

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

LTP-8X, LTP-4X

LTP-X CLI
3.48.0 (30.09.2023)

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CLI (Command Line Interface)

, .

(*Command Line Interface, CLI*)— , , . , SSH, Telnet (, HyperTerminal).

« CLI » [LTP-X](#).

. <Tab>.

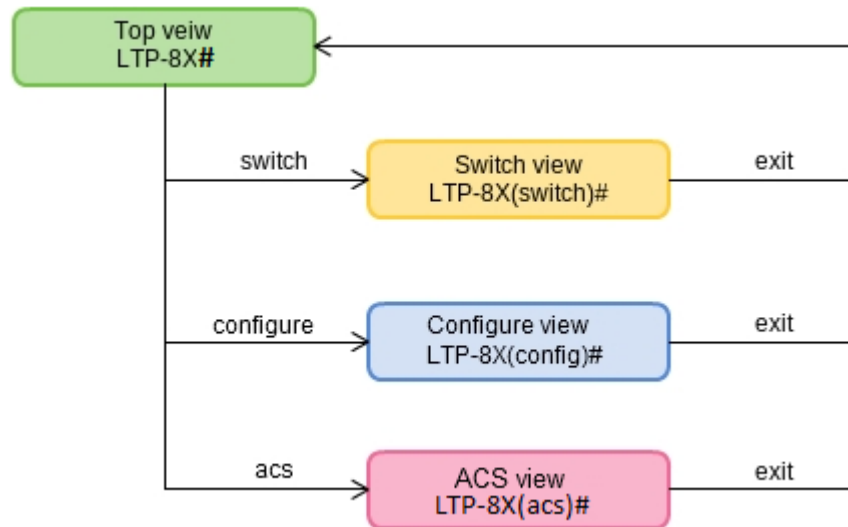
, — . <?>.

do, (Top view) .

CLI.

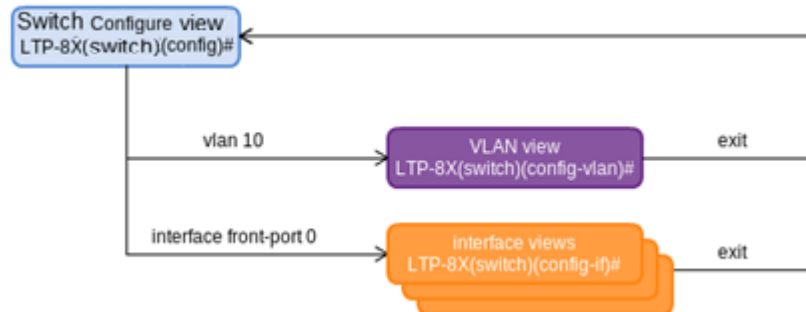
LTP-8X view.

1 , .

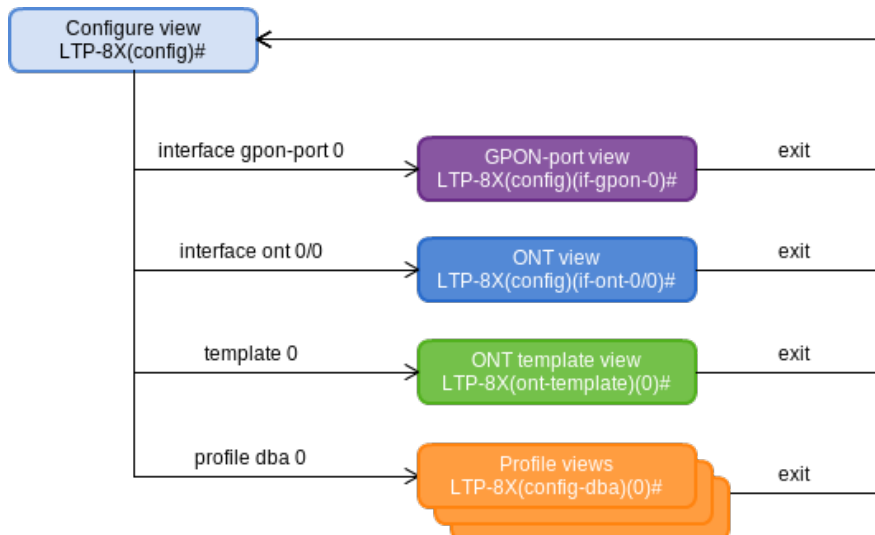


1 — CLI

Top view , .: , , .. **Switch configure view** , : VLAN, GE-, LACP . **Configure view** .: , , GPON ONT, .. **ACS view** (ACS).



2 —



3 —

3 4 . **GPON-port view** GPON-. **ONT view** ONT. ONT **ONT template view**. **Profile view**.

1 **Top view** .

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, <>, , . , [] , .
 . .

1 — Top view

?			
acs ¹			ACS
clear alarms type <TYPE>	<TYPE> PE>	dummy/ ram/ login/ config-save/ firmware-update/ duplicate-mac/ physical-layer-flapping/ pon-gpon-port-no-ont/ ont-physical-layer/ olt-update/ ont-update/ gpon-port-flapping/ ont-flapping/ download/ battery-power/ battery-low/ lan-los/ ont-config/ file-delete/ physical-layer-errors/ physical-layer-block/ link/ logout/ ont-dying-gasp/ ont-rei/ ont-power-off/ config-change/ shutdown/ oms/ ont-state-changed/ ont-config-changed/ gpon-port-state-changed/ pon-alarm-gpon-port/ pon-alarm-onui/ ont-update-inprogress/ olt-device-reset/ ont-signal-degrade/ ont-high-rx-power/ ont-low-rx-power/ gpon-port-ont-count-overflow/ olt-device-not-working/ load-average/ free-space/ temperature/	
		fan/ system-reboot/ rssi-update/ power-supply/ storm-detected/ ont-storm-detected/ ont-los-video-power/ ont-low-video-power/ ont-high-video-power/ redundancy-switch/ redundancy-fail/ pse-overload-red/ pse-overload-yellow	
clear alarms severity <VALUE>	<VALUE> LUE>	info/ minor/ major/ critical	
clear counters interface gpon-port <CHANNEL>	<CHANNEL> ANN EL>	LTP-8X: 0..7 LTP-4X: 0..3 / GPON- (, 0 1-3,5-7)	GPON-port

clear counters interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
clear dhcp-sessions interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	DHCP-
clear downstream-ber interface gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: 0..7 LTP-4X: 0..3 / GPON- (, 0 1-3,5-7)	GPON-port
clear downstream-ber interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
clear log buffer			
clear log files			log-
clear mac interface gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: 0..7 LTP-4X: 0..3 / GPON- (, 0 1-3,5-7)	MAC- GPON-port
clear mac interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	MAC- ONT
clear schedule ont reconfigure			
clear schedule ont update			
commit			
configure terminal			
copy <VALUE1> <VALUE2>	<VALUE1>	Source URL: tftp://ip[:port]/path/to/file http://ip[:port]/path/to/file ftp://user:password@ip[:port]/path/to/file fs://config fs://log/filename	TFTP/HTTP/FTP- flash- .
	<VALUE2>	Destination URL: tftp://ip[:port]/path/to/file http://ip[:port]/path/to/file ftp://user:password@ip[:port]/path/to/file fs://config fs://ont-firmware fs://firmware fs://license fs://ont-config fs://acs-config	flash- TFTP/HTTP/FTP-.
date <VALUE>	<VALUE>	.	

default			, «Do you really want to set up default configuration? (y/n)». 5
delete config ont <VALUE>	<VALUE>	, «*»	ONT , ""
delete firmware ont <VALUE>	<VALUE>	, «*»	ONT , ""
easy-mode			(Easy Config)
easy-mode wizard			
exit			CLI
force-mode interface gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: 0..7 LTP-4X: 0..3 / GPON- (, 0 1-3, 5-7)	gpon-port,
license set ""<LICENSE>""	<LICENSE>	, « »	OLT
mac static gpon-port <CHANNEL> c-vid <VALUE1> s-vid <VALUE2> prio <VALUE3> mac <VALUE4> serial <VALUE5> cross-connect <VALUE6>	<CHANNEL>	LTP-8X: 0..7 LTP-4X: 0..3 / GPON- (, 0 1-3, 5-7)	PON:
	<VALUE1>	1-4094	<i>c-vid</i> — VLAN
	<VALUE2>	1-4094	<i>s-vid</i> — VLAN
	<VALUE3>	0-7/unused	<i>prio</i> — VLAN
	<VALUE4>	MAC- XX:XX:XX:XX:XX:XX, — [0-F]	<i>mac</i> — MAC address.
	<VALUE5>	AAAAAAAAXXXX XXXXXXXXXXXXXXXX X XX-XX-XX-XX-XX-XX-XX-XX-XX, — , — [0-F]	<i>serial</i> — ONT
	<VALUE6>	0-31	<i>cross-connect</i> — cross connect
no force-mode interface gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: 0..7 LTP-4X: 0..3 / GPON- (, 0 1-3,5-7)	force-mode
no license			OLT
no mac static gpon-port <CHANNEL> c-vid <VALUE1> s-vid <VALUE2> prio <VALUE3> mac <VALUE4> serial <VALUE5> cross-connect <VALUE6>	<CHANNEL>	LTP-8X: 0..7 LTP-4X: 0..3 / GPON- (, 0 1-3,5-7)	PON:
	<VALUE1>	1-4094	<i>c-vid</i> — VLAN
	<VALUE2>	1-4094	<i>s-vid</i> — VLAN
	<VALUE3>	0-7/unused	<i>prio</i> — VLAN
	<VALUE4>	MAC- XX:XX:XX:XX:XX:XX, — [0-F]	<i>mac</i> — MAC address.

	<VALUE 5>	AAAAXXXXXXXXXX XXXXXXXXXXXXXXXX X XX-XX-XX-XX-XX-XX- XX-XX, —, — [0-F]	<i>serial</i> — ONT
	<VALUE 6>	0-31	<i>cross-connect</i> — cross connect
no ont autofind interface gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	ONT GPON-port
no schedule ont reconfigure <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33) AAAAXXXXXXXXXX XXXXXXXXXXXXXXXX X XX-XX-XX-XX-XX-XX- XX-XX, —, — [0-F]	ONT
no schedule ont update <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33) AAAAXXXXXXXXXX XXXXXXXXXXXXXXXX X XX-XX-XX-XX-XX-XX- XX-XX, —, — [0-F]	ONT
no trace			CLI
ont autofind interface gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	ONT GPON-port
ping <VALUE>	<VALUE>	IP- AAA.BBB.CCC. DDD	
reboot			. «Do you really want to reboot the system now? (y/n)».
reconfigure interface gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	GPON-port
reconfigure interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
reconfigure olt	<VALUE>	LTP-8X: all/0/1 LTP-4X:	OLT-
rollback			

run shell			
save			
schedule ont reconfigure <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
schedule ont update <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
send omci pptp-video-uni administrative-state disable interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	RF- ONT
send omci reset interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
send omci restore interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT (<i>ONT Eltex</i>)
send omci software-image get interface ont <VALUE1> instance <VALUE2>	<VALUE1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	, instance
	<VALUE2>	0-255	
send omci software-image set interface ont <VALUE1> instance <VALUE2> file <VALUE3>	<VALUE1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	(ONT , Ericsson)

	<VALUE2>	0-255	
	<VALUE3>		
send ploam ber-interval <VALUE> gpon-port [<CHANNEL>]	<VALUE>	0-4294967294	downstream ONT, GPON-port OLT
	<CHANNEL>	LTP-8X: 0.7 LTP-4X: 0.3 / GPON- (, 0 1-3,5-7)	
send ploam ber-interval <VALUE1> ont [<VALUE2>]	<VALUE1>	0-4294967294	downstream ONT, GPON-port OLT ONT ID
	<VALUE2>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	
send ploam disable-sn mode enable-all gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: 0.7 LTP-4X: 0.3 / GPON- (, 0 1-3,5-7)	ONT: GPON-port OLT
send ploam disable-sn mode enable ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT GPON-port OLT ONT ID
send ploam disable-sn mode enable ont from-configuration gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: 0.7 LTP-4X: 0.3 / GPON- (, 0 1-3,5-7)	ONT, GPON-port OLT
send ploam disable-sn mode enable ont serial <VALUE>	<VALUE>	AAAAAAAAXXXX XXXXXXXXXXXXX X XX-XX-XX-XX-XX-XX- XX-XX, — , — [0-F]	ONT
send ploam disable-sn mode disable ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT GPON-port OLT ONT ID
send ploam disable-sn mode disable ont from-configuration gpon-port <channel>	<channel>	LTP-8X: 0.7 LTP-4X: 0.3 / GPON- (, 0 1-3,5-7)	ONT, GPON-port OLT
send ploam disable-sn mode disable ont serial <VALUE>	<VALUE>	AAAAAAAAXXXX XXXXXXXXXXXXX X XX-XX-XX-XX-XX-XX- XX-XX, — , — [0-F]	ONT,
show aaa			

show alarm active type <TYPE>	<TY PE>	dummy/ ram/ login/ config-save/ firmware-update/ duplicate-mac/ physical-layer- flapping/ pon-gpon-port-no-ont/ ont-physical-layer/ olt-update/ ont-update/ gpon-port-flapping/ ont-flapping/ download/ battery-power/ battery-low/ lan-los/ ont-config/ file-delete/ physical-layer-errors/ physical-layer-block/ link/ logout/ ont-dying-gasp/ ont-rei/ ont-power-off/ config-change/ shutdown/ oms/ ont-state-changed/ ont-config-changed/ gpon-port-state- changed/ pon-alarm-gpon-port/ pon-alarm-onui/ ont-update- inprogress/ olt-device-reset/ ont-signal-degrade/	
show alarm active type <TYPE>		ont-high-rx-power/ ont-low-rx-power/ gpon-port-ont-count- overflow/ olt-device-not-working/ load-average/ free-space/ temperature/ fan/ system-reboot/ rssi-update/ power-supply/ storm-detected/ ont-storm-detected/ ont-los-video-power/ ont-low-video-power/ ont-high-video-power/ redundancy-switch/ redundancy-fail/ pse-overload-red/ pse-overload-yellow	
show alarm active severity <VALUE>	<VA LUE>	info/ minor/ major/ critical	
show alarm active all			

show alarm configuration <TYPE>	<TY PE>	dummy/ ram/ login/ config-save/ firmware-update/ duplicate-mac/ physical-layer- flapping/ pon-gpon-port-no-ont/ ont-physical-layer/ olt-update/ ont-update/ gpon-port-flapping/ ont-flapping/ download/ battery-power/ battery-low/ lan-los/ ont-config/ file-delete/ physical-layer-errors/ physical-layer-block/ link/	ALARM
show alarm configuration <TYPE>		logout/ ont-dying-gasp/ ont-rei/ ont-power-off/ config-change/ shutdown/ oms/ ont-state-changed/ ont-config-changed/ gpon-port-state- changed/ pon-alarm-gpon-port/ pon-alarm-onui/ ont-update- inprogress/ olt-device-reset/ ont-signal-degrade/ ont-high-rx-power/ ont-low-rx-power/ gpon-port-ont-count- overflow/ olt-device-not-working / load-average/ free-space/ temperature/ fan/ system-reboot/ rssi-update/ power-supply/ storm-detected/ ont-storm-detected/ ont-los-video-power/ ont-low-video-power/ ont-high-video-power/ redundancy-switch/ redundancy-fail/ pse-overload-red/ pse-overload-yellow	
show auto-update ont			ONT
show auto-update ont records			ONT
show backup			TFTP
show cli			CLI
show config autosave			
show config ont			ONT
show date			
show firmware ont			ONT
show gpon network			OLT
show gpon olt state			OLT
show gpon olt configuration [verbose]			OLT. verbose
show history			

show interface gpon-port <CHANNEL> state	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	GPON-port
show interface gpon-port <CHANNEL> optics	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	GPON-port
show interface gpon-port <CHANNEL> optics state	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	GPON-port
show interface gpon-port <CHANNEL> optics configuration	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	GPON-port
show interface gpon-port <CHANNEL> igmp groups	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	IGMP- GPON-port
show interface gpon-port <CHANNEL> dhcp sessions	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	DHCP-snooping GPON-port
show interface gpon-port <CHANNEL> pppoe sessions	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	PPPoE- GPON-port
show interface gpon-port <CHANNEL> configuration	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	GPON-port
show interface gpon-port <CHANNEL> counters	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	GPON-port
show interface gpon-port <CHANNEL> counters v-interface	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	v- (GPON OLT,)
show interface gpon-port <CHANNEL> downstream-ber	<CH ANN EL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON- (, 0 1-3,5-7)	downstream BER ONT GPON-port
show interface ont <VALUE> connections	<VA LUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
show interface ont <VALUE> laser	<VA LUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT: , , ,
show interface ont <VALUE> ports	<VA LUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	LAN- ONT
show interface ont <VALUE> rssi	<VA LUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	

show interface ont <VALUE> state	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
show interface ont <VALUE> configuration	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
show interface ont <VALUE> configuration verbose	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
show interface ont <VALUE1> counters <VALUE2>	<VALUE1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
show interface ont <VALUE1> counters <VALUE2>	<VALUE2>	cross-connect/ gem-port-performance-monitoring/ gem-port-nctp-performance-monitoring/ ethernet-performance-monitoring history-data/ ethernet-performance-monitoring-history-data2/ ethernet-performance-monitoring-history-data3/ gal-ethernet-performance-monitoring-history-data/ fec-performance-monitoring-history-data/ ethernet-frame-extended-performance-monitoring/ multicast-subscriber-monitor	<ul style="list-style-type: none"> • <i>cross-connect</i> — ; • <i>gem-port-performance-monitoring</i> — gem; • <i>ethernet-performance-monitoring-history-data, gal-ethernet-performance-monitoring-history-data, ethernet-frame-extended-performance-monitoring</i> — LAN; • <i>fec-performance-monitoring-history-data</i> — ; • <i>multicast-subscriber-monitor</i> — -
show interface ont <VALUE> online	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT,

show interface ont <VALUE1> online grep <VALUE2>	<VAL UE 1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT, ,
	<VAL UE 2>		
show interface ont <VALUE> offline	<VAL UE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT, ,
show interface ont <VALUE1> offline grep <VALUE2>	<VAL UE 1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT, , ,
	<VAL UE 2>		
show interface ont <VALUE> unactivated	<VAL UE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT,
show interface ont <VALUE1> unactivated grep <VALUE2>	<VAL UE 1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT, ,
	<VAL UE 2>		
show interface ont <VALUE> configured	<VAL UE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT

show interface ont <VALUE1> configured grep <VALUE2>	<VAL UE 1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT ,
	<VAL UE 2>		
show interface ont <VALUE> unconfigured	<VAL UE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT ID
show interface ont <VALUE> connected	<VAL UE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT ()
show interface ont <VALUE1> connected grep <VALUE2>	<VAL UE 1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT (),
	<VAL UE 2>		
show interface ont <VALUE> downstream-ber	<VAL UE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
show interface ont <VALUE> redundant	<VAL UE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT () ONT
show interface ont <VALUE> services utilization	<VAL UE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT
show ip acs server			ONT (ACS)

show ip ntp			NTP
show ip route			
show ip snmp			SNMP
show ip snmp alias	<VALUE>	0-17	snmp-alias- alias-a
show ip snmp users			SNMPv3-
show ip source-guard			ip source-guard
show ip ssh			SSH
show ip telnet			TELNET
show license			OLT
show log			
show log <FILE>	<FILE>	: ltp ltp.0.gz ltp.1.gz ltp.2.gz	log- (, : <enter>, — <q>, log- <r>)
show log <FILE> grep <VALUE>	<FILE>	: ltp ltp.0.gz ltp.1.gz ltp.2.gz	log-,
	<VALUE>	255	
show log buffer			log- (, : <enter>, — <q>, log- <r>)
show log buffer grep <VALUE>	<VALUE>	255	log-,
show logging module <VALUE>	<VALUE>	all/ pmchal-gpon/ pmchal-ipc/ pmchal-machine/ pmchal-olt/ pmchal-ont/ pmchal-gpon-port/ pmchal-scheduler/ pmchal-dhcp/ra/ pmchal-pppoe/ia/ pmchal-rdn/ snmp/ alarm/ dhcpd/ pmchal-dhcpv6/ra	
show logging settings			SYSLOG
show mac interface gpon-port <CHANNEL>	<CHANNEL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON (, 0 1-3,5-7)	MAC- GPON
show mac interface gpon-port <CHANNEL> sort <VALUE1> [[ascending/descending] include /exclude <VALUE2> <VALUE3>]	<CHANNEL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON (, 0 1-3,5-7)	MAC- GPON, . - serial— ONT: AAAAXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XX-XX-XX-XX-XX-XX-XX-XX, — , — [0-F]; 1 - ont-id— ONT, 0-253; - gpon-port— GPON, 0..7 LTP-8X, 0..3 LTP-4X; - gem— gem-, 0-4095; - u-vid, c-vid, s-vid— VLAN, 1-4094; - mac-address— XX:XX:XX:XX:XX:XX
	<VALUE1>	ont-id/ gpon-port/ gem/ u-vid/ c-vid/ s-vid	

	<VALUE2>	serial/ ont-id/ gpon-port/ gem/ u-vid/ c-vid/ s-vid/ mac-address	
	<VALUE3>	, <VALUE2>	
show mac interface gpon-port <CHANNEL> include <VALUE1> [sort <VALUE2> [ascending /descending]]	<CHANNEL>	LTP-8X: 0.7 LTP-4X: 0.3 / GPON (, 0 1-3,5-7)	MAC- GPON, . - <i>serial</i> — ONT: AAAAXXXXXXXXX XXXXXXXXXXXXXXXX XX-XX-XX-XX-XX-XX-XX, — , — [0-F]; - <i>ont-id</i> — ONT, 0-253; - <i>gpon-port</i> — GPON, 0..7 LTP-8X, 0.3 LTP-4X; - <i>gem</i> — gem-, 0-4095; - <i>u-vid, c-vid, s-vid</i> — VLAN, 1-4094; - <i>mac-address</i> — XX:XX:XX:XX:XX:XX
	<VALUE1>	serial/ ont-id/ gpon-port/ gem/ u-vid/ c-vid/ s-vid/ mac-address	
	<VALUE2>	, <VALUE1>	
	<VALUE3>	ont-id/ gpon-port/ gem/ u-vid/ c-vid/ s-vid	
show mac interface gpon-port <CHANNEL> exclude <VALUE1> <VALUE2> [sort <VALUE3> [ascending/descending]]	<CHANNEL>	LTP-8X: 0.7 LTP-4X: 0.3 / GPON (, 0 1-3,5-7)	MAC- GPON, . - <i>serial</i> — ONT: AAAAXXXXXXXXX XXXXXXXXXXXXXXXX XX-XX-XX-XX-XX-XX-XX, — , — [0-F]; - <i>ont-id</i> — ONT, 0-253; - <i>gpon-port</i> — GPON, 0..7 LTP-8X, 0.3 LTP-4X; - <i>gem</i> — gem-, 0-4095; - <i>u-vid, c-vid, s-vid</i> — VLAN, 1-4094; - <i>mac-address</i> — XX:XX:XX:XX:XX:XX
	<VALUE1>	serial/ ont-id/ gpon-port/ gem/ u-vid/ c-vid/ s-vid/ mac-address	
	<VALUE2>	, <VALUE1>	
	<VALUE3>	ont-id/ gpon-port/ gem/ u-vid/ c-vid/ s-vid	
show mac interface ont <VALUE>	<VALUE>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	MAC- ONT
show mac interface ont <VALUE1> sort <VALUE2> [[ascending/descending] include/exclude <VALUE3> <VALUE4>]	<VALUE1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	MAC- ONT, . - <i>gem</i> — gem-, 0-4095; - <i>u-vid, c-vid, s-vid</i> — VLAN, 1-4094; - <i>mac-address</i> — XX:XX:XX:XX:XX:XX

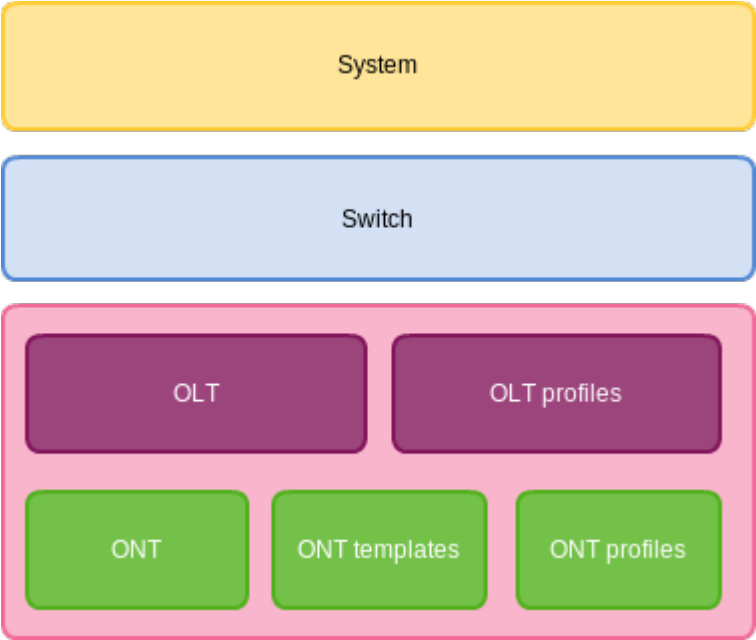
	<VALUE2>	gem/ u-vid/ c-vid/ s-vid	
	<VALUE3>	gem/ u-vid/ c-vid/ s-vid/ mac-address	
	<VALUE4>	, <VALUE3>	
show mac interface ont <VALUE1> include <VALUE2> <VALUE3> [sort <VALUE4> [ascending/descending]]	<VALUE1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	MAC- ONT, . - <i>gem</i> — gem-, 0-4095; - <i>u-vid, c-vid, s-vid</i> — VLAN, 1-4094; - <i>mac-address</i> — XX:XX:XX:XX:XX:XX
	<VALUE2>	gem/ u-vid/ c-vid/ s-vid/ mac-address	
	<VALUE3>	, <VALUE2>	
	<VALUE4>	gem/ u-vid/ c-vid/ s-vid	
show mac interface ont <VALUE1> exclude <VALUE2> <VALUE3> [sort <VALUE4> [ascending/descending]]	<VALUE1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	MAC- ONT, . - <i>gem</i> — gem-, 0-4095; - <i>u-vid, c-vid, s-vid</i> — VLAN, 1-4094; - <i>mac-address</i> — XX:XX:XX:XX:XX:XX
	<VALUE2>	gem/ u-vid/ c-vid/ s-vid/ mac-address	
	<VALUE3>	, <VALUE2>	
	<VALUE4>	gem/ u-vid/ c-vid/ s-vid	
show management			
show memory cli			CLI
show memory pmchal			PMCHAL
show privileges			
show profile address-table [<NAME>]	<NAME>	,	address-table <NAME>
show profile address-table <NAME> s-vlan [<VALUE>]	<NAME>	,	s-vlan address-table
	<VALUE>	1-4094	<VALUE> VLAN ID

show profile cross-connect [<NAME> [verbose]]	<NAME>	,	cross-connect <NAME> . verbose terminal-vlan.
show profile dba [<NAME>]	<NAME>	,	dba <name>
show profile dhcp-ra [<NAME>]	<NAME>	,	dhcp-ra <name>
show profile dhcpv6-ra [<NAME>]	<NAME>	,	dhcpv6-ra <name>
show profile management [<NAME>]	<NAME>	,	management <name>
show profile ports [<NAME>]	<NAME>	,	ports <name>
show profile pppoe-ia [<NAME>]	<NAME>	,	pppoe-ia <name>
show profile shaping [<NAME> [verbose]]	<NAME>	,	shaping <name> . verbose, .
show profile vlan [<NAME>]	<NAME>	,	vlan <name>
show profile voice [<NAME>]	<NAME>	,	voice <name>
show resources pmchal			PMCHAL
show running- config			
show running-config <VALUE> [all]	<VALUE>	aaa/ access-list/ alarm/ backup/ cli/ config/ fan/ gpon network/ gpon olt/ interface ports/ interface trunks/ interface ont <0-7>[/<0-127>]/ interface gpon-port <0-7>/ ip acs/ ip igmp/ ip ntp/ ip route/ ip snmp/ ip source-guard/ ip ssh/ ip telnet/ logging/ management/ mirror/ profile <TYPE> [<NAME>]/ qos/ template <NAME>/ user/ vlan <1..4094>	[all] , commit
show schedule ont reconfigure			ONT
show schedule ont update			
show system environment			

show template [<NAME> [verbose]]	<NAME>	,	ONT <NAME> [verbose]
show uptime			
show users config			
show users last			
show users who			
show version			
switch			
trace			CLI
update ont <VALUE1> filename <VALUE2>	<VALUE1>	LTP-8X: <0-7>[/0-127] / ONT (,1/1-3/3,5,7,15-33) LTP-4X: <0-3>[/0-127] / ONT (,1/1-3/3,5,7,15-33)	ONT ID ONT
	<VALUE2>		

1 ACS- « LTP-X», LTP-4(8)X rev.B, LTP-4(8)X rev.C, LTP-4(8)X rev.D

3. 4 .



System — . , , , , .
Switch — . Ethernet , VLAN.
GPON — 5 .

- OLT — GPON OLT GPON-;
- OLT profiles — OLT, , VLAN, DHCP RA PPPoE IA;
- ONT — ONT:

- ONT templates — ONT;
- ONT profiles — ONT.

configure terminal Top view.

```
LTP-8X# configure terminal
LTP-8X(config)#
```

do			(Configure view)
no			(Configure view)
management additional-vid <VALUE>	<VALUE>	1-4094	VLAN management-
management dscp <VALUE>	<VALUE>	0-63	DSCP
management ip <VALUE>	<VALUE>	IP- AAA.BBB.CCC.DDD	IP-
management mask <VALUE>	<VALUE>	AAA.BBB.CCC.DDD	
management gateway <VALUE>	<VALUE>	IP- AAA.BBB.CCC.DDD	
management vid <VALUE>	<VALUE>	1-4094	VLAN
management cos <VALUE>	<VALUE>	0-7	802.1
hostname <VALUE>	<VALUE>	c 255	
, (AAA)			
aaa accounting start-stop <VALUE>	<VALUE>	tacacs+/radius	, / .
aaa accounting commands tacacs+			,
aaa authentication <VALUE>	<VALUE>	tacacs+/radius	: <ul style="list-style-type: none"> • tacacs+ — TACACS+; • radius — RADIUS
aaa authorization tacacs+			() TACACS+
ALARM			

alarm <VALUE1> in <VALUE2> [out <VALUE3> severity <VALUE4> ttl <VALUE5>]	<VALUE 1>	fan/ free-space/ load-average/ ont-high-rx-power/ ont-low-rx-power/ ram/ temperature/ dummy/ login/ config-save/ firmware-update/ duplicate-mac/ physical-layer-flapping/ pon-channel-no-ont/ ont-physical-layer/ olt-update/ ont-update/ gpon-port-flapping/ ont-flapping/ download/ battery-power/ battery-low/ lan-los/ ont-config/ file-delete/ physical-layer-errors/ physical-layer-block/ link/ logout/ ont-dying-gasp/ ont-rei/ ont-power-off/ config-change/ shutdown/ oms/ ont-state-changed/ ont-config-changed/ gpon-port-state-changed/ pon-alarm-gpon-port/ pon-alarm-onui/ ont-update-inprogress/	SNMP-
		olt-device-reset/ ont-signal-degrade/ gpon-port-ont-count-overflow/ olt-device-not-working/ load-average/ free-space/ system-reboot/ rssi-update/ power-supply/ storm-detected/ ont-storm-detected/ ont-los-video-power/ ont-low-video-power/ ont-high-video-power/ redundancy-switch/ redundancy-fail/ pse-overload-red/ pse-overload-yellow	
	<VALUE 2>	true/false	
	<VALUE 3>	true/false	
	<VALUE 4>	info/ minor/ major/ critical	
	<VALUE 5>	-1-2147483647	

alarm <VALUE1> out <VALUE2> [in <VALUE3> severity <VALUE4> ttl show alarm configuration<VALUE5>]	<VALUE 1>	fan/ free-space/ load-average/ ont-high-rx-power/ ont-low-rx-power/ ram/ temperature/ dummy/ login/ config-save/ firmware-update/ duplicate-mac/ physical-layer-flapping/ pon-channel-no-ont/ ont-physical-layer/ olt-update/ ont-update/ gpon-port-flapping/ ont-flapping/ download/ battery-power/ battery-low/ lan-los/ ont-config/ file-delete/ physical-layer-errors/ physical-layer-block/ link/ logout/	SNMP-
		ont-dying-gasp/ ont-rei/ ont-power-off/ config-change/ shutdown/ oms/ ont-state-changed/ ont-config-changed/ gpon-port-state-changed/ pon-alarm-gpon-port/ pon-alarm-onui/ ont-update-inprogress /olt-device-reset/ ont-signal-degrade/ gpon-port-ont-count-overflow/ olt-device-not-working/ load-average/ free-space/ system-reboot/ rssi-update/ power-supply/ storm-detected/ ont-storm-detected/ ont-los-video-power/ ont-low-video-power/ ont-high-video-power/ redundancy-switch/ redundancy-fail/ pse-overload-red/ pse-overload-yellow	
	<VALUE 2>	true/false	
	<VALUE 3>	true/false	
	<VALUE 4>	info/ minor/ major/ critical	
	<VALUE 5>	-1-2147483647	

alarm <VALUE1> severity <VALUE2> [in <VALUE3> out <VALUE4> ttl <VALUE5>]	<VALUE 1>	fan/ free-space/ load-average/ ont-high-rx-power/ ont-low-rx-power/ ram/ temperature/ dummy/ login/ config-save/ firmware-update/ duplicate-mac/ physical-layer-flapping/ pon-channel-no-ont/ ont-physical-layer/ olt-update/	
		ont-update/ gpon-port-flapping/ ont-flapping/ download/ battery-power/ battery-low/ lan-los/ ont-config/ file-delete/ physical-layer-errors/ physical-layer-block/ link/ logout/ ont-dying-gasp/ ont-rei/ ont-power-off/ config-change/ shutdown/ oms/ ont-state-changed/ ont-config-changed/ gpon-port-state- changed/ pon-alarm-gpon-port/ pon-alarm-onui/ ont-update-inprogress/ olt-device-reset/ ont-signal-degrade/ gpon-port-ont-count- overflow/ olt-device-not-working/ load-average/ free-space/ system-reboot/ rssi-update/ power-supply/ storm-detected/ ont-storm-detected/ ont-los-video-power/ ont-low-video-power/ ont-high-video-power/ redundancy-switch/ redundancy-fail/ pse-overload-red/ pse-overload-yellow	
	<VALUE 2>	info/ minor/ major/ critical	
	<VALUE 3>	true/false	
	<VALUE 4>	true/false	
	<VALUE 5>	-1-2147483647	

alarm <VALUE1> ttl <VALUE2> [in <VALUE3> out <VALUE4> severity <VALUE5>]	<VALUE 1>	fan/ free-space/ load-average/ ont-high-rx-power/ ont-low-rx-power/ ram/ temperature/ dummy/ login/ config-save/ firmware-update/ duplicate-mac/ physical-layer-flapping/ pon-channel-no-ont/ ont-physical-layer/ olt-update/ ont-update/ gpon-port-flapping/ ont-flapping/ download/ battery-power/ battery-low/ lan-los/ ont-config/ file-delete/ physical-layer-errors/ physical-layer-block/ link/ logout/ ont-dying-gasp/ ont-rei/ ont-power-off/ config-change/ shutdown/ oms/ ont-state-changed/ ont-config-changed/ gpon-port-state- changed/ pon-alarm-gpon-port/ pon-alarm-onui/ ont-update-inprogress/ olt-device-reset/ ont-signal-degrade/ gpon-port-ont-count- overflow/ olt-device-not-working/ load-average/ free-space/ system-reboot/ rsi-update/ power-supply/ storm-detected/ ont-storm-detected/ ont-los-video-power/ ont-low-video-power/ ont-high-video-power/ redundancy-switch/ redundancy-fail/ pse-overload-red/ pse-overload-yellow	:
	<VALUE 2>	-1-2147483647	'0'— , '1'— , , '1-2147483647'—
	<VALUE 3>	true/false	
	<VALUE 4>	true/false	
	<VALUE 5>	info/ minor/ major/ critical	
alarm fan max-rpm <VALUE>	<VALUE>	600-20000	,
alarm fan min-rpm <VALUE>	<VALUE>	600-8000	,
alarm free-space level <VALUE>	<VALUE>	0-100	,
alarm load-average level <VALUE>	<VALUE>	0-255	,
alarm ont-high-rx-power level <VALUE>	<VALUE>	-127..0 dBm	, ONT (RSSI),
alarm ont-low-rx-power level <VALUE>	<VALUE>	-127..0 dBm	, ONT (RSSI),
alarm ram free-ram <VALUE>	<VALUE>	0-100	,

alarm temperature sensor1/sensor2 min <VALUE>	<VALUE>	-50 - 5	,
alarm temperature sensor1/sensor2 max <VALUE>	<VALUE>	0-100	,
ONT			
auto-reconfigure interface <VALUE>	<VALUE>	gpon-port/ ont	GPON-PORT ONT
auto-reconfigure <VALUE>	<VALUE>	olt	OLT
auto-update ont record <VALUE1> equipment-id <VALUE2> fw-version [not-]match <VALUE3> filename <VALUE4> [<VALUE5>] [downgrade <VALUE6>]	<VALUE 1>	,	ONT , ONT, , downgrade
	<VALUE 2>	ONT,	
	<VALUE 3>	,	
	<VALUE 4>	,	
	<VALUE 5>	disable/ immediate/ postpone/ global	
	<VALUE 6>	enable/ disable	
auto-update ont edit <VALUE1> <VALUE2> <VALUE3>	<VALUE 1>	,	ONT
	<VALUE 2>	equipment-id/ fw-version/ filename/ new-name/ disable/ immediate/ postpone/ global/ downgrade	
	<VALUE 3>	,	
auto-update ont immediate			ONT.
auto-update ont postpone			ONT. ONT
no auto-update ont			ONT
no auto-update ont record <VALUE>	<VALUE>	,	ONT
no auto-update ont records			ONT
CONFIG			
backup on save			tftp-
backup on timer			tftp-
backup timer period <VALUE>	<VALUE>	600-300000	
backup uri <VALUE>	<VALUE>	URL tftp://ip[:port]/path/to/file ftp://user:password@ip[: port]/path/to/file 255	tftp/ftp- .ip- tftp/ftp- path/to/file —
config autosave period <VALUE>	<VALUE>	<600-300000>	,
config autosave hour <VALUE1> minute <VALUE2>	<VALUE 1>	0..23	,
	<VALUE 2>	0-59	

CLI			
cli display <VALUE>	<VALUE>	config-password/ description/ equipment-id/ gpon-port/ profile/ received-password/ rssi/ status/ version	ONT (show interface gpon-port ont online)
cli history <VALUE>	<VALUE>	0-4294967295	
cli max-sessions <VALUE>	<VALUE>	1..3	CLI (ACS)
cli ont-sn-format <VALUE>	<VALUE>	literal/ numerical/ section-numerical	ONT
cli session-timeout <VALUE>	<VALUE>	0-2103840	CLI (timeout —), 0
2			
system fan min-speed <VALUE>	<VALUE>	15-100	
system fan speed <VALUE>	<VALUE>	15-100	, : 15 — ; 100 —
no system fan speed			
system fan speed-level <VALUE>	<VALUE > <VALUE>	0-8 15-100	,
system fan speed-table <VALUE>	<VALUE>	15-100	,
system reset-button <VALUE>	<VALUE>	disable/ enable/ reset-only	reset
ACS (OLT ONT) ³			
ip acs server enable			ACS
ip acs server vid <VLAN ID>	<VLAN ID>	1-4094	VLAN ID ACS (LTP)
ip acs server ip <VALUE>	<VALUE>	IP- AAA.BBB.CCC. DDD	IP- ACS ()
ip acs server mask <VALUE>	<VALUE>	AAA.BBB.CCC.DDD	ACS ()
ip acs server port <VALUE>	<VALUE>	1-65535	ACS. — 9595
ip acs server scheme <VALUE>	<VALUE>	http/ https	ACS (HTTP)
ip acs server login <VALUE>	<VALUE>	31	
ip acs server password <VALUE>	<VALUE>	31	
DHCP (ONT ACS) ⁴			
ip dhcp server enable			DHCP-
ip dhcp server range <VALUE>	<VALUE>	IP- AAA.BBB.CCC.DDD	IP-, DHCP ()
ip dhcp server lease-time <VALUE>	<VALUE>	600-2678400	IP-, DHCP
ip dhcp server option-43			43 DHCP Offer, DHCP
ip dhcp server static-route net <VALUE1> mask <VALUE2> gateway <VALUE3>	<VALUE 1> <VALUE 2> <VALUE 3>	IP- AAA.BBB.CCC.DDD	(121)
NTP			
ip ntp enable			NTP

ip ntp daylightsaving			
ip ntp ip	<VALUE>	IP- AAA.BBB.CCC.DDD	NTP-
ip ntp timezone	<VALUE>	-12 — 12	[-12..12]
ip ntp interval	<VALUE>	0-65535	NTP . 900, 15
SNMP			
ip snmp access-control			SNMP
ip snmp alias name <VALUE> [up-down-trap]	<VALUE>	63	
ip snmp allow ip <VALUE1> [mask <VALUE2>] [vid <VALUE3>]	<VALUE 1>	IP- AAA.BBB.CCC.DDD	IP-, vlan id
	<VALUE 2>	<0-32>	
	<VALUE 3>	VLAN ID <1 — 4094>	
ip snmp community read-only <VALUE1> <VALUE2>	<VALUE 1>	<0-2>	snmp Get-
	<VALUE 2>	63	
ip snmp community read-write <VALUE1> <VALUE2>	<VALUE 1>	<0-2>	snmp Set-
	<VALUE 2>	63	
ip snmp contact <VALUE>	<VALUE>	c 254	snmp contact
ip snmp enable			SNMP
ip snmp engineID <VALUE>	<VALUE>	0xAAAAAAAAAAAA AAAAAAAAAAAAAAAA, 16- 13	EngineID (snmp-)
ip snmp engineID generate			EngineID (snmp-)
ip snmp location <VALUE>	<VALUE>	255	
ip snmp ont-sn-format <VALUE>	<VALUE>	literal/ numerical/ section-numerical	ONT
ip snmp trap-community <VALUE>	<VALUE>	63	
ip snmp traps <VALUE1> type <VALUE2>	<VALUE 1>	IP- AAA.BBB.CCC. DDD	,
	<VALUE 2>	v1/v2/informs	
ip snmp version	<VALUE>	v2/v3	SNMP-
Ip snmp user <NAME> auth-password <PASSWORD> enc-password <KEY> access <TYPE>	<NAME> <PASSW ORD> <KEY> <TYPE>	ro/rw	SNMPv3
no ip snmp user <NAME>	<NAME>		SNMPv3
SSH			
ip ssh access-control			
ip ssh allow ip <VALUE1> [mask <VALUE2>] [vid <VALUE3>]	<VALUE 1>	IP- AAA.BBB.CCC.DDD	IP- SSH, vlan id
	<VALUE 2>	<0-32>	
	<VALUE 3>	VLAN ID <1 — 4094>	

ip ssh enable			SSH
Telnet			
ip telnet access-control			
ip telnet allow ip <VALUE1> [mask <VALUE2>] [vid <VALUE3>]	<VALUE 1>	IP- AAA.BBB.CCC.DDD	IP-, Telnet, vlan id
	<VALUE 2>	<0-32>	
	<VALUE 3>	VLAN ID <1-4094>	
ip telnet enable			Telnet
logging <VALUE1> loglevel <VALUE2>	<VALUE 1>	onsole/ file/ module/ rsh/ system/ origin-id/	
	<VALUE 2>	alert/ critical/ debug/ emergency/ error/ info/ none/ notice/ warning	
logging module <VALUE1> loglevel <VALUE2>	<VALUE 1>	pmchal-gpon/ pmchal-ipc/ pmchal-machine/ pmchal-olt/ pmchal-ont/ pmchal-gpon-port/ pmchal-scheduler/ pmchal-dhcpa/ pmchal-dhcpv6ra/ pmchal-pppoeia/ pmchal-rdn/ snmp/ alarm/ dhcpcd	
	<VALUE 2>	alert/ critical/ debug/ emergency/ error/ info/ none/ notice/ warning	
logging remote <VALUE1> [<VALUE2>]	<VALUE 1>	IP- AAA.BBB.CCC.DDD	IP- SYSLOG-, . 4
	<VALUE 2>	syslog-	
logging buffer <VALUE>	<VALUE>	1024-262144	
logging commands			syslog
logging permanent			
logging origin-id <VALUE>	<VALUE>	hostname/ string/ ip/	remote log-.
ONT			

ont block-time	<VALUE>	1-2147483647	ONT
TACACS+			
tacacs-server timeout <VALUE>	<VALUE>	1-30	
tacacs-server key <VALUE>	<VALUE>	(0..255) / —	TACACS
tacacs-server host <VALUE>	<VALUE>	IP- AAA.BBB.CCC.DDD	IP- TACACS-
tacacs-server port <VALUE>	<VALUE>	1-65535	TACACS-
RADIUS			
radius-server timeout <VALUE>	<VALUE>	1-30	
radius-server host <IP>	<IP>	IP- AAA.BBB.CCC. DDD	IP-
radius-server key <VALUE>	<VALUE>	(0..255) / —	
radius-server port <VALUE>	<VALUE>	1-65535	
radius-server priority <VALUE>	<VALUE>	0-2	
privilege	<VALUE 1>	1-14	
	<VALUE 2>	view-switch/ view-alarm/ view-system/ view-general/ view-gpon/ view-ont/ view-ont-profile/ view-switch-interface/ config-switch/ config-alarm/ config-system/ config-general/ config-gpon/ config-ont/ ont-operation/ config-ont-profile/ config-switch-interface , , : (config-system view-ont)	
user <VALUE>	<VALUE>	, , '\$<>()#', 1 31	
user <NAME> password <VALUE>	<NAME>	, , '\$<>()#', 1 31	
	<VALUE>	8 31	
user <NAME> privilege <VALUE>	<NAME>	, , '\$<>()#', 1 31	(0 — , 15 —)
	<VALUE>	0-15	
IP Source Guard			
ip source-guard enable			IP Source Guard
ip source-guard mode	<TYPE>	dynamic/static	IPSG
ip source-guard bind ip <IP> mac <VALUE1> interface-ont <VALUE2> service <VALUE3>	<IP>	IP- XXX.XXX.XXX.XXX	IP- MAC- ONT
	<VALUE 1>	MAC — :XX:XX:XX:XX:XX	
	<VALUE 2>	ONT CNANNEL_ID /ONT_ID	
	<VALUE 3>	ONT, 0-28	
no ip source-guard bind ip <IP>	<IP>	IP- XXX.XXX.XXX.XXX	IP-

no ip source-guard bind			
ip source-guard database enable			IP Source guard
ip source-guard database update-freq <VALUE>	<VALUE>	600-86400	IP Source guard
ip source-guard ignore-vlan <VALUE>	<VALUE>	1-4094	IPSG VLAN
ip source-guard one-dynamic-binding-for-MAC			, DHCP-, MAC + IP. MAC IP- .
ip route prefix <IP> mask <MASK> gateway <IP>	<IP>	IP- XXX.XXX.XXX.XXX	
	<MASK>	(— 24)	

2 LTP-4(8)X rev.B, LTP-4(8)X rev.C

3 LTP-4(8)X rev.B, LTP-4(8)X rev.C

4 DHCP- ACS

switch. **Top view.**

switch.

```
LTP-8X# switch
LTP-8X(switch)#
```

help			
exit			Switch
history			
no			
configure terminal			Switch
compare <VALUE1> <VALUE2>	<VALUE1>	candidate-config/ default-config/ running-config	: <i>candidate-config — ;</i> <i>default-config — ;</i> <i>running-config —</i>
	<VALUE2>	candidate-config/ default-config/ running-config	
show mac			MAC- ()
show mac count			MAC-
show mac include interface <PORT TYPE> <PORT NUMBER> [count]	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	MAC- [count] — MAC-

	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
show mac include mac	<MAC>	XX:XX:XX:XX:XX:XX	MAC- MAC-
show mac include mac <MAC> mask <MAC> [count]	<MAC>	XX:XX:XX:XX:XX:XX	MAC- MAC- [count] —
show mac include vlan <VLAN> [count]	<VLAN>	1-4094	MAC- VLAN. [count] —
show mac exclude interface <PORT TYPE> <PORT NUMBER> [count]	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	MAC- , . [count] —
	<PORT NUMBER>	: 10G-front-port: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
show mac exclude mac	<MAC>	XX:XX:XX:XX:XX:XX	MAC-,
show mac exclude mac <MAC> mask <MAC> [count]	<MAC>	XX:XX:XX:XX:XX:XX	MAC-, . [count] —
show mac exclude vlan <VLAN> [count]	<VLAN>	1-4094	MAC-, VLAN. [count] —
show vlan [<VLAN ID>]	<VLAN ID>	1-4094	VLAN
show interfaces acl <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	access

	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
show interfaces utilization <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	/: <i>Last utilization counters— ; 5m:00s utilization average— , 5-</i>
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3	
show channel-group counters port-channel <PORT NUMBER>	<PORT NUMBER>	1..10	LACP (, port-channel 1)
show channel-group hw port-channel <PORT NUMBER>	<PORT NUMBER>	1..10	,
show channel-group lacp port-channel <PORT NUMBER>	<PORT NUMBER>	1..10	LACP (, port-channel 1)
show channel-group summary port-channel <PORT NUMBER>	<PORT NUMBER>	1..10	(, port-channel 1)
show cnterset <DEVICE ID> <TXQ MIB COUNTERS>	<DEVICE ID>	LTP-8X: 0..1 LTP-4X: 0	: cnterset 0 1 VLAN, ,
	<TXQ MIB COUNTERS>	0..1 0..1	
show class-map			class-map
show qos			
show qos cpu			CPU
show access-list			
show running-config			
show spanning-tree bridge instance <INSTANCE ID>	<INSTANCE ID>	1..15	STP (MSTP)
show spanning-tree active instance <INSTANCE ID>	<INSTANCE ID>	1..15	STP (MSTP)
show spanning-tree mst-configuration			MSTP
show spanning-tree interface <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ port-channel	STP

	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 port-channel: 1..10	
show spanning-tree bpdu			bpdu- STP
show bridging [<PORT TYPE> <PORT NUMBER>]	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
show isolation group	<GROUP ID>	0..29	
show isolation vlan	<VLAN ID>	1..4094	VLAN
show ip igmp snooping groups [vlan <VLAN ID>]	<VLAN ID>	1..4094	, IGMP
show ip igmp snooping vlan <VLAN ID> config	<VLAN ID>	0..4094	IGMP: 1-4094 — VLAN; 0 — VLAN
show ip igmp snooping vlan <VLAN ID> hosts	<VLAN ID>	0..4094	1-4094 — VLAN; 0 — VLAN
show ip igmp snooping vlan <VLAN ID> mrouter	<VLAN ID>	0..4094	: 1-4094 — VLAN; 0 — VLAN
show ip arp table			ARP
show ip arp inspection			ARP inspection
show ip route			L3-
show ipv6 mld snooping groups [vlan <VLAN ID>]	<VLAN ID>	1..4094	, MLD
show ipv6 mld snooping vlan <VLAN ID> config	<VLAN ID>	0..4094	MLD: 1-4094 — VLAN; 0 — VLAN
show ipv6 mld snooping vlan <VLAN ID> hosts	<VLAN ID>	0..4094	MLD: 1-4094 — VLAN; 0 — VLAN
show ipv6 mld snooping vlan <VLAN ID> mrouter	<VLAN ID>	0..4094	MLD: 1-4094 — VLAN; 0 — VLAN

show ethercat arp table			EtherCAT ARP
show sfp <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/	SFP-
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3	
show cpu input-rate detailed			
show lldp configuration			LLDP
show lldp local [interface <PORT TYPE> <PORT NUMBER>]	<PORT TYPE>	10G-front-port/ front-port/	
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3	
show lldp neighbors [interface <PORT TYPE> <PORT NUMBER>]	<PORT TYPE>	10G-front-port/ front-port/	
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3	
show lldp statistics [interface <PORT TYPE> <PORT-NUMBER>]	<PORT TYPE>	10G-front-port/ front-port/	LLDP-
	<PORT-NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3	
show erps			ERPSv2
show erps vlan <VLAN ID>	<VLAN ID>	1..4094	ERPSv2 VLAN ID

clear counters <PORT TYPE> <PORT-NUMBER>	<PORT TYPE>	10G-front-port/ front-port/	
	<PORT-NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3	
clear mac			MAC-
clear mac interface <PORT TYPE> <PORT-NUMBER>	<PORT TYPE>	10G-front-port/ front-port/	MAC-
	<PORT-NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3	
clear mac vlan	<VLAN ID>	1..4094	MAC- VLAN ID
clear cpu input-rate			
clear storm <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ pon-port	,
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 HW_revision-1vX pon-port: 0..1 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3	
clear lldp neighbor [interface <PORT TYPE> <PORT-NUMBER>]	<PORT TYPE>	10G-front-port/ front-port	LLDP-

	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3	
debug/no debug fdb			/ MAC-
debug/no debug fdb duplicate			/ MAC-.
debug/no debug cfg-manager routine			/
debug/no debug cfg-manager errors			/
debug/no debug events port			/
debug/no debug events unknown			/
debug/no debug packet rx [<VLAN ID>]	<VLAN ID>	1..4094	/
debug/no debug packet tx [<VLAN ID>]	<VLAN ID>	1..4094	/
debug/no debug igmp fdb			/ FDB
debug /no debug igmp query			/ IGMP query general
debug/no debug igmp group			/ IGMP-
debug/no debug igmp packet			/ / IGMP-
debug/no debug vlan			/ // VLAN
debug/no debug vlan pvid			/ // VLAN PVID
debug/no debug lacp			/ LACP
debug/no debug lacp packet			/ LACP
debug/no debug spanning-tree common			/ STP
debug spanning-tree errors			/ STP
debug/no debug ifm			/ IFM
debug/no debug locks			/ //
debug/no debug mod-int			/
debug/no debug iprouting common			/ IP
debug/no debug iprouting errors			/ IP-
debug/no debug arp common			/ ARP-
debug/no debug arp errors			/ ARP
debug / no debug port-state-check			/
debug / no debug tti			/ tti-
debug / no debug lldp			/ LLDP
debug / no debug acl			/ ACL
debug / no debug dsa <VALUE>	<VALUE>	rx/ tx/ ingress-filter/ remote-dev/ sdma/ rx-loopback	/
debug / no debug erps			/ ERPS

switch

switch **configure terminal.**

```
LTP-8X(switch)# configure terminal
LTP-8X(switch)(config)#
```

help			
exit			
history			
no			
port-channel load-balance ip			IP-
port-channel load-balance ip-l4			IP- L4
port-channel load-balance mac			MAC-
port-channel load-balance mac-ip			IP- MAC-
port-channel load-balance mac-ip-l4			IP-, MAC- L4
port-channel l4-long-hash <VALUE>	<VALUE>	enable/ disable	, l4-hash
port-channel ipv6-hash-mode <VALUE>	<VALUE>	1 2 3 4	, ipv6-hash-mode: 1— SIP, DIP ; 2— SIP, DIP ; 3— , SIP, DIP ; 4— SIP, DIP
cnterset <VALUE1> <VALUE2> <VALUE3> <VALUE4> <VALUE5> <VALUE6>	<VALUE1>	LTP-8X: 0..1 LTP-4X: 0	: <i>PORT</i> — ; <i>0..27</i> — ; <i>//</i> — ; <i>cpu</i> — CPU
	<VALUE2>	0..1	
	<VALUE3>	0..27/ all/ cpu	
	<VALUE4>	1..4094/ all	
	<VALUE5>	0..7/ all	
	<VALUE6>	0..1/ all	
commit			
[no] mirror <VALUE1> interface <VALUE2> <VALUE3>	<VALUE1>	rx/tx	/ — /
	<VALUE2>	10G-front-port/ front-port/ pon-port/ port-channel	
	<VALUE3>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
[no] mirror <TRAFFIC TYPE> analyzer <VALUE2> <VALUE3>	<VALUE1>	rx/tx	/ /

	<VALUE2>	10G-front-port/ front-port/ port-channel	
	<VALUE3>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 port-channel: 1..10	
[no] mirror <VALUE1> vlan <VALUE2>	<VALUE1>	rx/tx	/ VLAN /
	<VALUE2>	VLAN (, : 1-4,7,100)	
[no] mirror <VALUE1> added-tag-config vlan <VALUE2> [user prio <VALUE3>]	<VALUE1>	rx/tx	/ VLAN 802.1q, / , COS (0)
	<VALUE2>	1..4094	
	<VALUE3>	0../ 0	
[no] mirror add-tag			/ 802.1q
[no] vlan <VLAN ID>	<VLAN ID>	c VLAN (; : 1-4,7,100)	VLAN/ VLAN
isolation group <VALUE>	<VALUE>	c (; : 0-4,7,29)	/
[no] lacp system-priority <VALUE>	<VALUE>	0..65535	/ LACP
mac access-list extended <VALUE>	<VALUE>	MAC access-list	mac access list
ip access-list extended <VALUE>	<VALUE>	IP access-list	ip access list
[no] ip igmp snooping			/ IGMP snooping
ip igmp unregistered ip4-mc <VALUE>	<VALUE>	drop/flood	/ IPv4-
[no] ip igmp proxy report enable			IGMP Proxy
[no] ip igmp proxy report range <VALUE> from <VLAN_ID> to <VLAN_ID>	<VALUE>	IP- A.B.C.D E.F.G.H	multicast-, IGMP report VLAN VLAN
	<VLAN_ID>	1..4094	
[no] ipv6 mld snooping			/ MLD snooping
ipv6 mld unregistered ip6-mc <VALUE>	<VALUE>	drop/flood	/ IPv6-
[no] ipv6 mld proxy report enable			MLD Proxy
[no] ipv6 mld proxy report range <VALUE> from <VLAN_ID> to <VLAN_ID>	<VALUE>	IPv6- XXXX:XXXX:XXXX: XXXX YYYY:YYYY:YYYY:YYYY	multicast-, MLD report VLAN VLAN
	<VLAN_ID>	1..4094	
[no] ip arp inspection			/ ARP (ARP inspection)
[no] ip arp inspection static-table <IP> <MAC> vlan <VLAN ID>	<IP>	IP- XXX.XXX.XXX.XXX	/ IP + MAC + VLAN ARP inspection
	<MAC>	XX:XX:XX:XX:XX:XX	
	<VLAN ID>	1..4094	
[no] ip routing			/ L3-
[no] ip dhcp relay <IP>	<IP>	IP- XXX.XXX.XXX.XXX	IP- DHCP Relay
[no] ip dhcp downlink bridging enable			/ DHCP-
class-map <VALUE>	<VALUE>	class-map	class-map

policy-map <VALUE>	<VALUE>	policy-map	policy-map
spanning-tree enable			STP
spanning-tree bpdu filtering			bpdu- STP
spanning-tree bpdu flooding			, STP bpdu- , —
spanning-tree priority <VALUE>	<VALUE>	0..61440 4096	STP
spanning-tree hello <VALUE>	<VALUE>	1..10	hello-
spanning-tree maxage <VALUE>	<VALUE>	6..40	bpdu-
spanning-tree fdelay <VALUE>	<VALUE>	4..30	
spanning-tree holdcount <VALUE>	<VALUE>	1..10	bpdu-,
spanning-tree mode <VALUE>	<VALUE>	mst/rstp/stp	MSTP/RSTP/STP
spanning-tree mst configuration			MSTP
spanning-tree mst max-hops <VALUE>	<VALUE>	6..40	STP
[no] lldp lldpdu <VALUE>	<VALUE>	filtering / flooding	LLDP
[no] lldp enable			/ LLDP
[no] lldp hold-multiplier <VALUE>	<VALUE>	2..10	, LLDP
[no] lldp timer <VALUE>	<VALUE>	5..32768	LLDP
[no] lldp reinit <VALUE>	<VALUE>	1..10	LLDP
[no] lldp tx-delay <VALUE>	<VALUE>	1..8192	LLDP
[no] erps enable			/ ERPS
erps vlan <VLAN ID>	<VLAN ID>	1..4094	ERPS- R-APS VLAN
[no] qos default <VALUE>	<VALUE>	0..7	
[no] qos type <VALUE>	<VALUE>	0/1/2/3	« »: 0— ; 1— 802.1p; 2— DSCP/TOS; 3— DSCP/TOS 802.1p]
[no] qos map <VALUE1> <VALUE2> to <VALUE3>	<VALUE1>	0/1	/ : TYPE— : 0— 802.1p, WORD [0..7]; 1— DSCP/TOS, WORD [0..63]; PRIORITY QUEUE— 0 7.
	<VALUE2>	0..7/ 0..63	
	<VALUE3>	0..7	
[no] qos wrr enable [<VALUE>]	<VALUE>	1-8	/ . WRR SP+WRR
qos wrr queues <VALUE1> <VALUE2>	<VALUE1>	7..0	(, 7 0)
	<VALUE2>	1..255	
[no] qos cpu rate-limit <VALUE1> <VALUE2>	<VALUE1>	arp/ green-replication/ icmpv6/ igmp/ lacp/ mgmt/ mgmt-pon/ pon-interception/ route-mgmt-ip/ route-no-route/ route-reject/ route-vlan-ip/ stp/ yellow-replication	/ CPU: • type — ; • rate —

	<VALUE2>	1..10000	
[no] qos cpu wrr enable			/ wrr- CPU
qos cpu wrr queues <VALUE>	<VALUE>	1..255	CPU
qos cpu quota queues <VALUE>	<VALUE>	1..255	CPU
qos cpu replication-task-priority <VALUE>	<VALUE>	0..19	CPU
[no] qos cpu replication-swap-queues			CPU
[no] qos cpu input-rate			/ CPU

switch

interface <type> <X>, <type> — , <X> — .

:

10G-front-port		2	[0..1]
front-port	LTP-8X	8	[0..7]
	LTP-4X	4	[0..3]
pon-port	LTP-8X	8	[0..7]
	LTP-4X	4	[0..3]

```
LTP-8X(switch)(config)# interface front-port 0
LTP-8X(switch)(config-if)#
```

help			
exit			
history			
no			
description <VALUE>	<VALUE>	, 31	
[no] shutdown			/
[no] 802.1ad			double-tag upstream-
[no] multicast loopback enable			/ multicast- ONT PON-
flow-control <VALUE>	<VALUE>	on/off	/ (IEEE 802.3x PAUSE)
[no] ip arp inspection trusted			/ «» ARP. ARP- «»
[no] ip arp inspection static-table <IP> <MAC> <VLAN ID>	<IP>	IP- A.B.C.D	/ IP + MAC + VLAN ARP inspection
	<MAC>	MAC- XX:XX:XX:XX:XX:XX	
	<VLAN ID>	1..4094	
snmp trap mac-notification <VALUE>	<VALUE>	added/ removed	/ mac notification trap
[no] ingress-filtering			/
frame-types all			, (-) (VLAN-tagged)
frame-types tagged			(VLAN-tagged)
pvid <VALUE>	<VALUE>	1..4094	PVID
pup <VALUE>	<VALUE>	0..7	port user priority (802.1p,)
bridging to [<PORT TYPE> <PORT NUMBER>]	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	

	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
spanning-tree enable			STP
spanning-tree priority <VALUE>	<VALUE>	0..240 16	STP
spanning-tree pathcost <VALUE>	<VALUE>	0..200000000	STP. 0 —
spanning-tree admin-p2p <VALUE>	<VALUE>	auto/ force-false/ force-true	p2p: • auto — bpdu; • force-false — p2p; • force-true — p2p
spanning-tree admin-edge			,
spanning-tree auto-edge			
spanning-tree mst instance priority	<VALUE>	1..15	, MSTP
spanning-tree mst instance pathcost <VALUE>	<VALUE>	0..240 16	MSTP
service-acl <TYPE> <NAME>	<TYPE>	mac/ip	ACL
	<NAME>	0-255	
service-policy <VALUE>	<VALUE>	0-255	
lldp mode <VALUE>	<VALUE>	disable / receive-only / transmit-only / transmit-receive	LLDPDU
[no] lldp optional-tlv <VALUE>	<VALUE>	802.1 / 802.3 / mgmt-address / none / port-desc / sys-cap / sys-desc / sys-name	TLV LLDPDU
[no] lldp optional-tlv 802.1 <VALUE>	<VALUE>	link-aggregation / management-vid / ppvid / protocol / vid-usage-digest / vlan-name	802.1 TLV LLDPDU
[no] lldp optional-tlv 802.1 protocol add/remove <VALUE>	<VALUE>	lacp / mstp / rstp / stp	/ 802.1 protocol TLV LLDPDU
[no] lldp optional-tlv 802.1 vlan-name add/remove <VALUE>	<VALUE>	1-4094	/ 802.1 vlan-name TLV LLDPDU
[no] lldp optional-tlv 802.3 <VALUE>	<VALUE>	mac-phy / max-frame-size	/ 802.3 TLV LLDPDU
rate-limit <TYPE> <SHAPER> <BURST> [LOGGING [SHUTDOWN <TIME>]]	<TYPE>	bc/mc/uu	(/) () broadcast/multicast/unknown unicast-. logging shutdown
	<SHAPER>	1..10000000	
	<BURST>	1..1000000000	
	<TIME>	30-86400	
no rate-limit <VALUE>	<VALUE>	bc/mc/uu	

shaper <SHAPER> <BURST>	<SHAPER>	193..789000	(/) ()
	<BURST>	1..4000	
no shaper			
speed auto			
speed <SPEED> <DUPLEX>	<SPEED>	10/100/1000/10G	
	<DUPLEX>	full/half	
channel-group port-channel <VALUE> [force]	<VALUE>	1..10	
no channel-group			
[no] lacp port-priority <VALUE>	<VALUE>	0..65535	/ LACP
[no] lacp mode <VALUE>	<VALUE>	active/ passive	/ LACP

interface port-channel <X>, <X> — .

```
LTP-8X(switch)(config)# interface port-channel 1
LTP-8X(switch)(config-if)#
```

help			
exit			
history			
no			
description <VALUE>	<VALUE>	, 31	
[no] shutdown			/
[no] 802.1ad			double-tag
flow-control on			/ (IEEE 802.3x PAUSE)
[no] ip arp inspection trusted			/ «» ARP. ARP- «»
[no] ip arp inspection static-table <IP> <MAC> <VLAN ID>	<IP>	IP- A.B.C.D	/ IP + MAC + VLAN ARP inspection
	<MAC>	MAC- XX:XX:XX:XX:XX:XX	
	<VLAN ID>	1..4094	
snmp trap mac-notification <VALUE>	<VALUE>	added/removed	mac-notification
[no] ingress-filtering			/
frame-types all			, - VLAN-
frame-types tagged			VLAN-
pvid <VALUE>	<VALUE>	1..4094	PVID
pup <VALUE>	<VALUE>	0..7	port user priority (802.1p)
bridging to <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	

	<PORT NUMBER>	:	
		LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
mode lacp			LACP (Link Aggregation Control Protocol)
mode static			
speed <SPEED><DUPLEX>	<SPEED>	10/100/1000/10G	
	<DUPLEX>	full/half	
spanning-tree enable			STP
spanning-tree priority <VALUE>	<VALUE>	0..240	STP
		16	
spanning-tree pathcost	<VALUE>	<0..200000000>	STP
spanning-tree admin-p2p <VALUE>	<VALUE>	auto/ force-false/ force-true	p2p: - <i>auto</i> — bpdu; - <i>force-false</i> — p2p; - <i>force-true</i> — p2p
spanning-tree admin-edge			,
spanning-tree mst instance priority			, MSTP
spanning-tree mst instance pathcost <VALUE>	<VALUE>	0..240	MSTP
		16	
service-acl <TYPE> <NAME>	<TYPE>	mac/ip	ACL
	<NAME>	0-255	
service-policy <VALUE>	<VALUE>	0-255	

VLAN/VLAN

VLAN **vlan <X>**, <X> — VLAN, VLAN (, , : 1-4,7,100).

```
LTP-8X(switch)(config)# vlan 1
LTP-8X(switch)(config-vlan)#
```

help			
exit			
history			
no			
tagged <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	VLAN

	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
untagged <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	VLAN
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
forbidden <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	VLAN
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
mac duplication allow			MAC-
isolation enable			VLAN
isolation assign group <VALUE> to <PORT TYPE> <PORT NUMBER>	<VALUE>	0..29	VLAN,
	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	

	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
[no] ip igmp version <VALUE>	<VALUE>	v1-only/ v1-v2/ v1-v2-v3/ v1-v3/ v2-only/ v2-v3/ v3-only	/ IGMP
[no] ip igmp query-interval <VALUE>	<VALUE>	30..600	/ General Query
[no] ip igmp query-response-interval <VALUE>	<VALUE>	5..200	/ Query
[no] ip igmp robustness <VALUE>	<VALUE>	1..10	VLAN
[no] ip igmp last-member-query-interval	<VALUE>	1..25	/ VLAN,
[no] ip igmp snooping enable			/ IGMP snooping VLAN
[no] ip igmp snooping static <IP> <PORT TYPE> <PORT NUMBER>	<IP>	IP- XXX.XXX.XXX.XXX	/ IGMP-
	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0..1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	
[no] ip igmp snooping replace source-ip	<VALUE>	IP- XXX.XXX.XXX.XXX	/ source-IP- IGMP VLAN
ip igmp snooping mrouter <VALUE> <PORT TYPE> <PORT NUMBER>	<VALUE>	add/del	/, VLAN
	<PORT TYPE>	10G-front-port/ front-port/ port-channel	

	<PORT NUMBER>	:	LTP-8X: 10G-front-port: 0..1 front-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 port-channel: 1..10	
[no] ip igmp snooping querier dscp <VALUE>	<VALUE>	0..63	/ DSCP Query	
[no] ip igmp snooping querier enable			/ Querier	
[no] ip igmp snooping querier address <VALUE>	<VALUE>	IP- XXX.XXX.XXX.XXX	/ ip- querier VLAN	
[no] ip igmp snooping querier fast-leave			/ VLAN	
[no] ip igmp snooping querier user-prio <VALUE>	<VALUE>	0..7	/ 802.1p IGMP-	
[no] ipv6 mld version <VALUE>	<VALUE>	v1-only/ v1-v2	/ MLD	
[no] ipv6 mld query-interval <VALUE>	<VALUE>	30..600	/ General Query	
[no] ipv6 mld query-response-interval <VALUE>	<VALUE>	5..200	/ Query	
[no] ipv6 mld robustness <VALUE>	<VALUE>	1..10	VLAN	
[no] ipv6 mld last-member-query-interval <VALUE>	<VALUE>	1..25	/ VLAN,	
[no] ipv6 mld snooping enable			/ MLD snooping VLAN	
ipv6 mld snooping mrouter <VALUE> <PORT TYPE> <PORT NUMBER>	<VALUE>	add/del	/ , VLAN	
	<PORT TYPE>	10G-front-port/ front-port/ port-channel		
	<PORT NUMBER>	:		
		LTP-8X: 10G-front-port: 0..1 front-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 port-channel: 1..10		
ip/no ipv6 mld snooping querier dscp <VALUE>	<VALUE>	0..63	/ DSCP Query	
[no] ipv6 mld snooping querier enable			/ Querier	
[no] ipv6 mld snooping querier fast-leave			/ VLAN	
[no] ip igmp snooping querier user-prio <VALUE>	<VALUE>	0..7	/ 802.1p MLD-	
[no] ip arp inspection			/ ARP (ARP inspection) VLAN	
[no] ip address <IP>[/<MASK>]	<IP>	IP- XXX.XXX.XXX.XXX	/ IP- VLAN	
	<MASK>	XXX.XXX.XXX.XXX		
[no] ip dhcp relay <IP>	<IP>	IP- XXX.XXX.XXX.XXX	DHCP relay, DHCP- VLAN	
[no] ip dhcp relaying			/ DHCP- VLAN	
[no] name <VALUE>	<VALUE>	31	/ VLAN. " ()	
[no] multicast loopback enable			/ multicast- ONT PON- VLAN	

isolation group

isolation group <X>, <X> — , (, , : 0-4,7,29).

```
LTP-8X(switch)(config)# isolation group 1
LTP-8X(switch)(config-vlan)#
```

help			
exit			
history			
[no] allow <PORT TYPE> <PORT NUMBER>	<PORT TYPE>	10G-front-port/ front-port/ pon-port/ port-channel	/
	<PORT NUMBER>	: LTP-8X: 10G-front-port: 0.. 1 front-port: 0..7 pon-port: 0..7 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 pon-port: 0..3 port-channel: 1..10	

ip access-list extended

ip access list **ip access-list extended <NAME>**, <NAME> — access-list.

```
LTP-8X(switch)(config)# ip access-list extended filter1
LTP-8X(switch)(config-ip-al)#
```

help			
exit			
history			
no			
[no] offset-list <VALUE1> <VALUE2> <VALUE3> <VALUE4> <VALUE5> [<VALUE2-5>]	<VALUE1>	offset-list	
	<VALUE2>	I3 I4	
	<VALUE3>	0-23 0-89	
	<VALUE4>	00-FF	
	<VALUE5>	00-FF	
deny	<VALUE>	any/ proto/ tcp/ udp	
permit	<VALUE>	any/ proto/ tcp/ udp	
remove index	<VALUE>	1-20	

class-map

class-map **class-map** <NAME>, <NAME> — class-map.

```
LTP-8X(switch)(config)# class-map class1
LTP-8X(switch)(config-class 'class1')#
```

help			
exit			
history			
match access-group <NAME>	<NAME>	access-list	access-list
remove access-group <NAME>	<NAME>	access-list	access-list

policy-map

policy-map **policy-map** <NAME>, <NAME> — policy-map.

```
LTP-8X(switch)(config)# policy-map policy1
LTP-8X(switch)(policy-class 'policy2')#
```

help			
exit			
history			
no			
[no] class <NAME>	<NAME>	class-map	class-map

class policy-map **class** <NAME>, <NAME> — class-map.

```
LTP-8X(switch)(config)# class class1
LTP-8X(switch)(traffic-class 'class1')#
```

help			
exit			
history			
no			
cos <VALUE>	<VALUE>	0-7	
dscp <VALUE>	<VALUE>	0-63	DSCP
queue <VALUE>	<VALUE>	0-7	

erps

erps **erps vlan** <VLAN ID>, <VLAN ID> — VLAN.

```
LTP-8X(switch)(config)# erps vlan
LTP-8X(switch)(config-erps)#
```

help			
exit			

history			
no			
port <VALUE1> <VALUE2> <VALUE3>	<VALUE1>	east/west	east/west-
	<VALUE2>	10G-front-port/ front-port/ port-channel	
	<VALUE3>	: LTP-8X: 10G-front-port: 0.. 1 front-port: 0..7 port-channel: 1..10 LTP-4X: 10G-front-port: 0..1 front-port: 0..3 port-channel: 1..10	
protected vlan <VALUE1> <VALUE2>	<VALUE1>	add/remove	/ VLAN
	<VALUE2>	1-4094	
revertive			revertive mode
rpl <VALUE1> <VALUE2>	<VALUE1>	east/west	RPL- owner/neighbor
	<VALUE2>	neighbour/owner	
ring enable			
sub-ring vlan <VALUE> [tc-propogation]	<VALUE>	1-4094	
timer guard <VALUE>	<VALUE>	10-2000	
timer holdoff <VALUE>	<VALUE>	0-10000	R-APS SF
timer wtr <VALUE>	<VALUE>	1-12	IDLE
level <VALUE>	<VALUE>	0-7	ERPS- OAM
switch <VALUE1> <VALUE2>	<VALUE1>	forced/manual	
	<VALUE2>	east/west	
clear			

GPON

ONT, GPON , ONT/OLT, ONT.
GPON **configure terminal Top view.**

```
LTP-8X# configure terminal
LTP-8X(config)#
```

ONT

ONT **view interface ont <port>/<ID>**, <port> — GPON-port, <ID> — ONT id.

```
LTP-8X(config)# interface ont 0/0
LTP-8X(config)(if-ont-0/0)#
```

?			
ber interval <VALUE>	<VAL UE>	0-4294967294/ none	, ONT . ONT REI
ber update-period <VALUE>	<VAL UE>	1-600000	, ONT

broadcast-downstream enable			
broadcast-downstream filter			
description	<VAL UE>	127	ONT
do			(Top view)
easy-mode			ONT easy- mode
exit			
fec			(FEC)
multicast-downstream filter			multicast-
no			
omci-error-tolerant			ONT OMCI
password <VALUE>	<VAL UE>	10	ONT. 0000000000
pppoe-sessions-unlimit			ONT
profile <VALUE1> <VALUE2>	<VAL UE1>	management/ ports/ shaping/ voice/	// /
	<VAL UE2>		
rf-port-state disabled			RF- ONT OMCI
rf-port-state enabled			RF- ONT OMCI
rf-port-state no-change			RF- ONT
serial <VALUE>	<VAL UE>	: AAAAXXXXXXXX/ XXXXXXXXXXXXXX XXX/ XX-XX-XX-XX-XX- XX-XX-XX, A — , X — [0-F]	ONT
service <VALUE1> profile cross-connect <VALUE2> dba <VALUE3> [selective-tunnel uvid <VALUE4>] [utilization- enable] [custom cid <VALUE5> svid <VALUE6> cos <VALUE7>]	<VAL UE1>	0-28	ONT (,)
	<VAL UE2> <VAL UE3>		
	<VAL UE4> <VAL UE5> <VAL UE6>	1-4094	
	<VAL UE7>	0-7	
[no] shutdown			/ ONT
template <VALUE>	<VAL UE>		ONT
top			(Top-view)
voice dtmf mode <VALUE>	<VAL UE>	in-band/out-of- band	
voice fax-mode <VALUE>	<VAL UE>	passthru/t38	ONT
voice features call-presentation splash-ring			
voice features call-presentation special-dialtone			
voice features call-presentation visual			
voice features call-presentation call-forward			

voice features call-progress 3way			
voice features call-progress transfer			
voice features call-progress hold			
voice features call-progress park			
voice features call-progress not-disturb			
voice features call-progress flash-on-emergency			
voice features call-progress emergency-hold			
voice features call-progress 6way			
voice features call-wait enable			
voice features call-wait call-id-announce			
voice features cid call-number			
voice features cid call-name			
voice features cid cid-block			
voice features cid cid-number			
voice features cid cid-name			
voice features cid anon-cid-block			
voice iphost static ip <VALUE1> mask <VALUE2> gateway <VALUE3>	<VAL UE1>	IP- XXX.XXX. XXX.XXX	
	<VAL UE2>	XXX.XXX.XXX. XXX	
	<VAL UE3>	IP- XXX.XXX. XXX.XXX	
voice port <VALUE1> authentication validation <VALUE2>	<VAL UE1>	0/1	
	<VAL UE2>	disable/ md5/ basic	
voice port <VALUE1> authentication username <VALUE2>	<VAL UE1>	0/1	
	<VAL UE2>		
voice port <VALUE1> authentication password <VALUE2>	<VAL UE1>	0/1	
	<VAL UE2>		
voice port <VALUE1> authentication realm <VALUE2>	<VAL UE1>	0/1	
	<VAL UE2>		
voice port <VALUE1> number <VALUE2>	<VAL UE1>	0/1	
	<VAL UE2>		
voice port <VALUE1> physical gain <VALUE2> <VALUE3>	<VAL UE1>	0/1	
	<VAL UE2>	rx/tx	
	<VAL UE3>	-12..6	
voice port <VALUE1> physical impedance <VALUE2>	<VAL UE1>	0/1	
	<VAL UE2>	600/ 900/ 750/ 820/ 1050	

port <VALUE1> shutdown	<VALUE1>	0-3	ONT
port <VALUE1> poe enable pse-class-control <VALUE2> power-priority <VALUE3>	<VALUE1>	0-3	PoE ONT
	<VALUE2>	0-5	
	<VALUE3>	critical/high/low	

ONT

ONT ONT **profile <type> <name>**, <type> — , <name> — .

```
LTP-8X(config)# profile cross-connect gpon
LTP-8X(config-cross-connect) (gpon) #
```

cross-connect			
?			
bridge			OMCI ONT omci-bridge
bridge group	<VALUE>	1-255	ID bridge-
description	<VALUE>	127	
do			(Top view)
exit			
inner vid <VALUE>	<VALUE>	1-4094	VLAN ID
inner vid terminal-vlan <NAME>	<NAME>	VLAN GPON-	VLAN ID, terminal-vlan <NAME>
iphost <VALUE>	<VALUE>	0-65535	eid omci ON, iphost (management/ voice)
mac-table-limit <VALUE>	<VALUE>	1..126	MAC-
name <NAME>	<NAME>		
no			
outer vid <VALUE>	<VALUE>	1-4094	VLAN ID
outer vid terminal-vlan <NAME>	<NAME>		VLAN ID, terminal-vlan <NAME>
outer cos <VALUE>	<VALUE>	0..7/ unused	VLAN ID
outer cos terminal-vlan <NAME>	<NAME>		VLAN ID, terminal-vlan <NAME>
priority <VALUE>	<VALUE>	0-7	802.1
tag-mode <VALUE>	<VALUE>	single-tagged/ double-tagged/ tunnel/ selective-tunnel	dot1.q, 802.1q ,
top			(Top-view)
type <VALUE>	<VALUE>	general/ iphost/ management/ multicast/ voice/	, ONT
user vid <VALUE>	<VALUE>	1-4094/ untagged	VLAN. VLAN ID VEIP/UNI ONT
user vid terminal-vlan <NAME>	<NAME>	VLAN GPON-	VLAN ID VEIP/UNI ONT, terminal-vlan <NAME>
user cos <VALUE>	<VALUE>	0..7/ unused	VLAN ID
user cos terminal-vlan <NAME>	<NAME>	VLAN GPON-	VLAN ID, terminal-vlan <NAME>
dba			
?			

alloc size <VALUE>	<VALUE>	0-194400	periodic-allocation
alloc period <VALUE>	<VALUE>	0 1 2 4 8 16 32	periodic-allocation
allocation-scheme allocate-new-t-cont			ONT T-CONT
allocation-scheme share-t-cont			T-CONT ONT
bandwidth besteffort <VALUE>	<VALUE>	0-1244000	
bandwidth fixed <VALUE>	<VALUE>	0-1244000	
bandwidth guaranteed <VALUE>	<VALUE>	0-1244000	
description <VALUE>	<VALUE>	127	
do			(Top view)
exit			
name <NAME>	<NAME>		
no			
sla class <VALUE1> status-reporting <VALUE2>	<VALUE1> >	cbr/ data/ periodic- allocation/ type5/ voip	T-Cont
	<VALUE2>	nsr/ type0/ type1	
top			(Top-view)
management			
?			
description <VALUE>	<VALUE>	127	
do			(Top view)
name <NAME>	<NAME>		
exit			
no			
omci-configuration			TR ONT OMCI
password	<VALUE>	25	, ONT ACS-
top			(Top-view)
url	<VALUE>	http://<ip-addr>:<port>.	ACS-. , http://192.168.200.1:9595/
username	<VALUE>	25	, ONT ACS-
ont-config version <VALUE1> file <VALUE2>	<VALUE1>		RG, (ONT Ericsson)
	<VALUE2>		
ports			
?			
description	<VALUE>	127	
do			(Top view)
exit			
igmp immediate-leave			MC-. last member query .
igmp multicast dynamic-entry <VALUE> vid <VLAN ID> group <FIRST IP> <LAST IP>	<VALUE>	0-19	MC- MC VLAN
	<VLAN ID>	0-4094	
	<FIRST IP>	IPv4 address	
	<LAST IP>	IPv4 address	

igmp query interval <VALUE>	<VALUE>	30-600	query
igmp query last-member <VALUE>	<VALUE>	30-600	
igmp query response <VALUE>	<VALUE>	50-2000	report query
igmp mode <VALUE>	<VALUE>	proxy/ snooping/ spr	
igmp querier <VALUE>	<VALUE>	IP- AAA.BBB.CCC.DDD	IP- querier IGMP query
igmp robustness <VALUE>	<VALUE>	1-10	IGMP MC-
igmp version <VALUE>	<VALUE>	1-3	IGMP
mld immediate-leave			MC-. last member query .
mld multicast dynamic-entry <VALUE> vid <VLAN ID> group <FIRST IP> <LAST IP>	<VALUE>	0-19	MC- MC VLAN
	<VLAN ID>	0-4094	
	<FIRST IP>	IPv6 address	
	<LAST IP>	IPv6 address	
mld multicast dynamic-entry <VALUE> preview-length <VALUE>	<VALUE>	0-19	mld-
	<VALUE>	0-65535	
mld multicast dynamic-entry <VALUE> preview-repeat-time <VALUE>	<VALUE>	0-19	mld-
	<VALUE>	0-65535	
mld multicast dynamic-entry <VALUE> preview-repeat-count <VALUE>	<VALUE>	0-19	mld-
	<VALUE>	0-65535	
mld multicast dynamic-entry <VALUE> preview-reset-time <VALUE>	<VALUE>	0-19	,
	<VALUE>	0-24	
mld query interval <VALUE>	<VALUE>	30-600	query
mld query interval last-member <VALUE>	<VALUE>	30-600	
mld query response <VALUE>	<VALUE>	50-2000	report query
mld mode <VALUE>	<VALUE>	proxy/ snooping/ spr	
mld querier <VALUE>	<VALUE>	IPv6-	IP- querier MLD query
mld robustness <VALUE>	<VALUE>	1-10	MLD- MC-
mld version <VALUE>	<VALUE>	1-2	MLD
multicast ip version <VALUE>	<VALUE>	ipv4/ipv6	IP, multicast
name <NAME>	<NAME>		
no			
port <VALUE> bridge group spanning-tree	<VALUE>	0/1/2/3	STP OMCI-bridge
port <VALUE 1> bridge group <VALUE 2>	<VALUE 1>	0/1/2/3	LAN- ONT VoIP- OMCI-bridge
	<VALUE 2>	0-255	
port <VALUE 1> duplex <VALUE 2>	<VALUE 1>	0/1/2/3	LAN- ONT
	<VALUE 2>	auto/full/half	
port <VALUE 1> igmp downstream priority <VALUE 2>	<VALUE 1>	0/1/2/3	p-bit multicast- LAN-
	<VALUE 2>	0-7	
port <VALUE 1> igmp downstream tag-control <VALUE 2>	<VALUE 1>	0/1/2/3	VLAN downstream multicast- LAN-
	<VALUE 2>	add-tag/ pass/ remove-tag/ replace-tag/ replace-vid	

port <VALUE 1> igmp downstream vid <VALUE 2>	<VALUE 1>	0/1/2/3	p-bit multicast- LAN-
	<VALUE 2>	1-4094	
port <VALUE 1> igmp max groups <VALUE 2>	<VALUE 1>	0/1/2/3	multicast , LAN-
	<VALUE 2>	0-65535	
port <VALUE 1> igmp max bandwidth <VALUE2>	<VALUE 1>	0/1/2/3	multicast- LAN-
	<VALUE 2>	0-4294967295	
port <VALUE 1> igmp upstream priority <VALUE 2>	<VALUE 1>	0/1/2/3	p-bit upstream IGMP-, LAN-
	<VALUE 2>	0-7	
port <VALUE 1> igmp upstream tag-control <VALUE 2>	<VALUE 1>	0/1/2/3	VLAN upstream IGMP c LAN-
	<VALUE 2>	add-tag/ pass/ replace-tag/ replace-vid	
port <VALUE 1> igmp upstream vid <VALUE 2>	<VALUE 1>	0/1/2/3	p-bit upstream IGMP , LAN-
	<VALUE 2>	1-4094	
port <VALUE> multicast	<VALUE>	0/1/2/3	multicast- LAN- ONT
port <VALUE 1> shaper downstream committed-rate <VALUE 2>	<VALUE 1>	0/1/2/3	, LAN- ONT
	<VALUE 2>	0-2488320	
port <VALUE 1> shaper downstream peak-rate <VALUE 2>	<VALUE 1>	0/1/2/3	, LAN- ONT
	<VALUE 2>	0-2488320	
port <VALUE 1> shaper upstream committed-rate <VALUE 2>	<VALUE 1>	0/1/2/3	, LAN- ONT
	<VALUE 2>	0-1244160	
port <VALUE 1> shaper upstream peak-rate <VALUE 2>	<VALUE 1>	0/1/2/3	, LAN- ONT
	<VALUE 2>	0-1244160	
port <VALUE 1> speed <VALUE 2>	<VALUE 1>	0/1/2/3	LAN- ONT
	<VALUE 2>	auto/10/100/1000	
top			(Top-view)
veip downstream priority	<VALUE>	0-7	p-bit downstream multicast- VEIP-
veip downstream tag-control	<VALUE>	add-tag/ pass/ remove-tag/ replace-tag/ replace-vid	VLAN downstream multicast- VEIP-
veip downstream vid	<VALUE>	1-4094	VLAN ID downstream multicast- VEIP-
veip max groups	<VALUE>	0-65535	multicast-
veip max bandwidth	<VALUE>	0-4294967295	multicast-
veip multicast			multicast-
veip upstream priority	<VALUE>	0-7	p-bit upstream multicast- VEIP-

veip upstream tag-control	<VALUE>	add-tag/ pass/ replace-tag/ replace-vid	VLAN upstream multicast- VEIP-
veip upstream vid	<VALUE>	1-4094	VLAN ID upstream multicast- VEIP-
shaping			
?			
description <VALUE>	<VALUE>	127	
do			(Top view)
downstream one-policer			policer 0
downstream policer <VALUE> enable	<VALUE>	0-31	policer
downstream policer <VALUE1> peak-rate <VALUE2>	<VALUE1>	0-31	downstream peak-rate policer
	<VALUE2>	0-2488320	
exit			
name <NAME>	<NAME>		
no			
top			(Top-view)
upstream <TYPE> <ID> committed-rate	<TYPE>	broadcast/ multicast/ unicast	upstream committed-rate i-
	<ID>	0-7	
upstream <TYPE> <ID> peak-rate	<TYPE>	broadcast/ multicast/ unicast	upstream peak-rate i-
	<ID>	0-7	
upstream <TYPE> <ID> enable	<TYPE>	broadcast/ multicast/ unicast	upstream shaper i-
	<ID>	0-7	
upstream <TYPE> storm-control rate-limit <PPS>	<TYPE>	broadcast / multicast / unicast	-
	<PPS>	1-1000000	
upstream <TYPE> storm-control shutdown	<TYPE>	broadcast / multicast	ONT
upstream <TYPE> storm-control logging	<TYPE>	broadcast / multicast	
voice			
?			
description <VALUE>	<VALUE>	127	
do			(Top view)
exit			
name			
no			
ont-config version <VALUE1> file <VALUE2>	<VALUE1>		voice, (ONT Ericsson)
	<VALUE2>		
sip domain <VALUE>	<VALUE>		sip domain
sip proxy <VALUE>	<VALUE>		sip proxy
sip outbound-proxy <VALUE>	<VALUE>		sip outbound-proxy
sip port <VALUE>	<VALUE>		sip port
sip proto <VALUE>	<VALUE>		sip protocol
sip register expire <VALUE>	<VALUE>		SIP registration expiration time
top			(Top-view)

GPON-

GPON- **Configure view** interface gpon-port <ID>, <ID> — GPON-PORT.

```
LTP-8X(config)# interface gpon-port 0
LTP-8X (config)(if-gpon-0)#
```

do			(Top view)
exit			
fec			downstream FEC
mac-migration			MAC- GPON-PORT
no			
profile address-table <VALUE>	<VALUE>		address-table
profile vlan <VALUE>	<VALUE>		VLAN
range <VALUE>	<VALUE>	20/40/60	()
shutdown			
top			(Top view)
unknown-multicast-forward enable			unknown-multicast-
optics delay double burst <VALUE>	<VALUE>	0..65535	SFP-
optics delay single burst <VALUE>	<VALUE>	0..65535	
optics laser-reset polarity <VALUE>	<VALUE>	high/low	
optics preamble correlation-length <VALUE>	<VALUE>	0-255	
optics preamble delimiter byte1 <VALUE>	<VALUE>	0-255	
optics preamble delimiter byte2 <VALUE>	<VALUE>	0-255	
optics preamble delimiter byte3 <VALUE>	<VALUE>	0-255	
optics preamble delimiter size <VALUE>	<VALUE>	16/20/24	
optics preamble guard-time-data-mode <VALUE>	<VALUE>	0-255	
optics preamble pattern type3 <VALUE>	<VALUE>	0-255	
optics preamble size type1-data <VALUE>	<VALUE>	0-255	
optics preamble size type2-data <VALUE>	<VALUE>	0-255	
optics preamble size type3-data <VALUE>	<VALUE>	0-255	
optics preamble snr-rng-length <VALUE>	<VALUE>	0-255	
optics reset data burst bcdr d1 <VALUE>	<VALUE>	0-255	
optics reset data burst bcdr d2 <VALUE>	<VALUE>	0-255	
optics reset data burst laser d1 <VALUE>	<VALUE>	0-255	
optics reset data burst laser d2 <VALUE>	<VALUE>	0-255	
optics reset double bcdr d3 <VALUE>	<VALUE>	0-255	
optics reset double bcdr d4 <VALUE>	<VALUE>	0-255	
optics reset double laser d3 <VALUE>	<VALUE>	0-255	
optics reset double laser d4 <VALUE>	<VALUE>	0-255	
optics reset rng burst bcdr d1 <VALUE>	<VALUE>	0-255	
optics reset rng burst bcdr d2 <VALUE>	<VALUE>	0-255	
optics reset rng burst laser d1 <VALUE>	<VALUE>	0-255	
optics reset rng burst laser d2 <VALUE>	<VALUE>	0-255	
optics reset single bcdr d1 <VALUE>	<VALUE>	0-255	

optics reset single bcdr d2 <VALUE>	<VALUE>	0-255	
optics reset single laser d1 <VALUE>	<VALUE>	0-255	
optics reset single laser d2 <VALUE>	<VALUE>	0-255	
optics reset snr burst bcdr d1 <VALUE>	<VALUE>	0-255	
optics reset snr burst bcdr d2 <VALUE>	<VALUE>	0-255	
optics reset snr burst laser d1 <VALUE>	<VALUE>	0-255	
optics reset snr burst laser d2 <VALUE>	<VALUE>	0-255	
optics reset type normal <VALUE>	<VALUE>	end-burst-based/ start-burst-based	
optics reset type snr ranging <VALUE>	<VALUE>	delay-based/ double-reset/ single-reset	
optics rng burst <VALUE>	<VALUE>	0-65535	
optics rng delimiter <VALUE>	<VALUE>	0-65535	
optics rng preamble <VALUE>	<VALUE>	0-65535	
optics rng timer <VALUE>	<VALUE>	0-65535	
optics signal-detect hold-normal			
optics signal-detect hold-snr-ranging			
optics signal-detect source bcdr-lock			
optics signal-detect source bcdr-sd			
optics signal-detect source laser-sd			
optics snr burst <VALUE>	<VALUE>	0-65535	
optics snr delimiter <VALUE>	<VALUE>	0-65535	
optics snr preamble <VALUE>	<VALUE>	0-65535	
optics snr timer <VALUE>	<VALUE>	0-65535	
optics use-custom			
optics voltage-if-mode cml			
optics voltage-if-mode lvpecl			
optics voltage-if-mode undefined			
unknown-multicast-forward to <VALUE>	<VALUE>	broadcast-gem/multicast-gem	gem-, unknown-multicast

GPON OLT

GPON **Configure view.**

LTP-8X(config)#

gpon network svlan- ethertype <VALUE>	<VALUE>	0x0000-0xFFFF	ethertype outer-vid
gpon network mac-age- time <VALUE>	<VALUE>	14-86400	MAC-,
gpon network cvlan- ethertype <VALUE>	<VALUE>	0x0000-0xFFFF	ethertype inner-vid
gpon network terminal- vlan <NAME> vid <VLAN> cos <COS>	<NAME>	terminal vlan	terminal vlan
	<VLAN>	1-4094	
	<COS>	0-7/unused	
gpon olt authentication <VALUE>	<VALUE>	password/ serial/ both	ONT. , ,
gpon olt auto-activation ont default template <VALUE>	<VALUE>	template	template, ONT

gpon olt auto-activation ont enable			ONT
gpon olt auto-activation ont type <VALUE> template <NAME> [gpon- port <CHANNEL>]	<VALUE>	ONT	template, ONT
	<NAME>	template	gpon-port, template GPON-
	<CHANNEL>	LTP-8X: LTP-4X: 0..7 0..3 / GPON (, 0 1-3,5-7)	
gpon olt block-duplicated- mac			ONT MAC spoofing
gpon olt broadcast-gem- port <VALUE>	<VALUE>	0-4095	gem- broadcast-
gpon olt dhcpra-shaper <VALUE>	<VALUE>	0-100	DHCP- (ONT)
gpon olt disable-rogue- ont			flood ONT
gpon olt encryption			GPON-
gpon olt encryption key- update <VALUE>	<VALUE>	0-65535	
gpon olt model <VALUE>	<VALUE>	1/2/3	datapath
gpon olt multicast-gem- port <VALUE>	<VALUE>	0-4095	gem- multicast-
gpon olt ont-block-time <VALUE>	<VALUE>	1-2147483647	ONT
gpon olt password-in-trap			PLOAM- ONT
gpon olt profile pppoe-ia <VALUE>	<VALUE>	,	PPP IA
gpon olt profile dhcp-ra <NAME> [vid <VLAN>]	<NAME>	,	DHCP RA
	<VLAN>	1-4094	
gpon olt profile dhcpv6- ra <NAME> [vid <VLAN>]	<NAME>	,	DHCP v6 RA
	<VLAN>	1-4094	
gpon olt redundancy gpon-port <CHANNEL PAIR>	<CHANNEL PAIR>	GPON- (, 0-1 2-3,4-5, 6-7)	GPON-
gpon olt unactivated- timeout <VALUE>	<VALUE>	5-300	ONT
gpon olt video-power- monitoring enable			-
gpon olt dba-short-cycle gpon-port <CHANNEL PAIR>	<CHANNEL PAIR>	GPON- (, 0-1 2-3,4-5, 6-7)	dba GPON-
gpon olt dba-reduced- latency allocation-mode most-demanding			OLT
gpon olt dba-reduced- latency allocation-mode fair-allocations			OLT

OLT

OLT OLT profile <type> <name>, <type> — , <name> — .

```
LTP-8X(config)# profile address-table gpon
LTP-8X(config-address-table) ("gpon")#
```

ADDRESS-TABLE			
?			

description <VALUE>	<VALUE>	127	
discard-pid-unlearned-sa			downstream DA
do			(Top view)
exit			
name <VALUE>	<VALUE>		
no			
remove-when-aged			MAC-, MAC-
s-vlan <VALUE>	<VALUE>	1-4094	VLAN ID
top			(Top-view)
DHCP-RA			
?			
description <VALUE>	<VALUE>	127	
do			(Top view)
dos-block packet-limit <VALUE>	<VALUE>	10-1000	DHCP-
dos-block block-time <VALUE>	<VALUE>	30-3600	
enable			DHCP-
exit			
name <VALUE>	<VALUE>		
no			
ont-sn-format <VALUE>	<VALUE>	literal/ numerical/ section-numerical	ONT

overwrite-option82 circuit-id <VALUE>	<VALUE>	240 , PARAM_name1=PARAM_1... PARAM_name2=PARAM_2... PARAM_name3=PARAM_N : %HOSTNAME% - LTP; %MNGIP% - IP- ; %GPON-PORT% - GPON ; %ONTID% — ONT, ; %PONSERIAL% — ONT; %GEMID% — gem-; %VLAN0% — VLAN; %VLAN1% - VLAN; %MAC% — MAC- ; %OLTMAC% — MAC- LTP; %OPT60% — option 60 DHCP-; %OPT82_CID% — Circuit ID option 82 DHCP-; %OPT82_RID% — Remote ID option 82 DHCP-; %DESCR% — 20 ONT Description. , '%'. , host=%HOSTNAME%,ont=%ONTID%	Circuit Id Option 82
--	---------	--	----------------------

overwrite-option82 remote-id <VALUE>	<VALUE>	240 , PARAM_name1=PARAM_1... PARAM_name2=PARAM_2... PARAM_name3=PARAM_N ; %HOSTNAME% - LTP; %MNGIP% — IP- ; %GPON-PORT% — GPON ; %ONTID% — ONT, ; %PONSERIAL% — ONT; %GEMID% — gem-; %VLAN0% — VLAN; %VLAN1% — VLAN; %MAC% — MAC- ; %OLTMAC% — MAC- LTP; %OPT60% — option 60 DHCP ; %OPT82_CID% — Circuit ID option 82 DHCP-; %OPT82_RID% — Remote ID option 82 DHCP-; %DESCR% — 20 ONT Description. , '%'. ', host=%HOSTNAME%,ont=%ONTID%	Remote Id Option 82
top			(Top-view)
trusted server			DHCP-
trusted primary <IP>	<IP>	IP- AAA.BBB.CCC.DDD	DHCP-
trusted secondary <IP>	<IP>	IP- AAA.BBB.CCC.DDD	DHCP-
trusted timeout <VALUE>	<VALUE>	200-1500	DHCP-
PPPoE-IA			
?			
description <VALUE>	<VALUE>	127	
do			(Top view)
dos-block enable			
dos-block packet-limit <VALUE>	<VALUE>	10-1000	DHCP-
dos-block block-time <VALUE>	<VALUE>	30-3600	
enable			PPPoE Intermediate Agent
exit			

format circuit-id <VALUE>	<VALUE>	240 , PARAM_name1=PARAM_1... PARAM_name2=PARAM_2... PARAM_name3=PARAM_N : %HOSTNAME% — LTP; %MNGIP% — IP- ; %GPON-PORT% — GPON ; %ONTID% — ONT, ; %PONSERIAL% — ONT; %GEMID% — gem-; %VLAN0% — VLAN; %VLAN1% — VLAN; %MAC% — MAC- ; %OLTMAC% — MAC- LTP; %DESCR% — 20 ONT Description. , '%'. : host=%HOSTNAME%,ont=%ONTID%	Circuit Id VendorSpecificTag
format remote-id <VALUE>	<VALUE>	240 , PARAM_name1=PARAM_1... PARAM_name2=PARAM_2... PARAM_name3=PARAM_N : %HOSTNAME% — LTP; %MNGIP% — IP- ; %GPON-PORT% — GPON ; %ONTID% — ONT, ; %PONSERIAL% — ONT; %GEMID% — gem-; %VLAN0% — VLAN; %VLAN1% — VLAN; %MAC% — MAC- ; %OLTMAC% — MAC- LTP; %DESCR% — 20 ONT Description. , '%'. : host=%HOSTNAME%,ont=%ONTID%,	Remote Id VendorSpecificTag
name <VALUE>	<VALUE>		
no			
ont-sn-format <VALUE>	<VALUE>	literal/ numerical/ section-numerical	ONT
sessions-limit <VALUE>	<VALUE>	0-8192	PPPoE- PPPoE Intermediate Agent
sessions-limit per-user <VALUE>	<VALUE>	0-4 unlimited	PPPoE- ONT
sessions-monitoring enable			. no
top			(Top-view)
vendor-id <VALUE>	<VALUE>	0x000000..0xFFFFF	

DHCPv6-RA			
?			
add-interface-id <VALUE>	<VALUE>	240 , PARAM_name1=PARAM_1... PARAM_name2=PARAM_2... PARAM_name3=PARAM_N : %HOSTNAME% — LTP; %MNGIP% — IP- ; %GPON-PORT% — GPON ; %ONTID% — ONT, ; %PONSERIAL% — , DHCPv6 ; %GEMID% — gem-; %VLAN0% — VLAN; %VLAN1% — VLAN;	interface-id
		%MAC% — MAC- : %OLTMAC% — MAC- LTP; %DESCR% — 20 ONT Description. , '%'. host=%HOSTNAME%,ont=%ONTID%	
add-remote-id <VALUE>	<VALUE>	240 , PARAM_name1=PARAM_1... PARAM_name2=PARAM_2... PARAM_name3=PARAM_N : %HOSTNAME% — LTP; %MNGIP% — IP- ; %GPON-PORT% — GPON ; %ONTID% — ONT, ;	remote-id
		%PONSERIAL% — ONT; %GEMID% — gem-; %VLAN0% — VLAN; %VLAN1% — VLAN; %MAC% — MAC- ; %OLTMAC% — MAC- LTP; %DESCR% — 20 ONT Description. , '%'. host=%HOSTNAME%,ont=%ONTID%	
add-suboptions			dhcpv6-ra
description <VALUE>	<VALUE>	127	
do			(Top view)

dos-block packet-limit	<VALUE>	10-1000	DHCP-
dos-block block-time	<VALUE>	30-3600	
enable			DHCPv6
exit			
name <VALUE>	<VALUE>		
no			
ont-sn-format <VALUE>	<VALUE>	literal/ numerical/ section-numerical	ONT
top			(Top-view)
trusted server			DHCPv6-
trusted primary <IP>	<IP>	IPv6 XXXX:XXXX:XXXX:XXXX:XXXX:XXXX:XXXX:XXXX	DHCPv6-
trusted secondary <IP>	<IP>	IPv6 XXXX:XXXX:XXXX:XXXX:XXXX:XXXX:XXXX:XXXX	DHCPv6-
trusted timeout <VALUE>	<VALUE>	200-1500	DHCPv6-
vlan			
?			
description <VALUE>	<VALUE>	127	
do			(Top view)
downlink extended cvlan-type <VALUE>	<VALUE>	0x0000-0xFFFF	downstream ethertype C-VLAN
downlink extended svlan-type <VALUE>	<VALUE>	0x0000-0xFFFF	downstream ethertype S-VLAN
downlink insertion cvlan-ethertype <VALUE>	<VALUE>	0x0000-0xFFFF	Downstream ethertype C-VLAN
downlink insertion svlan-ethertype <VALUE>	<VALUE>	0x0000-0xFFFF	Downstream ethertype S-VLAN
exit			
name <VALUE>	<VALUE>		
no			
top			(Top-view)
uplink extended cvlan-type <VALUE>	<VALUE>	0x0000-0xFFFF	upstream ethertype C-VLAN
uplink extended svlan-type <VALUE>	<VALUE>	0x0000-0xFFFF	upstream ethertype S-VLAN
uplink insertion cvlan-ethertype <VALUE>	<VALUE>	0x0000-0xFFFF	Upstream ethertype C-VLAN
uplink insertion svlan-ethertype <VALUE>	<VALUE>	0x0000-0xFFFF	Upstream ethertype S-VLAN

ONT template

ONT template **config view** **template <name>**, <name> — ONT Template.

```
LTP-8X (config)# template gpon
LTP-8X (ont-template) ("gpon")#
```

--	--	--	--

ber interval <VALUE>	<VALUE>	0-4294967294/ none	, ONT . ONT REI
ber update-period <VALUE>	<VALUE>	1-600000	, ONT
broadcast-downstream enable			
broadcast-downstream filter			
define ber interval			ber-
define ber update-period			ber update period
define broadcast-downstream enable			downstream broadcast gem-
define broadcast-downstream filter			
define multicast-downstream filter			multicast-
define profile <VALUE>	<VALUE>	management/ ports/ shaping	ONT
define service <VALUE 1> profile <VALUE 2>	<VALUE 1> <VALUE 2>	0-7 dba/ cross-connect	dba cross-connect
define password			GPON password
define fec			fec
define easy-mode			ONT easy-mode
define omci-error-tolerant			omci-
define rf-port-state			rf-
description <VALUE>	<VALUE>	127	
do			(Top view)
easy-mode			ONT easy-mode
exit			
fec			upstream ONT
multicast-downstream filter			multicast-
name <VALUE>	<VALUE>		
no			
omci-error-tolerant			ONT
password			PLOAM- ONT. 0000000000
profile <VALUE>	<VALUE>	management/ ports/ shaping	//
rf-port-state disabled			RF-
rf-port-state enabled			RF-
rf-port-state no-change			RF-
service <VALUE 1> profile <VALUE 2> <VALUE 3>	<VALUE1>	0-7	ONT (,)
	<VALUE2>	dba/ cross-connect	
	<VALUE 3>		
undefine ber interval			ber-
undefine ber update-period			ber update period
undefine broadcast-downstream enable			downstream broadcast gem-
undefine broadcast-downstream filter			
undefine multicast-downstream filter			multicast-
undefine profile <VALUE>	<VALUE>	management/ ports/ shaping	ONT

undefine service <VALUE 1> profile <VALUE 2>	<VALUE 1>	0-7	dba cross-connect
	<VALUE 2>	dba/ cross-connect	
undefine password			PLOAM- ONT
undefine fec			fec-
undefine easy-mode			ONT easy-mode
undefine omci-error-tolerant			omci-
undefine rf-port-state			rf-

4.5	30.09.2023	3.48.0
4.4	02.11.2022	3.46.0 : • OLT
4.3	13.12.2021	: • gem- unknown-multicast
4.2	30.11.2021	: • dba • OLT
4.1	31.05.2021	: • PoE ONT; • ONT; • alarm PSE overload.
4.0	28.04.2021	3.40.2
3.9	10.12.2020	: • gpon-; • ONT ; • KTB; • VLAN multicast gem; • gpon-, ; • DHCP Snooping ; • ONT gpon-; • alarm' .
3.8	20.05.2020	3.38.2
3.7	07.02.2020	3.38.1
3.6	13.12.2019	3.38.0
3.5	08.10.2019	3.36.2
3.4	07.02.2019	: • multicast- ONT ; • voice (ONT Ericsson, Atron, CIG); • DHCPD TR- ONT (option 121).

3.3	03.07.2018	<ul style="list-style-type: none"> • TFTP/HTTP/FTP- flash- ; • OLT-; • ONT, ; • ONT; • IP-; • ; • MAC-; • ; • MC MC VLAN; • Remote Id VendorSpecificTag. <p>:</p> <ul style="list-style-type: none"> • , OLT; • ONT GPON-PORT; • DHCP-snooping PPPoE GPON-PORT; • GPON-PORT; • ONT; • ONT, , ; • ONT, / , , ; • ONT; • ; • VLAN management-; • GPON-PORT ONT ; • TACACS-; • MLD; • LLDP; • isolation group; • ip access-list extended; • class-map; • policy-map; • erps.
3.2	11.10.2017	<ul style="list-style-type: none"> • IGMP- GPON-; • ; • DHCP-snooping PPPoE ; • ; • WRR; • rate-limit switch. <p>:</p> <ul style="list-style-type: none"> • CLI OLT; • IPSG vlan; • IPSG database; • LLDP; • storm-control OLT-; • SNMPv3 ; • ; • ACL; • ; • ; • RADIUS ; • reset; • switch; • mac-notification.
3.1	13.12.2016	<ul style="list-style-type: none"> • PPPoE-IA; • ; • , radius; • easy-config.

3.0	11.07.2016	: <ul style="list-style-type: none"> • IP Source Guard; • IPv6; • DHCP Relay (broadcast-unicast relay); • DHCP-; • ; • ; • OLT.
2.0	17.08.2015	.
1.0	27.11.2014	.