ELTEXALATAU

Complete solutions for networking

OLT LTP-X v3.24.1

Appendix to Operation Manual

OLT LTP-X Quick Configuration Guide

Central Office Node Terminal

TABLE OF CONTENTS

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1 SUMMARY

The Guide provides the following information:

   – connection to the command line interface of OLT LTP-X (hereinafter—the device);
   – configuration of OLT network parameters;
   – VLAN configuration to provide different services on switch;
   – IGMP configuration on switch;
   – creation and modification of ONT profiles: Cross-connect, Ports, Management;
   – creation and modification of OLT profiles: pppoe-ia, dhcp-ra;
   – addition of ONT subscriber devices.

Consider the following scheme as an example (Fig. 1).
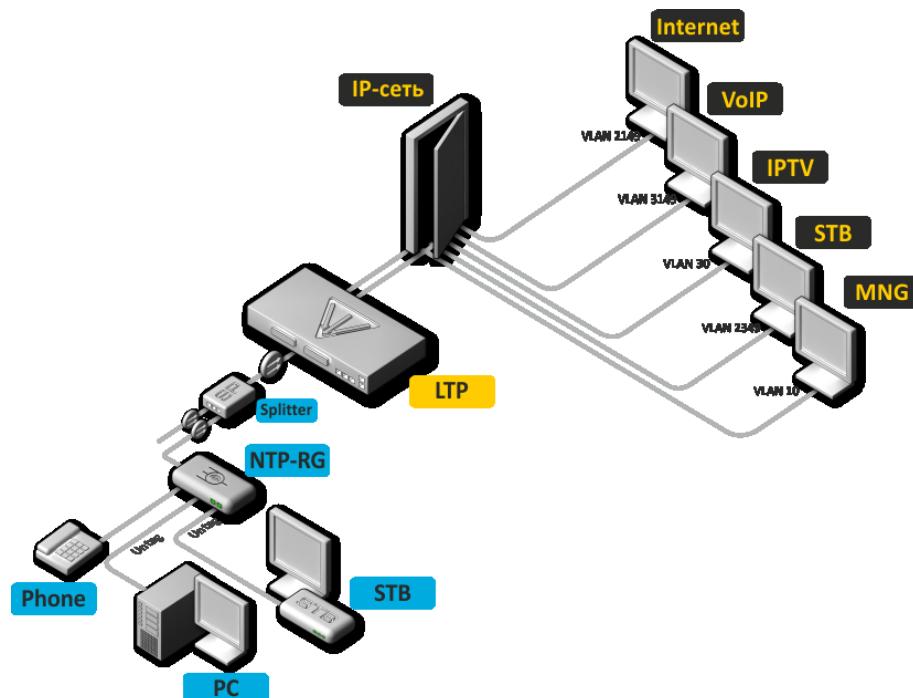
Fig. 1—Network Configuration Example

Device Type	VLAN Used
Internet	2149
VoIP	3149
IPTV (multicast)	30
STB	2349
MNG-ONT (acs)	4094
MNG OLT	4000

The operation requires an application installed on PC and supporting SSH or Telnet protocol or direct connection to console port (e. g. HyperTerminal).

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2 CONNECTION TO COMMAND LINE INTERFACE (CLI)

2.1 Connection to Telnet/SSH

Connect network cable to a GE Port or Combo GE port of LTP-X.

Connection with SSH/Telnet has the following factory settings:

- **Default IP**   **192.168.1.2;**
- **Default mask**   **255.255.255.0;**
- **Default GW**   **0.0.0.0;**

- **Login:**   **admin;**
- **Password:**   **password.**

```
login: admin
Password:
```

> ! **We recommend to change the default password after the first connection for security purposes (see section 2.3 Changing User Password).**

If connection to default IP address can not be successfully established, use the COM port and a terminal program to connect to the device and check network settings (see section 2.2 Connecting via Serial Port).

2.2 Connecting via Serial Port

A null-modem cable is used for this connection. The connector assignment of the null-modem cable is shown in Appendix C.

Set the following parameters to connect via a serial port:

- **Bit rate:**   **115,200 bit/sec.;**
- **Data bits:**   **8 bits;**
- **Parity:**   **none;**
- **Stopping bits:** **1;**
- **Flow control:**   **none;**

- **Login:**   **admin**
- **Password:**   **password**

> ! **We recommend to change the default password after the first connection for security purposes (see section 2.3 Changing User Password).**

Use the *show management* command to check network settings.

```
LTP-X# show management                               Check network settings
    Network:
        Hostname:                                    'LTP-X'
```

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```
        Ipaddr:                              192.168.1.2
        Netmask:                             255.255.255.0
        Vlan management:                     1
        Gateway:                             0.0.0.0
        Vlan prio:                           7
        Dscp:                                63
```

2.3 Changing User Password

```
  LTP-X# configure terminal          Enable the configuration mode
  LTP-X(config)# do show users       View the created users
  LTP-X(config)# user admin password XXXX   Set a new admin password
  LTP-X(config)# user root password XXXX    Set a new root password
  LTP-X(config)# do commit                  Apply the configuration
  LTP-X(config)# do save                    Save the configuration
```

3 CONFIGURATION OF LTP-X NETWORK PARAMETERS

Remote control of LTP-X requires configuration of network settings in accordance with the settings of the network the equipment will be used in. We recommend that the network parameters are configured when a connection to CLI is established via serial interface.

```
LTP-X# configure terminal          Enable the configuration mode
```

Specify the required network settings, for instance IP=192.168.205.105, Mask=255.255.255.0, Gateway=192.168.205.230, VLAN=4000:

```
LTP-X(config)# management ip 192.168.205.105
LTP-X(config)# management mask 255.255.255.0
LTP-X(config)# management gateway 192.168.205.230
LTP-X(config)# management vid 4000
LTP-X# show management                          Check network settings

    Network:
        Hostname:                            'LTP-X'
        Ipaddr:                              192.168.205.105
        Netmask:                             255.255.255.0
        Vlan management:                     4000
        Gateway:                             192.168.205.230
        Vlan prio:                           7
        Dscp:                                63
New network settings will apply after you apply/save the configuration with the help
of the "commit" and "save" commands. This does not require device reboot.
LTP-X# commit                                   Apply the configuration
LTP-X# save                                     Save the configuration
If VLAN is used for device control (VID=4000 in this example), it should be added to
the SWITCH configuration.
LTP-X# switch                                   Enable the SWITCH mode
LTP-X(switch)# configure                        The SWITCH configuration mode
LTP-X(switch)(config)# vlan 4000                Add the required VLAN
LTP-X(switch)(config-vlan)# tagged front-port 0 Receive traffic in VLAN from
                                                 front-port 0
```

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```
LTP-X(switch)(config-vlan)# exit
LTP-X(switch)(config)# commit                        Apply the configuration
LTP-X(switch)(config)# exit
LTP-X(switch)# exit
LTP-X# save                                          Save the configuration
```

4 OLT LTP-X FIRMWARE UPDATE

We recommend to run firmware update for LTP-X seamless operation. You can request information about current firmware version from the manufacturer:

Telephone: **+7(383) 272-83-31**

+7(383) 274-47-87

e-mail: **techsupp@eltex.nsk.ru**

Upload the firmware file to the TFTP server (consider the example with firmware version 3.20.2.3056).

Download the file to LTP-X using the following commands:

```
LTP-X> update system ltp8x.firmware.3.24.1.107.bin 192.168.16.26  Specify
                                                 the firmware file name and address
                                                 of the TFTP server

    Check free memory...ok
    Downloading system firmware...
    ............................................................
    ............................................................
    ..............
    System firmware successfully downloaded.
    Updating system firmware...
        Current board version:    3
        Current firmware version: 3.24.1.103
        New firmware version:     3.24.1.107
        Update device mtd7
            Erase flash...
            Done.
            Write data...
            Done.
        Success
        Update device mtd5
            Erase flash...
            Done.
            Write data...
            Done.
            Done.
        Success
    System firmware successfully updated
```

Reboot the device using the ***reboot*** command.

```
LTP-X> reboot                                           Reboot the device
    Do you really want to reboot the system now? (y/n)  y
```

After the device reboot, use the ***show version*** command to display the firmware version.

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```
LTP-X> show version
Eltex LTP-4X:rev.B software version 3.24.1 build 107 on 15.12.2015 11:15
```

5 CONFIGURATION OF THE SNMP, SYSLOG, AND NTP SERVICES

5.1 SNMP Configuration

```
LTP-X# configure terminal                              Enable the configuration mode
LTP-X(config)# ip snmp enable                           Enable SNMP
LTP-X(config)# ip snmp traps 192.168.16.102 type v2       Set v2 and address of the EMS
                                                        server
LTP-X(config)# do show ip snmp                          Check SNMP settings
    Snmp:
        Enabled:                                        true
        Access control:                                 false
        Allow ip:                                       <list is empty>
        Traps [0]:
            Type:                                       v2
            Ipaddr:                                     192.168.16.102
        Version:                                        v2
        Communityro:                                    'public'
        Communityrw:                                    'private'
        Trap community:                                 'public'
        Location:                                       'unknown'
        Contact:                                        'admin'
        Alias:    %37<for showing use separate command>
        EngineID:                                       0x00000000000000000000000000
LTP-X(config)# do commit                                Apply the configuration
LTP-X(config)# do save                                  Save the configuration
```

5.2 SYSLOG Configuration

```
LTP-X# configure terminal                              Enable the configuration mode
LTP-X(config)# logging remote 192.168.16.102           Set address of the syslog server
LTP-X(config)# do show logging                         Check SYSLOG settings
    Log:
        Remote syslog:                                  192.168.16.102
        Size:                                           16384
        Destinations:
            System:                                     notice
            Console:                                    notice
            Remote shells:                              notice
            File:                                       notice
LTP-X(config)# do commit                                Apply the configuration
LTP-X(config)# do save                                  Save the configuration
```

5.3 NTP Configuration

```
LTP-X# configure terminal                        Enable the configuration mode
LTP-X(config)# ip ntp enable                      Enable NTP
LTP-X(config)# ip ntp ip 192.168.16.102           Set address of the NTP
                                                  server
LTP-X(config)# ip ntp timezone 7                  Set time zone
LTP-X(config)# do show ip ntp                      Check NTP settings
    Ntp:
        Enabled:              true
        Ntpserver:            192.168.16.102
        Interval:             3600
        Timezone:             7
        Daylightsaving:       false
LTP-X(config)# do commit                          Apply the configuration
LTP-X(config)# do save                            Save the configuration
```

6 SWITCH CONFIGURATION

```
LTP-X# switch                                     Enable the SWITCH mode
LTP-X(switch)# configure                          Enable the SWITCH configuration
                                                  mode
MA4000(pp4x-config)# vlan 2149,2349,30,3149,4094   Add all required VLANs
LTP-X(switch)(config-vlan-range)# tagged pon-port 0 – 3   Transmit as tagged to all
                                                  ("0 – 3" for LTP-4X, "0 –
                                                  7" for LTP-8X)pon-ports*
LTP-X(switch)(config-vlan-range)# tagged front-port 0    Receive traffic in VLAN
                                                  from front-port 0
LTP-X(switch)(config-vlan-range)# exit            Enable the configuration mode
LTP-X(switch)(config)# commit                     Apply the configuration
LTP-X(switch)(config)# exit
LTP-X(switch)# exit
LTP-X# save                                       Save the configuration
```

* The command is applicable to LTP-X of version HW_revision 2vX.
For LTP-X of version HW_revision 1vX the following command is used: `tagged pon-port 0 – 1.`

Use the following command to show the version of LTP-X:

```
LTP-X# show system environment
```

![!] **If you do not save the settings, the device will reset to the last saved configuration after reboot.**

7 IGMP CONFIGURATION

```
LTP-X(switch)(config)# ip igmp snooping        Enable global IGMP SNOOPING
LTP-X(switch)(config)# vlan 30                        Enable VLAN 30 configuration mode
LTP-X(switch)(config-vlan)# ip igmp snooping enable Enable IGMP SNOOPING in
                                                   VLAN multicast
LTP-X(switch)(config-vlan)# ip igmp snooping querier enable  Enable IGMP
                                                              proxy
LTP-X(switch)(config-vlan)# exit
LTP-X(switch)(config)# commit                         Apply the configuration
LTP-X(switch)(config)# exit
LTP-X(switch)# exit
LTP-X# save                                           Save the configuration
```

8 CONFIGURATION OF THE CROSS_CONNECT, PORTS, AND MANAGEMENT PROFILES FOR ONT

```
LTP-X# configure terminal                      Enable the configuration mode
LTP-X(config)# profile cross-connect INTERNET  Create a Cross-Connect profile for
                                                the Internet service of ONT and switch
                                                 to the profile
LTP-X(config-cross-connect)("INTERNET")#
LTP-X(config-cross-connect)("INTERNET")# outer vid 2149 Specify the service VLAN
                                                        of the Internet service
LTP-X(config-cross-connect)("INTERNET")# user vid 10 Specify the internal VLAN
                                                     of the Internet service in ONT
LTP-X(config-cross-connect)("INTERNET")# exit
LTP-X(config)# profile cross-connect VOIP       Create a Cross-Connect profile for the
                                                SIP VoIP service in ONT and switch to
                                                the profile
LTP-X(config-cross-connect)("VOIP")# outer vid 3149 Specify the service VLAN
                                                    of the VoIP service
LTP-X(config-cross-connect)("VOIP")# user vid 12 Specify the internal VLAN
                                                 of the VoIP service in ONT
LTP-X(config-cross-connect)("VOIP")# exit
LTP-X(config)# profile cross-connect MC_IPTV  Create a Cross-Connect profile for
                                                the multicast service
LTP-X(config-cross-connect)("MC_IPTV")# outer vid 30 Specify the service VLAN
                                                     of the multicast service
LTP-X(config-cross-connect)("MC_IPTV")# user vid 30 Specify the internal VLAN
                                                    of the multicast service in
                                                    ONT
LTP-X(config-cross-connect)("MC_IPTV")# type multicast Specify the type of the
                                                       multicast service
LTP-X(config-cross-connect)("MC_IPTV")# exit
LTP-X(config)# profile cross-connect UC_IPTV     Create a Cross-Connect profile for
                                                the UC_IPTV service in ONT
LTP-X(config-cross-connect)("UC_IPTV")# outer vid 2349 Specify the service VLAN
                                                       of the STB unicast service
LTP-X(config-cross-connect)("UC_IPTV")# user vid 11 Specify the internal VLAN
                                                    of the STB unicast service in
                                                    ONT
LTP-X(config-cross-connect)("UC_IPTV")# exit
LTP-X(config)# profile cross-connect ACS        Create a Cross-Connect profile for the
                                                management service in ONT
LTP-X(config-cross-connect)("ACS")# outer vid 4094 Specify the service VLAN
                                                   of the management service
```

```
LTP-X(config-cross-connect)("ACS")# user vid untagged Specify the internal VLAN
                                                   of the management service in ONT
LTP-X(config-cross-connect)("ACS")# type management  Specify the type of the
                                                   management service
LTP-X(config-cross-connect)("ACS")# exit
LTP-X(config)# profile ports NTP-RG              Create a multicast profile and
                                                 switch to it
LTP-X(config-ports)("NTP-RG")# veip multicast    Enable IGMP Proxy on the veip
                                                 interface of NTP
LTP-X(config-ports)("NTP-RG")# veip upstream vid 30 Configure mapping for IGMP
                                                 traffic in 30 VLAN
LTP-X(config-ports)("NTP-RG")# veip downstream vid 30 Configure multicast mapping
                                                     in 30 VLAN
LTP-X(config-ports)("NTP-RG")# igmp multicast dynamic-entry 0 vid 30 Configure vlan
                       multicast including the range of the groups listed below
LTP-X(config-ports)("NTP-RG")# igmp multicast dynamic-entry 0 group 224.0.0.1
239.255.255.255                       Configure the range of multicast groups
LTP-X(config-ports)("NTP-RG")# do commit         Apply the configuration
LTP-X(config-ports)("NTP-RG")# do save           Save the configuration
```

⚠️ **If you do not save the settings, the device will reset to the last saved configuration after reboot.**

9 CONFIGURATION OF THE PPPOE INTERMEDIA AGENT AND DHCP RELAY AGENT PROFILES FOR OLT

9.1 PPPoE Intermedia Agent Configuration

```
LTP-X# configure terminal                        Enable the configuration mode
LTP-X(config)# profile pppoe-ia 1     Add a profile and switch to its configuration
LTP-X(config-pppoe-ia)("1")# enable    Enable the Agent
LTP-X(config-pppoe-ia)("1")# sessions-limit 8094   Set the maximum number
                                                of PPPoE sessions for the profile
LTP-X(config-pppoe-ia)("1")# sessions-limit per-user 4 Set the maximum number
                                                  of PPPoE sessions for one ONT
LTP-X(config-pppoe-ia)("1")# format circuit-id %HOSTNAME%%ONTID%  Configure the
                                                        circuit_id format
LTP-X(config-pppoe-ia)("1")# format remote-id %HOSTNAME%%ONTID%   Configure the
                                                        remote_id format
LTP-X(config-pppoe-ia)("1")# do commit      Apply the configuration
LTP-X(config-pppoe-ia)("1")# do save        Save the configuration

LTP-X(config-pppoe-ia)("1")# exit
LTP-X(config)# gpon olt profile pppoeia 1    Set the pppoeia 1 for OLT
LTP-X(config)# do commit                     Apply the configuration
LTP-X(config # do save                       Save the configuration
```

⚠️ **To apply the settings pppoe-ia profile required to make preconfiguration OLT-chips. If the OLT configuration setting is not set automatically reconfiguring GPON port: Auto reconfigure GPON-port: true**

Reconfiguration is done with the following command:

```
LTP-X# reconfigure olt all
```

9.2 DHCP Relay Agent Configuration

```
LTP-X# configure terminal                          Enable the configuration mode
LTP-X(config)# profile dhcp-ra 1          Add a DHCP profile and
                                              switch to its configuration
LTP-X(config-dhcp-ra)("1")# enable              Enable the Agent
LTP-X(config-dhcp-ra)("1")# overwrite-option82 circuit-id %HOSTNAME%%ONTID% When
information is requested about the port which sent a query to the DHCP relay agent,
send HOSTNAME LTP-X and id ONT with the information as well
LTP-X(config-dhcp-ra)("1")# overwrite-option82 remote-id %HOSTNAME%%ONTID% Send
HOSTNAME LTP-X and id ONT in the ID of the DHCP relay agent
LTP-X(config-dhcp-ra)("1")# do commit            Apply the configuration
LTP-X(config-dhcp-ra)("1")# do save              Save the configuration
LTP-X(config)# gpon olt profile dhcpra 1         Set the required global profile to
                                                  the configuration
LTP-X(config)# gpon olt profile dhcpra 1 vid 3149  Set profile 1 for VLAN 3149

LTP-X(config)# do commit                         Apply the configuration
LTP-X(config)# do save                           Save the configuration
LTP-X# show gpon olt configuration               Show OLT configuration
        Block duplicated mac:                    enabled
        Ont block time:                          5
        Dhcpra shaper:                           100
        Profile pppoe-ia:                        1
             OLT Profile PPPoE Intermediate Agent  1
        Profile dhcp-ra:                         1
             OLT Profile DHCP Relay Agent 1
        Profile dhcp-ra per VLAN 3149 [0]:
            Profile:                             1
             OLT Profile DHCP Relay Agent 2
        Datapath:
            Model:                               model3
            Broadcast gem port:                  4095
            Multicast gem port:                  4094
        Encryption:
            Enable:                              false
            Key update interval:                 1
        ONT authentication mode:                 both
        Auto reconfigure ONT:                    true
        Auto reconfigure GPON-port:                 true
        Auto reconfigure OLT:                    true
        PLOAM password in alarm:                    false

This configuration defines that all VLANs except 3149 use profile DHCP Relay Agent 0.
```

> ⚠ **To apply the settings DHCP-RA profile required to make preconfiguration OLT-chips. If the OLT configuration setting is not set automatically reconfiguring GPON port: Auto reconfigure GPON-port: true.**

Reconfiguration is done with the following command:

```
LTP-X# reconfigure olt all
```

10 ADDING AND CONFIGURING ONTS

Consider we need to add ONT ELTX080000001 into tree 0 ONT ID 1 of the configuration and set all profiles required to provide services.

```
LTP-X# configure terminal                        Enable the configuration mode
LTP-X(config)# interface ont 0/1                 Switch to tree 0 ONT ID 1
LTP-X(config)(if-ont-0/1)# serial ELTX08000001   Set the required ONT
                                                 to the position
LTP-X(config)(if-ont-0/1)# profile ports NTP-RG      Set the ports NTP-RG profile
LTP-X(config)(if-ont-0/1)# service 0 profile cross-connect INTERNET Set the cross-
                                                 connect INTERNET profile
LTP-X(config)(if-ont-0/1)# service 1 profile cross-connect VOIP Set the cross-connect
                                                 VOIP profile
LTP-X(config)(if-ont-0/1)# service 2 profile cross-connect MC_IPTV Set the cross-
                                                 connect MC_IPTV profile
LTP-X(config)(if-ont-0/1)# service 3 profile cross-connect UC_IPTV      Set the cross-
                                                 connect UC_IPTV
                                                 profile
LTP-X(config)(if-ont-0/1)# service 4 profile cross-connect ACS     Set the cross-connect
                                                 ACS profile

Setting the default dba profile "dba-00" to all used services:
LTP-X(config)(if-ont-0/1)# service 0 profile  dba dba-00
LTP-X(config)(if-ont-0/1)# service 1 profile  dba dba-00
LTP-X(config)(if-ont-0/1)# service 2 profile  dba dba-00
LTP-X(config)(if-ont-0/1)# service 3 profile  dba dba-00
LTP-X(config)(if-ont-0/1)# service 4 profile  dba dba-00
LTP-X(config)(if-ont-0/1)# do commit                 Apply the configuration
LTP-X(config)(if-ont-0/1)# do save                   Save the configuration
```

We recommend that you reset the device to factory settings having completed the instructions given in section 10.

```
LTP-X# send omci restore interface ont 0/1
```

Test all services after device reboot.

11 ONT CONFIGURATION TEMPLATES

In order to simplify configuration of similar ONTs, you can use a predefined configuration template.

```
LTP-X# configure terminal                   Enable the configuration mode
LTP-X(config)# template TP                  Create the TP template and switch to it
LTP-X(ont-template)("TP")# profile ports NTP-RG   Set the ports profile for the
                                            template
LTP-X(ont-template)("TP")# service 0 profile cross-connect INTERNET Set the cross-
                      connect INTERNET profile for service 0 in the TP template
LTP-X(ont-template)("TP")# service 1 profile cross-connect VOIP Set the cross-connect
                            VOIP profile for service 1 in the TP template
LTP-X(ont-template)("TP")# service 2 profile cross-connect MC_IPTV Set the cross-
                      connect MC_IPTV profile for service 2 in the TP template
LTP-X(ont-template)("TP")# service 3 profile cross-connect UC_IPTV Set the cross-
                      connect UC_IPTV profile for service 3 in the TP template
LTP-X(ont-template)("TP")# service 4 profile cross-connect ACS Set the cross-connect
                            ACS profile for service 4 in the TP template
```

```
Setting the default dba profile "dba-00" to all used services:
LTP-X(ont-template)("TP")# service 0 profile dba dba-00
LTP-X(ont-template)("TP")# service 1 profile dba dba-00
LTP-X(ont-template)("TP")# service 2 profile dba dba-00
LTP-X(ont-template)("TP")# service 3 profile dba dba-00
LTP-X(ont-template)("TP")# service 4 profile dba dba-00
LTP-X(ont-template)("TP")# do commit            Apply the configuration
LTP-X(ont-template)("TP")# do save              Save the configuration

Adding ONT ELTX08000002:
LTP-X# configure terminal                        Enable the configuration mode
LTP-X(config)# interface ont 0/2                 Switch to tree 0 ONT ID 2
LTP-X(config)(if-ont-0/2)# serial ELTX08000002   Set the required ONT
                                                  to the position
LTP-X(config)(if-ont-0/2)# template TP           Set the TP template
                                                  to the position
LTP-X(config)(if-ont-0/2)# do commit            Apply the configuration
LTP-X(config)(if-ont-0/2)# do save              Save the configuration
```

ELTX0800000002 ONT configuration will be the same as ELTX08000001 ONT configuration in section 10, but you need only 2 commands to add an ONT.

12 INTERNAL ACS CONFIGURATION

LTP-4/8X rev.B devices contains in its software internal ACS (automatic configuration server), which allows automatic configuration the ONT, which belong to this OLT LTP-X.

```
LTP-X(config)# ip acs server enable      Enable ACS
LTP-X(config)# ip acs server vid 4094    Specify the VLAN number, which will run ACS
LTP-X(config)# ip dhcp server enable     Enable DHCP-server for issuing ONT IP-addresses
LTP-X(config)# ip dhcp server option-43  Enable DHCP option 43
LTP-X(config)# ip dhcp server range "192.168.200.2" "192.168.201.254"
                                         Specify a range of addresses for issuing to
                                         clients
LTP-X(config)#do commit                  Apply the configuration
LTP-X(config)#do save                    Save the configuration
LTP-X# switch                            Enable the SWITCH mode
LTP-X(switch)# configure                 Enable the SWITCH configuration mode
LTP-X(switch)(config)# vlan 4094         Add the required VLAN
LTP-X(switch)(config-vlan)# tagged pon-port 0 - 3   Transmit as tagged to all ("0 - 3"
                                         for LTP-4X, "0 - 7" for LTP-8X)
                                         pon-ports*
LTP-X(switch)(config-vlan)# exit
LTP-X(switch)(config)# commit            Apply the configuration
LTP-X(switch)(config)# exit
LTP-X(switch)# exit
LTP-X# save                              Save the configuration
LTP-X# configure terminal                Enable the configuration mode
LTP-X(config)# profile cross-connect ACS Create a Cross-Connect profile for
                                         the management service of ONT and
                                         switch to the profile
LTP-X(config-cross-connect)("ACS")# outer vid 4094   Specify the service VLAN
                                         of the management service
LTP-X(config-cross-connect)("ACS")# type management  Specify the type of the
                                         management service
LTP-X(config-cross-connect)("ACS")# do commit   Apply the configuration
LTP-X(config-cross-connect)("ACS")# do save     Save the configuration
```

* The command is applicable to LTP-X of version HW_revision 2vX.
For LTP-X of version HW_revision 1vX the following command is used: `tagged pon-port 0 - 1.`

Configuration Cross Connect and Ports profiles.

For work ONT with the internal ACS is necessary to assign created cross-connect and management profiles (similar by section 10: Adding and Configuring ONTs).

13 CONFIGURATION OF THE ACS PROFILES FOR ONT

```
LTP-X> acs                           Enable the ACS configuration mode
(acs)# profile                       Enable the ONT profiles configuration mode
(acs-profiles)# add profile TEST     Create a profile TEST for ONT
(acs-profiles)# profile TEST         Switch to the profile TEST configuration mode
(acs-profile-name='TEST')
     Insert profile from the Appendix A
(acs-profile-name='TEST')commit      Apply the configuration
(acs-profile-name='TEST')
```

14 CREATE AND CONFIGURE ACS USERS

```
(acs)#
(acs)# user                          Enable the ACS users configuration mode
(acs-user)# add user IVANOV          Create the ACS user IVANOV
(acs-user)# user IVANOV              Switch to the ACS user IVANOV
                                     configuration mode
(acs-user-subscriber='IVANOV')# set pon_serial 454C54580800F6B1  Set ONT serial number
                                                for user IVANOV
(acs-user-subscriber='IVANOV')# set profile TEST     Set ACS profile TEST
                                                for user IVANOV
(acs-user-subscriber='IVANOV')# set ppp_login test   Set PPPoE-session login
(acs-user-subscriber='IVANOV')# set ppp_password TEST     Set PPPoE-session password
(acs-user-subscriber='IVANOV')# set sip_proxy 212.122.111.55     SIP PROXY ip address
(acs-user-subscriber='IVANOV')# set voice1_enable enabled        Enable phone port 1
(acs-user-subscriber='IVANOV')# set voice1_number 34234234       Set phone number
                                                                 for phone port 1
(acs-user-subscriber='IVANOV')# set voice1_password test         Set password for
                                                                 phone port 1
```

15 UPDATE ONT FIRMWARE BY INTERNAL ACS

Check that the LPT-X installed correct date and time.

For configure the ONT firmware update, follow these recommendations:

```
LTP-X> acs                           Enable the ACS configuration mode
(acs)firmware                        Enable the ONT firmware configuration mode
(acs-firmware)copy 192.168.16.26 ntp-rg-3.22.1.14.fw.bin   Set TFTP-server ip address
(acs-firmware)show files        Show firmware files list
(acs-firmware)show list         Show firmware profiles list
(acs-firmware)add firmware 1         Create the firmware profile 1
(acs-firmware)firmware 1             Switch to the firmware profile 1
(acs-firmware_config-fw id='1')show config         Show firmware profile 1
                                                   configuration
(acs-firmware_config-fw id='1')set file ntp-rg-3.22.1.14.fw.bin   Set file firmware for
                                                this profile
(acs-firmware_config-fw id='1')add profile TEST     Set  profile  for  ONT  firmware
                                                update
```

The next recourse to the ACS, ONT will update the software and automatically restart ONT.

Please contact Technical Support of EltexAlatau Ltd. Enterprise if you have any questions:

Telephone: **+7(727) 320-18-40**

+7(727) 320-18-38 e-

mail: **nfo@eltexalatau.kz**

APPENDIX A—AN EXAMPLE OF A COMMON ACS PROFILE FOR NTP-RG14XXG/NTP-RG14XXG-W

```
set property "InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.DHCPServerEnable" "1"
nocheck
set property "InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.DomainName" "HomeLAN"
nocheck
set property "InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.IPInterface.1.Enable" "1"
nocheck
set property
"InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.IPInterface.1.IPInterfaceAddressingTyp
e" "Static" nocheck
set property
"InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.IPInterface.1.IPInterfaceIPAddress"
"192.168.1.1" nocheck
set property
"InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.IPInterface.1.IPInterfaceSubnetMask"
"255.255.255.0" nocheck
set property "InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.IPRouters" "192.168.1.1"
nocheck
set property "InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.MaxAddress"
"192.168.1.254" nocheck
set property "InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.MinAddress" "192.168.1.2"
nocheck
set property "InternetGatewayDevice.LANDevice.1.LANHostConfigManagement.SubnetMask"
"255.255.255.0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.1.BridgeEnable" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.1.BridgeName" "brHSI" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.1.BridgeStandard" "802.1Q" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.1.VLANID" "10" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.2.BridgeEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.2.BridgeName" "brVoIP" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.2.BridgeStandard" "802.1Q" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.2.VLANID" "12" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.3.BridgeEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.3.BridgeName" "brIPTV" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.3.BridgeStandard" "802.1Q" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.3.VLANID" "11" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.4.BridgeEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.4.BridgeName" "MC" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.4.BridgeStandard" "802.1Q" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Bridge.4.VLANID" "30" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.1.AdmitOnlyVLANTagged" "FALSE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.1.FilterBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.1.FilterEnable" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.1.FilterInterface" "9" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.1.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.10.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.10.FilterBridgeReference" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.10.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.10.FilterInterface" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.10.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.11.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.11.FilterBridgeReference" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.11.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.11.FilterInterface" "4" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.11.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.12.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.12.FilterBridgeReference" "4" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.12.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.12.FilterInterface" "9" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.12.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.13.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.13.FilterBridgeReference" "4" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.13.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.13.FilterInterface" "13" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.13.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.2.AdmitOnlyVLANTagged" "FALSE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.2.FilterBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.2.FilterEnable" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.2.FilterInterface" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.2.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.3.AdmitOnlyVLANTagged" "FALSE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.3.FilterBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.3.FilterEnable" "TRUE" nocheck
```

```
set property "InternetGatewayDevice.Layer2Bridging.Filter.3.FilterInterface" "2" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.3.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.4.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.4.FilterBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.4.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.4.FilterInterface" "5" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.4.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.5.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.5.FilterBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.5.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.5.FilterInterface" "11" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.5.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.6.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.6.FilterBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.6.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.6.FilterInterface" "10" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.6.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.7.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.7.FilterBridgeReference" "2" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.7.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.7.FilterInterface" "9" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.7.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.8.AdmitOnlyVLANTagged" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.8.FilterBridgeReference" "2" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.8.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.8.FilterInterface" "12" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.8.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.9.AdmitOnlyVLANTagged" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.9.FilterBridgeReference" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.9.FilterEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.9.FilterInterface" "9" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Filter.9.VLANIDFilter" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.1.EthernetPriorityMark" "3" nocheck
set property "InternetGatewayDevice.Layer2Bredindix.Marking.1.MarkingBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.1.MarkingEnable" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.1.MarkingInterface" "9" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.1.VLANIDMark" "10" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.1.VLANIDMarkOverride" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.1.VLANIDUntag" "FALSE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.2.EthernetPriorityMark" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.2.MarkingBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.2.MarkingEnable" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.2.MarkingInterface" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.2.VLANIDMark" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.2.VLANIDMarkOverride" "FALSE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.2.VLANIDUntag" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.3.EthernetPriorityMark" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.3.MarkingBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.3.MarkingEnable" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.3.MarkingInterface" "2" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.3.VLANIDMark" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.3.VLANIDMarkOverride" "FALSE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.3.VLANIDUntag" "TRUE" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.4.EthernetPriorityMark" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.4.MarkingBridgeReference" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.4.MarkingEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.4.MarkingInterface" "5" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.4.VLANIDMark" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.4.VLANIDMarkOverride" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.4.VLANIDUntag" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.5.EthernetPriorityMark" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.5.MarkingBridgeReference" "2" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.5.MarkingEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.5.MarkingInterface" "9" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.5.VLANIDMark" "12" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.5.VLANIDMarkOverride" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.5.VLANIDUntag" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.6.EthernetPriorityMark" "2" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.6.MarkingBridgeReference" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.6.MarkingEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.6.MarkingInterface" "9" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.6.VLANIDMark" "11" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.6.VLANIDMarkOverride" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.6.VLANIDUntag" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.7.EthernetPriorityMark" "2" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.7.MarkingBridgeReference" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.7.MarkingEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.7.MarkingInterface" "3" nocheck
```

```
set property "InternetGatewayDevice.Layer2Bridging.Marking.7.VLANIDMark" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.7.VLANIDMarkOverride" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.7.VLANIDUntag" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.8.EthernetPriorityMark" "2" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.8.MarkingBridgeReference" "3" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.8.MarkingEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.8.MarkingInterface" "4" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.8.VLANIDMark" "-1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.8.VLANIDMarkOverride" "0" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.8.VLANIDUntag" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.9.EthernetPriorityMark" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.9.MarkingBridgeReference" "4" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.9.MarkingEnable" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.9.MarkingInterface" "9" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.9.VLANIDMark" "30" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.9.VLANIDMarkOverride" "1" nocheck
set property "InternetGatewayDevice.Layer2Bridging.Marking.9.VLANIDUntag" "0" nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.DigitMap" "x.T"
nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.DigitMapEnable" "1"
nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.PhyReferenceList" "1"
nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.PhyReferenceList" "2"
nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.OutboundProxyPort"
"5060" nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegisterExpires"
"610" nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrarServerPort" "5060"
nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrationPeriod" "600"
nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.UserAgentPort"
"5060" nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.X_WANReferenceList" "12" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.1.AddressingType" "DHCP"
nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.1.ConnectionType"
"IP_Routed" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.1.DHCPClient.SentDHCPOpt
ion.1.Enable" "1" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.1.DHCPClient.SentDHCPOpt
ion.1.Tag" "60" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.1.DHCPClient.SentDHCPOpt
ion.1.Value" "Vk9JUF9OVFAtUkc=" nocheck
set property "InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.1.Enable"
"1" nocheck
set property "InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.1.Name"
"VoIP_IPoE" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.2.AddressingType"
"Static" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.2.ConnectionType"
"IP_Routed" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.2.DefaultGateway"
"10.0.0.1" nocheck
set property "InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.2.Enable"
"1" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.2.ExternalIPAddress"
"10.10.10.10" nocheck
set property "InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.2.Name"
"MC_IPoE" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.2.SubnetMask"
"255.0.0.0" nocheck
```

```
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANIPConnection.2.X_BROADCOM_COM_IGMPEna
bled" "1" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANPPPConnection.1.ConnectionTrigger"
"AlwaysOn" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANPPPConnection.1.ConnectionType"
"IP_Routed" nocheck
set property "InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANPPPConnection.1.Enable"
"1" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANPPPConnection.1.IdleDisconnectTime"
"0" nocheck
set property "InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANPPPConnection.1.Name"
"HSI_PPP" nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANPPPConnection.1.NATEnabled" "1"
nocheck
```

APPENDIX B—AN EXAMPLE OF INDIVIDUAL SETTINGS CONFIGURATION FOR NTP-RG14XXG/NTP-RG14XXG-W

```
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANPPPConnection.1.Username" "szt"
nocheck
set property
"InternetGatewayDevice.WANDevice.1.WANConnectionDevice.1.WANPPPConnection.1.Password" "szt"
nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.CallingFeatures.CallerIDName
" "111" nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.DirectoryNumber" "111"
nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.Enable"
"Enabled" nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.AuthPassword" "111"
nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.AuthUserName" "111"
nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.CallingFeatures.CallerIDName
" "222" nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.DirectoryNumber" "222"
nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.Enable"
"Enabled" nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.SIP.AuthPassword" "222"
nocheck
set property
"InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.SIP.AuthUserName" "222"
nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.OutboundProxy"
"test.ru" nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrarServer"
"test.ru" nocheck
set property "InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.UserAgentDomain"
"test.ru" nocheck
```

APPENDIX C—CONNECTOR ASSIGNMENT OF RS-232 NULL-MODEM CABLE
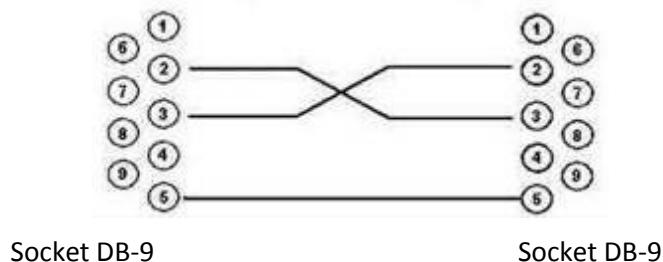
Socket DB-9   Socket DB-9

_____

APPENDIX D—CONFIGURATION ONT NTU-1

Task

Configure terminal in bridge mode, the data transfer toward ONT will be implemented in VLAN 2149.

Decision

A distinctive feature of the ONT NTU-1 is the work only in bridge mode. Full configuration is carried out by means of OLT OMCI protocol without using the ACS server.

Add VLAN to the LTP-X switch configuration.

```
LTP-X# switch                              Enable the SWITCH mode
LTP-X(switch)# configure                   Enable the SWITCH configuration
                                           mode
LTP-X(switch)(config)# vlan 2149           Add VLAN
LTP-X(switch)(config-vlan)# tagged front-port 0    Receive as tagged from
                                           front-port 0
LTP-X(switch)(config-vlan)# tagged pon-port 0 – 3  Transmit as tagged to all ("0 – 3"
                                           for LTP-4X, "0 – 7" for LTP-8X)
                                           pon-ports*

LTP-X(switch)(config-vlan)# exit
LTP-X(switch)(config)# commit              Apply the configuration
LTP-X(switch)(config)# exit
LTP-X(switch)# exit
LTP-X# save                                Save the configuration
```

* The command is applicable to LTP-X of version HW_revision 2vX.
For LTP-X of version HW_revision 1vX the following command is used: `tagged pon-port 0 – 1.`

Configuration Cross Connect and Ports profiles.

```
LTP-X# configure terminal                              Enable the configuration mode
LTP-X(config)# profile cross-connect NTU1              Create and switch to the cross-
                                                       connect profile NTU1
LTP-X(config-cross-connect)("NTU1")# bridge            Set bridge mode
LTP-X(config-cross-connect)("NTU1")# bridge group 20   Set bridge group 20
LTP-X(config-cross-connect)("NTU1")# outer vid 2149    Specify the service VLAN
                                                       of this service
LTP-X(config-cross-connect)("NTU1")# exit
LTP-X(config)# profile ports NTU1                      Create and switch to the ports
                                                       profile NTU1
LTP-X(config-ports)("NTU1")# port 0 bridge group 20    Add port 0 to bridge group 20
LTP-X(config-ports)("NTU1")# do commit                 Apply the configuration
LTP-X(config-ports)("NTU1")# do save                   Save the configuration
```

Create and configuration ONT NTU-1.

```
LTP-X# configure terminal                         Enable the configuration mode
LTP-X(config)# interface ont 0/3                  Switch tree 0 ONT ID 3
LTP-X(config)(if-ont-0/3)# serial 454C545862000078    Set ONT serial
LTP-X(config)(if-ont-0/3)# profile ports NTU1     Set profile ports NTU1
LTP-X(config)(if-ont-0/3)# service 0 profile cross-connect NTU1   Set profile
                                                       cross-connect **NTU1**
LTP-X(config)(if-ont-0/3)# service 0 profile dba dba-00      Set DBA  profile
LTP-X(config)(if-ont-0/3)# do commit              Apply the configuration
LTP-X(config)(if-ont-0/3)# do save                Save the configuration
```

Example ONT configuration for transmission via the ONT NTU-1 multiple VLAN in TRUNK mode.

At this version it is possible to transmit up to 8 VLAN in trunk mode through the ONT NTU-1.

The transmission VLAN 100 and 200 will be considered.

Add the required VLAN to the LTP switch configuration.

```
LTP-X# switch                                   Enable the SWITCH mode
LTP-X(switch)# configure                        Enable the SWITCH configuration
                                                mode
LTP-X(switch)(config)# vlan 100,200             Add VLANs
LTP-X(switch)(config-vlan)# tagged front-port 0 Receive as tagged from
                                                front-port 0
LTP-X(switch)(config-vlan)# tagged pon-port 0 – 3  Transmit as tagged to all ("0 – 3"
                                                for LTP-4X, "0 – 7" for LTP-8X)
                                                pon-ports *

LTP-X(switch)(config-vlan)# exit
LTP-X(switch)(config)# commit                   Apply the configuration
LTP-X(switch)(config)# exit
LTP-X(switch)# exit
LTP-X# save                                     Save the configuration
```

* The command is applicable to LTP-X of version HW_revision 2vX.
For LTP-X of version HW_revision 1vX the following command is used: `tagged pon-port 0 – 1.`

Configuration Cross Connect and Ports profiles.

```
LTP-X# configure terminal                              Enable the configuration mode
LTP-X(config)# profile cross-connect NTU100            Create and switch to the cross-
                                                       connect profile NTU100
LTP-X(config-cross-connect)("NTU100")# bridge          Set bridge mode
LTP-X(config-cross-connect)("NTU100")# bridge group 20 Set bridge group 20
LTP-X(config-cross-connect)("NTU100")# outer vid 100   Specify the service VLAN
                                                       of this service
LTP-X(config-cross-connect)("NTU100")# user vid 100    Specify the internal VLAN
                                                       of this service
LTP-X(config-cross-connect)("NTU100")# exit
LTP-X(config)# profile cross-connect NTU200            Create and switch to the cross-
                                                       connect profile NTU200
LTP-X(config-cross-connect)("NTU200")# bridge          Set bridge mode
LTP-X(config-cross-connect)("NTU200")# bridge group 20 Set bridge group 20
LTP-X(config-cross-connect)("NTU200")# outer vid 200   Specify the service VLAN
                                                       of this service
LTP-X(config-cross-connect)("NTU200")# user vid 200    Specify the internal VLAN
                                                       of this service
LTP-X(config-cross-connect)("NTU200")# exit
LTP-X(config)# profile ports NTU1                      Create and switch to the ports
                                                       profile NTU1
LTP-X(config-ports)("NTU1")# port 0 bridge group 20    Add port 0 to bridge group 20
LTP-X(config-ports)("NTU1")# do commit                 Apply the configuration
LTP-X(config-ports)("NTU1")# do save                   Save the configuration
```

Create and configuration ONT NTU-1.

```
LTP-X# configure terminal                        Enable the configuration mode
LTP-X(config)# interface ont 0/3                 Switch tree 0 ONT ID 3
LTP-X(config)(if-ont-0/3)# serial 454C545862000078   Set ONT serial
LTP-X(config)(if-ont-0/3)# profile ports NTU1        Set profile ports NTU1
LTP-X(config)(if-ont-0/3)# service 0 profile cross-connect NTU100 Set profile
                                                             cross-connect NTU100
LTP-X(config)(if-ont-0/3)# service 0 profile dba dba-00          Set DBA  profile
LTP-X(config)(if-ont-0/3)# service 1 profile cross-connect NTU200 Set profile
                                                             cross-connect NTU200
LTP-X(config)(if-ont-0/3)# service 1 profile dba dba-00          Set DBA  profile
LTP-X(config)(if-ont-0/3)# do commit                 Apply the configuration
LTP-X(config-ports)("NTU1")# do save                 Save the configuration
```

APPENDIX E—STATE TABLE ONT/GPON-INTERFACE

ONT state

State	Description
UNACTIVATED	ONT configuration missing
ALLOCATED	ONT was found
AUTHINPROGRESS	ONT in the authentication process
AUTHFAILED	Authentication failed
AUTHOK	Authentication success
PRECONFIG	Preparing to configure the ONT
CFGINPROGRESS	Configuring ONT
CFGFAILED	The configuration process is failed
OK	ONT in the work
BLOCKED	ONT is blocked
MIBRESET	Reset MIB ONT
FAILED	ONT in a state of critical failure
FWUPDATING	ONT is in the process of updating the software
DISABLED	ONT state is a technical blocking

GPON-interface state

State	Description
INITED	The channel initialized
CFGINPROGRESS	The channel is in configure
CFGFAILED	The channel configuration was failed
OK	The channel in the work
FAILED	The channel is not operational
DISABLED	The channel off

OLT LTP-X. Appendix to Operation Manual

OLT LTP-X Quick Configuration Guide