ONU　Management Configuration

Table of Contents

Chapter 1 Local ONU Management Settings

1.1 Authenticating and Registering ONU

You can run **gpon onu-authen-method { disable | sn | pass | sn-pass | loid | hybrid }** on OLT to enable the ONU detection mechanism at MPCP registration.

SN or SN-PASS is the authentication mechanism before activating ONU. After the ONU MAC detection mechanism is enabled, ONUs without static binding settings cannot be registered to OLT. If you want to add static binding entries, run **gpon bind-onu sn word [password word]**. One ONU port maps to only one ONU's SN.

LOID is the authentication mechanism after ONU is activated. Enable LOID, OLT forwards request for LOID information of online-activated ONU. If the acquired LOID information cannot match with the LOID static binding entries, the ONU cannot register to OLT. Under the mode of PON port, add static binding entry by the command **gpon bind-onu loid** *word* **password** *word* **[***onu-id***].**

LOID is exclusive on OLT. ONU with the same LOID which first passes the authentication can finish the registration. PASS is the authentication mechanism before activating ONU. After enable PASS authentication mechanism, ONU will conduct PASS authentication. If there is binding on PASS, the ONU will be successfully registered to the PON port. Add password-only static binding by command **gpon bind-onu password** *word* **[***onuid***]**. Password-only is exclusive in the global mode on OLT. ONU with the same password which first passes the authentication can finish the registration successfully.

Hybrid is the hybrid authentication mechanism. Enable Hybrid, ONU can finish the registration through one of the above mechanisms.

To control ONU registration and authentication, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode
Interface gpon *port*	Enters the GPON port configuration mode.
gpon bind-onu sn *word* [**password** *word*	Adds static binding entries.

| *onu-id*] or **gpon bind-onu loid** *word* **password** *word* [*onu-id*] or **gpon bind-onu password** *word* [*onu-id*]	
exit	Exits from the GPON interface configuration mode.
gpon onu-authen-method {sn | pass | sn-pass | loid | hybrid }	Enables the ONU authentication mechanism
exit	Exits from the privileged configuration mode.

1.2 Enabling Global Downlink Encryption Function

To enable global downlink encryption function, run the following command:

gpon encryption {enable | disable}

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon encryption{enable | disable}	Enables global downlink encryption function.
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

1.3 Configuring ONU Discovery Mode

To configure ONU discovery mode, run the following command:
gpon onu-discover-mode {auto | disable}

To configure ONU discovery mode as following steps:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon onu-discover-mode {auto | disable}	Enters ONU discovery mode.
exit	Exits from the global configuration mode.

exit	Exits from the privileged mode.

1.4 Configuring ONU Auto-Cross PON Port Move

To configure ONU auto-cross PON port move, run the following command: **gpon onu-auto-move {enable | disable}**.

If the command is disabled, ONU which has been generated ONU port on the old PON port will not be able to delete the ONU port on the old PON port and generate ONU port on the new PON port, vice verse, if the command is enabled, ONU which has been generated ONU port on the old PON port will be able to delete the ONU port of the old PON port which is connected to the new PON port and generate ONU port on the new PON port.

To configure ONU static binding as following steps:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode
**gpon onu-auto-move {enable	disable}**	Configures enable/disable gpon onu-auto-move
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.5 Configuring ONU Cnfiguration Migrating with SN Mode

To configure ONU configuration migrating with sn mode, run the following command:
[no] gpon onu-config-migrate-with-sn-mode
On the condition of enable **gpon onu-auto-move**, if the command is enabled, the ONU port database under the original PON port will automatically issue configurations if the ONU move to a new PON and generate the ONU port; otherwise, the ONU configuration of the original PON port will not be issued.

To ONU Cnfiguration Migrating with sn mode, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon onu-auto-move enable	Enable gpon onu-auto-move
[no] gpon onu-config-migrate-with-sn-mode	Configures enable/disable gpon onu-config-migrate-with-sn-mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.6 Configuring ONU Auto Static Binding

To configure ONU auto static binding, run the command: gpon onu-auto-bind {enable | disable}.
on the condition of no authentication mechanism is disabled, if enable the auto static binding, OLT will automatically add the static binding entry for the registered ONU.
To configure ONU auto static binding, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
**gpon onu-auto-bind {enable	disable}**	Configures auto static binding.
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.7 Configuring the System Global Broadcast GEM Port

To configure the system global broadcast GEM Port, run the command: **gpon broadcast-gem-port** *gem-port-id*.

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon broadcast-gem-port *gem-port-id*	Configures the system global broadcast GEM Port
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

1.8 Configuring ONU Silence Time

To configure the silence time after failing the ONU authentication, run the command: **gpon reject-sliencce** *silence-time*.
To configure ONU silence time, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode

config	Enters the global configuration mode
gpon reject-sliencce *silence-time*	Configures the silence time
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.9 Configuring Off-line Dynamic Binding ONU Aging Time

To configure off-line dynamic binding ONU aging time, run the command: **gpon clear-dynamic-bind** *aging-time*.

To configure dynamic binding ONU aging time, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon clear-dynamic-bind *aging-time*	Configures the aging time
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.10 Configuring ONU Auto Upgrade

To configure ONU auto-upgrade, run the command (OLT will finish the auto-upgrade after matching the rules according to the VendorID/device number/ONU firmware): **gpon onu-auto-upgrade** [**vendorId** *VendorID*] [**equipmentId** *equipmentId*] [**onuFwVer** *onuFwVer*] [**onuFwVerExp** *onuFwVerExp*] *firmwareFilename*.

To configure auto upgrade ONU, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon onu-auto-upgrade vendorId *VendorID* **equipmentId** *equipmentId* **onuFwVer** *onuFwVer* **onuFwVerExp** *onuFwVerExp* *firmwareFilename*	VendorID: matched manufacturer ID, 8 characters equipmentId: matched equipment ID, 40 characters at most onuFwVer: matched ONU firmware version, at most 14 characters onuFwVerExp: ONU firmware version after upgrade, at most 14 characters firmwareFilename: ONU firmware file name, at most 32 characters

exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.11 Configuring Online-ONU Reset mib Synchronization

To configure mib synchronization numbers after ONU is online, run the command: gpon omci-mib reset-on-active

To configure mib synchronization numbers after ONU is online, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon omci-mib reset-on-active	**reset-on-active**: reset mib synchronization after ONU is online
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.12 Configuring OLT Virtual-port Scheduler

To configure OLT hierarchical queue scheduler on the virtual port, run the command: gpon virtual-port scheduler {base-vp | base-onu}.

To configure OLT virtual-port scheduler, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
**gpon virtual-port scheduler {base-vp	base-onu}**	**base-vp**: enable the hierarchical queue scheduler based on the virtual port **base-onu**: enable the hierarchical queue scheduler based on ONU
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.13 Configuring OLT Reset Pending Time

When there is abnormal with PON chip or the heartbeat of OLT and PON chip is overtime, the device or the board card will be restarted. To reserve time for keeping the question environment, run the command: gpon sys-reset-pending {time *time* | disable}.

To configure OLT reset pending time, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode

gpon sys-reset-pending {time *time* **| disable}**	*time: reset* pending time, unit: min, default: 2 disable: do not reset the device/board card
exit	Exits from the privileged configuration mode

1.14 Configuring OLT Geographic Position

To configure OLT geographic position including longtitude, latitude,elevation, run the command:
gpon position longitude *long* **latitude** *lat* **elevation** *elev* **horizonal-error** *horiz* **altitude-error** *alti-er* **area-code** *area-co* **timestamp** *timesta* **digest** *dig* **check** *ch*
To configure OLT geographic information do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon position longitude *long* **latitude** *lat* **elevation** *elev* **horizonal-error** *horiz-er* **altitude-error** *alti-er* **area-code** *area-co* **timestamp** *timesta* **digest** *dig* **check** *ch*	*long:*longitude *lat:* latitude *elev:* elevation *horiz-er:* horizontal-error *alti-er:* altitude-error *area-co:* area-code *timesta:* measure time *dig:* measure signature check value ch: check measure
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.15 Configuring ONU User Port Link Status Alarm ON-OFF

To configure ONU user port link status alarm on-off, run the following command: **[no] gpon onu-uni-link-status-on**.
After enable the on-off, OLT will issue status alarm of UNI port.
To configure ONU UNI port link status alarm on-off, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon	Configures UNI port status alarm on-off.

onu-uni-link-status-on	
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

1.16 Configuring the Secret Key in the Global Mode

To set the system global security re-negotiation period, run the following command:

 gpon key-exchange-interval *ex-interval.*

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon key-exchange-interval *ex-interval*	Sets the system global security key re-negotiation period.
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

1.17 Deactivating the Designated ONU

To deactivate the designated ONU, run the following command:

gpon deactivate-onu interface GPON *slot/port:sequence*.

Command	Purpose
enable	Enters the privileged configuration mode.
gpon deactivate-onu interface GPON *slot/port:sequence*	Deactivates the designated ONU.
exit	Exits from the privileged configuration mode.

Note: After ONU is deactivated, registration will be conducted automatically.

1.18 Activating the Designated ONU

To deactivate the designated ONU, run the following command:

gpon activate-onu interface *slot/port:sequence*.

Command	Purpose
enable	Enters the PRIVILEGED configuration mode.
gpon activate-onu interface GPON *slot/port:sequence*	Activates the designated ONU.

1.19 Restarting the Designated ONU

To disable the designated ONU, run the following command:

gpon reboot onu interface *GPON slot/port*[*:sequence*].

Command	Purpose
enable	Enters the privileged configuration mode.
gpon reboot onu interface GPON *slot/port:sequence*	Restarts the designated ONU
exit	Exits from the privileged configuration mode.

The command takes effect only when ONU is in the activated state.

1.20 Updating the ONU Software Version

BDCOM GP3600 Series supports to update the ONU version remotely from OLT. The ONU update software needs be downloaded to the flash memory of GP3600 main card. For the detailed download procedure, please see the chapter related to software update in Basic Configuration in the configuration volume. The detailed command is shown below:

gpon update-onu *image_name* **interface gpon {***slot/port*[*:sequence*] *| slot/port sequence_value***}**

The command takes effect through OMCI.

Steps for updating ONU version are shown below:

Command	Purpose

enable	Enters the privileged configuration mode.
gpon update-onu *image_name* **interface gpon {***slot/port*[*:sequence*] **|** *slot/port sequence_value***}**	Updates the ONU version. If the port parameter of the command is GPON port, all ONU softwares under the port can be updated synchronously; if the port parameter of the command is ONU port, the single ONU software can be updated; if the port parameter is the ONU range, all ONU softwares within the ONU range can be updated.
exit	Exits from the privileged configuration mode.

Note:

1. Unless the to-be-updated software matches the corresponding ONU type can this software not be updated.

2. During the update process of ONU software, do not cut off the power of ONU. After the completion of ONU update, OLT will notify users of the successful ONU update by the way of log, and ONU will use the updated version for rebooting.

3. After the ONU version is updated and restarted, you can check ONU upgrade status by command show gpon onu-update-state.

1.21 Creating ONU Configuration Template

To create ONU modification configuration template, run the following command:]

gpon profile { onu-tcont | onu-virtual-port | onu-tcont-virtual-port-bind | onu-flow-mapping | onu-uni | onu-vlan | onu-rate-limit | onu-mcst-oper | onu-mcst-static-group | onu-mcst-dynamic-group | onu-mac-filter | onu-optical-alarm | onu-voip | onu-veip | onu-catv | onu-sip-dial-plan} *name*

Steps for creating and entering template modification mode are shown below:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
**gpon profile { onu-tcont	onu-virtual-port	onu-tcont-virtual-port-bind	onu-flow-mapping	onu-uni	onu-vlan |**	Creates and enters the modification mode of corresponding ONU configuration template.

onu-rate-limit | onu-mac-filter | **onu-mcst-oper | onu-mcst-static-group |** **onu-mcst-dynamic-group |** **onu-optical-alarm |** **onu-voip|onu-veip| onu-catv |** **onu-sip-dial-plan |** **onu-loopback-detection}** *name*	ONU-tcont: ONU T-Cont Configuration Template onu-virtual-port: The virtual port configuration template is applied to ONU and takes effect on GEM Port. onu-tcont-virtual-port-bind: ONU T-Cont and virtual port binding relation configuration template onu-flow-mapping: ONU flow mapping configuration template onu-uni: ONU user interface configuration template onu-vlan: ONU VLAN configuration template onu-rate-limit: ONU rate-limit configuration template onu-mac-filter: ONU MAC filter configuration template onu-mcst-oper: ONU multicast configuration template onu-mcst-static-group: ONU static group multicast configuration template onu-mcst-dynamic-group: ONU dynamic multicast group configuration template onu-optical-alarm: ONU optical power alarm configuration template onu-voip: ONU voice service configuration template onu-veip:ONU veip configuration template onu-catv: ONU cable TV configuration template onu-sip-dial-plan: ONU SIP network dail plan onu-loopback-detection: ONU loopback detection
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: When the configuration template is used by ONU, it cannot be deleted.

1.22 Binding ONU Configuration Template

To bind the configuration template on ONU, run the following command:

gpon onu {tcont-virtual-port-bind-profile \| flow-mapping-profile \| mac-filter-profile \|

optical-alarm-profile | loopback-detection-profile | uni *port* **{uni-profile | vlan-profile | mcst-oper-profile | mcst-static-group-profile | mcst-dynamic-group-profile } | veip** *port* **{vlan-profile | veip-profile | mcst-oper-profile | mcst-static-group-profile | mcst-dynamic-group-profile } | voip** *port* **{voip-profile | sip dial-plan} | catv** *port* **catv-profile}** *name.*

Steps for binding ONU configuration template:

Command	Purpose
configure	Enters the global configuration mode.
interface gpon 0/1:1	Enters ONU interface mode
**gpon onu {tcont-virtual-port-bind-profile	onu-mac-filter |optical-alarm-profile	flow-mapping-profile	loopback-detection-profile	uni** *port* **{uni-profile	vlan-profile	onu-mcst-oper	onu-mcst-static-group	onu-mcst-dynamic-group }	veip {vlan-profile	veip-profile	onu-mcst-oper	onu-mcst-static-group	onu-mcst-dynamic-group }	voip** *port* **{voip-profile	sip**	Binding ONU configuration template tcont-virtual-port-bind-profile: binding ONU T-Cont with the virtual port binding relation configuration template flow-mapping-profile: binding ONU flow mapping configuration template onu-mac-filter: binding ONU MAC filter configuration template optical-alarm-profile: binding ONU optical power alarm configuration template uni-profile: binding configuration template of ONU user port vlan-profile: binding configuration template of ONU VLAN veip-profile: binding configuration template of ONU VEIP onu-mcst-oper: binding ONU multicast configuration template onu-mcst-static-group: binding ONU static multicast group configuration template onu-mcst-dynamic-group: binding ONU dynamic multicast group configuration template catv-profile: binding ONU CATV configuration template loopback-detection-profile: binding ONU loopback detection template

dial-plan} | **catv** *port* **catv-profile}** *name*	
exit	Exits from ONU interface mode
exit	Exits from the global configuration mode.
write all	Saves the Settings

Note: When the configuration template is used by ONU, it cannot be deleted.

1.23 Configuring ONU CATV Module Function

To configure ONU CATV template protocol, run the command: gpon onu catv protocol{ITU | private}

To enable/disable CATV module, run the command: gpon onu catv *portId* **{enable | disable}**

To configure ONU CATV module, do as following steps:

Command	Purpose
config	Enters the global configuration mode
interface gpon 1/1:1	Enters the ONU port mode
gpon onu catv protocol{ITU | private} **or** **gpon onu catv** *portId* **{enable | disable}**	Configures CATV module function **ITU**: ITU protocol standard **private**: private protocol standard *portId*: CATV port

1.24 Configuring ONU IP Host

To configure IP address of IP host, run the command: [no] gpon onu ip address {dhcp | {static *ip-address netMask* [*gateWay*]}}

To configure DNS server of IP host, run the command: [no] gpon onu ip DNS { pri-dns *ip-address1*| sec-dns *ip-address2*}

To configure ONU IP host, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters the ONU port mode
[no] gpon onu ip address {dhcp | {static *ip-address netMask* **[***gateWay***]}}**	Configures ONU IP Host **dhcp**: dynamic acquiring IP *ip-address*: IP address *netMask*: subnet mask

[no] gpon onu ip DNS { pri-dns *ip-address1***| sec-dns** *ip-address2***}**	*gateway*: gateway *ip-address1*: primary DNS server address *ip-address2*: backup DNS server address
exit	Exits from the ONU port mode
exit	Exits from the global configuration mode
write all	Saves configuration

1.25 Configuring SIP User Information on the ONU VOIP Port

To configure SIP user name and password on VOIP port, run the command:

[no] gpon onu voip *port* **sip username** *string1* **password** *string2*

To configure Aor and display name on the VOIP port, run the command:

[no] gpon onu voip *port* **sip user-aor** *string3* **display-name** *string4*

To configure SIP user information on ONU VOIP port, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
[no] gpon onu voip *port* **sip username** *string1* **password** *string2* and **[no] gpon onu voip** *port* **sip user-aor** *string3* **display-name** *string4*	Configures SIP user information on ONU VOIP port *port*: VOIP port number string1:user name *string2*:user password *string3*:user Aor *string4*: user display name
exit	Exits from ONU port mode
exit	Exits from the global configuration mode
write all	Saves configurations

1.26 Configuring H.248 User Information on ONU VOIP port

To configure H.248 user ID and H.248 information tag on VOIP port, run the command: **[no] gpon onu voip** *port* **h.248 termination-id** *string1* **message-id** *string2*

To configure H.248 user tag on ONU VOIP port, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters the ONU port mode
[no] gpon onu voip *port* **h.248 termination-id** *string1* **message-id**	Configures H.248 user tag on ONU VOIP port

string2	*port*: VOIP port number string1: physical terminal ID (equal to user ID), up to 25 characters *string2*:H.248 information tag, up to 128 characters
exit	Exits from ONU port mode
exit	Exits from the global configuration mode
write all	Saves configuration

1.27 Configuring ONU UNI Port Loopback Detection

To enable/disable UNI port loopback detection, run the command:
[no] gpon onu uni *port* **loopback-detect {enable | disable}**

To configure ONU UNI port loopback detection, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters the ONU port mode
[no] gpon onu uni *port* **loopback-detect {enable	disable}**	Configures ONU UNI port loopback detection
exit	Exits from ONU port mode
exit	Exits from the global configuration mode
write all	Saves configurations

1.28 Configuring Designated ONU User Interface POE Standard

To configure designated ONU user port poe standard, run the command: **[no]gpon onu uni** *port* **poe standard {AF | AT }**

To configure designated ONU user port poe standard, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters the ONU port mode
gpon onu uni *port* **poe standard {AF	AT }**	Configures designated ONU user port poe standard *port*: user port number
exit	Exits from ONU port mode
exit	Exits from the global configuration mode
write all	Saves configurations

1.29 Configuring Designated ONU User Port POE Mode

To configure ONU user port POE mode, run the command: **[no]gpon onu uni** *port* **poe mode {disable | normal | force-on}**.

To configure ONU user port POE mode, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters the ONU port mode
gpon onu uni *port* **poe mode {disable	normal	force-on}**	Configures designated ONU user port poe mode *port*: user port number
exit	Exits from ONU port mode
exit	Exits from the global configuration mode
write all	Saves configurations

1.30 Configuring the Downlink Flow Rate Limit of the ONU Virtual Port

To compulsorily designate GEM Port on the virtual port of ONU, run the following command:

gpon onu virtual-port *port* **downstream rate-limit kbps** *value*.

After configuring the concrete rate limit, the system will automatically turn the value into one which can be exactly divided by 64, that's the actual issued downlink rate-limit value, for instance, if the value of the user is configured to be 63, the actual downlink value is 64kbps.

Steps for configuring the downlink flow rate limit of the ONU virtual port:

Command	Purpose
configure	Enters the global configuration mode.
interface gpon 0/1:1	Enters ONU interface mode
gpon onu virtual-port *port* **downstream rate-limit** *value*	Steps for configuring the downlink flow rate limit of the ONU virtual port: designated virtual port number rate-limit: designated downlink rate limit
exit	Exits from ONU interface mode

exit	Exits from the global configuration mode.
write all	Saves the Settings

1.31 Configuring ONU Virtual Port Bandwidth

To configure the virtual port bandwidth of ONU, run the command: **[no] gpon onu virtual-port** *port* **bandwidth** *value*

To configure the virtual port bandwidth of ONU, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
gpon onu virtual-port *port* **bandwidth** *value*	Configures virtual port bandwidth of ONU port: designated virtual port number *value*: designated port bandwidth
exit	Exit from the ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.32 Configuring ONU Virtual Port VLAN Translation

To configure ONU virtual port vlan translation, run the command:

[no] gpon onu virtual-port *port* **dot1q-translating-tunnel mode {{flat translate nto1** *vlan-map vlan-new* [*pri*]**} | {QinQ translate** *vlan-map vlan-new* [*pri*]**} | {mix translate** *vlan-map vlan-new mix-vlan-new* [*pri*]**}}**

[no] gpon onu virtual-port *port* **dot1q-translating-tunnel range mode {flat | QinQ} start** *vlan-start* **end** *vlan-end vlan-new* [*pri*]

To configure ONU virtual port vlan translation, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
[no] gpon onu virtual-port port dot1q-translating-tunnel mode {{flat translate {nto1 *vlan-map* **| 1to1** *vlan-old*} *vlan-new* [*pri*]} **| {QinQ translate** *vlan-map vlan-new* [*pri*]} **| {mix translate** *vlan-map vlan-new mix-vlan-new* [*pri*]}} **or**	Configures the virtual port VLAN translation of ONU *vlan-old:* VLANsource VLAN *vlan-map*: VLAN map VLAN map of nto1 translated source *vlan-new*: Purpose VLAN *pri*: priority *mix-vlan-new*: VALN with outer tag

[no] gpon onu virtual-port port dot1q-translating-tunnel range mode {flat | QinQ} start *vlan-start* end *vlan-end vlan-new* [*pri*]	*vlan-start*: Vlan start value of range translated source *vlan-end*: VLAN end value of range translated source
exit	Exit from ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.33 Configuring the Max Address Number of ONU Virtual Port

To configure the max address number of ONU virtual port, run the command: **[no] gpon onu virtual-port** *port* **dynamic maximum** *value*

To configure the max address number of ONU virtual port, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
gpon onu virtual-port *port* **dynamic maximum** *value*	Configures the max address number of ONU virtual port port: designated virtual port number *value*: max address number
exit	Exits from ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations Saves configuration

1.34 Configuring the ONU Virtual Port QoS Policy

To configure ONU virtual port QoS policy, run the command: [no] gpon onu virtual-port *port* qos policy *name* {ingress | egress}.

To configure ONU virtual port QoS policy, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
gpon onu virtual-port *port* **qos policy** *name* **{ingress | egress}**	Configures the max address number of ONU virtual port port: designated virtual port number *name*: QoS policy name
exit	Exit from the ONU port mode

exit	Exit from the global configuration mode
write all	Saves configurations

1.35 Configuring ONU Virtual Port Remote Proxy

To configure ONU virtual port remote proxy, run the command:

  [no] gpon onu virtual-port *port* **remote-id** *remote-id*

To configure ONU virtual port remote proxy, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
gpon onu virtual-port *port* **remote-id** *remote-id*	Configures the max address number of ONU virtual port port: designated virtual port number *remote-id*: remote-ID
exit	Exit from the ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.36 Configureing AllocID of ONU TCONT

To configure AllocID of onu tcont, run the command:

[no] gpon onu tcont *tcontId* **alloc-id** *allocID*

To configure AllocID of onu tcont, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
gpon onu tcont *tcontId* **alloc-id** *allocID*	Configures AllocID of ONU TCONT *tcontId*: tcont号 *allocID*: allocId
exit	Exit from the ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.37 Configuring Enable/disable Virtual-port Port

To configure enable/disable of the virtual port on ONU, run the command:
gpon onu {{uni *port* **| veip} {shutdown | noshutdown} | virtual-port** *port* **{shutdown | no-shutdown}}.**
To configure enable/disable of the virtual port on ONU, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
gpon onu {{uni *port* **| veip} {shutdown	noshutdown}	virtual-port** *port* **{shutdown	no-shutdown}}**	Configures enable/disable the virtual port on ONU
exit	Exit from the ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.38 Configuring ONU Performance Statistics Functions

To enable or disable ONU performance statistics function, run the command: **gpon onu pm {enable | disable}.**
To enable or disable ONU performance statistics function, run the command:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
**gpon onu pm {enable	disable}**	Configures enable or disable ONU performance statistics function
exit	Exit from the ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.39 Configures ONU Uplink FEC Function

To enable or disable ONU uplink FEC function, run the command: **[no] gpon onu fec-tx.**
To enable or disable ONU uplink FEC function, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode

[no] gpon onu fec-tx	Configures enable or disable uplink FEC function.
exit	Exit from the ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

Note: The command is used for OLT to inform ONU to enable uplink FEC forwarding. The particial ONU may not support FEC function, but there will be FEC in the packet. GPON port will always rectify the errors in the uplink packet with FEC information and handle the packet with FEC information. FEC will not be considered as failed to enable.

1.40 Configuring the Max Value of ONU POE Power

To set the max value of onu poe power, run the command: **[no] gpon onu poe power-limit** value.
To set the max value of onu poe power, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
[no] gpon onu poe power-limit *value*	Configures the max value of ONU POE power value: max power of onu poe
exit	Exit from the ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.41 Configuring ONU-Check-ONU Type Template

To configure ONU-check-ONU type template, run the command: [no] gpon onu always-check-onutype-template.
To configure ONU-check-ONU type template, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
[no] gpon onu always-check-onutype-template	Configures ONU-check-ONU type template
exit	Exits from the ONU port mode
exit	Exits from the global configuration mode
write all	Saves configurations

1.42 Configuring PON Port Downlink FEC Function

To enable or disable PON port downlink FEC function, run the command: **[no] gpon fec-tx.**
To enable or disable PON port downlink FEC function, do as following steps:

Command	Purpose
configure	Enters the global configuration mode
interface gpon 0/1	Enters PON port mode
[no] gpon fec-tx	Configures enable/disable PON port downlink FEC function
exit	Exit from the ONU port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.43 Enable/Disable PON Port Designated SN

To disable PON Port Designated SN, run the command: **[no] gpon disable-onu** *SerialNumber.*
To disable PON Port Designated SN, do as following steps:

Command	Purpose
config	Enters the global configuration mode
interface gpon 0/1	Enters PON port mode
[no] gpon disable-onu *SerialNumber*	Configures enable/disable PON port designated SN
exit	Exits from the PON port mode
exit	Exit from the global configuration mode
write all	Saves configurations

The ONU port with a corresponding SN with the PON port varies with configurations of that PON port. If the PON port is configured with the command **gpon disable-onu SerialNumber,** the ONU port will also be configured with **gpon onu disable. Otherwise,** if the ONU port is configured with the command **gpon onu disable**, the PON port in which ONU locates will also be configured with gpon disable-onu SerialNumber; if the ONU port is configured with **no gpon onu disable**, the configuration of **gpon disable-onu SerialNumber** on the PON port of ONU will also be canceled.

1.44 Moving All Configurations of Old PON Port to the New PON Port

To move all configurations of old pon port to the new pon port, run the command:
gpon configuration-move from gpon *slot/port* **to gpon** *slot/port*。
To move all configurations of old pon port to the new pon port, do as following steps:

Command	Purpose

enable	Enters the privileged configuration mode
gpon configuration-move from gpon *slot/port* **to gpon** *slot/port*	Moves all configurations of old pon port to the new pon port.
exit	Exits from the privileged configuration mode

Please plug the old fiber of the old PON port into the new PON port after entering the above command.

1.45 Configuring ONU activated Preamble Value on the PON Port

To configure ONU activated preamble value on the PON port, run the command: **[no] gpon preamble.**

To configure ONU activated preamble value on the PON port, do as following steps:

Command	Purpose
config	Enters the global configuration mode
interface gpon 0/1	Enters PON port mode
[no] gpon preamble {type3-pre-ranging *pre-ranging-value* **| type3-post-ranging** *post-ranging-value***}**	Configures the preamble length of type3 in activating ONU on the PON port
exit	Exits from the PON port mode
exit	Exit from the global configuration mode
write all	Saves configurations

After configuring the command, ONU will be de-activated and re-registered on the PON port.

1.46 Configuring Gpon Rogue-Detection on the PON Port

To enable **gpon rogue-detection**，run the command: [no] gpon rogue-detection；
To report and print gpon rogue-detection, run the command: [no] gpon rogue-info.
If the devices monitors an rogue ONU, the PON chip will report such information to its user and it can detect ID of the rogue ONU according to its first two bytes，that's, turning its first two bytes into   a decimalism plus 1, that's ID of the long-luminance ONU.

To configure **gpon** rogue detection, do as following steps:

Command	Purpose
config	Enters the global configuration mode
interface gpon 0/1	Enters PON port mode
**[no] gpon rogue-detection {enable	disable}**	Configures gpon rogue-detection
[no] gpon rogue-info	Configures gpon rogue-info

exit	Exits from the PON port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.47 Configuring PON Port Optical Module Mode

To configure PON port optical module mode, run the command: **[no]gpon transceiver**.

By default the command is configured according to the Auto mode which on the basis of manufacturers of optical modules and user statistics. If the optical module is hisense optical module in Superxon-SOG-4321-PSGB mode and others in Any-Reset-Guard mode. Different modes will affect the bandwidth distribution of ONU.

If the PON port is in the optical module adaptation mode, detect the optical module type and whether to re-configure the command, run the command and **no shut PON** port; if the configured optical module type is the same with the actual configured type, there is no new configuration, that's the ONU will not lose connection but modify parameters of the command line.

To configure POn port optical module mode, run the command:

Command	Purpose
config	Enters the global configuration mode
interface gpon 0/1	Enters PON port mode
[no] gpon transceiver {Any | Any-Reset-Guard | Any-Reset-Preamble | SourcePhotonics-SPS-43-48H-HP-CDE-SD | Superxon-SOG-4321-PSGB | Ligent-LTE3680M | SourcePhotonics-General | Ligent-LTE3680P-C+ | WTD-RTXM167-526-C+ | WTD-RTXM167-522-B+ | Ligent-LTE3680P-BC | Superxon-SOGQ-4321-PSGB-C+ | WTD-RTXM167-521 | Ligent-LTE3678 | Superxon-SOGP-4321-PSGA | Auto}	Configures the optical module mode of PON port. Different optical module modes have different otpical powers.
exit	Exits from the PON port mode
exit	Exit from the global configuration mode
write all	Saves configurations

1.48 Configuring ONU Description Information

To configure ONU description information, run the command: **[no] gpon onu description** *value*.

To configure ONU description information, do as following steps:

Command	Purpose
config	Enters the global configuration mode
interface gpon 0/1:1	Enters ONU port mode
[no] gpon onu description *value*	Configures ONU description value on the PON port
exit	Exits from the PON port mode
exit	Exits from the global configuration mode
write all	Saves configurations

1.53 Displaying the Optical Power Information of ONU

Run the following command to display the optical power information of ONU.

show gpon interface gpon *slot/port:sequence* **onu optical-transceiver-diagnosis**

Steps for displaying the optical power information of ONU:

Command	Purpose
show gpon interface gpon *slot/port:sequence* **onu optical-transceiver-diagnosis**	Displays the optical power information of ONU

1.54 Configuring the Optical Power Information of ONU Display

To show the optical power information of ONU, run the command:
show gpon onu-optical-transceiver-diagnosis interface gpon *slot/port*
To show the optical power information of ONU, do as following steps:

Command	Purpose
show gpon onu-optical-transceiver-diagnosis interface gpon *slot/port*	Shows the optical power information of ONU

1.55 Displaying the Packet Statistics on the ONU Port

The administrator needs to know the packet statistics on the ONU port to further know the running state of the current ONU. The display of packet statistics supports the function. The packet statistics includes the total number of receiving and forwarding packets, the multicast number, the broadcast number, pause frame and error frame. If the packet statistics of the ONU interface is

displayed, run the following command:

show gpon interface gpon *slot/port:sequence* **onu {port** *port-num* **| virtual-port** *port-num* **} {**

current-statistics | history-statistics }

Only BDCOM ONU supports the function.

Command	Purpose
show gpon interface gpon *slot/port:sequence* **onu {port** *port-num* **| virtual-port** *port-num* **} { current-statistics	history-statistics }**	Displays packet statistics on the ONU port. *slot/port:sequence* Means the ONU port number corresponds to the ONU *port-num* means ONU user port number or virtual port number

1.56 Displaying ONU Port State

To display ONU port state, run the command:
show gpon interface gpon *slot/port:sequence* **onu port** *port-num* **state**

Command	Purpose
show gpon interface gpon *slot/port:sequence* **onu port** *port-num* **state**	Displays link status of the ONU port.

1.57 Displaying ONU Configuration Template Information

Run the following command to display the template information of ONU.

show gpon {onu-flow-mapping-profile | onu-rate-limit-profile | onu-tcont-profile | onu-tcont-virtual-port-bind-profile | onu-optical-alarm | onu-uni-profile | onu-virtual-port-profile | onu-vlan-cfg-profile | onu-voip-profile | onu-veip-profile | onu-sip-dial-plan-profile | onu-catv-profile | onu-loopback-detection} [*profile-name***]**

Steps for displaying the template information of ONU:

Command	Purpose
show gpon {onu-flow-mapping-profile|onu-rate-limit-profile|onu-tcont-profile|onu-tcont-virtual _port-bind-profile|onu-optical-alarm|onu-uni-profile|onu-virtual-port-profile|onu-vlan-cfg-profile|onu-voip-profile|onu-veip-profile|onu-sip-dial-plan-profile|onu-catv-pr	Displays ONU configuration template information onu-flow-mapping-profile means the designated template type *profile-name* means the designated configuration template name

ofile} [*profile-name***]**	2

1.58 Displaying ONU Software Version Information

Run the following command to display the ONU software version information.

show gpon onu-image-information [interface gpon *slot/port:sequence***]**

Steps for displaying the ONU software basic information:

Command	Purpose
show gpon onu-image-information [interface gpon *slot/port:sequence***]**	Displays ONU software version information

1.59 Displaying ONU State Information

Run the following command to display the ONU state information:

show gpon onu-information [interface gpon *slot/port [onu-id-list]* **| sn** *word***]**

Steps for displaying the ONU state information:

Command	Purpose
show gpon onu-information [interface gpon *slot/port [onu-id-list]* **| sn** *word***]**	Displays ONU state information

1.60 Displaying Statistics Information of the ONU State

Run the following command to display the ONU state statistics information:

show gpon onu-status-count

Steps for displaying the ONU state statistics information:

Command	Purpose
show gpon onu-status-count	Displays statistics information of the ONU state

1.61 Displaying Failure Information of ONU Registration

To display ONU registration failure information, run the command:

show gpon onu-rejected-information [interface gpon *slot/port***]**

To display ONU registration failure information, do as following steps:

Command	Purpose
show gpon onu-rejected-information [interface gpon *slot/port***]**	Displays ONU registration failure information

1.62 Displaying ONU-Disable-Information

To display disable-status-onu information, run the command:

show gpon onu-disable-information [interface gpon *slot/port***]**

To display disable-status-onu information, do as following steps:

Command	Purpose
show gpon onu-disable-information [interface gpon *slot/port***]**	Displays disable-status-onu information

1.63 Displaying the ONU Software Upgrade State Information

Run the following command to display the ONU software upgrade state information.

show gpon onu-update-state [interface gpon *slot/port:sequence***]**

Steps for displaying the ONU state information are shown below:

Command	Purpose
show gpon onu-update-state [interface gpon *slot/port:sequence***]**	Displays the ONU software upgrade state information

1.64 Displaying ONU-Auto-Upgrade-State Information

To display ONU-auto-upgrade-state information, run the command:

show gpon onu-auto-upgrade-state [interface gpon *slot/port[:sequence]***] [waiting] [processing] [retry] [failed] [failed-unExpVer] [complete]**

To display ONU-auto-upgrade-state information, do as following steps:

Command	Purpose
show gpon onu-auto-upgrade-state [interface	Displays **onu-auto-upgrade-state information.**

gpon *slot/[port:sequence]* **[waiting] [processing] [retry] [failed] [failed-unExpVer] [complete]**	

1.65 Displaying ONU CATV Information

To display ONU CATV information, run the command:

show gpon interface gpon *slot/port:sequence* **onu catv-info**

To display ONU CATV information, do as following steps:

Command	Purpose
show gpon interface gpon *slot/port:sequence* **onu catv-info**	Displays ONU CATV information

1.66 Displaying Permission Node Information in the Mode of Controllable Multicast Mode

To display permission node information in the mode of controllable multicast mode, run the command:

show gpon interface gpon *slot/port:sequence* **onu permission**

Command	Purpose
show gpon interface gpon *slot/port:sequence* **onu permission**	Displays permission node information in the mode of controllable multicast mode

1.67 Displaying ONU Description Information

To display ONU description information, run the command:

show gpon onu-description [interface gpon *slot/port***]**

Command	Purpose
show gpon onu-description [interface gpon *slot/port***]**	Displays ONU description information

1.68 Displaying ONU Serial Number Corresponding Relation Information

To display ONU serial number corresponding relation information, run the command:

show gpon onu-seq-id-map interface gpon *slot/port*

The device only supports single-port display, but not the display in the global configuration mode. If some ONU information needs to be confirmed, the ONU serial number at the bottom must be confirmed. Otherwise, the corresponding ONU cannot be found with only the upper serial number.

To display ONU serial number corresponding relation information, do as following steps:

Command	Purpose
show gpon onu-seq-id-map interface gpon *slot/port*	Displays ONU serial number corresponding relation information

Chapter 2 Configuring ONU T-Cont Configuration Template

2.1 Configuring T-Cont Type and Bandwidth

User pre-configuration template. Enter the template configuration mode and use and manage the pre-configuration based on the need. Run the following command to configure T-Cont type and bandwidth.

gpon-profile tcont-type *type-value* [**pir** *pir-value*] [**cir** *cir-value*] [**fir** *fir-value*]

Steps for configuring T-Cont type and bandwidth are shown below:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-tcont *tcont-name*	Enters T-Cont template configuration mode
gpon-profile tcont-type *type-value* [**pir** *pir-value*] [**cir** *cir-value*] [**fir** *fir-value*]	Configures T-Cont type and bandwidth. *type-value*: T-Cont reference classification serial number defined by ITU. The value ranges from 1 to 5. pir: designate the peak value bandwidth cir: designate the guaranteed bandwidth fir: designate the fixed bandwidth
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the PRIVILEGED configuration mode.

Note: ITU pre-defines 5 common T-Cont service module classifications. The definition is shown below:

	Type 1	Type 2	Type 3	Type 4	Type 5
Fixed bandwidth	FIR				FIR
Guaranteed Bandwidth		CIR	CIR		CIR
Maximum bandwidth	PIR=FIR	PIR=CIR	PIR > CIR	PIR	PIR >= CIR + FIR

The value of the unfilled part is 0.

Therefore the valid command option combination is

gpon-profile tcont-type 1 fir fir-value

gpon-profile tcont-type 2 cir cir-value

gpon-profile tcont-type 3 pir pir-value cir cir-value

gpon-profile tcont-type 4 pir pir-value

gpon-profile tcont-type 5 pir pir-value cir cir-value fir fir-value

2.2 Configuring T-cont Scheduler

To configure T-cont **onu-scheduler** type, run the command:
gpon-profile onu-scheduler policy{sp|wrr}
To configure T-Cont onu-scheduler weight, run the command:
gpon-profile onu-scheduler weight w0 [*w1*] [*w2*] [*w3*] [*w4*] [*w5*] [*w6*] [*w7*]

Command	Purpose
enable	Enters the privileged mode
config	Enters the global configuration mode
gpon profile onu-tcont *tcont-name*	Enters the rate-limit template configuration mode
gpon-profile onu-scheduler policy{sp|wrr} **If the configuration is wrr mode, run the command:** **gpon-profile onu-scheduler weight** w0 [*w1*] [*w2*] [*w3*] [*w4*] [*w5*] [*w6*] [*w7*]	Configures T-cont scheduler sp: priority scheduler wrr: weight scheduler *W0......w7:* weight
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

2.2 Configuring T-cont Alloc-id Type

To configure T-cont Alloc-id type, run the command:
gpon-profile alloc-type {sr | nsr}

Command	Purpose
enable	Enters the privileged mode

config	Enters the global configuration mode
gpon profile onu-tcont *tcont-name*	Enters the rate-limit template configuration mode
**gpon-profile alloc-type {sr	nsr}**	Configures T-cont Alloc-id type sr: status report type nsr: no status report type
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 3 Configuring ONU Rate-Limit Configuration Template

3.1 Configuring ONU Rate Limit Guaranteed Bandwidth

Run the following command to configure ONU rate limit guaranteed bandwidth

gpon-profile pir *pir-value* **cir** *value*

Steps for configuring ONU rate limit guaranteed bandwidth:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile **onu-rate-limit** *onu-rate-limit-name*	Enters rate-limit template configuration mode
gpon-profile pir *pir-value* **cir** *value*	Configures rate limit guaranteed bandwidth pir: designate the peak value bandwidth cir: designate the guaranteed bandwidth
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Chapter 4 Configuring ONU Virtual Port Configuration Template

4.1 Configuring ONU Virtual Port Downlink Encryption Function

Run the following command to configure ONU virtual port downlink encryption:

gpon-profile encryption {enable | disable}

Steps for configuring the ONU virtual port downlink encryption

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-virtual-port *onu-virtual-port-name*	Enters the ONU virtual port template configuration mode
**gpon-profile encryption {enable	disable}**	Configures ONU virtual port downlink encryption function, run the following command.
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: After applied to ONU, the virtual port configuration template takes effective on GEM Port. To use the encrypted downlink flow on the encrypted virtual port, enable downlink encryption in the global mode.

4.2 Configuring the Upstream Queue of the ONU Virtual Port

Run the following command to configure ONU virtual port uplink queue:

gpon-profile upstream queue *num*

Steps for configuring the ONU virtual port uplink queue:

Command	Purpose
enable	Enters the PRIVILEGED configuration mode.
config	Enters the global configuration mode.
gpon profile onu-virtual-port	Enters the ONU virtual port template configuration mode

onu-virtual-port-name	
gpon-profile upstream queue *num*	Configures the upstream queue of the ONU virtual port
exit	Exits from the template configuration mode
exit	Exits from THE GLOBAL configuration mode.
exit	Exits from the PRIVILEGED configuration mode.

Note: After applied to ONU, the virtual port configuration template takes effective on GEM Port. To use the encrypted downlink flow on the encrypted virtual port, enable downlink encryption in the global mode.

4.3 Configuring the ONU Virtual Port Uplink Rate Limit Policy

Run the following command to configure ONU virtual port uplink rate limit policy:

[no] gpon-profile upstream rate-limit-profile *name*

Steps for configuring the ONU virtual port uplink rate limit policy:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-virtual-port *onu-virtual-port-name*	Enters the ONU virtual port template configuration mode
[no] gpon-profile upstream rate-limit-profile *name*	Configures the ONU virtual port uplink rate limit policy, run the following command:
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: After applied to ONU, the virtual port configuration template will take effect on GEM Port. When multiple GEM Ports corresponds to one T-Cont, the congestion occur. ONU can set rate limit for every GEM Port under T-Cont, so that the uplink bandwidth can be distributed.

ONU may not support uplink rate limit, and the uplink queue schedule can be the backup

option of the congestion management.

4.4 Configuring the Downstream Queue of the ONU Virtual Port

Run the following command to configure ONU virtual port downlink queue:

gpon-profile downstream queue *num*

Steps for configuring the ONU virtual port downlink queue:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-virtual-port *onu-virtual-port-name*	Enters the ONU virtual port template configuration mode
gpon-profile downstream queue *num*	Configures the downstream queue of the ONU virtual port, run the following command:
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: After applied to ONU, the virtual port configuration template will take effect on GEM Port. When multiple GEM Ports corresponds to one T-Cont, the congestion occur. ONU can set rate limit for every GEM Port under T-Cont, so that the uplink bandwidth can be distributed.

ONU may not support uplink rate limit, and the uplink queue schedule can be the backup option of the congestion management.

Chapter 5 Configuring ONU T-Cont and Virtual Port Binding Relation Configuration Template

5.1 Configuring ONU virtual port and its corresponding T-Cont

Run the following command to configure ONU virtual port and its corresponding T-Cont:

gpon-profile virtual-port *vp-index* **profile** *vp-prof-name* **tcont** *tcont-index* **profile** *tcont-prof-name*

Steps for configuring the ONU virtual Port and its corresponding T-Cont:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-tcont-virtual-port-bind *tvpb-name*	Enters the ONU virtual port and Tcont binding template configuration mode
gpon-profile virtual-port *vp-index* **profile** *vp-prof-name* **tcont** *tcont-index* **profile** *tcont-prof-name*	Configures the ONU virtual port and its corresponding T-Cont virtual-port: designate the virtual port number profile: virtual port configuration template name tcont: designate the corresponding T-Cont tcont-prof-name: ONU T-Cont configuration template name
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: After T-Cont and the virtual port binding relation configuration template is applied to ONU, every virtual port will be instantiated to GEM Port and every T-Cont index will be distributed with AllocID and conduct dynamic uplink bandwidth schedule. Multiple virtual ports can bind to a T-Cont so that the uplink bandwidth can be shared.

The same T-Cont index should share the same T-Cont template.

Chapter 6 Configuring ONU Flow Mapping Configuration Template

6.1 Configuring ONU Flow Mapping Items

If configuring ONU flow mapping items and its corresponding application location, run the following command:

gpon-profile entry *index* **{uni** *port-list* | **vlan** {*vid* | *start-stop*} | **cos** *cos-list* | **virtual-port** *vp-index***}**

Steps for configuring ONU flow mapping items and their locations

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-flow-mapping *onu-flow-mapping-name*	Enters the ONU flow mapping template configuration mode
gpon-profile entry *index* **{uni** *port-list*	**vlan** {*vid*	*start-stop*}	**cos** *cos-list*	**virtual-port** *vp-index***}**	Configures ONU flow mapping items and their locations uni: designate user port number vlan: designate vlan serial number range cos: designate cos table range virtual-port: designate the virtual port number
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: Each mapping item needs at least one user port. The VLAN range cannot be more than 12 VLAN IDs.

Chapter 7 Configuring ONU VLAN Configuration Template

7.1 Configuring ONU VLAN Mode

UNI VLAN Tag process mode of ONU is classified into six: transparent mode, tag mode, translation mode, aggregation mode, TRUNK mode and STACKING mode.

Downlink means OLT transmits packets to ONU, while uplink means ONU transmits packets to OLT.

● Definition of the transparent mode is shown below:

Direction	whether Ethernet packet has Tag	Processing mode
Uplink	Having VLAN tag	Make no change of the Ethernet packet (the previous VLAN TAG is preserved) and forward it.
	No VLAN tag	Make no change of the Ethernet packet and forward it.
Downlink	Having VLAN tag	Make no change of the Ethernet packet (the previous VLAN TAG is preserved) and forward it.
	No VLAN tag	Make no change of the Ethernet packet and forward it.

● Definition of the tag mode is shown below:

Direction	Ethernet packet has Tag	Processing mode
Uplink	Having VLAN tag	Discard
	No VLAN tag	Add a new VLAN Tag (the main parameter is VID) to the packet and forward this packet. Currently, the only requirement that the VID value can be set on ONU, the fields, TPID and Pri which are in the VLAN Config Parameters domain of the received VLAN Variable Container, can be omitted and the tagged TPID and Pri can be set to the default values (TPID=0x8100, Pri＝0).
Downlink	Having VLAN tag	Forward the packet to the corresponding UNI port

		according to VID, remove the tag; if the VLAN ID of a downlink tagged packet is not the configured VID, this packet will be dropped.
	No VLAN tag	Discard

● Definition of the transparent mode is shown below:

Direction	whether Ethernet packet has Tag	Processing mode
Uplink	Having VLAN tag	If a VID of the previous tag has the corresponding entry (equal to the incoming VID) in the VLAN translation list of the corresponding port, this VID will be transformed to the corresponding VID (outgoing VID) according to the entry and then this corresponding VID will be forwarded; if not, this VID will be dropped. At present, only ONU is required to conduct VID transformation, while the transformation of other fields such as TPID, CFI and Pri is not required; ONU will omit the TPID and Pri fields in the VLAN Config Parameters domain of the received VLAN Variable Container, and set the transformed TPID and Pri to be the default values (the TPID value and Pri value before transformation will not be reserved).
	Not having the VLAN tag	Adds the default VLAN to the untagged packets and forwards them.
Downlink	Having VLAN tag	If a VID of the previous tag has the corresponding entry (equal to the outgoing VID) in the VLAN translation list of the corresponding port, this VID will be transformed to the corresponding VID (incoming VID) according to this entry and then this corresponding VID will be forwarded; if the VID of the previous tag has the default VID, this tag will be removed and then forwarded; If the VID of the previous tag has no the corresponding entry in the VLAN translation list of the corresponding port, it will be dropped; at present, only ONU is required to conduct VID transformation, while the transformation of other fields such as TPID, CFI and Pri is not required. During the transformation at the downlink direction, ONU keeps the original TPID value and the original Pri value unchanged.
	No VLAN tag	Discard

● The aggregation mode is shown in the following table:

Direction	whether Ethernet packet has Tag	Processing mode
Uplink	Having VLAN tag	If the VLAN ID carried by a packet is equal to an aggregated VLAN in

	the VLAN aggregation list of a port, this VLAN ID of this packet will be transformed to the corresponding "vlan to be aggr", and at the same time the source MAC address of this packet will be recorded and forwarded; if the VLAN ID carried by this packet is not equal to any aggregated VLAN in the VLAN aggregation list of this port, the VLAN ID will be dropped. At present, only ONU is required to conduct VID transformation, while the transformation of other fields such as TPID, CFI and Pri is not required; ONU will omit the TPID and Pri fields in the VLANConfig Parameters domain of the received VLAN Variable Container and set the transformed TPID to be the default value (TPID=0x8100), but keep pri to be the original value.
No VLAN tag	Adds the default VLAN to the untagged packets and forwards them.
Downlink	Having VLAN tag	If the VLAN ID carried by a packet is equal to "vlan to be aggr" in the VLAN aggregation entry of a port, this VLAN ID will be transformed to the corresponding "aggregated VLAN" according to this entry, and then forwarded; if the VLAN ID of the original tag is not the default VLAN ID, this tag will be removed and forwarded; if this VLAN ID is equal to neither "vlan to be aggr" nor the default VLAN ID, the VLAN ID will be dropped. At present, only ONU is required to conduct VID transformation, while the transformation of other fields such as TPID, CFI and Pri is not required. ONU will omit the TPID and Pri fields in the VLANConfig Parameters domain of the received VLAN Variable Container and set the TPID of the transformed VLAN tag to be the default value (TPID=0x8100), but keep pri to be the original value.
	No VLAN tag	Discard

Note: In the table above, the "Downlink" label and "Having VLAN tag" correspond to the large cell, and the first cell spans two rows.

● Trunk mode

Direction	whether Ethernet packet has Tag	Processing mode
Uplink	Having VLAN tag	If the VLAN attaching to the packet is "the available VLAN", forward it upwards; if the VLAN attaching to the packet is not "the available VLAN", drop it. At present, only ONU is required to conduct VID transformation, while the transformation of other fields such as TPID, CFI and Pri is not required; ONU will omit the TPID and Pri fields in the VLAN Config Parameters domain of the received VLAN Variable Container and set the transformed TPID to be the default value (TPID=0x8100),but keep pri to be the original value.
	No VLAN tag	Adds the default VLAN to the untagged packets and forwards them.
Downlink	Having VLAN tag	If the VLAN ID attaching to the packet is "the available VLAN", forward

		it downwards; if the VLAN ID attaching to the packet "default VLAN", delete the VLAN tag and forward it downwards; if the VLAN attaching to the packet is not "the available VLAN", drop it. At present, only ONU is required to conduct VID transformation, while the transformation of other fields such as TPID, CFI and Pri is not required. ONU will omit the TPID and Pri fields in the VLAN Config Parameters domain of the received VLAN Variable Container and set the TPID of the transformed VLAN tag to be the default value (TPID=0x8100), but keep pri to be the original value.
	No VLAN tag	Discard

● Stacking mode

Direction	whether Ethernet packet has Tag	Processing mode
Uplink	Having VLAN tag	If it is in the translation list, the out-layer tag in the translation entry should be added and sent to OLT, or PVID should be added.
	No VLAN tag	Adds the PVID of the port and sends it to OLT.
Downlink	Having VLAN tag	If it is in the translation list or the tag is equal to PVID, the tag will be removed, or dropped.
	No VLAN tag	Discard

Run the following command to configure ONU VLAN mode

gpon-profile vlan mode {transparent | tag | translation | trunk | vlan-stacking | aggregation}

Steps for configuring ONU VLAN mode:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-vlan *onu-vlan-name*	Enters the ONU VLAN template configuration mode
**gpon-profile vlan mode {transparent	tag	translation	trunk	vlan-stacking	aggregation}**	Configure ONU VLAN mode, run the following command.
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

7.2 Configuring the ONU Port Default VLAN

Run the following command to configure ONU port default VLAN:

gpon-profile vlan pvid *vid*

Steps for configuring ONU port default VLAN:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-vlan *onu-vlan-name*	Enters the onu vlan template configuration mode
gpon-profile vlan pvid *vid*	Configures the onu port default vlan
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

7.3 Configuring Translation Items

If the VLAN mode of the ONU UNI port is the translation mode or the STACKING mode, you have

to set the translation entry for the designated VLAN to modify or add its out-layer tag.

Run the following command to configure the translation items for translation and vlan-stacking:

gpon-profile vlan translation-entry *old_vid new_vid*

Steps for configuring translation items for translation and vlan-stacking:

Command	Purpose
enable	Enters the PRIVILEGED configuration mode.
config	Enters the global configuration mode.
gpon profile onu-vlan *onu-vlan-name*	Enters the ONU VLAN template configuration mode
gpon-profile vlan translation-entry *old_vid new_vid*	Configures the translation entry of translation and vlan-stacking, run the following command. old_vid: vlan ID before translation new_vid: vlan ID after translation

exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: The ONU port mode must be configured to the translation mode and the total number of VLAN translation item cannot be more than 12 VLAN IDs.

7.4 Configuring the VLAN Allowed Range of the Trunk Mode

Run the following command to configure the vlan allowed range of the trunk mode:

gpon-profile vlan trunk vlan-allowed *vlan-list*

Steps for configuring the vlan allowed range of the trunk mode:

Command	Purpose
enable	Enters the PRIVILEGED configuration mode.
config	Enters the global configuration mode.
gpon profile onu-vlan *onu-vlan-name*	Enters the ONU VLAN template configuration mode
gpon-profile vlan trunk vlan-allowed *vlan-list*	Configures the vlan allowed range for the trunk mode.
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: The total number of the VLAN translation item cannot be more than 12 VLAN IDs.

7.5 Configuring the Ethernet Type Determined VLAN ID for the Tag Mode

Run the following command to configure the Ethernet type determined VLAN ID for the tag mode:

gpon-profile vlan ether-type {ipoe | pppoe | arp} *vid*

Steps for using Ethernet type determined VLAN ID for the tag mode

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-vlan *onu-vlan-name*	Enters the ONU VLAN template configuration mode
gpon-profile vlan ether-type {ipoe | pppoe | arp} *vid*	Uses Ethernet type determined VLAN ID for the tag mode. VID: To be added VLAN ID
exit	Exits from the template configuration mode.
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

Note: The Ethernet type will be preferentially considered to determine VLAN ID under the tag mode. Use pvid if there is no corresponding Ethernet type.

Chapter 8 Configuring ONU User Port Configuration Template

8.1 Configuring the ONU User Interface Rate

Run the following command to configure ONU user port speed:

gpon-profile speed {10 | 100 | 1000 | auto}

Steps for configuring user port speed:

Command	Purpose
enable	Enters the PRIVILEGED configuration mode.
config	Enters the global configuration mode.
gpon profile onu-uni *onu-uni-name*	Enters the ONU user port template configuration mode.
gpon-profile speed {10 | 100 | 1000 | auto}	Configures the ONU user interface rate.
exit	Exits from the template configuration mode.
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

8.2 Configuring the Duplex Mode of the ONU User Port

The duplex mode can be configured only after the port negotiation is disabled.

Run the following command to configure the duplex mode of ONU user port:

gpon-profile duplex {full | half | auto}

Steps for configuring the duplex mode of ONU user port:

Command	Purpose

enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-uni *onu-uni-name*	Enters the ONU user port template configuration mode
gpon-profile duplex {full | half | auto}	Sets the duplex mode of the ONU user port.
exit	Exits from the template configuration mode.
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

8.3 Configuring the Maximum Frame Length of ONU User Port

Run the following command to configure the maximum frame length of ONU user port:

gpon-profile max-frame-size *value*

Steps for configuring the maximum frame length of ONU user port:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-uni *onu-uni-name*	Enters the ONU user port template configuration mode
gpon-profile max-frame-size *value*	Sets the maximum frame length of ONU user port.
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

8.4 Configuring ONU User Port Ethernet Line Sequence Type

Run the following command to configure the ONU user port Ethernet line sequence type:

gpon-profile eth-wiring {dce | dte | auto}

Steps for configuring the ONU user port Ethernet line sequence type:

Command	Purpose
enable	Enters the privileged configuration mode.
config	Enters the global configuration mode.
gpon profile onu-uni *onu-uni-name*	Enters the ONU user port template configuration mode
**gpon-profile eth-wiring {dce	dte	auto}**	Sets ONU user port Ethernet line sequence type dce: Uses DCE line sequence (MDI-X) dte: Uses DTE line sequence (MDI) auto: auto-selection
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode.
exit	Exits from the privileged configuration mode.

8.5 Configuring ONU User Port Function Type

To configure ONU user port function type, run the command:
gpon-profile eth-function {bridge | ip | either}
To configure ONU user port function type, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-uni *onu-uni-name*	Enters the ONU user port template configuration mode
**gpon-profile eth-function {bridge	ip	either}**	Configures ONU user port function type Bridge: the port supports bridge Ip: the port supports IP Either: the port supports bridge and IP
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

8.6 Configuring ONU User Port Scheduler

To configure ONU user port uplink scheduler, run the command:

gpon-profile scheduler policy{sp|wrr}

To configure ONU user port downlink scheduler weight, run the command:

gpon-profile scheduler weight w0 [*w1*] [*w2*] [*w3*] [*w4*] [*w5*] [*w6*] [*w7*]

To configure ONU user port scheduler, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-uni *onu-uni-name*	Enters the ONU user port template configuration mode
gpon-profile scheduler policy{sp|wrr} **gpon-profile scheduler weight** w0 [*w1*] [*w2*] [*w3*] [*w4*] [*w5*] [*w6*] [*w7*]	Configures ONU user port scheduler sp: prioprity scheduler wrr: weight scheduler w0-w7: weight
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

8.7 Configuring ONU User Port Downlink Bandwidth

To configure ONU user port downlink bandwidth, run the command:

gpon-profile downstream bandwidth *bandwidth*

To configure ONU user port downlink bandwidth, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-uni *onu-uni-name*	Enters the ONU user port template configuration mode
gpon-profile downstream bandwidth *bandwidth*	Configures ONU user port downlink bandwidth Bandwidth: downlink bandwidth
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

8.8 Configuring ONU User Port Flow Control

To configure ONU user port flow control, run the command:

gpon-profile flow-control {on| off}

To configure ONU user port flow control, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-uni *onu-uni-name*	Enters the ONU user port template configuration mode
gpon-profile flow-control {on| off}	Configures enable or disable ONU user port flow control
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 9 Configuring ONU MAC Filter Configuration Template

9.1 Configuring Template Filter Type

To configure ONU MAC filter type, run the command:

gpon-profile filtertype {filter | forward}

To configure ONU MAC filter type, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mac-filter *profile-name*	Enters the ONU MAC filter template configuration mode
**gpon-profile filtertype {filter	forward}**	Configures ONU MAC filter type
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

9.2 Configuring ONU MAC Filter Entry

To configure ONU MAC filter entry, run the command:

gpon-profile entry *index* **address** *H.H.H*

To configure ONU MAC filter entry, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mac-filter *profile-name*	Enters ONU MAC filter template configuration mode
gpon-profile entry *index* **address** *H.H.H*	Configures ONU MAC filter entries Index: entry No. H.H.H:MAC address
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 10 Configuring ONU Multicast Configuration Template

10.1 Configuring Multicast Protocol Version

To configure multicast protocol version, run the command:

gpon-profile igmp-version {MLDv1 | MLDv2 | *num***}**

To configure multicast protocol version, do as following steps

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile igmp-version {MLDv1 | MLDv2 | *num***}**	Configures multicast protocol version MLDv1: IPv6 multicast version 1 MLDv2: IPv6 multicast version 2 Num: other version number
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.2 Configuring Multicast Control Mode

To configure multicast control mode, run the command:

gpon-profile multicast-control-mode {igmp-snooping | igmp-spr | igmp-proxy }

To configure multicast control mode, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile multicast-control-mode {igmp-snooping | igmp-spr | igmp-proxy }	Configures multicast control mode
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.3 Configuring Fast Leave Mode

To enable/disable multicast fast leave mode, run the command:
gpon-profile fast-leave-mode {enable | disable}

To enable/disable multicast fast leave mode, do as following steps::

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
**gpon-profile fast-leave-mode {enable	disable}**	Configures enable/disable multicast fast leave
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.4 Configuring Uplink Igmp Tag

To configure the process mode of igmp tag, run the command:
gpon-profile upstream-igmp-tag {transparent | add *vlanid* **[***pbit***] | replace** *vlanid* **[***pbit***]}**

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
**gpon-profile upstream-igmp-tag {transparent	add** *vlanid* **[***pbit***]	replace** *vlanid* **[***pbit***]}**	Configures uplink Tag management mode Transparent: transparent mode add: add the outer tag replace: replace the outer tag
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.5 Configuring Multicast Max Concurrent Group

To configure the max concurrent group, run the command:
gpon-profile max-simultaneous-group *num*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile max-simultaneous-group *num*	Configures the max concurrent group Num: the max concurrent group number
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.6 Configuring the Multicast Last Member Query Interval

Configures last member query interval, run the command:
gpon-profile last-member-query-interval *num*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile last-member-query-interval *num*	Configures last member query interval Number of last-member-query-interval. Unit: 0.1s.
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.7 Configuring the Process Mode of Downlink Mcst Tag

To configure the process mode of downstream-mcst-tag, run the command:
gpon-profile downstream-mcst-tag {transparent | strip | add *vlanid* **[***pbit***] | replace** *vlanid* **[***pbit***]}**

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile downstream-igmp-tag {transparent | strip | add *vlanid* **[***pbit***] | replace** *vlanid* **[***pbit***]}**	Configures downlink multicast tag process transparent: transparent mode; stip: remove the outer tag add: add outer tag, if pbit is not configured, add tag pbit as 0. replace: replace the outer tag, if pbit is not configured, keep the original pbit, replace vlanid only.
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.8 Configuring Multicast Robustness Parameters

To configure multicast robustness parameters, run the command:

gpon-profile robustness *num*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile robustness *num*	Configures multicast robustness parameters num: multicast robustness (times of packet re-transmission); the value ranges from 1 to 7.
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.9 Configuring Multicast Query Interval

To configure multicast query interval, run the command:

gpon-profile query-interval *time*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile query-interval *time*	Configures query period *time*: query period, unit:s, the value ranges from 1 to 3600
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

10.10 Configuring the Max Response Time of Multicast Query Packet

To configure the max response time of multicast query packet, run the command:

gpon-profile response-time *time*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-oper *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile response-time *time*	Configures the max response time of multicast query packet time: the max response time of multicast query packet, unit: s, the value ranges from 1 to 36000.
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chpater 11 Configuring ONU Static Multicast Configuration

Template

11.1 Configuring Multicast GEM Port

To configure ONU multicast GEM port, run the command:
gpon-profile entry *num1* **multicast-gemport** *num2*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-static-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile entry *num1* **multicast-gemport** *num2*	Configures ONU multicast GEM Port Num1: entry number Num2: multicast GEM port
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

11.2 Configuring Multicast VLAN

To configure ONU multicast VLAN, run the command:
gpon-profile entry *num1* **multicast-vlan-id** *num2*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-static-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile entry *num1* **multicast-vlan-id** *num2*	Configures ONU multicast VLAN Num1: entry number Num2: multicast Vlan-ID
exit	Exits from the template configuration mode

exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

11.3 Configuring Multicast IP Address

To configure ONU multicast source IP, run the command:

gpon-profile entry *num1* **source-ip-address {***A.B.C.D* **|** *X:X:X:X::X***}**

To configure ONU multicast purpose IP address range, run the command:

gpon-profile entry *num1* **multicast-group-address-range {***A.B.C.D* **|** *X:X:X:X::X***} to {***A.B.C.D* **|** *X:X:X:X::X***}**

To configure ONU multicast source IP, do as following steps:

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-static-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile entry *num1* **source-ip-address {***A.B.C.D* **|** *X:X:X:X::X***}** **gpon-profile entry** *num1* **multicast-group-address-range {***A.B.C.D* **|** *X:X:X:X::X***} to {***A.B.C.D* **|** *X:X:X:X::X***}**	Configures ONU multicast IP Num1: entry number A.B.C.D: IPv4 address X:X:X:X::X: IPv6 address
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

11.4 Configuring Multicast Bandwidth

To configure ONU multicast bandwidth, run the command:

gpon-profile entry *num1* **imputed-group-bandwidth** *num2*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-static-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile entry *num1* **imputed-group-bandwidth** *num2*	Configures ONU multicast bandwidth

	Num1: entry number
	Num2: multicas bandwidth
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 12 Configuring ONU Dynamic Multicast Configuration

Template

12.1 Configuring Multicast GEM Port

To configure ONU multicast GEM port, run the command:
gpon-profile entry *num1* **multicast-gemport** *num2*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-dynamic-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile entry *num1* **multicast-gemport** *num2*	Configures ONU multicast GEM port Num1: entry number Num2: multicast GEM Port
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

12.2 Configuring Multicast VLAN

To configure ONU multicast VLAN, run the command:
gpon-profile entry *num1* **multicast-vlan-id** *num2*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-dynamic-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile entry *num1* **multicast-vlan-id** *num2*	Configures ONU multicast VLAN Num1：entry number Num2: multicast Vlan-ID
exit	Exits from the template configuration mode

exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

12.3 Configuring Multicast IP Address

To configure ONU multicast source IP, run the command:

gpon-profile entry *num1* **source-ip-address {***A.B.C.D* **|** *X:X:X:X::X***}**

To configure ONU multicat purpose IP address range, run the command:

gpon-profile entry *num1* **multicast-group-address-range {***A.B.C.D* **|** *X:X:X:X::X***} to {***A.B.C.D* **|** *X:X:X:X::X***}**

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-dynamic-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile entry *num1* **source-ip-address {***A.B.C.D* **|** *X:X:X:X::X***}** **gpon-profile entry** *num1* **multicast-group-address-range {***A.B.C.D* **|** *X:X:X:X::X***} to {***A.B.C.D* **|** *X:X:X:X::X***}**	Configures ONU multicast IP Num1: entry number A.B.C.D: IPv4 address X:X:X:X::X: IPv6 address
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

12.4 Configuring Multicast Bandwidth

To configure ONU multicast bandwidth, run the command:

gpon-profile entry *num1* **imputed-group-bandwidth** *num2*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-dynamic-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template

gpon-profile entry *num1* **imputed-group-bandwidth** *num2*	Configures ONU multicast bandwidth Num1：entry number Num2: multicast bandwidth
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

12.5 Configuring Multicast Preview

To configure ONU multicat preview length, run the command:

gpon-profile entry *num1* **preview-length** *num2*

To configure the minimum interval of ONU multicat preview, run the command:

gpon-profile entry *num1* **preview-repeat-time** *num3*

To configure ONU multicast preview times, run the command:

gpon-profile entry *num1* **preview-repeat-count** *num4*

To configure ONU multicast preview reset time, run the command:

gpon-profile entry *num1* **preview-reset-time** *num5*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-mcst-dynamic-group *profile-name*	Enters the configuration mode of the ONU multicast configuration template
gpon-profile entry *num1* **preview-length** *num2* **gpon-profile entry** *num1* **preview-repeat-time** *num3* **gpon-profile entry** *num1* **preview-repeat-count** *num4* **gpon-profile entry** *num1* **preview-reset-time** *num5*	Configures ONU multicast preview Num1: entry number Num2: preview time duration Num3: preview minimum interval Num4: preview times Num5: preview reset time
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 13 Configuring ONU VOIP Configuration Template

13.1 Configuring VOIP Protocol Type

ITU-T 988 defines two VOIP protocol types (SIP and H.248). To configure VOIP protocol type, run the command:

gpon-profile voip-type { sip | h.248 }

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-voip *profile-name*	Enters ONU voice service template configuration mode
**gpon-profile voip-type { sip	h.248 }**	Configures the protocol type of VOIP sip: SIP protocol H.248: H.248 protocol
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

13.2 Configuring the Attribute in H.248 Protocol

When VOIP using H. 248 protocol, some attributes need to be configured.
To configure Media Gateway Controller (MGC), run the command:
gpon-profile h.248 primary-mgc *uri* **[secondary-mgc** *uri* **]**
To configure Megaco protocol version number and H.248 information format, run the command:
gpon-profile h.248 version *value* **message-format { text-long | text-short | binary }**
To configure the max times of the max retry time and information of MGC re-transmitting to MGC event, run the command:
gpon-profile h.248 max-retry-time *time* **max-retry-count** *count*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-voip *profile-name*	Enters the ONU voice service template configuration mode
gpon-profile h.248 primary-mgc *uri* **[secondary-mgc** *uri* **]**	Configures the address of primary-secondary media gateway controller in H.248

	uri: IP address or domain name
gpon-profile h.248 version *value* **message-format { text-long | text-short | binary }**	Configuring the version number and information format in H.248 protocol value: version number (1-4) Information format: text-long, text-short and binary
gpon-profile h.248 max-retry-time *time* **max-retry-count** *count*	Configures the max times of the max retry time and information of MGC re-transmitting to MGC in H.248 protocol time: max retry time count: max retry times
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

13.3 Configuring Attributes in SIP Protocol

To configure proxy server and external proxy server address, run the command:
gpon-profile sip proxy-server *uri* **[outbound-proxy** *uri* **]**
To configure registration server address, run the command:
gpon-profile sip registrar *uri*
To configure primary and secondary DNS, run the command:
gpon-profile sip primary-dns *uri* **[secondary-dns** *uri* **]**
To configure ONU voice registration expiry time and overtime for re-registration, run the command:
gpon-profile sip reg-exp-time *value* **rereg-head-time** *value*
To configure SIP domain name related to ONU, run the command:
gpon-profile sip domain-name *uri*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-voip *profile-name*	Enters ONU voice service template configuration mode
gpon-profile sip proxy-server *uri* **[outbound-proxy** *uri* **]**	configures SIP proxy server address uri: IP address or domain name
gpon-profile sip registrar *uri*	Configures registration server address in SIP Uri: IP address or domain name
gpon-profile sip primary-dns *uri* **[secondary-dns** *uri* **]**	Configures SIP primary and secondary DNS uri: IP address
gpon-profile sip reg-exp-time *value* **rereg-head-time** *value*	Configures voice expiry time and re-registration overtime in SIP

	value: time value, unit: s
gpon-profile sip domain-name *uri*	Configures SIP domain name related to ONU uri:domain name
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

13.4 Binding IP-HOST and UDP Port

To bind ip-host and udp port number, run the command:
gpon-profile bind ip-host *ip-host-id* **udp-port** *port-id*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-voip *profile-name*	Enters ONU voice service template configuration mode
gpon-profile bind ip-host *ip-host-id* **udp-port** *port-id*	Binding ip-host and udp port ip-host-id: ip-host port number port-id: udp port number
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

13.5 Configuring SIP Gateway Soft Switch Vendor

To configure SIP gateway soft switch vendor, run the command:
gpon-profile soft-switch-vendor *string*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-voip *profile-name*	Enters ONU voice service template configuration mode
gpon-profile soft-switch-vendor *string*	Signifies gateway soft switch vendor Soft switch vendor string string: manufacturer identifier, it must be 4 characters

exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

13.6 Configuring Attributes Related to Information Code

To configure information fax mode, run the command:

gpon-profile media fax-mode { passthru | t.38 }

To configure the encoder and decoder of voice information, run the command:

gpon-profile media codec *value*

To configure media packet period, run the command:

gpon-profile media paket-period *value*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-voip *profile-name*	Enters ONU voice service template configuration mode
**gpon-profile media fax-mode { passthru	t.38 }**	Configures information fax mode Two fax modes: passthru, t.38
gpon-profile media codec *value*	Configures the encoder and decoder of voice information value: tag of encoder and decoder, check the concrete model in ITU-T 988
gpon-profile media paket-period *value*	Configure media packet period value: time value, time ranges from 10 to 30, unit: ms
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

13.7 Configuring Attributes Related to RTP

Following attributes need to be configured when using RTP in VOIP.

DSCP supports following values on ONU:

0x00,0x08,0x10,0x18,0x20,0x28,0x30,0x38,0x2e

To configure the port-range of RTP port in VOIP, run the command:

gpon-profile rtp port-range *start end*

To configure the priority of output RTP packet, run the command:

gpon-profile rtp dscp *value*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-voip *profile-name*	Enters ONU voice service template configuration mode
gpon-profile rtp port-range *start end*	Configures the port-range of RTP port in VOIP start: minimum RTP port number end: maximum RTP port number
gpon-profile rtp dscp *value*	Configures priority of output RTP packet value: 1 character, the default value is 0x2E, which means emergent forwarding RTP packet
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

13.8 Configuring User Appreciable Functions in Voice Service

VOIP supports following appreciable functions:

To configure jitter target value, run the command:

gpon-profile voice jitter-target *value*

To configure jitter buffer max value, run the command:

gpon-profile voice jitter-buffer-max *value*

To configure phone voice echo-cancel, run the command:

gpon-profile voice echo-cancel { enable | disable }

To configure the time range of voice switchhook-flash-time, run the command:

gpon-profile voice switchhook-flash-time minimum *value* **maximum** *value*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-voip *profile-name*	Enters ONU voice service template configuration mode
gpon-profile voice jitter-target *value*	Configures jitter target value value: time value, ranges from 1 to 3000, unit:ms
gpon-profile voice jitter-buffer-max *value*	Configures jitter buffer max value value: time value, ranges from 1 to 3000, unit:ms
**gpon-profile voice echo-cancel { enable	disable }**	Configures enable/disable echo cancel Enable: enable echo cancel

	Disable: disable echo cancel
gpon-profile voice switchhook-flash-time minimum *value* **maximum** *value*	Configures the time range of voice switchhook flash time value: time value, ranges from 1 to 3000, unit: ms
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 14 Configuring SIP Network Dial Plan

14.1 Configuring SIP SIP Network Dial Plan

To configure the entry in SIP network dial plan, run the command:
gpon-profile entry *num* **token** *string*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-sip-dial-plan *profile-name*	Configures the configuration mode of SIP network dial plan
gpon-profile entry *num* **token** *string*	Configures the entry of network dial plan Num: entry number of dial plan String: entry contents of dial plan
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 15 Configuring ONU CATV Configuration Template

15.1 Configuring ONU CATV Module Gain Parameters

To configure the gain parameters of ONU CATV module, run the command:
gpon-profile gain-type {agc[agc-up-value *value*]**[agc-range** *value*]** | mgc [mgc-tx-attenuation** *value*]**}**

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-catv *profile-name*	Enters the configuration mode of ONU catv module
gpon-profile gain-type {agc[agc-up-value *value1*]**[agc-range** *value2*] **| mgc [mgc-tx-attenuation** *value3*]**}**	Configures the gain parameters of ONU CATV *value1: agc up value of CATV module* *value2:CATV module AGC power range* value3: CATV module MGC attenuation value3
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

15.2 Configuring ONU CATV Module Alarm Threshold

To configure CATV alarm threshold, run the command:
gpon-profile alarm { input | output | voltage | temperature} {low | high} threshold *value_1 value_2*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-catv *profile-name*	Enters the configuration mode of ONU catv module
**gpon-profile alarm { input	output	voltage	temperature} {low	high} threshold** *value_1 value_2*	Configures the alarm threshold of ONU CATV module Value_1: alarm threshold Value_2: clear alarm threshold
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode

exit	Exits from the privileged configuration mode

Chapter 16 Configuring ONU VEIP Configuration Template

16.1 Binding ONU Non-OMCI Management Port

To bind ONU non-OMCI management port, run the command:
[no] gpon-profile mgmt bind ip-host *portid*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-veip *profile-name*	Enters ONU veip template configuration mode
gpon-profile mgmt bind ip-host *portid*	Binding ONU non-OMCI management port *Portid: non-OMCI management port number*
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

16.2 Configuring tr-069 Parameters of ONU

To configure tr069 parameters of ONU, run the command:
gpon-profile tr-069 {url *url* **| username** *user* **password** *pass***}**

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon profile onu-veip *profile-name*	Enters ONU veip template configuration mode
gpon-profile tr-069 {url *url* **| username** *user* **password** *pass***}**	Configures parameters of ONU tr-069 *url: URL of tr-069* *user:* username of tr-069 pass: password of tr-069
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 17 Configuring ONU Optical Power Alarm Configuration Template

17.1 Configuring ONU Optical Power Alarm Threshold

To configure ONU optical power alarm threshold, run the command:

[no]   gpon-profile   optical-alarm   {rx-power-low | rx-power-high | tx-power-low | tx-power-high}   threshold   thr

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
Gpon profile onu-optical-alarm *profile-name*	Enters ONU optical power alarm template configuration mode
**gpon-profile optical-alarm {rx-power-low	rx-power-high	tx-power-low	tx-power-high} threshold** thr	Configures ONU optical power alarm threshold thr: alarm threshold, unit: 0.5dbm
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

Chapter 18 Configuring ONU Loopback Detection Configuration Template

18.1 Enable/Disable ONU Loopback Detection

To enable/disable ONU loopback detection, run the command:
[no] gpon-profile admin-state {enable | disable}

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon onu-loopback-detection *profile-name*	Enters ONU loopback detection template configuration mode
gpon-profile admin-state {enable | disable}	Configures enable/disable ONU loopback detection **enable**: enable loopback detection **disable**: disable loopback detection
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

18.2 Configuring ONU Loopback Detection Port Shut

To set automatic shut ONU loopback port, run the command:
[no] gpon-profile auto-shut {enable | disable}

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon onu-loopback-detection *profile-name*	Enters the ONU loopback detection template configuration mode
gpon-profile auto-shut {enable | disable}	Configures ONU loopback detection port shut **enable**: enables loopback detection port shut **disable**: disables loopback detection port shut
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode

	Exits from the privileged configuration mode
exit	Exits from the privileged configuration mode

18.3 Configuring ONU Loopback Detection Message Frequency

To configure ONU loopback detection message frequency, run the command:

[no] gpon-profile message-frequency *<1-65535>*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon onu-loopback-detection *profile-name*	Enters ONU loopback detection template configuration mode
gpon-profile message-frequency *<1-65535>*	Configures ONU loopback detection message frequency *<1-65535>*: loopback detection message frequency, unit: pps
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

18.4 Configuring ONU Loopback Detection Recovery Interval

To configure ONU loopback detection recovery interval, run the command:

[no] gpon-profile loop-recovery-interval *<1-65535>*

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon onu-loopback-detection *profile-name*	Enters the configuration mode of ONU loopback detection template
gpon-profile loop-recovery-interval *<1-65535>*	Configures ONU loopback detection recovery interval *<1-65535>*: block time, unit:s
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode

18.5 Configuring ONU Loopback Detection Port VLAN

To configure ONU loopback detection port VLAN, run the command:
[no] gpon-profile port-vlan-table uni *uniport* **cvlan** *cvlanId* **[svlan** *svlanId***]**

Command	Purpose
enable	Enters the privileged configuration mode
config	Enters the global configuration mode
gpon onu-loopback-detection *profile-name*	Enters ONU loopback detection template configuration mode
gpon-profile port-vlan-table uni *uniport* **cvlan** *cvlanId* **[svlan** *svlanId***]**	Enables ONU loopback detection *uniport*: onu uni port number *cvlanId*: loopback detection packet cvlan *svlanId*: loopback detection packet svlan
exit	Exits from the template configuration mode
exit	Exits from the global configuration mode
exit	Exits from the privileged configuration mode