OLT LTP-8X, LTP-4X. EasyMode

LTP-8X, LTP-4X

(EasyMode) 3.48.0 (30.09.2023)

> • 1 LTP-X (EasyMode) • 2 • 3 • 4 • 4.1 • 4.2 Telnet/SSH • 5 EasyMode 6 EasyMode • 6.1 • 6.2 • 6.2.1 VLAN • 6.2.2 management LTP • 6.2.3 DHCP Relay Agent (option 82) • 6.3 • 7 ONT • 7.1 ONT • 7.2 ONT • 8 ONT • 9 ONT EasyMode

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🚺 , -, .

LTP-X (EasyMode)

(EasyMode) - LTP, GPON . EasyMode , GPON, Triple Play.

EasyMode :

- GPON ELTEX;
- ;
- .

B, C NTU.

LTP-8X(4X)	3.26.1
NTU-1	3.24.0
NTU-2W	3.25.1
NTU-2V(C), NTU-RG-1402G-W	3.25.2
NTU-RG-1421(31)G-Wac	3.28.1

:

, LTP .

LTP , Ethernet- GE-.

LTP rev.B RS-232 DB9(F) – DB9(F), . , 1.



1 — LTP rev.B

LTP C D RS-232 RJ-45 – DB9(F), . , 2.



2 — LTP rev./rev.D

1-, LTP rev.B

1	Console		RS-232					
2	GE Port 03	3	4 RJ-45 10/100/1000BASE-T Gigabit uplink- IP- (LTP-8X)					
3	Combo GE	03	4 SFP- 1000BASE-X uplink- IP- (LTP-4X)					
			4 RJ-45 10/100/1000BASE-T Gigabit uplink- IP- (LTP-4X)					
		47	4 SFP- 1000BASE-X uplink- IP- (LTP-8X)					
			4 RJ-45 10/100/1000BASE-T Gigabit uplink- IP- (LTP-8X)					
4	10G/1G 01		2 SFP- 10GBASE/1000BASE-X uplink- IP-					
5	PON		4 SFP xPON 2,5 G (LTP-4X)					
			8 SFP- xPON 2,5 G (LTP-8X)					
6	Power							
7	Status							
8	F		:					
			• 10 ; • 10 .					
			CLI.					

2 , , LTP rev.C/rev.D.

2- , LTP rev./rev.D

1	Power	
2	Status	
3	Fan	
4	RPS	

5	Console		, , , , , , , , , , , , , , , , , , ,
6	F		: • 10 ; • 10 .
			CLI.
7	GE Port 03	•	4 RJ-45 10/100/1000BASE-T Gigabit uplink- IP- (LTP-8X)
8	Combo GE	03	4 SFP- 1000BASE-X uplink- IP- (LTP-4X)
			4 RJ-45 10/100/1000BASE-T Gigabit uplink- IP- (LTP-4X)
		47	4 SFP- 1000BASE-X uplink- IP- (LTP-8X)
			4 RJ-45 10/100/1000BASE-T Gigabit uplink- IP- (LTP-8X)
9	10G/1G 01		2 SFP- 10GBASE/1000BASE-X uplink- IP-
10	PON		4 SFP- xPON 2,5 G (LTP-4X)
			8 SFP- xPON 2,5 G (LTP-8X)

:

Baud Rate	115200
Data Bits	8
Parity	
Stop Bits	1
Flow Control	

SecureCRT 3.



3 — SecureCRT

: admin/password.

.

Telnet/SSH

Ethernet- G	E/ComboGE	IP-	LTP — 192.168.1.2/24.	192.168.1.1	255.255.255.0,	4.	
			Свойства: Протокол И	нтернета ве	- рсии 4 (TCP/IF	Pv4)	? ×
			Общие				
			Параметры IP могут н поддерживает эту во IP можно получить у	назначаться эзможность. сетевого аді	автоматически В противном сл министратора.	, если сеть учае парам	етры
			🔘 Получить IP-адр	ес автомати	чески		
			• Использовать сл	едующий IP	-адрес:		
			IP-адрес:		192 . 168	. 1 . 1	
			Маска подсети:		255 . 255	. 255 . 0	
			Основной шлюз:				
			Получить адрес	DNS-cepsepa	а автоматическ	И	
				едующие ад	цреса риз-серв	сров.	
			Предпочитаемый [NS-cepBep:		• •	
			Альтернативный [NS-cepbep:			
			🔲 Подтвердить п	араметры пр	и выходе	Дополнит	ельно
						ж	Отмена

4 — IP-

```
telnet ssh 192.168.1.2.
```

.

: admin/password.



, 5.





• IPoE. DHCP- 82.

.

- «VLAN ». VLAN.
- . .

1

- multicast vlan. Unicast- IPTV (Video-On-Demand, VoD) multicast-.
- Multicast-

EasyMode

🕂 EasyMode . , .

.

EasyMode

, :

IP- LTP	192.168.1.2			
	255.255.255.0			
VLAN	1			
Gateway				
ACS VLAN (TR-069)	2			
Internet VLAN	100			
VoIP VLAN	200			
VoD VLAN	300			

Multicast VLAN	400
Option82 Circuit-Id	
Option82 Remote-Id	
EasyMode easy-m	ode.,.
(),,,.	
LTP-4X# easy-mode Enabling easy Configured ea Easy mode ena LTP-4X#	-mode will d sy-mode ble successf
6.3 7 .	
🔥 ONT, , rolli	
∧ ONT, , rolli	

```
LTP-4X# easy-mode wizard
Enabling easy-mode will delete current configuration. Are you sure? (y/n) y
Customize easy-mode configuration:
< ... >
```

VLAN

```
        VLAN,
        VLAN
        Ethernet-,
        VLAN
        ACS-.
        ,
        ,
        < Enter>.
        VLAN :
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        <th
```

Internet VLAN	1001
VoIP VLAN	1002
VoD VLAN	1003
Multicast VLAN	3

Current VLAN configuration: ACS VLAN ID: 2 Internet VLAN ID: 100 VoIP VLAN ID: 200 VoD VLAN ID: 300 Multicast VLAN ID: 400 Do you want to change VLAN configuration? (y/N): y Enter ACS service VLAN ID (leave blank for default) [2]: Enter Internet service VLAN ID (leave blank for default) [100]: 1001 Enter VoIP service VLAN ID (leave blank for default) [200]: 1002 Enter VoD service VLAN ID (leave blank for default) [300]: 1003 Enter Multicast VLAN ID (leave blank for default) [400]: 3

LTP., N			,	,	<enter>.</enter>
management	:				

Management IP	10.189.55.19
Management mask	255.255.255.0
Management gateway	10.189.55.254
Management vid	189

```
Current management settings:

IP: 192.168.1.2

Mask: 255.255.255.0

Gateway: 0.0.0

Management VLAN ID: 1

Do you want to change management configuration?

Attention, it may cause disconnection from remote sessions! (y/N): y

Enter management IP (leave blank for default) [192.168.1.2]: 10.189.55.19

Enter management mask (leave blank for default) [255.255.255.0]:

Enter management gateway (leave blank for default) [0.0.0.0]: 10.189.55.254

Enter management VLAN ID (leave blank for default) [1]: 189
```

\Lambda VLAN ACS-. .

Error: ACS VLAN intersects with management VLAN. Try again.

VLAN.

IP- ACS-.

ACS 192.168.200.1/21.

```
Error: ACS network intersects with management network. Try again.
```

IP-.

DHCP Relay Agent (option 82)

— DHCP 82 . . 82, , N . *Circuit-Id Remote-Id*.

Circuit-Id	%HOSTNAME%%PONSERIAL%%VLAN0%
Remote-Id	-

, . .:

%HOSTNAME%	LTP
%MNGIP%	IP-
%GPON-PORT%	GPON- ONT
%ONTID%	ONT GPON-
%PONSERIAL%	ONT
%GEMID%	GEM-
%VLAN0%	() VLAN
%VLAN1%	() VLAN

%MAC%	MAC-
%OLTMAC%	MAC- OLT
%OPT60%	60
%OPT82_CID%	Circuit-Id 82
%OPT82_RID%	Remote-Id 82
%DESCR%	ONT

Circuit-Id Remote-Id , , N .

, IP- LTP 10.189.55.19, ONT 1 GPON- ID 15. , :

Current configuration dhcp-ra overwrite-option 82: Circuit id: %HOSTNAME%-%PONSERIAL%-%VLAN0% Remote id: -Do you want to setup Option 82 format? (answer No for default option) (y/N): y Enter Circuit ID (leave blank for empty option): %GPON-PORT%-%ONTID% Enter Remote ID (leave blank for empty option): %MNGIP%

Configured easy-mode... Easy mode enable successfully

, save. .

LTP-4X# save Configuration successfully saved to file

ONT

ONT

⚠

ONT, ONT . EasyMode. NTU-1, OMCI, easy-ONT. ONT easy-RG.

```
LTP-8X# show running-config gpon olt
configure terminal
gpon olt auto-activation ont enable
gpon olt auto-activation ont default template "easy-RG"
gpon olt auto-activation ont type NTU-1 template "easy-ONT"
exit
commit
LTP-8X#
```

ONT, , rollback. .

ONT

EasyMode ONT :

1. ONT.

LTP-8X(config) # no gpon olt auto-activation ont enable

2. ONT, GPON-, . , GPON-, . ONT show interface ont 0-7 unactivated (LTP-4X show interface ont 0-3 unactivated).

3. ONT ID GPON-. show interface ont 2 unconfigured.

```
LTP-4X# show interface ont 2 unconfigured
GPON-port 2 ONT unconfigured list: 2-127
Total ONT count: 126
LTP-4X#
```

4. . configure terminal.

```
LTP-4X# configure terminal
LTP-4X(config)#
```

5. ONT ID ONT. interface ont 2/2.

```
LTP-4X(config)# interface ont 2/2
LTP-4X(config)(if-ont-2/2)#
```

6. ONT : easy-ONT NTU-1 easy-RG . ONT.

```
LTP-4X(config)(if-ont-2/2)# serial 454C545862000100
LTP-4X(config)(if-ont-2/2)# template easy-ONT
LTP-4X(config)(if-ont-2/2)# exit
LTP-4X(config)#
```

7. 5–6 ONT.

```
LTP-4X(config)# interface ont 2/3
LTP-4X(config)(if-ont-2/3)# serial 454C545866000101
LTP-4X(config)(if-ont-2/3)# template easy-RG
LTP-4X(config)(if-ont-2/3)# exit
```

8. , commit save.

⁄≞

```
LTP-4X(config)# exit
LTP-4X# commit
Changes successfully commited (2 chunks)
LTP-4X# save
.....
Configuration successfully saved to file
LTP-4X#
```

⚠

ONT

RG ONT ACS . ACS Eltex ACS, . ONT 454C545866000101 101 *secret* SIP- *sip.test.pon.* :

1. ACS- acs.

. .

LTP-4X# acs LTP-4X(acs)#

2. ONT ONT ont ont 454C545866000101.

```
LTP-4X(acs)#ont
LTP-4X(acs-ont)#ont 454C545866000101
LTP-4X(acs-ont-sn='454C545866000101')#
```

3. , SIP-, .

```
LTP-4X(acs-ont-sn='454C545866000101')#set private sip_proxy sip.test.pon
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.
UserAgentDomain' = 'sip.test.pon'
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.
RegistrarServer' = 'sip.test.pon'
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.
ProxyServer' = 'sip.test.pon'
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.
OutboundProxy' = 'sip.test.pon'
Ok
LTP-4X(acs-ont-sn='454C545866000101')#set private voice1_enable TRUE
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.
Enable' = 'TRUE'
Ok
LTP-4X(acs-ont-sn='454C545866000101')#set private voice1_number 101
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.
AuthUserName' = '101'
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.l.VoiceProfile.l.Line.l.
DirectoryNumber' = '101'
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.
CallingFeatures.CallerIDName' = '101'
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.
URI' = '101'
Ok
LTP-4X(acs-ont-sn='454C545866000101')#set private voicel_password secret
Host property has been updated: 'InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.
AuthPassword' = 'secret'
0k
```

```
LTP-4X(acs-ont-sn='454C545866000101')#commit
LTP-4X(acs-ont-sn='454C545866000101')#reconfigure
Ok
LTP-4X(acs-ont-sn='454C545866000101')#
```

5. ACS exit.

```
LTP-4X(acs-ont-sn='454C545866000101')#exit
LTP-4X(acs-ont)#exit
LTP-4X(acs)#exit
LTP-4X#
```

ONT EasyMode

```
EasyMode, ONT, LTP, .
```

:

Internet

IPoE- u-VLAN 10 DHCP- IGMP proxy. LAN-: 1 2 ONT c 4 (NTU-RG), 1 ONT 2 (NTU-2V(C), NTU-2W). LAN-. Upstream IGMP report-VLAN. multicast VLAN *ip igmp proxy* LTP.

VoIP

IPoE u-VLAN 20. SIP-.

VoD

Bridge u-VLAN 30 LAN- 3, 4 ONT c 4 (NTU-RG), 2 ONT 2 (NTU-2V(C), NTU-2W).

ONT easy-mode.

```
LTP-4X# configure terminal
LTP-4X(config)# interface ont 2/2
LTP-4X(config)(if-ont-2/2)# easy-mode
LTP-4X(config)(if-ont-2/2)# exit
LTP-4X(config)# exit
LTP-4X# commit
Changes successfully commited (1 chunk)
```

• •

no easy-mode send omci restore interface ont.

```
LTP-4X# configure terminal
LTP-4X(config)# interface ont 2/2
LTP-4X(config)(if-ont-2/2)# no easy-mode
LTP-4X(config)(if-ont-2/2)# exit
LTP-4X(config)# exit
LTP-4X# commit
Changes successfully commited (1 chunk)
LTP-4X# send omci restore interface ont 2/2
[ONT2/2] was successfully restored to default config and rebooted
```