

Chapter2: System Management



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Chapter 2 System Management

2.1 System Maintenance

2.1.1 Display System Status Information

Operation	Command	Remarks
Display version information	display version	
Display user information	display local-user	
Display logged-in user information	display login-users	
Display system memory information	display memory	
Display system clock	display time	
Display system CPU utilization	display cpu-info	

【Example】

! Display system version

[GPON]display version

2.1.2 Configure the System Clock

Operation	Command	Remarks
Enter super user view	enable	
Set system clock	time HH:MM:SS YYYY/MM/DD	
Enter global configuration mode	system-view	

Set clock timezone	time <i>zonename hour minute</i>	
display system time	display time	

【 Example 】

! Set the system clock to 8:30: 0 on October 1, 2020

<GPON>time 08:30:0 2020/10/01

2.1.3 Configure System Host Name

Operation	Command	Remarks
Enter super user view	enable	
Enter global configuration mode	system-view	
Configure the host name	sysname <i>sysname</i>	
Delete the host name	undo sysname	

【 Example 】

! Set the host name to GPON-ABCD

[GPON]sysname GPON-ABCD

[GPON-ABCD]

2.1.4 Trace Route Command

Support tracert command and check network connection. The tracert command can be executed in any view:

Operation	Command	Remarks
Tracert test	tracert [-u -c] [-p <i>udpport</i> -f <i>first_ttl</i> -h <i>maximum_hops</i> -w <i>time_out</i>] <i>target_name</i>	

【Parameter Description】

-u: Send udp message;

-c: Send echo message of icmp;

-p *udpport*: The destination port , the value range is 1-65535, the default port is 62929;

-f *first_ttl*: The initial ttl value, the value range is 1-255, the default value is 1;

-h *maximum_hops*: The maximum ttl value, the value range is 1-255, the default value is 30;

-w *time_out*: The timeout period for waiting for a response, the value range is 10-60 seconds, and the default value is 10 seconds;

target_name: Destination host or router address

【Example】

! Trace the route that can reach 192.168.1.2

<GPON>tracert 192.168.1.2

2.1.5 Port Loopback Test Command

The system supports port loopback test function, used to test the internal and external connectivity of the port:

Operation	Command	Remarks
Enter global configuration mode	system-view	
Loopback test on all ports	loopback { internal external }	

Enter interface view	interface { { ethernet <i>interface-num</i> } <i>interface-name</i> }	
Loopback test on a single port	loopback { internal external }	

2.1.6 Line Detection VCT Command

VCT is used to detect network cable normal (NORMAL), open circuit (OPEN), short circuit (SHORT), impedance mismatch (IMPEDANCE MISMATCH) and other error conditions.

The normal connection of the network cable is NORMAL, the disconnection of the network cable is OPEN, and the short circuit of the network cable is SHORT. Impedance mismatch (IMPEDANCE MISMATCH) generally occurs when two network cables with different impedances are connected together. If an error is found, the location of the error can be detected. The longest detection distance of VCT is 181 meters for 100M ports and 175 meters for Gigabit ports:

Operation	Command	Remarks
Enter global configuration mode	system-view	
Perform VCT detection on all ports	vct run	
Enter interface view	interface { { ethernet <i>interface-num</i> } <i>interface-name</i> }	
Perform VCT detection on a single port	vct run	

【Example】

! VCT test on Ethernet port 1

[GPON-ethernet-0/1]vct run

Notice:

VCT detection is only for Cat 5 Ethernet ports and does not support VCT detection on opticalfiber ports.

2.1.7 Management IP Address Configuration

You can restrict the host IP address or a certain network segment that log in to the GPON's web, telnet, snmp agent, and other IP addresses other than the matching configuration cannot manage the Olt.

Operation	Command	Remarks
Enter global configuration mode	system-view	
Configure management IP address restrictions	login-acl { web snmp telnet } <i>ip-address wildcard</i>	
Remove management IP address restrictions	undo login-acl { all { web snmp telnet { all ip-address wildcard } }	
Display management IP address restriction configuration information	display login-acl	

【Example】

! The configuration only allows addresses in the network segment 192.168.0.0/255.255.0.0 to access the Olt through telnet

```
[GPON] login-acl telnet 192.168.0.1 0.0.255.255
```

```
[GPON]undo login-acl telnet 0.0.0.0 255.255.255.255
```

! Display the configuration of the management ip address restriction:

```
[GPON]display login-acl
```

2.1.8 Telnet User Limit for Login Privileged User View

Operation	Command	Remarks
Enter global configuration mode	system-view	
Configure the number of Telnet users	telnet-server limit <i>limit-num</i>	
Remove the limit on the number of users logging in to Telnet	undo telnet-server limit	
Display Telnet user limit configuration information	display telnet-server	

【Example】

! Configure to allow only two Telnet users to enter privileged user view at the same time[GPON]
telnet-server limit 2

2.1.9 CPU-CAR Command

CPU-CAR is mainly used to set the rate at which the CPU receives packets to limit the number of packets sent to the CPU per second.

Operation	Command	Remarks
Enter global configuration mode	system-view	
Configure CPU-CAR	cpu-car target_rate	
Restore the default CPU-CAR Value	undo cpu-car	
Display CPU-CAR	display cpu-car	

【Example】

! Set the rate of cpu receives packets to 100pps

```
[GPON]cpu-car 100
```

2.2 Configuration Management

2.2.0 Save Configuration

After modified the configurations, you should save them so that these configurations can take effect next time it restarts. Use the following commands to save configurations.

Operation	Command	Remarks
Enter super user view	enable	
Save configurations	save current-config	

2.2.1 Erase Configurations

If you need to reset to factory default, you can use the following commands to erase all configurations. After erased, the device will reboot automatically.

Operation	Command	Remarks
Enter super user view	enable	
Erase configuration	clear save-config	

2.2.2 Execute save Configuration

Operation	Command	Remarks
Enter super user view	enable	
Execute save configuration	update current-config	

2.2.3 Show save Configurations

Use the following command to display the configurations you have saved.

Operation	Command	Remarks
Show configuration	display save-config [<i>module-list</i>]	

【Example】

! Display all contents of the configuration file

```
<GPON>display save-config
```

! Display the contents of GARP and OAM modules in the configuration file

```
<GPON>display save-config garp oam
```

2.2.4 Show Running Configurations

Operation	Command	Remarks
Show running configurations	display current-config [<i>module-list</i>] [perlines <i>num</i>]	

【Example】

! Display all configuration information

```
<GPON>display current-config
```

! Display configuration information for vlan

```
<GPON>display current-config vlan
```

2.3 Load Files and Upgrade Programs Online

2.3.1 Upload and Download Files by TFTP

Operation	Command	Remarks
Enter super user view	enable	
upload files	upload { configuration info-center } tftp <i>tftpserver-ip filename</i>	configuration is the system save configuration file. info-center is the system log file
download file	load { configuration host bootrom cpld-image http { private-key server-certificate } ont-image } tftp <i>tftpserver-ip filename</i>	configuration is the system save configuration file. application is the device upgrade host program. whole-bootrom is the bootrom program for the device

tftpserver-ip is the IP address of the TFTP server, and filename is the name of the file to be uploaded. Before entering the command, open the TFTP server and set the destination path for the file upload.

【Example】

! Upload the configuration file by TFTP and name the configuration file config.txt

```
<GPON>upload configuration tftp 192.168.1.100 config.txt
```

After the upload is successful, the file config.txt in the computer with the IP address of 192.168.1.100 saves the current configuration.

! Download the configuration file config.txt by TFTP,

```
<GPON>load configuration tftp 192.168.1.100 config.txt
```

After downloading successfully and restarting the system, the system will use the new configuration file config.txt

! Upload the log file by TFTP and name the log file log.txt

```
<GPON>upload info-center tftp 192.168.1.100 log.txt
```

! Download the upgrade file host.bin by TFTP

```
<GPON>load host tftp 192.168.1.100 host.bin
```

After downloading successfully and restarting the system, host.bin will run.

! Download the bootrom program boot.bin by TFTP

```
<GPON>load bootrom tftp 192.168.1.100 boot.bin
```

2.3.2 Upload and Download Files by FTP

Operation	Command	Remarks
Enter super user view	enable	
upload files	upload { configuration info-center } ftp <i>ftpserver-ip filename username password</i>	
download file	load { configuration host bootrom cpld-image http { private-key server-certificate } ont-image } ftp <i>ftpserver-ip filename username password</i>	

ftpserver-ip is the IP address of the FTP server, and filename is the name of the file to be uploaded. username and userpassword are the username and password set in the FTP server. Before entering the command, you should open the FTP server, and set the user name, password, and the destination path of the file upload.

【Example】

! Upload the configuration file by FTP and name the configuration file config.txt

```
<GPON>upload configuration ftp 192.168.1.100 config.txt admin 123
```

! Download configuration files by FTP

```
<GPON>load configuration ftp 192.168.1.100 config.txt admin 123
```

! Download the upgrade file host.bin by ftp

```
<GPON>load host ftp 192.168.1.100 host.bin admin 123
```

! Upload the log file by FTP and name the log file log.txt

```
<GPON>upload info-center ftp 192.168.1.100 log.txt admin 123
```

! Download the bootrom program boot.bin by FTP

```
<GPON>load bootrom ftp 192.168.1.100 boot.bin admin 123
```

2.3.3 Download Files by Xmodem

Operation	Command	Remarks
Enter super user view	enable	
download file	load { configuration host bootrom } xmodem	

After entering the command, select "Transfer" ->"Send File" in the HyperTerminal menu, and enter the full path and file name of the file in the "File Name" column of the "Send File" dialog box that pops up, and the "Protocol" drop-down Select Xmodem in the list, and then click the [Send] button.

【Example】

! Download the host program by Xmodem

```
<GPON>load application xmodem
```

2.4 Reboot OLT

Operation	Command	Remarks
Enter super user view	enable	
Restart the GPON immediately	reboot	
Enter system view	system-view	
Auto restart at specified time	auto-reboot { in { minutes <i>min</i> hours <i>hour</i> } at { YYYY/MM/DD	

	<i>hh:mm:ss hh:mm:ss daily </i> <i>hh:mm:ssweekday weekly }</i>	
Cancel scheduled automatic restart	undo auto-reboot	

【Example】

! Set to restart at 03:30:30 on May 15, 2020

[GPON]auto-reboot at 03:30:30 2020/05/15

! Set to restart at 03:30:30 every Monday morning

[GPON]auto-reboot at 03:30:30 mon weekly