

ONT LTP-16N NBI TL1

3.32

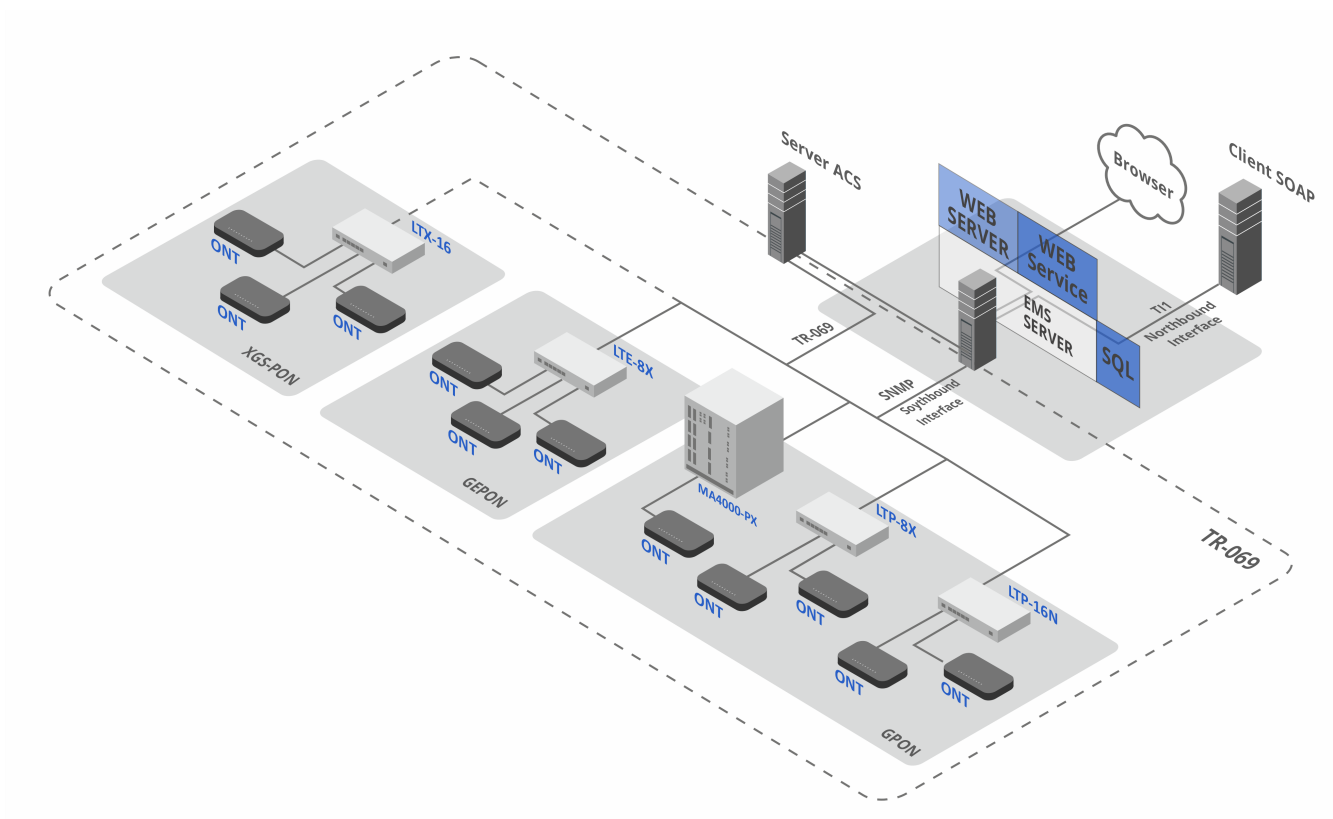
- 1
- 2 ONT
- 3
- 4 ONT
- 5 NBI TL1
 - 5.1 NBI TL1
 - 5.2 NBI
 - 5.3 (OLT)
 - 5.4 OLT
 - 5.5 OLT
 - 5.6 ONT OLT
 - 5.7 ONT OLT
 - 5.8 ONT OLT
 - 5.9 ONT OLT
 - 5.10 () ONT
 - 5.11 ONT
 - 5.12 ONT
 - 5.13 (TriplePlay) ONT
 - 5.14 () ONT
 - 5.15 (TriplePlay) ONT
 - 5.16 ONT
 - 5.17 ONT OMCI
 - 5.18 ONT
 - 5.19 ONT
 - 5.20 ONT
 - 5.21 NBI TL1
- 6 1.
- 7 2.
- 8 3. ONT
- 9 4. ONT

1 (Transaction Language 1, . TL1) — . , - , (SONET) ().

TL1 , OSS (). , , , , TL1 OSS . TL1 Telcordia Technologies (Bellcore) Generic Requirements document GR-831-CORE ().

«Eltex.EMS» TL1 (Northbound Interface), . , , , , .

«Eltex.EMS» 1.



1 – «Eltex.EMS»

«Eltex.EMS»:

- **EMS server** — ;
- **Web Server** — ;
- **Web Service** — , (Eltex.EMS);
- **SQL** — , , MySQL. (snmp-). , . .;
- **Server ACS** — (Eltex.ACS.GUI « Eltex.ACS»). PON ;
- (Web browser) — , , , ();
- **Client SOAP** — (OSS).

«Eltex.EMS» : <https://eltex-co.ru/catalog/management/eltex-ems/>

TL1 . « TL1 » GUI EMS « //tl1 ». eltex-ems.

TL1 OLT , — , .

TL1 3 :

1. EMS **tl1** « PON » (GUI EMS — //tl1);
2. EMS **system** « SNMP » (GUI EMS — //system);
3. EMS SNMP (GUI EMS — < OLT > //Traps).

PON .

ONT

ONT :

- ;
- ;
- ;

ONT (service). OLT ONT. : **cross-connect dba**. **cross-connect** GEM , **dba** Alloc-ID ONT Alloc-ID GEM.

, ONT:

--	--

Cross-connect	VLAN- OLT ONT ONT
Db	
Shaping	
Management	TR-069
Ports	ONT, IGMP multicast
Scripting	GPON OMCI

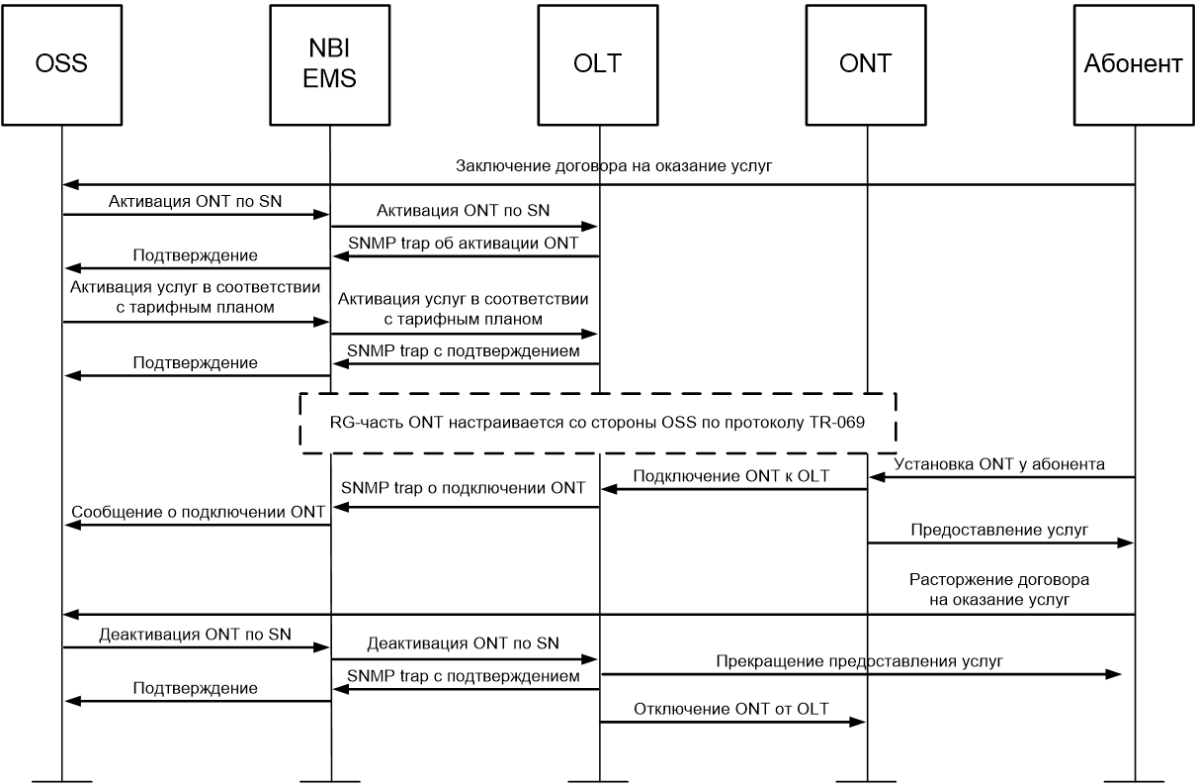
scripting . , (). , , . , scripting .

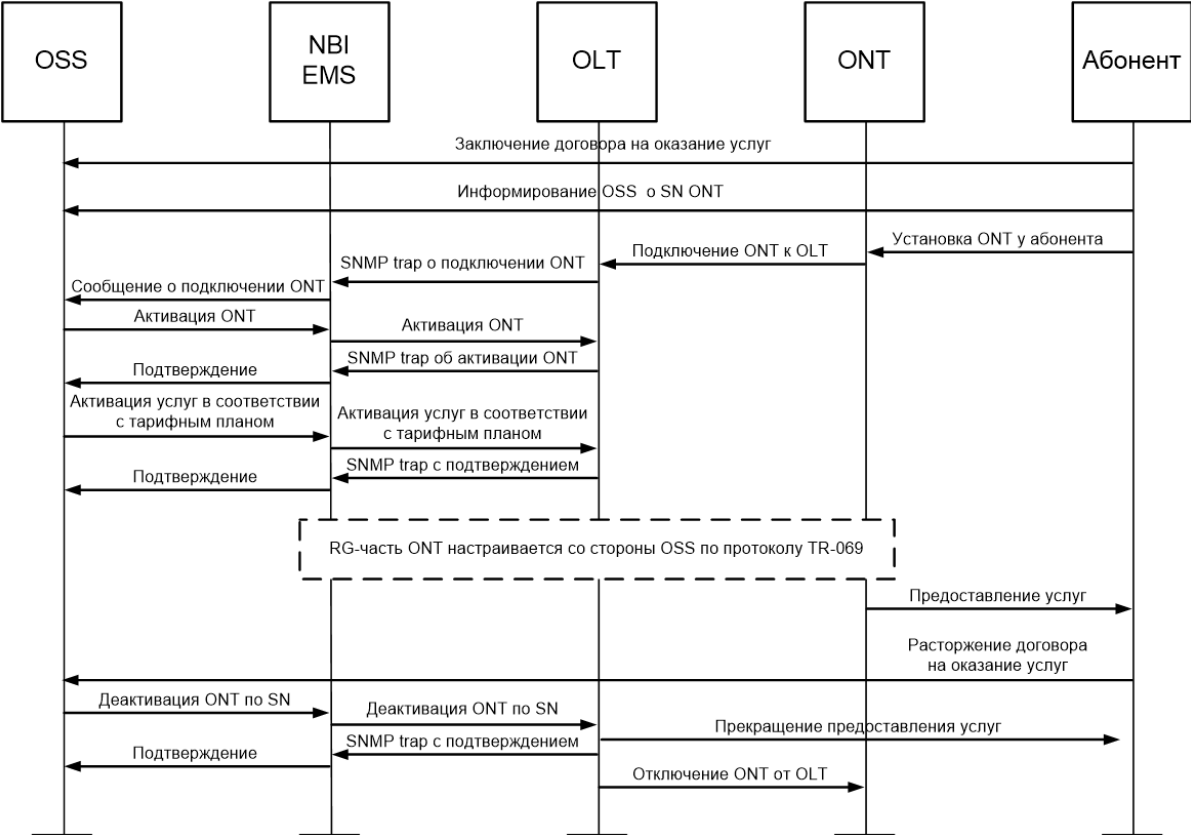
(Template). , ONT . ONT , .

ONT ONT. , GPON-, VLAN, , .

NBI TL1 OLT, IP. . «Eltex.EMS» (/ // /), .

2 2 OSS NBI TL1 «Eltex.EMS».





2 – OSS ONT ONT

: TL1 . SNMP-. -, , ONT. . / NBI .

NBI :

ONT_FOUND_NEW	ONT
ONT_STATE_UP	ONT OLT
ONT_STATE_DOWN	ONT OLT
ONT_CFG_ADDED	ONT
ONT_CFG_DELETED	ONT

(,):

:

```
CRTE-ONT-CFG:192.168.16.223:454C54581C001C9E:123::Description=ELTX1C001C9E,Channel=2,Id=12,Password=0000000000;
```

:

```
192.168.16.223 15-07-07 09:41:18
A 1066763 ONT-CFG-ADDED
  "SerialNumber=454C54581C001C9E, Channel=2,Id=12"
;

192.168.16.223 15-07-07 09:41:18
A 1066764 ONT-CFG-EDIT
  "SerialNumber=454C54581C001C9E, Channel=2,Id=12"
;

192.168.16.223 15-07-07 09:41:19
M 123 COMPLD
  "454C54581C001C9E"
;
```

(,).

```
:
CRTE-ONT-CFG:192.168.16.223:454C54581C001C9E:123::Description=ELTX1C001C9E,Channel=4,Id=5>Password=0000000000;
```

```
:
192.168.16.223 15-07-07 10:31:47
M 123 COMPLD
  "454C54581C001C9E"
;
```

ONT

EMS ONT, ID SNMP TRAP-PDU.

/usr/lib/eltex-ems/conf/snmp/OntActivationSender.cfg.

- :
- activation.sender.enable — / . : yes, no.
 - sender.version — SNMP-. : trapv2, informv2.
 - activation.sender.manager_ip — IP-, .
 - activation.sender.manager_port — , .
 - activation.sender.inform_retries — inform-, .
 - activation.sender.inform_timeout — inform-, () .
 - sender.community — community .

EMS :

sudo service eltex-ems restart

SNMP-TRAP-PDU SNMP-INFORM-PDU:

	OID		
sysUpTime	1.3.6.1.2.1.1.3.0	TimeTicks	EMS
snmpTrapOID	1.3.6.1.6.3.1.1.4.1.0	OID	«1.3.6.1.4.1.35265.3.102»
emsTrapSeverity	1.3.6.1.4.1.35265.3.1.1	OctetString	
emsTrapMessage	1.3.6.1.4.1.35265.3.1.2	OctetString	ONT (.)
emsTrapObjectName	1.3.6.1.4.1.35265.3.1.3	OctetString	OLT EMS
emsTrapObjectHost	1.3.6.1.4.1.35265.3.1.4	IpAddress	IP- OLT
emsTrapObjectType	1.3.6.1.4.1.35265.3.1.5	OctetString	OLT
emsTrapRecordId	1.3.6.1.4.1.35265.3.1.6	Counter64	ID EMS
emsTrapRecordOID	1.3.6.1.4.1.35265.3.1.7	OID	«1.3.6.1.4.1.35265.1.22.100.3.24»
--	1.3.6.1.4.1.35265.3.1.8	OctetString	

snmpTrapEnterprise	1.3.6.1.6.3.1.1.4.3.0	OID	«1.3.6.1.4.1.35265.2.1»
--------------------	-----------------------	-----	-------------------------

emsTrapMessage:

ONT<channel_id>/x (<ont_serial>) ONT has no configuration

:

- <channel_id> — PON-, ONT;
- <ont_serial> — ONT.

;

ONT0/x (ELTX1C001C9E) ONT has no configuration

NBI TL1

NBI TL1

telnet (OSS/SA) 9340:

telnet <IP> 9340

:

NBI TL1.

telnet 127.0.0.1 9340

(EMS):

Trying 127.0.0.1...

Connected to 127.0.0.1.

Escape character is '^'.

Welcome to ELTEX TL1 Console (v2.0.47 July 3 2015 build 4117)

NBI TL1 :

ACT-USER::<aid>:<ctag>::[<password>];

:

- aid — ;
- ctag — TL1 ;
- password — ().

:

NODE <date> <time>

M <ctag> COMPLD

;

:

.

;

ACT-USER::t11:123::;

:

NODE 15-01-15 12:45:14
M 123 COMPLD
;

NBI

NBI TL1 :

EN-ONT-NOTICE::<aid>:<ctag>;;

:

- aid — (/ — true/false);
- ctag — TL1 .

TL1 :

NODE <date> <time>

M <ctag> COMPLD

;

;

.

;

EN-ONT-NOTICE::true:123::;

;

NODE 15-07-07 10:37:20
M 123 COMPLD
;

(OLT)

NBI TL1 :

RTRV-NE-LIST:::<ctag>;

:

ctag — TL1 .

TL1 OLT, .

NODE <date> <time>

M <ctag> RTRV

<list of OLT>

M <ctag> COMPLD

;

;

.

;

RTRV-NE-LIST:::123;

:

```
NODE 15-07-06 12:52:29
M 123 RTRV
"275:name=smg1016m,IP=192.168.26.13,type=SMG1016M"
"371:name=LTP,IP=192.168.205.115,type=LTP16N"
"380:name=MA4000-1.3.2-199.150,IP=192.168.199.150,type=MA4000"
"567:name=192.168.16.223,IP=192.168.16.223,type=LTP16N"
NODE 15-01-15 12:52:29
M 123 COMPLD
;
```

OLT



, , OLT TL1. .

NBI TL1 :

OPR-SYNC-NE:<tid>::<ctag>;;

:

- tid — NE (IP-);
- ctag — TL1 .

OLT:

<tid> <date> <time>

M <ctag> COMPLD

""

;

:

LTP, IP=192.168.16.223.

:

```
OPR-SYNC-NE:192.168.16.223::123;
```

:

```
192.168.16.223 15-07-06 16:22:55
M 123 COMPLD
""
;
```

OLT

NBI TL1 :

RTRV-NE-VERSION:<tid>::<ctag>;;

:

- tid — NE (IP-);
- ctag — TL1 .

TL1 :

<tid> <date> <time>

M <ctag> RTRV

<OLT version>

;
:
LTP, IP=192.168.16.223.

;
RTRV-NE-VERSION:192.168.16.223::123::;

;
192.168.16.223 15-07-07 09:09:35
M 123 RTRV
"Eltex LTP-16N: software version 1.6.2 build 44 (d629d782) on 09.08.2023 10:50"
;

ONT OLT

NBI TL1 :

RTRV-ONT-LISTSTATE:<tid>::<ctag>;;

;
• tid — NE (IP-);
• ctag — TL1 .

TL1 ONT OLT:

<tid> <date> <time>

M <ctag> COMPLD

<list of ONT>

;
:
ONT LTP, IP=192.168.16.223.

;
RTRV-ONT-LISTSTATE:192.168.16.223::123;

;
192.168.16.223 15-07-06 16:33:16
M 123 COMPLD
"SerialNumber=454C5458060025E6,Channel=1,Id=9,State=OK"
"SerialNumber=454C545808000000,Channel=3,Id=3,State=OK"
"SerialNumber=454C54580F0000E5,Channel=5,Id=7,State=OK"
;

ONT OLT

NBI TL1 :

RTRV-ONT-LISTNA:<tid>::<ctag>;;

;
• tid — NE (IP-);

- ctag — TL1 .

TL1 , ONT:

<tid> <date> <time>

M <ctag> COMPLD

<list of ONT>

;

;

ONT LTP IP=192.168.16.223.

;

RTRV-ONT-LISTNA:192.168.16.223::123;

;

192.168.16.223 15-07-06 16:37:50
M 123 COMPLD
"OLT=192.168.16.223,SerialNumber=454C54581C000276,Channel=6,Id=-1,State=UNACTIVATED"
"OLT=192.168.16.223,SerialNumber=454C54581C001C9E,Channel=8,Id=-1,State=UNACTIVATED"
;

ONT OLT

NBI TL1 :

RTRV-ONT-LISTCFG:<tid>::<ctag>;;

:

- tid — NE (IP-);
- ctag — TL1 .

TL1 ONT ():

<tid> <date> <time>

M <ctag> COMPLD

<list of ONT>

;

;

ONT LTP, IP=192.168.16.223.

;

RTRV-ONT-LISTCFG:192.168.16.223::123;

;

192.168.16.223 15-07-06 16:51:28
M 123 COMPLD
"SerialNumber=454C5458060025E6,Channel=1,Id=9"
"SerialNumber=454C545808000000,Channel=3,Id=3"
"SerialNumber=454C545808000A44,Channel=2,Id=4"
"SerialNumber=454C54580F0000E5,Channel=5,Id=7"
"SerialNumber=454C545817003ABE,Channel=2,Id=1"
;

ONT OLT

NBI TL1 :

RTRV-ONT-PROFS:<tid>::<ctag>;;

:

- tid — NE (IP-);
- ctag — TL1 .

TL1 ONT:

<tid> <date> <time>

M <ctag> COMPLD

<list of profiles>

;

:

LTP IP=192.168.16.223.

:

RTRV-ONT-PROFS:192.168.16.223::123;

:

```
192.168.16.223 15-07-06 16:57:34
M 123 COMPLD
"1.PortsProfile [1.ports1.ONT Profile Ports 1;2.multicast_99_33.multicast_99_33;3.q.ONT Profile Ports 3]"
"2.ManagementProfile [0.unassigned.unassigned;1.management1.ONT Profile Management 1]"
"3.DBAProfile [0.unassigned.unassigned;1.dbal.ONT Profile DBA 1]"
"4.CrossConnectProfile [0.unassigned.unassigned;1.crossconnect1.ONT Profile Cross-Connect 1;2.IPTV.IPTV;3.
HSI.ONT Profile Cross-Connect 3;4.q.ONT Profile Cross-Connect 4;5.test.ONT Profile Cross-Connect 5]"
"5.Template [0.unassigned.unassigned;1.template1.ONT Template Profile 1]"
;
```

() ONT

() ONT [ONT OLT](#), [ONT OLT](#), [ONT OLT](#).

NBI TL1 :

CRTE-ONT-CFG:<tid>:<aid>:<ctag>::<payload>;

:

- tid — NE (IP-);
- aid — NE (- ONT);
- ctag — TL1 ;
- payload — (ONT — , , ID,). «::».

TL1 , ONT :

<tid> <date> <time>

M 230 COMPLD

"SN ONT"

;

:

ONT 454C54581C001C9E 3, ID=9 , 0000000000.

:

```
CRTE-ONT-CFG:192.168.16.223:454C54581C001C9E:123::Description=ELTX1C001C9E,Channel=3,Id=9>Password=0000000000;
```

:

```
192.168.16.223 15-07-06 17:01:47
M 123 COMPLD
"454C54581C001C9E"
;
```

ONT

NBI TL1 :

RTRV-ONT-CFG:<tid>:<aid>:<ctag>;;

:

- tid — NE (IP-);
- aid — NE (— ONT);
- ctag — TL1 .

TL1 ONT:

<tid> <date> <time>

M <ctag> COMPLD

<ONT configuration>

;

:

ONT *454C54581C001C9E*, LTP IP=192.168.16.223.

:

```
RTRV-ONT-CFG:192.168.16.223:454C54581C001C9E:20::;
```

:

```
192.168.16.223 15-07-06 17:12:22
M 20 COMPLD
"Template=unassigned,Description=,Channel=3,Id=9,RfPortState=0,PortsProfile=ports1,
ManagementProfile=unassigned,StaticIPAddress=0.0.0.0,StaticNetMask=0.0.0.0,StaticGateway=0.0.0.0,
Password=0000000000,Shutdown=2,BroadcastFilter=1,MulticastFilter=1,CrossConnectProfile1=test1,DBAProfile1=dba1,
CrossConnectCVID1=0,CrossConnectSVID1=0,CrossConnectProfile2=test2,DBAProfile2=dba1,CrossConnectCVID2=0,
CrossConnectSVID2=0,CrossConnectProfile3=,DBAProfile3=,CrossConnectCVID3=unused,CrossConnectSVID3=unused,
CrossConnectProfile4=,DBAProfile4=,CrossConnectCVID4=unused,CrossConnectSVID4=unused,CrossConnectProfile5=,
DBAProfile5=,CrossConnectCVID5=unused,CrossConnectSVID5=unused,CrossConnectProfile6=,DBAProfile6=,
CrossConnectCVID6=unused,CrossConnectSVID6=unused,CrossConnectProfile7=,DBAProfile7=,CrossConnectCVID7=unused,
CrossConnectSVID7=unused,CrossConnectProfile8=,DBAProfile8=,CrossConnectCVID8=unused,CrossConnectSVID8=unused,
CrossConnectProfile9=,DBAProfile9=,CrossConnectCVID9=unused,CrossConnectSVID9=unused,CrossConnectProfile10=,
DBAProfile10=,CrossConnectCVID10=unused,CrossConnectSVID10=unused,CrossConnectProfile11=,DBAProfile11=,
CrossConnectCVID11=unused,CrossConnectSVID11=unused,CrossConnectProfile12=,DBAProfile12=,
CrossConnectCVID12=unused,CrossConnectSVID12=unused,CrossConnectProfile13=,DBAProfile13=,
CrossConnectCVID13=unused,CrossConnectSVID13=unused,CrossConnectProfile14=,DBAProfile14=,
CrossConnectCVID14=unused,CrossConnectSVID14=unused,CrossConnectProfile15=,DBAProfile15=,
CrossConnectCVID15=unused,CrossConnectSVID15=unused,CrossConnectProfile16=,DBAProfile16=,
CrossConnectCVID16=unused,CrossConnectSVID16=unused,CrossConnectProfile17=,DBAProfile17=,
CrossConnectCVID17=unused,CrossConnectSVID17=unused,CrossConnectProfile18=,DBAProfile18=,
CrossConnectCVID18=unused,CrossConnectSVID18=unused,CrossConnectProfile19=,DBAProfile19=,
CrossConnectCVID19=unused,CrossConnectSVID19=unused,CrossConnectProfile20=,DBAProfile20=,
CrossConnectCVID20=unused,CrossConnectSVID20=unused,CrossConnectProfile21=,DBAProfile21=,
CrossConnectCVID21=unused,CrossConnectSVID21=unused,CrossConnectProfile22=,DBAProfile22=,
CrossConnectCVID22=unused,CrossConnectSVID22=unused,CrossConnectProfile23=,DBAProfile23=,
CrossConnectCVID23=unused,CrossConnectSVID23=unused,CrossConnectProfile24=,DBAProfile24=,
CrossConnectCVID24=unused,CrossConnectSVID24=unused,CrossConnectProfile25=,DBAProfile25=,
CrossConnectCVID25=unused,CrossConnectSVID25=unused,CrossConnectProfile26=,DBAProfile26=,
CrossConnectCVID26=unused,CrossConnectSVID26=unused,CrossConnectProfile27=,DBAProfile27=,
CrossConnectCVID27=unused,CrossConnectSVID27=unused,CrossConnectProfile28=,DBAProfile28=,
CrossConnectCVID28=unused,CrossConnectSVID28=unused,CrossConnectProfile29=,DBAProfile29=,
CrossConnectCVID29=unused,CrossConnectSVID29=unused,CrossConnectProfile30=,DBAProfile30=,
CrossConnectCVID30=unused,CrossConnectSVID30=unused"
;
```

ONT

NBI TL1 :

RTRV-ONT-STATE:<tid>:<aid>:<ctag>;;

:

- tid — NE (IP-);
- aid — NE (— ONT);
- ctag — TL1 .

TL1 ONT, PON-, , . ONT 'OK'- , PON:

<tid> <date> <time>

M <ctag> COMPLD

<ONT state>

;

:

ONT 454C54581C001C9E, LTP IP=192.168.16.223.

:

RTRV-ONT-STATE:192.168.16.223:454C54581C001C9E:123::;

:

```
192.168.16.223 15-07-06 17:24:13
M 123 COMPLD
"PON_ACTIVITY=15.08.2023 14:00:00,CREATE_DATE=15.08.2023 10:14:53,BiasCurrent=1280,Channel=3,EquipmentID=NTU-
RG-5421G-Wac,HardwareVersion=lv2,OntID=1,RSSI=-157,RxPower=-1543,SWITCH_COUNTER=4,Serial=454C54581C001C9E,
SoftwareVersion=2.5.9.35,State=OK,StateDistance=99,StateRFPortOn=Off,Temperature=4039,VideoPower=n/a,
Voltage=330"

;
```

(TriplePlay) ONT

ONT **ONT** . , ONT . OLT, ONT web-, TR-069.

. . ONT **ONT** OLT.

ONT NBI TL1 :

ED-ONT-CFG:<tid>:<aid>:<ctag>::<payload>;

;

- tid — NE (IP-);
- aid — NE (— ONT);
- ctag — TL1;
- payload — (ONT). «::».

TL1 ONT:

<tid> <date> <time>

M <ctag> COMPLD

<SN ONT>

;

;

- PPPoE 1. cross-connect DBA, . VLAN 305, VLAN — 3952.

;

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::CrossConnectProfile1=v1105-ppp,DBAProfile1=dba-00,
CrossConnectSVID1=3952,CrossConnectCVID1=305;
```

- IP- 2. cross-connect DBA, . VLAN 305, VLAN — 3952.

0:

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::CrossConnectProfile2=v1105-voip,DBAProfile2=dba-00,
CrossConnectSVID2=3952,CrossConnectCVID2=305,CrossConnectCOS2=255;
```

- IPTV — ONT. 3 cross-connect DBA STB. VLAN 305, VLAN — 3952.

;

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::PortsProfile=mc-vf,CrossConnectProfile3=v1105-stb,
DBAProfile3=dba-00,CrossConnectSVID3=3952,CrossConnectCVID3=305;
```

- TR-069 4. cross-connect DBA, . VLAN .

;

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::CrossConnectProfile4=v1105-tr,DBAProfile4=dba-00,
CrossConnectSVID4=unused,CrossConnectCVID4=unused;
```

TL1 ONT:

```
192.168.16.223 15-07-06 17:49:41
M 123 COMPLD
"454C54581C001C9E"
;
```

ONT [ONT](#) .

() ONT

, OLT ONT.

NBI TL1 :

RECNFGR-ONT:<tid>:<aid>:<ctag>;;

:

- tid — NE (IP-);
- aid — NE (— ONT);
- ctag — TL1 .

TL1 ONT:

<tid> <date> <time>

M <ctag> COMPLD

;

:

ONT *454C54581C001C9E*, LTP IP=192.168.16.223.

:

```
RECNFGR-ONT:192.168.16.223:454C54581C001C9E:123::;
```

:

```
192.168.16.223 15-07-06 17:52:30
M 123 COMPLD
"454C54581C001C9E"
;
```

ONT [ONT](#) .

(TriplePlay) ONT

ONT [ONT](#) . , . ONT [\(TriplePlay\) ONT](#).

:

- PPPoE. cross-connect dba.

:

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::CrossConnectProfile1=,DBAProfile1=;
```

- VoIP. cross-connect dba.

:

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::CrossConnectProfile2=,DBAProfile2=;
```

- MC. 0, . cross-connect dba STB.

;

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::CrossConnectProfile3=,DBAProfile3=;
```

- TR-069. cross-connect dba.

;

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::CrossConnectProfile4=,DBAProfile4=;
```

TL1 ONT:

```
192.168.16.223 15-07-06 17:58:24
M 123 COMPLD
"454C54581C001C9E"
;
```

ONT [ONT](#) .

ONT

NBI TL1 :

REBOOT-ONT:<tid>:<aid>:<ctag>::<payload>;

;

- tid — NE (IP-);
- aid — NE (— ONT);
- ctag — TL1 .

TL1 ONT:

<tid> <date> <time>

M <ctag> COMPLD

;

;

ONT *454C54581C001C9E*, LTP IP=192.168.16.223.

;

```
REBOOT-ONT:192.168.16.223:454C54581C001C9E:123::;
```

;

```
192.168.16.223 15-07-07 08:35:44
M 123 COMPLD
"454C54581C001C9E"
;
```

ONT [ONT](#) .

ONT OMCI

ONT .

NBI TL1 :

INIT-ONT:<tid>:<aid>:<ctag>;;

:

- tid — NE (IP-);
- aid — NE (— ONT);
- ctag — TL1 .

TL1 :

<tid> <date> <time>

M <ctag> COMPLD

;

;

ONT 454C54581C001C9E, LTP IP=192.168.16.223.

;

```
INIT-ONT:192.168.16.223:454C54581C001C9E:123::;
```

;

```
192.168.16.223 15-07-07 09:00:43
M 123 COMPLD
"454C54581C001C9E"
;
```

ONT [ONT](#) .

ONT

, ONT OLT,.. ONT (. [TriplePlay](#) [ONT](#)). ONT [ONT](#) .

;

- — ports, management.

;

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::PortsProfile=mc,ManagementProfile=openacs;
```

- .

;

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::Template=v1105ntu;
```

- .

;

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::Description=ELTX1C001C9E,RfPortState=1,StaticIPAddress=8.8.8.8,
StaticNetMask=255.255.0.0,StaticGateway=9.9.9.9>Password=1020!40F0),Shutdown=1,BroadcastFilter=2,
MulticastFilter=2;
```

ONT

ONT OLT.

NBI TL1 :

RMV-ONT-CFG:<tid>:<aid>:<ctag>;;

;

- tid — NE (IP-);
- aid — NE (— ONT);
- ctag — TL1 .

TL1 :

<tid> <date> <time>

M <ctag> COMPLD

;

;

ONT 454C54581C001C9E, LTP IP=192.168.16.223.

;

RMV-ONT-CFG:192.168.16.223:454C54581C001C9E:123::;

;

192.168.16.223 15-07-07 09:06:19
M 123 COMPLD
"454C54581C001C9E"
;

ONT ONT OLT.

ONT

NBI TL1 :

RTRV-ONT-SERIAL:<tid>:<aid>:<ctag>;;

;

- tid — NE (IP-);
- aid — ID ONT channel/id
- ctag — TL1 .

TL1 :

<tid> <date> <time>

M <ctag> COMPLD

<ONT serial>

;

;

ONT channel=3, id=12, LTP IP=192.168.16.223.

;

RTRV-ONT-SERIAL:192.168.16.223:0/12:123::;

;

192.168.16.223 15-07-07 09:22:43
M 123 COMPLD
"454C54581C001C9E"
;

NBI TL1

:
CANC-USER::<aid>:<ctag>;

- :
- aid — ;
 - ctag — TL1 .

:

NODE <date> <time>

M <ctag> COMPLD

;

:

NBI TL1.

:

CANC-USER::t11:123::;

:

NODE 15-01-17 02:28:36
M 123 COMPLD
;

.

1.

IITA	"Input, Invalid Target Identifier (TID)"
IICT	"Invalid Correlation Tag (CTAG)"
IICM	"Input, Invalid Command"
ICNV	"Input, Command Not Valid"
IIAC	"Input, Invalid Access Identifier (AID)"
IDNV	"Input, Data Not Valid"
IIFM	"Input, Invalid data Format"
IDRG	"Input, Data Range"
INUP	"Input, Non-null Unimplemented"
IISP	"Input, Invalid Syntax or Punctuation"
IIPG	"Input, Invalid Parameter Group"
IPMS	"Input, Parameter MiSsing"
PIUC	"Can't login."
PLNA	"Login Not Active"
PICC	"Logout failed"
PIFC	"Privilege, Illegal Field Code"
SROF	"Status, Requested Operation Failed"

:

1. .

:

```
CRTE-ONT-CFG:192.168.16.223:454C545801234567:123:: Id=12, Password=0000000000;
```

:

```
192.168.16.223 15-07-08 13:28:23
M 123 DENY
PLNA
/* Login Not Active */
;
```

2. ().

:

```
RTRV-NE-VERSION:LTP-16N-192.168.16.223::123::
```

,... NBI TL1 — “,” ().

3. .

:

```
RTRV-NE-VERSIONNNN:192.168.16.223::123::;
```

:

```
192.168.16.223 15-07-08 12:07:06
M 123 DENY
IICM
/* Input, Invalid Command */
"Unknow command RTRV-NE-VERSIONNNN"
;
```

4. <tid> (Target Identifier).

:

```
RTRV-NE-VERSION:192.168.16.222223::123::;
```

:

```
192.168.16.222223 15-07-08 12:33:29
M 123 DENY
ERR
/* Error */
"Object not found by IP '192.168.16.222223'."
;
```

5. <aid> (Access Identifier).

AID.

:

```
CRTE-ONT-CFG:192.168.16.223::123::Channel=3,Id=9,Password=0000000000;
```

:

```
192.168.16.223 15-07-08 12:38:38
M 123 DENY
IIAC
/* Input, Invalid Access Identifier (AID) */
;
```

AID (— ONT).

;

```
CRTE-ONT-CFG:192.168.16.223:zzzz:123::Channel=3,Id=9,Password=0000000000;
```

;

```
192.168.16.223 15-07-08 12:39:37
M 123 DENY
IDNV
/* Input, Data Not Valid */
"CRTE-ONT-CFG, SerialNumber=zzzz. Serial is absent or somehow wrong."
```

6. <ctag> (Correlation Tag).

;

```
RTRV-NE-VERSION: 192.168.16.223::ddd::;
```

;

```
192.168.16.223 15-07-08 12:35:24
M DENY
IICT
/* Invalid Correlation Tag (CTAG) */
;
```

7. .

Id.

;

```
CRTE-ONT-CFG:192.168.16.223:454C545801234567:123::Channel=3, Password=0000000000;
```

;

```
192.168.16.223 15-07-08 12:43:44
M 123 DENY
IDNV
/* Input, Data Not Valid */
"CRTE-ONT-CFG, SerialNumber=454C545801234567. Znachenie 'Id' ne naideno."
```

ONT c OLT.

;

```
CRTE-ONT-CFG:192.168.16.223:454C54581C001C9E:123::Description=ELTX1C001C9E,Channel=3,Id=9,Password=0000000000;
```

;

```
192.168.16.223 15-07-08 13:36:52
M 123 DENY
IDNV
/* Input, Data Not Valid */
"CRTE-ONT-CFG, SerialNumber=454C54581C001C9E. Pon configuration for ONT '454C54581C001C9E' already exists"
;
```

ONT c id channel OLT.

```
CRTE-ONT-CFG:192.168.16.223:454C54581C001C9E:123::Description=ELTX1C001C9E,Channel=3,Id=9>Password=0000000000;
```

```
192.168.16.223 15-07-08 16:07:03
M 123 DENY
IDNV
/* Input, Data Not Valid */
"CRTE-ONT-CFG, SerialNumber=454C54581C001C9E. ID and pon-tree already in use by ONT '454C5458060025E6'"
;
```

8. .

```
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:20::CustomModel=222;
192.168.16.223 15-08-25 14:23:31
M 20 DENY
IDNV
/* Input, Data Not Valid */
"ED-ONT-CFG, SerialNumber=454C54581C001C9E. CustomModel: Ustroistvo vernulo znachenie vne diapazona spiska [222]."
```

ONT.

```
ED-ONT-CFG:192.168.16.223:454C545800000000:902::CustomModel=4;
```

```
192.168.16.223 15-09-07 12:39:10
M 902 DENY
IDNV
/* Input, Data Not Valid */
"ED-ONT-CFG, SerialNumber=454C545800000000. System error.
Presumably, ONT ID value is wrong."
```

9. ONT.

```
REBOOT-ONT:192.168.16.223:454C54581C001C91:123::;
```

```

192.168.16.223 15-07-08 16:48:46
M 123 DENY
IDNV
/* Input, Data Not Valid */
"REBOOT-ONT, SerialNumber=454C54581C001C91. ONT state not found '454C54581C001C91' for device 'LTP-16N-
192.168.16.223'."
;

```

10. (timeout).

:

```

CRTE-ONT-CFG:192.168.16.223:454C54581C001C91:123::Description=ELTX1C001C9E,Channel=1,Id=100,Password=0000000000;

```

:

```

IP 123
>
192.168.16.223 15-07-08 16:48:02
M 123 DENY
IDNV
/* Input, Data Not Valid */
"Timeout"
;

```

2.

ACT-USER	()
CANC-USER	
OPR-SYNC-NE	OLT
RTRV-NE-VERSION	(OLT)
RTRV-INV	(OLT)
RTRV-NE-LIST	(OLT)
<i>PON-</i>	
CRTE-ONT-CFG	() ONT OLT
ED-ONT-PROFS	ONT OLT
REBOOT-ONT	ONT
RMV-ONT-CFG	() ONT OLT
RTRV-ONT-CFG	ONT
RTRV-ONT-LISTCFG	ONT OLT
RTRV-ONT-LISTSTATE	ONT OLT
RTRV-ONT-STATE	ONT
ED-ONT-CFG	ONT
INIT-ONT	ONT
RECNFGR-ONT	() ONT
RTRV-ONT-LISTNA	ONT OLT

RTRV-ONT-PROFS	ONT OLT
RTRV-ONT-SERIAL	ONT
<i>ACS OLT</i>	
ED-ONT-PROPS	ONT ACS-
RMV-ONT-PROP	ONT ACS-
RTRV-ONT-DIRECT	ACS ONT
RTRV-ONT-PROPS	ONT ACS-
<i>Eltex.ACS () TL1 NBI</i>	
CRTE-CPE	() CPE ACS-
ED-CPE-PROF	CPE
REBOOT-CPE-ACS	CPE ACS-
REQUEST_CPE	CPE ACS-
RTRV-ACS-VER	ACS-
RTRV-CPE-LIST	CPE ACS-
RTRV-OUI-LIST	
ED-CPE-DATA	CPE ACS-
INIT-CPE-ACS	CPE
RECNFGR-ONT-ACS	() CPE ACS-
RMV-CPE	() ONT ACS-
RTRV-CPE-DATA	CPE
RTRV-CPE-PROF	ACS-
RTRV-PC-LIST	
<i>freeradius (WiFi) NBI</i>	
CRTE-RADIUS-USER	RADIUS-
ED-RADIUS-USER	RADIUS-
RMV-RADIUS-USER	RADIUS-
RTRV_RADIUS_USER_DATA	
RTRV-RADIUS-USERS	RADIUS-
RTRV-RADIUS-USER	RADIUS-

3. ONT

Template	ONT — 'unassigned'
Description	ONT
Channel	GPON-, [1..16]
Id	ONT, [1..128]

ONTConfigRFPortEnabled	RF- ONT. ONT : 0 — 1 — 2 —
ShapingProfile	Shaping
ScriptingProfile	Scripting 'unassigned'
PortsProfile	Ports
ManagementProfile	Management 'unassigned'
CrossConnectProfileX	CrossConnect X 'unassigned'
DBAProfileX	DBA X 'unassigned'
CrossConnectEnabledX	CrossConnectProfileX CrossConnectCVIDX, CrossConnectSVIDX CrossConnectCOSX 1 — 2 —
CrossConnectCVIDX	CVID CrossConnect X. [1..4094]
CrossConnectSVIDX	SVID CrossConnect X. [1..4094]
CrossConnectCOSX	COS CrossConnect X. [0..7, 255(n/a)]
SelectiveTunnelVIDsX	selective-tunnel uvid CrossConnect X. [1..4094], , "1,2,5-9"
FecUp	ONT 1 — 2 —
ONTConfigDownstreamBroadcastEnabled	GEM- 1 — 2 —
Password	OMCI ONT
Enabled	/ ONT 1 — ONT 2 — ONT
BerInterval	. ONT REI. - [0..4294967294]
BerUpdatePeriod	. [0..4294967295]
OMCIErrorTolerant	, ONT OMCI 1 — 2 —

CustomModel	script ONT : 3 – ONT script (); 4 – ONT , , script
-------------	--

4. ONT

ONT ONT . Internet (PPPoE), — IP-, — IPTV STB, — ONT TR-069. OLT LTP-16N, IP- 192.168.16.223. ONT 7 454C54581C001C9E, ID=12, 0000000000.

ONT 454C54581C001C9E 7, ID=12 , 0000000000.

```

:
CRTE-ONT-CFG:192.168.16.223:454C54581C001C9E:123::Description=ELTX1C001C9E,Channel=7,Id=12>Password=0000000000;

```

```

:
192.168.16.223 15-07-07 11:27:00
A 1067130 ONT-CFG-ADDED
"SerialNumber=454C54581C001C9E, Channel=7,Id=12"
;

192.168.16.223 15-07-07 11:27:00
A 1067131 ONT-CFG-EDIT
"SerialNumber=454C54581C001C9E, Channel=7,Id=12"
;

192.168.16.223 15-07-07 11:27:00
M 123 COMPLD
"454C54581C001C9E"
;

```

- ```

:
• PPPoE 1. cross-connect DBA, . VLAN 305, VLAN — 3952.
• IP- 2. cross-connect DBA, . VLAN 305, VLAN — 3952.
• IPTV – ONT. 3 cross-connect DBA STB. VLAN 305, VLAN — 3952.
• TR-069 4. cross-connect DBA, . VLAN .

```

```

:
ED-ONT-CFG:192.168.16.223:454C54581C001C9E:123::CrossConnectProfile1=v1105-ppp,DBAProfile1=dba-00,
CrossConnectSVID1=3952,CrossConnectCVID1=305,CrossConnectCOS1=255,CrossConnectProfile2=v1105-voip,
DBAProfile2=dba-00, CrossConnectSVID2=3952,CrossConnectCVID2=305,CrossConnectCOS2=255,PortsProfile=mc,
CrossConnectProfile3=v1105-stb,DBAProfile3=dba-00, CrossConnectSVID3=3952,CrossConnectCVID3=305,
CrossConnectCOS3=255,CrossConnectProfile4=v1105-tr,DBAProfile4=dba-00,CrossConnectSVID4=unused,
CrossConnectCVID4=unused,CrossConnectCOS4=255;

```

```

:

```

```
192.168.16.223 15-07-07 11:56:58
M 123 COMPLD
"454C54581C001C9E"
;

192.168.16.223 15-07-07 11:57:00
A 1067217 ONT-CFG-EDIT
"SerialNumber=454C54581C001C9E, Channel=7,Id=12"
;

192.168.16.223 15-07-07 11:57:00
A 1067218 ONT-FOUND-NEW
"SerialNumber=ELTX1C001C9E, Channel=7,Id=-1"
;

192.168.16.223 15-07-07 11:57:00
A 1067219 ONT-STATE-DOWN
"SerialNumber=ELTX1C001C9E, Channel=7,Id=12"
;
```

ONT:

```
RTRV-ONT-CFG:192.168.16.223:454C54581C001C9E:20::;
```

```
192.168.16.223 15-07-07 11:28:23
M 20 COMPLD
"Template=unassigned,Description=ELTX1C001C9E,Channel=7,Id=12,RfPortState=0,PortsProfile=mc,
ManagementProfile=unassigned,StaticIPAddress=0.0.0.0,StaticNetMask=0.0.0.0,StaticGateway=0.0.0.0,
Password=0000000000,Shutdown=2,BroadcastFilter=1,MulticastFilter=1,CrossConnectProfile1=v1105-ppp,
DBAProfile1=dba-00,CrossConnectCVID1=305,CrossConnectSVID1=3952,CrossConnectProfile2=v1105-voip,DBAProfile2=dba-
00,CrossConnectCVID2=305,CrossConnectSVID2=3952,CrossConnectProfile3=v1105-stb,DBAProfile3=dba-00,
CrossConnectCVID3=305,CrossConnectSVID3=3952,CrossConnectProfile4=v1105-tr,DBAProfile4=dba-00,
CrossConnectCVID4=305,CrossConnectSVID4=3952,CrossConnectProfile5=,DBAProfile5=,CrossConnectCVID5=unused,
CrossConnectSVID5=unused,CrossConnectProfile6=,DBAProfile6=,CrossConnectCVID6=unused,CrossConnectSVID6=unused,
CrossConnectProfile7=,DBAProfile7=,CrossConnectCVID7=unused,CrossConnectSVID7=unused,CrossConnectProfile8=,
DBAProfile8=,CrossConnectCVID8=unused,CrossConnectSVID8=unused,CrossConnectProfile9=,DBAProfile9=,
CrossConnectCVID9=unused,CrossConnectSVID9=unused,CrossConnectProfile10=,DBAProfile10=,
CrossConnectCVID10=unused,CrossConnectSVID10=unused,CrossConnectProfile11=,DBAProfile11=,
CrossConnectCVID11=unused,CrossConnectSVID11=unused,CrossConnectProfile12=,DBAProfile12=,
CrossConnectCVID12=unused,CrossConnectSVID12=unused,CrossConnectProfile13=,DBAProfile13=,
CrossConnectCVID13=unused,CrossConnectSVID13=unused,CrossConnectProfile14=,DBAProfile14=,
CrossConnectCVID14=unused,CrossConnectSVID14=unused,CrossConnectProfile15=,DBAProfile15=,
CrossConnectCVID15=unused,CrossConnectSVID15=unused,CrossConnectProfile16=,DBAProfile16=,
CrossConnectCVID16=unused,CrossConnectSVID16=unused,CrossConnectProfile17=,DBAProfile17=,
CrossConnectCVID17=unused,CrossConnectSVID17=unused,CrossConnectProfile18=,DBAProfile18=,
CrossConnectCVID18=unused,CrossConnectSVID18=unused,CrossConnectProfile19=,DBAProfile19=,
CrossConnectCVID19=unused,CrossConnectSVID19=unused,CrossConnectProfile20=,DBAProfile20=,
CrossConnectCVID20=unused,CrossConnectSVID20=unused,CrossConnectProfile21=,DBAProfile21=,
CrossConnectCVID21=unused,CrossConnectSVID21=unused,CrossConnectProfile22=,DBAProfile22=,
CrossConnectCVID22=unused,CrossConnectSVID22=unused,CrossConnectProfile23=,DBAProfile23=,
CrossConnectCVID23=unused,CrossConnectSVID23=unused,CrossConnectProfile24=,DBAProfile24=,
CrossConnectCVID24=unused,CrossConnectSVID24=unused,CrossConnectProfile25=,DBAProfile25=,
CrossConnectCVID25=unused,CrossConnectSVID25=unused,CrossConnectProfile26=,DBAProfile26=,
CrossConnectCVID26=unused,CrossConnectSVID26=unused,CrossConnectProfile27=,DBAProfile27=,
CrossConnectCVID27=unused,CrossConnectSVID27=unused,CrossConnectProfile28=,DBAProfile28=,
CrossConnectCVID28=unused,CrossConnectSVID28=unused,CrossConnectProfile29=,DBAProfile29=,
CrossConnectCVID29=unused,CrossConnectSVID29=unused,CrossConnectProfile30=,DBAProfile30=,
CrossConnectCVID30=unused,CrossConnectSVID30=unused"
```

ONT:

RTRV-ONT-STATE:192.168.16.223:454C54581C001C9E:20::;

192.168.16.223 15-07-07 11:29:54  
M 20 COMPLD  
"ONTStateEquipmentID=NTP-RG-1402G-W:rev.C,ONTStateChannel=7,StateID=12,ONTStateRSSI=N/a,ONTStateState=OK,  
ONTStateDistance=317,ONTStateFecState=off,ONTStateVersion=3.22.0.1741,ONTStateRxPower=0.0,ONTStateTxPower=0.0,  
ONTStateVideoRxPower=n/a,ONTStateTemperature=-91.5,RFPortOn=n/a,LaserVoltage=n/a,LaserBiasCurrent=n/a,  
PON\_ACTIVITY=07.07.2015 11:27:08,CREATE\_DATE=07.07.2015 11:15:14,ONThardwareVersion=1v15,SWITCH\_COUNTER=1"  
;