Optical line terminals

LTP-16N(T)

OLT configuration and monitoring via SNMP
Firmware version 1.4.0

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Notes and warnings

Notes contain important information, tips or recommendations on device operation and setup.

Warnings are used to inform the user about harmful situations for the device and the user alike, which could cause malfunction or data loss.

1 Operation with ONT

⚠ Matches between parameter names and digital OIDs are described in MIB files.

If the command contains the ONT serial number, it is specified in the **AAAAXXXXXXXX** format, where AAAA is 4 Latin letters, and **XXXXXXXX** is 8 HEX characters.

Example:

Serial number
ELTX24A80012
ELTX6201AAFC

ONT profiles are specified by the profile index for corresponding OID of the ONT configuration. To ascertain profile index using its name, use the following profile tables:

Profile type	Table
Cross-connect	oltNgPonOntProfileCrossConnectTable
DBA	oltNgPonOntProfileDBATable
Ports	oltNgPonOntProfilePortsTable
Management	oltNgPonOntProfileManagementTable

If the ONT configuration does not allow a profile to be specified, the number 0 is sent instead of the profile index to set such a value.

1.1 Configuration

ONT is configured by the following tables:

- oltNgPonOntConfigTable — general parameters;
- oltNgPonOntServiceTable — Cross-Connect and DBA profiles.

1.1.1 Adding

The following indexes are used in ONT configuration tables: <pon_port>, <ont_id>.

⚠ When adding an ONT, specify an additional parameter from ONT configuration, such as a serial number or PON password.

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntConfigRowStatus.1.<pon_port>.<ont_id> i 4
oltNgPonOntConfigSerialNumber.1.<pon_port>.<ont_id> s <serial>

Where:

- <pon_port> — PON port number;
- <ont_id> — ONT ID value.

Example:

```
snmpset -v2c -c private 192.168.1.2
oltNgPonOntConfigRowStatus.1.3.8 i 4
oltNgPonOntConfigSerialNumber.1.3.8 s ELTX24A80012
```

CLI command equivalent:

```
configure terminal
interface ont 3/8
serial ELTX24A80012
```

This command creates ONT 3/8 with a serial number ELTX24A80012.

1.1.2 Editing

1.1.2.1 ONT general parameters

General parameters of ONT are configured using *oltNgPonOntConfigTable* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> <parameter_oid_1>.1.<pon_port>.<ont_id> <par1_type> <par1_value>
<parameter_oid_2>.1.<pon_port>.<ont_id> <par2_type> <par2_value>
……
<parameter_oid_N>.1.<pon_port>.<ont_id> <parN_type> <parN_value>

Where:

- <parameter_oid_N> — names of specific MIB parameters;
- <parN_type> — value type of a parameter;
- <parN_value> — parameter value.

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntConfigPonPassword.1.3.8 s
"1234567890"
oltNgPonOntConfigProfilePortsID.1.3.8 u 1
oltNgPonOntConfigBroadcastFilter.1.3.8 i 2
oltNgPonOntConfigProfileManagementID.1.3.8 u 1
```

CLI command equivalent:

```
configure terminal
interface ont 3/8
password 1234567890
profile ports NAME
profile management NAME
no broadcast-filter
```

This command sets *password=1234567890*, assigns the *Ports* profile with index 1, assigns the Management profile with index 1 and disables the *Broadcast filter* for ONT 3/8.

1.1.2.2 Cross-Connect and DBA profiles

Cross-Connect and DBA profiles are configured using *oltNgPonOntServiceTable* table. Service number is specified as an additional index.

> Cross-connect and DBA profiles should be specified when creating a service.

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntServiceRowStatus.1.<pon_port>.<ont_id>.<service> i 4
oltNgPontOntServiceProfileCrossConnectID.1.<gpon_port>.<ont_id>.<service> u <value>
oltNgONTServiceProfileDBAID.1.<pon_port>.<ont_id>.<service> u <value>

Where:

- <service> — service sequential number;
- <value> — profile ID, according to oltNgPonOntProfileCrossConnectTable, oltNgPonOntProfileDBATable.

Example:

```
snmpset -v2c -c private 192.168.1.2
oltNgPonOntServiceRowStatus.1.3.8.7 i 4
oltNgPonOntServiceProfileCrossConnectID.1.3.8.7 u 1
oltNgPonOntServiceProfileDBAID.1.3.8.7 u 2
```

CLI command equivalent:

```
configure terminal
interface ont 3/8
service 7 profile cross-connect NAME
service 7 profile dba NAME
```

This command sets Cross-Connect profile with index 1, and DBA profile with index 2 for service 7 for ONT 3/8.

1.1.3 ONT deletion

Command format:

**snmpset -v2c -c <rw_community><ipaddr>
oltNgONTConfigRowStatus.1.<pon_port>.<ont_id> i 6**

Example:

```
snmpset –v2c –c private 192.168.1.2
oltNgONTConfigRowStatus.1.3.8 i 6
```

CLI command equivalent:

```
configure terminal
no interface ont 3/8
```

This command removes the ONT 3/8 configuration.

1.1.4 ONT replacement

ONT can be changed using subsequent commands for deleting and creating configurations with new parameters.

1.1.5 Reconfiguration

Command format:

**snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntOperationsReconfigure.1.<pon_port>.<ont_id> i 1**

Example:

```
snmpset –v2c –c private 192.168.1.2
oltNgPonOntOperationsReconfigure.1.3.8 i 1
```

CLI command equivalent:

```
reconfigure interface ont 3/8
```

1.1.6 Reboot

Command format:

**snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntOperationsReboot.1.<pon_port>.<ont_id> i 1**

Example:

```
snmpset –v2c –c private 192.168.1.2
oltNgPonOntOperationsReboot.1.3.8 i 1
```

CLI command equivalent:

```
send omci reboot interface ont 3/8
```

1.1.7 Reset to default settings

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntOperationsDefault.1.<pon_port>.<ont_id> i 1

Example:

```
snmpset –v2c –c private 192.168.1.2
oltNgONTOperationsDefault.1.3.8 i 1
```

CLI command equivalent:

```
send omci default interface ont 3/8
```

1.1.8 Disabling ONT

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntConfigShutdown.1.<pon_port>.<ont_id> i 1

Example:

```
snmpset –v2c –c private 192.168.1.2 oltNgPonOntConfigShutdown.1.3.8 i 1
```

CLI command equivalent:

```
configure terminal
interface ont 3/8
shutdown
```

1.1.9 OltSide counters reset

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntOperationsClearCountersOltSide.1.<pon_port>.<ont_id> i 1

Example:

```
snmpset -v2c -c private 192.168.1.144 oltNgPonOntOperationsClearCountersOltSide.1.1.2 i 1
```

CLI command equivalent:

```
clear counters interface ont 1/2 olt-side
```

1.1.10 OntSide counters reset

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntOperationsClearCountersOntSide.1.<pon_port>.<ont_id> i1

Example:

```
snmpset -v2c -c private 192.168.1.144 oltNgPonOntOperationsClearCountersOntSide.1.1.2 i 1
```

CLI command equivalent:

```
clear counters interface ont 1/2 ont-side
```

1.2 Requests

1.2.1 General ONT state

The parameters of ONT state can be requested using *oltNgPonOntInfoTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.1.<pon_port>.<ont_id>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNgPonOntInfoState.1.3.8 oltNgPonOntInfoRSSI.1.3.8
```

CLI command equivalent:

```
show interface ont 3/8 state
show interface ont 3/8 rssi
```

The command requests the status and RSSI for the ONT 3/8.

1.2.2 Request for ONT MAC table

ONT MAC table entries can be requested using *oltNgPonOntInfoTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.1.<pon_port>.<ont_id>.<mac_address_id>

where:

- <mac_address_id> — numerical order of MAC address in ONT MAC table.

Example:

```
snmpget -v2c -c public 192.168.10.144 oltNgPonOntMacTableMacAddress.1.1.2.1
```

CLI command equivalent:

```
show mac verbose include interface ont 1/2
```

The command requests MAC address on specific ONT interface.

1.2.3 Request for a list of unactivated ONTs

A list of unactivated ONTs can be requested using *oltNgPonOntUnactivatedTable* table.

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> <parameter_oid>.1.<pon_port_id>

Example:

```
snmpwalk -v2c -c public 192.168.10.144  oltNgPonOntUnactivatedSerial.1.1
```

CLI command equivalent:

```
show interface ont 1 unactivated
```

The command requests a list of unactivated ONTs on one PON port.

1.2.4 Request for ONT ports state

A state of ONT ports be requested using *oltNgPonOntPortStateTable* table.

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> <parameter_oid>.1.<pon_port_id>.<ONT_id>.<LAN_port_id>

Example:

```
snmpwalk -v2c -c public 192.168.10.144 oltNgPonOntPortStateLinkState.1.1.1.1
```

CLI command equivalent:

```
show interface ont 1/1 ports
```

The command requests a state of ONT ports.

1.2.5 ONT counters monitoring

ONT counters are monitored using *oltNgPonOntCounters* table.

1.2.5.1 Olt-side counters monitoring

oltNgPonOntCountersOltSide

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.1.<pon_port_id>.<ont_id>

Example:

```
snmpget -v2c -c public 192.168.10.144  oltNgPonOntCountersOltSidePonDriftNegative.1.1.1
```

CLI command equivalent:

```
show interface ont 1/1 counters olt-side pon
```

1.2.5.2 Ont-side counters monitoring

oltNgPonOntCountersOntSide

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.1.<pon_port_id>.<ont_id>

Example:

```
snmpget -v2c -c public 192.168.10.144
oltNgPonOntCountersOntSideGemNctpPMDownstreamFinishedIntervals.1.1.1.
```

CLI command equivalent:

```
show interface ont 1/1 counters ont-side gem-port-nctp-performance-monitoring
```

2 Operation with OLT

2.1 OLT configuration

2.1.1 Applying and saving configuration

Configuration actions are performed using *oltNgConfigOperations* table.

> ⚠ On LTP-16N changes are made to candidate-config, and stored to running-config after applying configuration (commit). Meaning, all changes made on the LTP-16N via SNMP will be visible, as they are read from candidate-config, but will not work until the configuration is applied (commit).

2.1.1.1 Configuration commit

To write the configuration to running-config, execute **Commit**.

Command format:

snmpset -v2c -c <rw_community> -t 20 <ipaddr> oltNgSystemOperationConfigOperationsCommit.0 i 1

Example:

```
snmpset -v2c -c private -t 20 192.168.1.2 oltNgSystemOperationConfigOperationsCommit.0 i 1
```

CLI command equivalent:

```
commit
```

2.1.1.2 Saving the configuration to non-volatile memory

To write the configuration to the non-volatile memory, execute **Save**.

Command format:

snmpset -v2c -c <rw_community> -t 20 <ipaddr> oltNgSystemOperationConfigOperationsSave.0 i 1

Example:

```
snmpset -v2c -c private -t 20 192.168.1.2 oltNgConfigOperationsSave.0 i 1
```

CLI command equivalent:

```
save
```

2.1.1.3 Rollback of changes made to the configuration

To discard changes made to the configuration via SNMP, execute **rollback**.

Command format:

snmpset -v2c -c <rw_community> -t 20 <ipaddr> oltNgSystemOperationConfigOperationsRollback.0 i 1

Example:

```
snmpset -v2c -c private -t 20 192.168.1.2 oltNgSystemOperationConfigOperationsRollback.0 i 1
```

CLI command equivalent:

```
Not implemented in current firmware version
```

2.1.2 User configuration

2.1.2.1 Creating users

Creation and configuration of users is performed using *oltNgSystemConfigurationUsersConfigTable* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgSystemConfigurationUsersConfigRowStatus.4 i 4
oltNgSystemConfigurationUsersConfigName.4 s <username>
oltNgSystemConfigurationUsersConfigPassword.4 s <password>
oltNgSystemConfigurationUsersConfigPrivilege.4 u <privilege_level>

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgSystemConfigurationUsersConfigRowStatus.4 i 4
oltNgSystemConfigurationUsersConfigName.4 s testname
oltNgSystemConfigurationUsersConfigPassword.4 s 12341234
oltNgSystemConfigurationUsersConfigPrivilege.4 u 15
```

CLI command equivalent:

```
configure terminal
user testname password 12341234 privilege 15
```

The command sets "testname" username with a "12341234" password and privilege level 15.

2.1.2.2 Deleting users

Users deletion is performed using *oltNgSystemConfigurationUsersConfigTable* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgSystemConfigurationUsersConfigRowStatus.<id> i 6

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgSystemConfigurationUsersConfigRowStatus.4 i 6
```

CLI command equivalent:

```
configure terminal
no user NAME
```

2.1.3 Logging configuration

2.1.3.1 Changing logging levels

Changing logging levels is performed using the appropriate commands from *oltNg1UStandaloneLogging* table for each type.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> <parameter_oid>.0 <par1_type> <par1_value>

Example:

```
snmpset -v2c -c private 192.168.10.144  oltNg1UStandaloneLoggingCliLoglevel.0 i 4
```

CLI command equivalent:

```
LTP-16N(config)(logging)# module cli loglevel info
```

2.1.3.2 Request current logging level

Command format:

snmpwalk -v2c -c <ro_community> <parameter_oid>.0

Example:

```
snmpset -v2c -c public 192.168.10.144  oltNg1UStandaloneLoggingCliLoglevel.0
```

The command outputs logging level for CLI.

CLI command equivalent:

```
show running-config logging
```

2.1.4 Interfaces configuration

2.1.4.1 Pon-ports

Interface pon-ports configuration is performed using *oltNgPonPortConfigTable* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonPortConfigShutdown.1.<port_id> i 1/2

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonPortConfigShutdown.1.1 i 1
```

CLI command equivalent:

```
show running-config logging
```

The command disables interface pon-port 1 in configuration.

2.1.4.2 Front-ports

Interface front-ports configuration is performed using *oltNg1UStandaloneFrontPortConfigTable and oltNg1UStandaloneFrontPortConfigAllowedVLANTable* tables.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> <parameter_oid_1>.1.<port_id> <par1_type> <par1_value> <parameter_oid_2>.1.<port_id> <par2_type> <par2_value> … <parameter_oid_N>.1.<port_id> <parN_type> <parN_value>

where:

- <parameter_oid_N> — names of specific parameters in MIB;
- <port_id> — port index;
- <parN_type> — parameter value type;
- <parN_value> — parameter value.

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNg1UStandaloneFrontPortConfigShutdown.1.8 i 1
```

CLI command equivalent:

```
configure terminal
interface front-port 8
shutdown
```

The command disables interface front-port 8 in configuration.

Adding VLAN for interfaces is performed creating entries with specified VLAN as an index.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNg1UStandaloneFrontPortConfigAllowedVLANRowStatus.1.<port_id>.<vlan_id> i 4

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNg1UStandaloneFrontPortConfigAllowedVLANRowStatus.
1.5.156 i 4
```

CLI command equivalent:

```
configure terminal
interface front-port 5
vlan allow 156
```

The command adds VLAN 156 for interface front-port 5.

Deleting VLAN for interfaces is performed by setting value 6.

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNg1UStandaloneFrontPortConfigAllowedVLANRowStatus.
1.5.156 i 6
```

CLI command equivalent:

```
configure terminal
interface front-port 5
no vlan allow 156
```

The command deletes VLAN 156 for interface front-port 5.

2.1.5 VLAN configuration

VLAN configuration is performed using the tables:

- *oltNgNetworkSettingsTable* — general VLAN parameters;
- *oltNgNetworkSettingsIGMPTable* — IGMP parameters;
- *oltNgNetworkSettingsIGMPSnoopingTable* — IGMP Snooping parameters;
- *oltNgNetworkSettingsIGMPSnoopingStaticGroupTable* — static group management.

2.1.5.1 Adding VLAN

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgNetworkSettingsRowStatus.1.<vlan_id> i 4

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgNetworkSettingsRowStatus.1.156 i 4
```

CLI command equivalent:

```
configure terminal
vlan 156
```

The command creates VLAN 156.

2.1.5.2 Editing VLAN

It is possible to change the name and IGMP settings for any VLAN via SNMP.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgNetworkSettingsName.1.<vlan_id> s "vlan_name"
oltNgNetworkSettingsIGMPQueryInterval.1.<vlan_id> u <value>
oltNgNetworkSettingsIGMPSnoopingEnabled.1.<vlan_id> i 1/2
oltNgNetworkSettingsIGMPSnoopingQuerierEnabled.1.<vlan_id> i 1/2
oltNgNetworkSettingsIGMPSnoopingStaticGroupRowStatus.1.<vlan_id>.4.<group_ip>.<port_id> i 4/6

Example:

```
snmpset -v2c -c private 192.168.1.2
oltNgNetworkSettingsName.1.156 s "edited_by_snmp"
oltNgNetworkSettingsIGMPQueryInterval.1.156 u 300
oltNgNetworkSettingsIGMPSnoopingEnabled.1.156 i 1
oltNgNetworkSettingsIGMPSnoopingQuerierEnabled.1.156 i 1
oltNgNetworkSettingsIGMPSnoopingStaticGroupRowStatus.1.156.4.225.25.32.185.5 i 4
```

CLI command equivalent:

```
configure terminal
vlan 156
name "edited_by_snmp"
ip igmp snooping enable
ip igmp snooping querier enable
ip igmp query-interval 300
ip igmp snooping static 225.25.32.185 interface pon-port 5
```

The command sets VLAN 156 to be named edited_by_snmp, enables IGMP snooping and IGMP snooping querier, sets IGMPQueryInterval=300, adds a static multicast group 225.25.32.185 for interface pon-port 5.

2.1.5.3 Deleting VLAN

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgNetworkSettingsRowStatus.1.<vlan_id> i 6

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgNetworkSettingsRowStatus.1.156 i 6
```

CLI command equivalent:

```
configure terminal
no vlan 156
```

The command deletes VLAN 156 from the configuration.

2.1.5.4 Requesting VLAN list and configuration of the specific VLAN

To request VLAN list, use the following request:

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> oltNgNetworkSettingsName.1

Example:

```
snmpwalk -v2c -c public 192.168.1.2 oltNgVLANSettingsName.1
```

The command lists VLANs.

Configuration of the specific VLAN can be obtained using the following request:

Command format:

snmpget -v2c -c <ro_community> <ipaddr> oltNgNetworkSettingsName.1.<vlan_id>
oltNgNetworkSettingsIGMPVersion.1.<vlan_id>
oltNgNetworkSettingsIGMPRobustnessVariable.1.<vlan_id>
oltNgNetworkSettingsIGMPQueryInterval.1.<vlan_id>
oltNgNetworkSettingsIGMPQueryResponseInterval.1.<vlan_id>
oltNgNetworkSettingsIGMPLastMemberQueryInterval.1.<vlan_id>
oltNgNetworkSettingsIGMPSnoopingQuerierEnabled.1.<vlan_id>
oltNgNetworkSettingsIGMPSnoopingQuerierDSCP.1.<vlan_id>
oltNgNetworkSettingsIGMPSnoopingQuerierFastLeaveEnabled.1.<vlan_id>
oltNgNetworkSettingsIGMPSnoopingQuerierIpAddress.1.<vlan_id>
oltNgNetworkSettingsIGMPSnoopingReplaceSourceIpAddress.1.<vlan_id>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNgNetworkSettingsName.1.156
oltNgNetworkSettingsIGMPVersion.1.156
oltNgNetworkSettingsIGMPRobustnessVariable.1.156
oltNgNetworkSettingsIGMPQueryInterval.1.156
oltNgNetworkSettingsIGMPQueryResponseInterval.1.156
oltNgNetworkSettingsIGMPLastMemberQueryInterval.1.156
oltNgNetworkSettingsIGMPSnoopingQuerierEnabled.1.156
oltNgNetworkSettingsIGMPSnoopingQuerierDSCP.1.156
oltNgNetworkSettingsIGMPSnoopingQuerierFastLeaveEnabled.1.156
oltNgNetworkSettingsIGMPSnoopingQuerierIpAddress.1.156
oltNgNetworkSettingsIGMPSnoopingReplaceSourceIpAddress.1.156
```

CLI command equivalent:

```
show running-config vlan 156
```

The command outputs VLAN 156 configuration.

2.1.6 IGMP configuration

2.1.6.1 Global settings for enabling IGMP Snooping

To configure IGMP, use *oltNgNetworkIGMPSnoopingTable*.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgNetworkIGMPSnoopingEnabled.1 i 1/2

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgNetworkIGMPSnoopingEnabled.1 i 1
```

CLI command equivalent:

```
configure terminal
ip igmp snooping enable
```

The command enables IGMP Snooping.

2.1.6.2 IGMP Snooping and VLAN Querier configuration

This configuration is carried out similarly to the *Editing VLAN* section.

2.1.7 ONT profiles configuration

2.1.7.1 Cross-connect

For operation with cross-connect profile, use *oltNgPonOntProfileCrossConnectTable*.

2.1.7.1.1 Adding

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntProfileCrossConnectRowStatus.<profile_index> i 4

Example:

```
snmpset -v2c -c private 192.168.1.2
oltNgPonOntProfileCrossConnectRowStatus.2 i 4
```

CLI command equivalent:

```
configure terminal
profile cross-connect NAME
```

The command adds *Cross-connect* profile with index 2.

2.1.7.1.2 Editing

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
<parameter_oid_1>.<profile_id> <par1_type> <par1_value>
<parameter_oid_2>.<profile_id> <par2_type> <par2_value>
…
<parameter_oid_N>.<profile_id> <parN_type> <parN_value>

Where:

- <parameter_oid_N> — names of specific MIB parameters;
- <profile_id> — profile index;
- <parN_type> — value type of a parameter;
- <parN_value> — parameter value.

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgONTProfileCrossConnectName.2 s
"edited_by_snmp" oltNgONTProfileCrossConnectTrafficModel.2 i 1
oltNgPonOntProfileCrossConnectOntMode.2 i 1
oltNgPonOntProfileCrossConnectBridgeGroup.2 u 5 oltNgONTProfileCrossConnectOuterVid.2 u 156
```

CLI command equivalent:

```
configure terminal
profile cross-connect edited_by_snmp
ont-mode bridge
bridge group 5
outer vid 156
traffic-model multicast
```

The command sets the edited_by_snmp name, traffic-model multicast, ont mode = bridge, bridge group = 5 and Outer VID 156 for the Cross-connect profile with index 2.

2.1.7.1.3 Deleting

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntProfileCrossConnectRowStatus.<profile_index> i 6

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntProfileCrossConnectRowStatus.2 i 6
```

The command deletes Cross-connect profile with index 2.

2.1.7.1.4 Profile list request

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> oltNgPonOntProfileCrossConnectName

Example:

```
snmpwalk -v2c -c public 192.168.1.2 oltNgPonOntProfileCrossConnectName
```

CLI command equivalent:

```
configure terminal
no profile cross-connect edited_by_snmp
```

2.1.7.1.5 QinQ configuration

Tag-mode configuration.

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> oltNgPonOntProfileCrossConnectTagMode

Example:

```
snmpwalk -v2c -c public 192.168.1.2 oltNgPonOntProfileCrossConnectTagMode.2 i 1
```

CLI command equivalent:

```
configure terminal
profile cross-connect NAME
tag-mode double-tag
```

2.1.7.1.6 C-vlan configuration (inner vid)

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> oltNgPonOntProfileCrossConnectInnerVid

Example:

```
snmpwalk -v2c -c public 192.168.1.2 oltNgPonOntProfileCrossConnectInnerVid.2 i 100
```

CLI command equivalent:

```
configure terminal
profile cross-connect NAME
inner vid 100
```

2.1.7.2 DBA

For operation with DBA profiles, use *oltNgPonOntProfileDBATable*.

2.1.7.2.1 Adding

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntProfileDBARowStatus.<profile_index> i 4

Example:

```
snmpset -v2c -c 192.168.1.2 oltNgPonOntProfileDBARowStatus.3 i 4
```

CLI command equivalent:

```
configure terminal
profile dba NAME
```

The command adds DBA profile with index 3.

2.1.7.2.2 Editing

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
<parameter_oid_1>.<profile_id> <par1_type> <par1_value>
<parameter_oid_2>.<profile_id> <par2_type> <par2_value>
……
<parameter_oid_N>.<profile_id> <parN_type> <parN_value>

Where:

- <parameter_oid_N> — names of specific MIB parameters;
- <profile_id> — profile index;
- <parN_type> — value type of a parameter;
- <parN_value> — parameter value.

Example:

```
snmpset -v2c -c private 192.168.1.2
oltNgPonOntProfileDBAName.3 s "edited_by_snmp"
oltNgPonOntProfileDBAReportingMode.3 i 2
oltNgPonOntProfileDBABandwidthBesteffort.3 u 269248
```

CLI command equivalent:

```
configure terminal
profile dba edited_by_snmp
mode status-reporting
bandwidth besteffort 269248
```

The command sets the edited_by_snmp name, status-reporting mode and besteffort bandwidth 3 for the DBA profile with index 3.

2.1.7.2.3 Deleting

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntProfileDBARowStatus.<profile_index> i 6

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntProfileDBARowStatus.3 i 6
```

CLI command equivalent:

```
configure terminal
no profile dba NAME
```

The command deletes *DBA* profile with index 3.

2.1.7.2.4 Profile list request

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> oltNgPonOntProfileDBAName

Example:

```
snmpwalk -v2c -c public 192.168.1.2 oltNgPonOntProfileDBAName
```

CLI command equivalent:

```
show dba profile
```

2.1.7.3 Ports

For operation with *Ports* profile, use the following tables:

- *oltNgPonOntProfilePortsTable* — general profile parameters;
- *oltNgPonOntProfilePortsUNIPortTable* — UNI ports.
- *oltNgPonOntProfilePortsDynamicEntryTable* — multicast groups range.

2.1.7.3.1 Adding

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntProfilePortsRowStatus.<profile_index> i 4

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntProfilePortsRowStatus.4 i 4
```

CLI command equivalent:

```
configure terminal
profile ports NAME
```

The command adds *Ports* profile with index 4.

2.1.7.3.2 Editing

General parameters:

Command format:

snmpset -v2c -c <rw_community> <ipaddr> <parameter_oid_1>.<profile_id> <par1_type> <par1_value> <parameter_oid_2>.<profile_id> <par2_type> <par2_value> … <parameter_oid_N>.<profile_id> <parN_type> <parN_value>

Where:

- <parameter_oid_N> — names of specific MIB parameters;
- <profile_id> — profile index;
- <parN_type> — value type of a parameter;
- <parN_value> — parameter value.

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntProfilePortsName.4 s
"edited_by_snmp" oltNgPonOntProfilePortsIGMPVersion.4 i 2
oltNgPonOntProfilePortsIGMPQueryInterval.4 u 120
oltNgPonOntProfilePortsVeipMulticast.4 i 1
oltNgPonOntProfilePortsVeipIgmpDownstreamPriority.4 u 0
oltNgPonOntProfilePortsVeipIgmpDownstreamVid.4 u 10
oltNgPonOntProfilePortsVeipIgmpDownstreamTagControl.4 i 2
```

CLI command equivalent:

```
configure terminal
profile ports edited_by_snmp
igmp version 2
igmp query interval 120
veip multicast enable
veip igmp downstream priority 0
veip igmp downstream vid 10
veip igmp downstream tag-control add-tag
```

The command sets the edited_by_snmp name for the *Ports* profile with index 4, use of IGMP v2, IGMP query interval 120, enables veip multicast, priority 0 for igmp downstream traffic, vid 10 for igmp downstream traffic, and adds a label for IGMP downstream traffic.

The parameters of UNI ports:

In addition to profile index, specify an index of ONT LAN port (1-4).

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntProfilePortsUniPortMulticast.4.1 i 1
oltNgPonOntProfilePortsUniPortBridgeGroup.4.1 u 70
oltNgPonOntProfilePortsUniPortIgmpUpstreamPriority.4.1 u 0
oltNgPonOntProfilePortsUniPortIgmpUpstreamVid.4.1 u 20
oltNgPonOntProfilePortsUniPortIgmpUpstreamTagControl.4.1 i 2
```

CLI command equivalent:

```
configure terminal
profile cross-connect edited_by_snmp
port 1 bridge group 100
port 1 multicast enable
port 1 upstream priority 0
port 1 upstream vid 20
port 1 upstream tag-control replace-vid
```

The command sets bridge group = 100, enables multicast, priority for IGMP upstream traffic 0, vid 20 for IGMP upstream traffic and substitutes a label for IGMP upstream traffic for profile Ports with index 4, for port with index 1.

2.1.7.3.3 Deleting

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntProfilePortsRowStatus.<profile_index> i 6

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntProfilePortsRowStatus.4 i 6
```

CLI command equivalent:

```
configure terminal
no profile ports NAME
```

The command deletes Ports profile with index 4.

2.1.7.3.4 Profile list request

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> oltNgPonOntProfilePortsName

Example:

```
snmpwalk -v2c -c public 192.168.1.2 oltNgPonOntProfilePortsName
```

CLI command equivalent:

```
show running-config profile ports
```

2.1.7.4 Management

For operation with Management profiles, use *oltNgPonOntProfileManagementTable*.

2.1.7.4.1 Adding

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntProfileManagementRowStatus.<profile_index> i 4

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntProfileManagementRowStatus.10 i 4
```

CLI command equivalent:

```
configure terminal
profile management NAME
```

The command adds Management profile with index 10.

2.1.7.4.2 Editing

General parameters:

Command format:

snmpset -v2c -c <rw_community> <ipaddr> <parameter_oid_1>.<profile_id>
<par1_type> <par1_value> <parameter_oid_2>.<profile_id> <par2_type>
<par2_value> … <parameter_oid_N>.<profile_id>
<parN_type> <parN_value>

Where:

- <parameter_oid_N> — names of specific MIB parameters;
- <profile_id> — profile index;
- <parN_type> — value type of a parameter;
- <parN_value> — parameter value.

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntProfileManagementName.10 s testProfile
oltNgPonOntProfileManagementDescription.10 s "Profile Management 10"
oltNgPonOntProfileManagementIphostId.10 u 10
oltNgPonOntProfileManagementOmciConfiguration.10 i 2
oltNgPonOntProfileManagementAcsUrl.10 s http://192.168.1.5
oltNgPonOntProfileManagementAcsUsername.10 s acs1
oltNgPonOntProfileManagementAcsPassword.10 s acsacs1
```

CLI command equivalent:

```
configure terminal
profile management testProfile
iphost id 10
omci-configuration enable
url http://192.168.1.5:9595
username acs1
password acs1
```

The command sets name "testProfile", iphost ID 10, disables configuration via OMCI, sets management server URL http://192.168.1.5, management server username "acs1", password "acsacs1" for the Management profile with index 10.

2.1.7.4.3 Deleting

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntProfileManagementRowStatus.<profile_index> i 6

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgONTProfileManagementRowStatus.10 i 6
```

CLI command equivalent:

```
configure terminal
no profile management NAME
```

The command removes Management profile with index 10.

2.1.7.4.4 Profile list request

Command format:

snmpwalk -v2c -c <ro_community> <ipaddr> oltNgPonOntProfileManagementName

Example:

```
snmpwalk -v2c -c public 192.168.1.2 oltNgPonOntProfileManagementName
```

CLI command equivalent:

```
show running-config profile management
```

2.1.8 Templates configuration

2.1.8.1 Creating templates

Templates creating and configuration is performed using *oltNgPonOntTemplate* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntTemplateConfigRowStatus.2 i 4 oltNgPonOntTemplateConfigName.4 s <username>

Example:

```
snmpset -v2c -c private 192.168.10.144  oltNgPonOntTemplateConfigRowStatus.2 i 4
oltNgPonOntTemplateConfigName.2 s 'test'
```

CLI command equivalent:

```
configure terminal
template test
```

The command creates "test" user.

2.1.8.2 Deleting templates

Templates deletion is performed using *oltNgPonOntTemplateConfigTable* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntTemplateConfigRowStatus.<id> i 6

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntTemplateConfigRowStatus.2 i 6
```

CLI command equivalent:

```
configure terminal
no template NAME
```

2.1.8.3 Adding a service to template

Adding a service to a template is performed using *oltNgPonOntTemplateConfigTable*.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntTemplateConfigRowStatus.<template_id>.<table_id>.<cross_connect_id> i 4

Example:

```
snmpset -v2c -c private 192.168.1.2  oltNgPonOntTemplateConfigRowStatus.1.1 i 4
```

CLI command equivalent:

```
configure terminal
template test
service 1 profile crossconnect test123
```

2.1.8.4 Deleting a service from template

Deleting a service from a template is performed using *oltNgPonOntTemplateConfigTable* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntTemplateConfigRowStatus.<template_id>.<table_id>.<cross_connect_id> i 6

Example:

```
snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntTemplateConfigRowStatus.<template_id>.<table_id>.<cross_connect_id> i 6
```

CLI command equivalent:

```
configure terminal
template test
no service 1 profile crossconnect
```

2.1.8.5 Template parameters activation

Template parameters activation is performed using *oltNgPonOntTemplateDefineConfigTable* and *oltNgPonOntTemplateDefineServiceTable* tables.

> ⚠ By default, all template parameters have *undefine* state, meaning that template parameters will not be set at template assigning to ONT. To activate template parameters, change the necessary template parameters to *Define* state.

Command format for oltNgPonOntTemplateDefineConfigTable:

snmpset -v2c -c <rw_community> <ipaddr> <parameter_oid>.<config_id> i <value>

Example:

```
snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntTemplateDefineConfigBroadcastFilter.1 i 1
```

CLI command equivalent:

```
configure terminal
template test
define broadcast-filter
```

Command format for oltNgPonOntTemplateDefineServiceTable:

snmpset -v2c -c <rw_community> <ipaddr> <parameter_oid>.<service_template_id><service_id> i <value>

Example:

```
snmpset -v2c -c <rw_community> <ipaddr>  oltNgPonOntTemplateDefineServiceProfileCrossConnect.
1.1 i 1
```

CLI command equivalent:

```
configure terminal
template test
define service 1
```

2.1.9 Fan speed configuration

2.1.9.1 Changing fan speed

Fan speed changing is performed using *oltNg1UStandaloneFanControl* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNg1UStandaloneFanControlFanSpeed.0 i <value>

Example:

```
snmpset -v2c -c private 192.168.10.144  oltNg1UStandaloneFanControlFanSpeed.0 i 70
```

CLI command equivalent:

```
LTP-16N(configure)# system fan speed 70
```

2.1.10 Autofind operation

Autofind operation is performed using *oltNgPonOntAutoFindTable* table.

Command format:

snmpset -v2c -c <rw_community> <ipaddr>
oltNgPonOntAutoFindStatus.1.<port_id> i 1/2

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntAutoFindStatus.1 i 2
```

CLI command equivalent:

```
no ont autofind interface pon-port 1
```

The command disables autofind on pon-port 1.

2.2 OLT commands

2.2.1 OLT reboot

OLT reboot is performed using *oltNgSystemOperationOltTable* table.

Command format:

snmpset -v2c -c <rw_community> -t 20 <ipaddr> oltNgSystemOperationOltReboot.1 i 1

Example:

```
snmpset -v2c -c private -t 20 192.168.10.144  oltNgSystemOperationOltReboot.1 i 1
```

CLI command equivalent:

```
reboot
```

2.2.2 OLT reconfiguration

OLT reconfiguration is performed using *oltNgSystemOperationOltTable* table.

Command format:

snmpset -v2c -c <rw_community> -t 20 <ipaddr> oltNgSystemOperationOltReboot.1 i 1

Example:

```
snmpset –v2c –c private –t 20 192.168.1.2 oltNgSystemOperationOltReconfigure.1 i 1
```

CLI command equivalent:

```
reconfigure olt
```

2.2.3 Pon-ports reconfiguration

Pon-ports reconfiguration is performed using *oltNgPonPortOperationsTable* table.

Command format:

snmpset -v2c -c <rw_community> -t 20 <ipaddr> oltNgPonPortOperationsReconfigure.1.<pon_port_id> i 1

Example:

```
snmpset –v2c –c private –t 20 192.168.1.2 oltNgPonPortOperationsReconfigure.1.4 i 1
```

CLI command equivalent:

```
reconfigure interface pon-port 4
```

3 Firmware download/upload operations

3.1 Firmware download

Firmware download is performed using *oltNgSystemOperationFileManagement* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.0

Example:

```
snmpset -v2c -c private 192.168.10.144 oltNgSystemOperationFileManagementOperation.0 i 0
oltNgSystemOperationFileManagementProtocol.0 i 0 oltNgSystemOperationFileManagementIpAddress.0
a 192.168.9.75 oltNgSystemOperationFileManagementPath.0 s "ltp-16n-1.4.0-build744.fw.bin"
oltNgSystemOperationFileManagementFileType.0 i 2 oltNgSystemOperationFileManagementAction.0 i 1
```

CLI command equivalent:

```
copy tftp://192.168.9.75/ltp-16n-1.4.0-build744.fw.bin fs://firmware
```

The command downloads firmware image from TFTP server to OLT.

3.2 OLT firmware images management

Firmware images are managed using *oltNg1UStandaloneFirmware* table. To change firmware, choose which firmware image will be used after reboot.

3.2.1 Request for current OLT firmware image

Command format:

snmpwalk -v2c -c <rw_community> -t 20 <ipaddr> oltNg1UStandaloneFirmwareRunningImage

Example:

```
snmpset -v2c -c private -t 20 192.168.1.2 oltNg1UStandaloneFirmwareRunningImage
```

CLI command equivalent:

```
show firmware
```

3.2.2 Changing OLT firmware image

Command format:

snmpwalk -v2c -c <rw_community> -t 20 <ipaddr> oltNg1UStandaloneFirmwareSelectedImage i 1\2

Example:

```
snmpset -v2c -c private -t 20 192.168.1.2 oltNg1UStandaloneFirmwareSelectedImage i 1
```

CLI command equivalent:

```
firmware image select 1
```

3.3 Managing ONT firmware update

3.3.1 Adding ONT update to queue

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntUpdateFirmwareName.1.<pon_port>.<ont_id> s "file_name"

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntUpdateFirmwareName.1.3.8 s "ntu-rg.bin"
```

CLI command equivalent:

```
firmware update start interface ont 3/8 filename ntu-rg.bin
```

3.3.2 Removing ONT update from queue

Command format:

snmpset -v2c -c <rw_community> <ipaddr> oltNgPonOntUpdateStop.1.<pon_port>.<ont_id> i 1

Example:

```
snmpset -v2c -c private 192.168.1.2 oltNgPonOntUpdateStop.1.3.8 i 1
```

CLI command equivalent:

```
firmware update stop interface ont 3/8
```

3.4 Logs download

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.0

Example:

```
snmpset -v2c -c private 192.168.10.144 oltNgSystemOperationFileManagementOperation.0 i 1
oltNgSystemOperationFileManagementProtocol.0 i 0 oltNgSystemOperationFileManagementIpAddress.0
a 192.168.9.75 oltNgSystemOperationFileManagementFileType.0 i 4
oltNgSystemOperationFileManagementLogFile.0 s "LTP.log" oltNgSystemOperationFileManagementPath.
0 s "log_test" oltNgSystemOperationFileManagementAction.0 i 1
```

CLI command equivalent:

```
copy fs://logfile/LTP.log tftp://192.168.9.75/log_test
```

The command downloads a LTP.log file from OLT to TFTP server.

4 OLT monitoring

4.1 General information on LTP

General information on LTP is given in *oltNg1UStandaloneSystemInfo* and *oltNg1UStandaloneBoardStatus* tables.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.0

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNg1UStandaloneSystemInfoMacAddress.0
oltNg1UStandaloneBoardStatusFan1RPM.0 oltNg1UStandaloneBoardStatusRAMFree.0
```

CLI command equivalent:

```
show system environment
```

The command displays LTP MAC address, current fan Fan1 speed, and amount of free memory in megabytes.

4.2 Power supplies monitoring

Power supplies monitoring is performed using *oltNg1UStandalonePowerSupplyTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNg1UStandalonePowerSupplyTable
```

CLI command equivalent:

```
show system environment
```

4.3 License monitoring

Monitoring of uploaded license is performed using *oltNgSystemStateLicense* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNgSystemStateLicense
```

CLI command equivalent:

```
show license
```

4.4 Front-ports state monitoring

Monitoring of front-ports state is performed using *oltNg1UStandaloneFrontPortStateTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNg1UStandaloneFrontPortStateTable
```

CLI command equivalent:

```
show interface front-port 1-8 state
```

4.5 Pon-ports state monitoring

Monitoring of pon-ports state is performed using *oltNg1UStandalonePonPortStateTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNg1UStandalonePonPortStateTable
```

CLI command equivalent:

```
show interface pon-port 1-16 state
```

4.6 Front-ports counters monitoring

Monitoring of front-ports counters is performed using *oltNg1UStandaloneFrontPortCounters*Table table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNg1UStandaloneFrontPortCountersTable
```

CLI command equivalent:

```
show interface front-port 1-8 counters
```

4.7 Pon-ports counters monitoring

Monitoring of pon-ports counters is performed using *oltNgPonPortCountersTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNgPonPortCountersTable
```

CLI command equivalent:

```
show interface pon-port 1-16 counters
```

4.8 Active DHCP sessions monitoring

Monitoring of active DHCP sessions is performed using *oltNgNetworkDHCPSessionsTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNgNetworkDHCPSessionsTable
```

CLI command equivalent:

```
show ip dhcp sessions
```

4.9 Active PPPoE sessions monitoring

Monitoring of active PPPoE sessions is performed using *oltNgNetworkDHCPSessionsTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNgNetworkPPPoESessionsTable
```

CLI command equivalent:

```
show ip pppoe sessions
```

4.10 MAC addresses monitoring

Monitoring of MAC addresses is performed using *oltNgNetworkMacTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.1.<port_type>.<port_id>.<mac_adrdress_id>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNgNetworkMacTableMacAddress.1.2.1.5
```

CLI command equivalent:

```
show mac include interface front-port 1 mac
```

4.11 Port-Channel utilization monitoring

Monitoring of Port-Channel utulization is performed using *oltNg1UStandalonePortChannelUtilizationTable* table.

Command format:

snmpget -v2c -c <ro_community> <ipaddr> <parameter_oid>.<port_id>.<interval>

Example:

```
snmpget -v2c -c public 192.168.1.2 oltNg1UStandalonePortChannelUtilizationRxKbitsSec.1.1
```

CLI command equivalent:

```
show interface port-channel 1 utilization
```

5 The list of changes

Document version	Issue date	Firmware version	Revisions
Version 1.3	22.07.2022	1.4.0	Synchronization with firmware version 1.4.0 SNMP tables sections changed. Sections added: • Templates configuration • Logging configuration • Fan speed configuration • ONT counters monitoring • Port-Channel utilization monitoring • ONT counters monitoring • Monitoring of unactivated ONTs • Monitoring of ONT ports state
Version 1.2.1	28.02.2022	1.3.1	Synchronization with firmware version 1.3.1
Version 1.2	29.10.2021	1.3.0	Synchronization with firmware version 1.3.0 OID changed for new format. Sections added: • Rollback of changes made to the configuration
Version 1.1	28.05.2021	1.2.0	Synchronization with firmware version 1.2.0 Sections added: • ONT Reboot and Reset • Ports profile configuration
Version 1.0	30.12.2020	1.1.0	First issue

TECHNICAL SUPPORT

For technical assistance in issues related to handling Eltex Ltd. equipment, please, address to Service Center of the company:

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Visit Eltex official website to get the relevant technical documentation and software, to use our knowledge base or consult a Service Center Specialist in our technical forum.

http://www.eltex-co.com/

http://www.eltex-co.com/support/downloads/