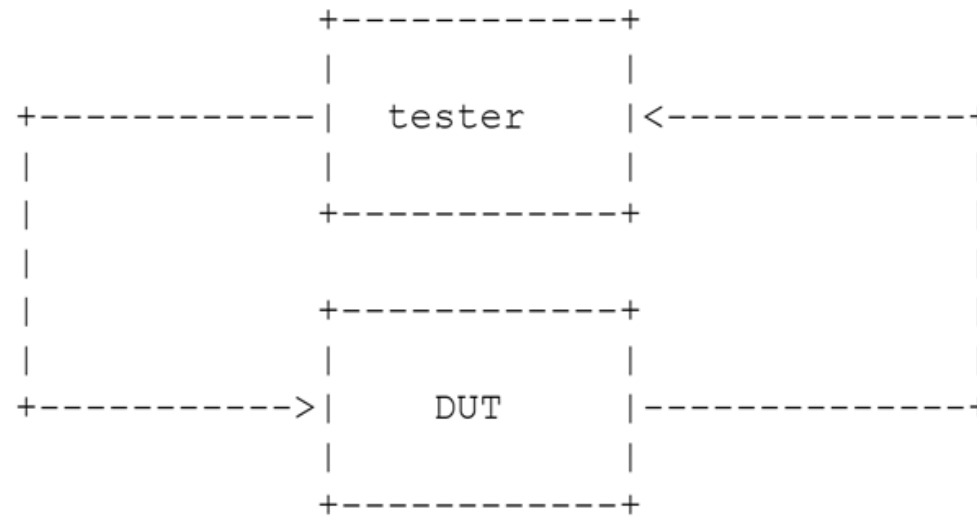


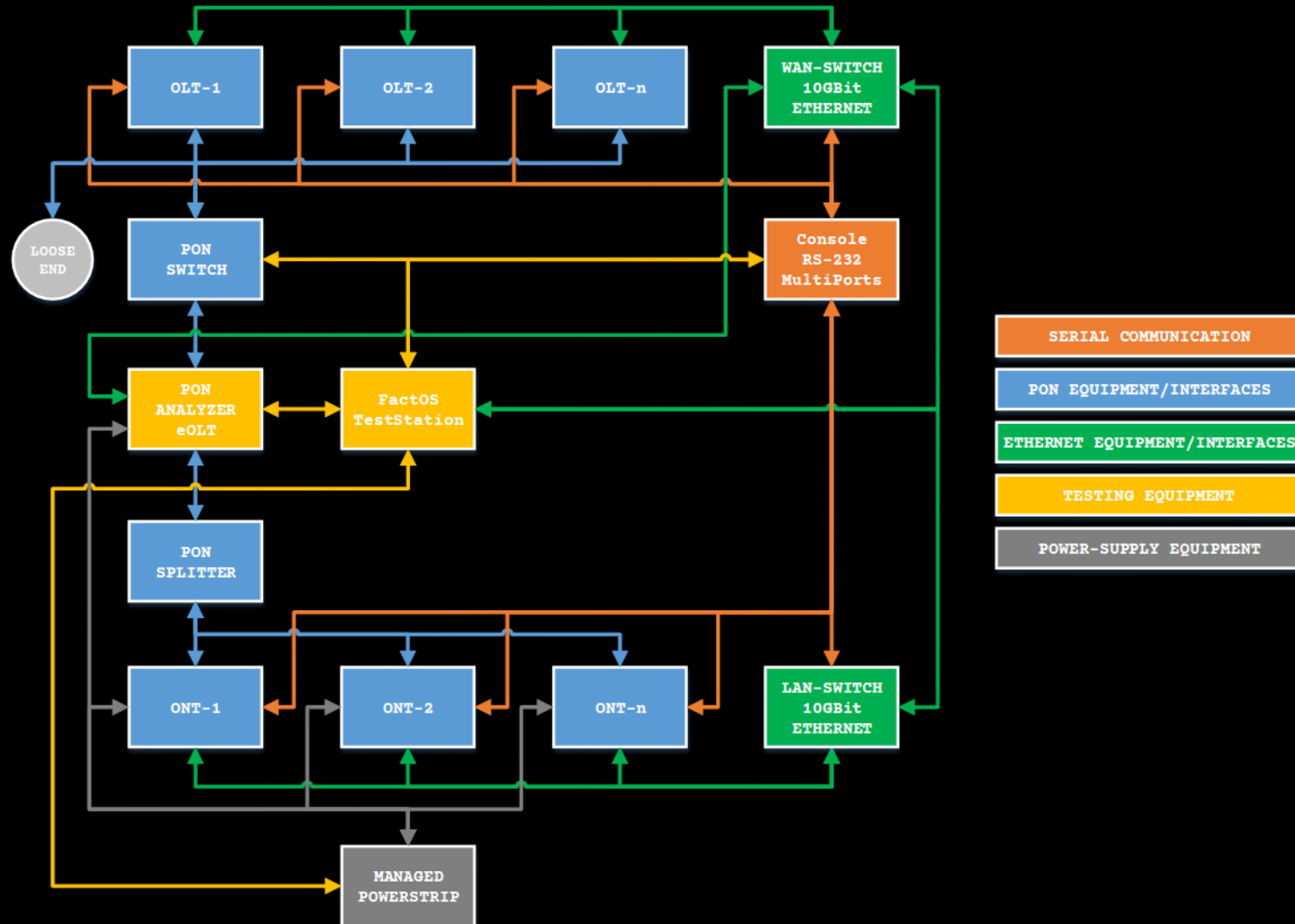
Figure 1

RFC 2544 Basic Layout

... The ideal way to implement this series of tests is to use a tester with both transmitting and receiving ports. Connections are made from the sending ports of the tester to the receiving ports of the DUT and from the sending ports of the DUT back to the tester ...



HLD Test-Bench Layout





OLT & ONT Management

OLT:

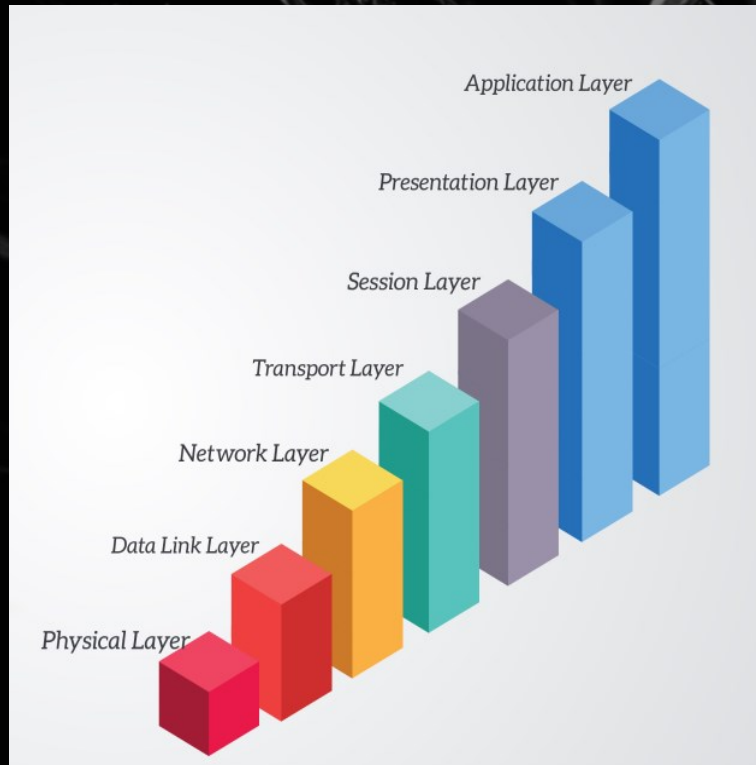
Serial Console
Telnet – SSH
WEB-GUI

ONT:

Serial Console
Telnet – SSH
WEB-GUI
TR-069



Upper Layers



PPPoE
IPoE (DHCP)

IPv4 & IPv6



Management Dashboard WEB-GUI

Devices ▾ Campaigns ▾ Traffic Generator ▾ Documentation

Campaigns

[+ Add](#) [Delete Selected](#)

<input type="checkbox"/>	Name	Description	Start date	Test Group	OLT Board	ONT	Status	Result
<input type="checkbox"/>	Dummy name for test	—	12/11/2021 08:52:30 (UTC)	TR-255 L2 Field Config	Board Combo 1	ONT Vendor 7 Model T	COMPLETED	SUCCESS
<input type="checkbox"/>	Dummy name for test	—	12/11/2021 07:36:19 (UTC)	TR-255 L2 Field Config	Board Combo 1	ONT Vendor X Model Y	COMPLETED	SUCCESS
<input type="checkbox"/>	Dummy name for test	—	11/11/2021 15:12:38 (UTC)	TR-255 L2 Field Config	Board XGS 1	ONT Vendor 7 Model T	COMPLETED	FAILED
<input type="checkbox"/>	Dummy name for test	—	11/11/2021 13:36:59 (UTC)	TR-255 L2 Field Config	Board XGS 1	ONT Vendor X Model Y	COMPLETED	FAILED
<input type="checkbox"/>	Dummy name for test	—	11/11/2021 10:30:56 (UTC)	TR-255 L2 Field Config	Board Model gh	ONT Vendor 7 Model T	COMPLETED	SUCCESS
<input type="checkbox"/>	Dummy name for test	—	11/11/2021 09:32:23 (UTC)	TR-255 L2 Field Config	Board Model gh	ONT Vendor X Model Y	COMPLETED	FAILED
<input type="checkbox"/>	Dummy name for test	—	11/11/2021 08:35:26 (UTC)	TR-255 L2 Field Config	Board Model def	ONT Vendor 7 Model T	COMPLETED	FAILED
<input type="checkbox"/>	Dummy name for test	—	08/11/2021 10:30:52 (UTC)	TR-255 L2 Field Config	Board Model def	ONT Vendor X Model Y	COMPLETED	SUCCESS
<input type="checkbox"/>	Dummy name for test	—	08/11/2021 09:23:37 (UTC)	TR-255 L2 Field Config	Board Model abc	ONT Vendor 7 Model T	COMPLETED	SUCCESS
<input type="checkbox"/>	Dummy name for test	—	08/11/2021 08:22:38 (UTC)	TR-255 L2 Field Config	Board Model abc	ONT Vendor X Model Y	COMPLETED	FAILED

1 2 3 ... 10 »

10 per page
Showing 1-10 of 97

Q Search

Search

Test Group

OLT Board

OLT Firmware

ONT

Status

Result

[Search](#) [Clear](#)



Extensions

**OLT Vendors License
Services Integration**

Latency & Speed Testing



Contacts

web: <https://www.outsys.com>

e-mail: info@outsys.com



Thank You

