

GCC602x CLI Guide

INTRODUCTION

The GCC6000 series can be managed either locally or remotely, which provides flexibility through both Web access and Command Line Interface (CLI), all within secured login sessions. Users can choose between the intuitive Web GUI or the Command Line via SSH for system configuration and operation.

SSH (Secure Shell) is a secure protocol used to connect to remote devices through a command-line and text-based interface. After successful authentication, all commands entered in the terminal are transmitted to and executed on the remote device.

This guide focuses on managing the GCC6000 series using the Command Line, demonstrated with the PuTTY tool as the SSH client console.

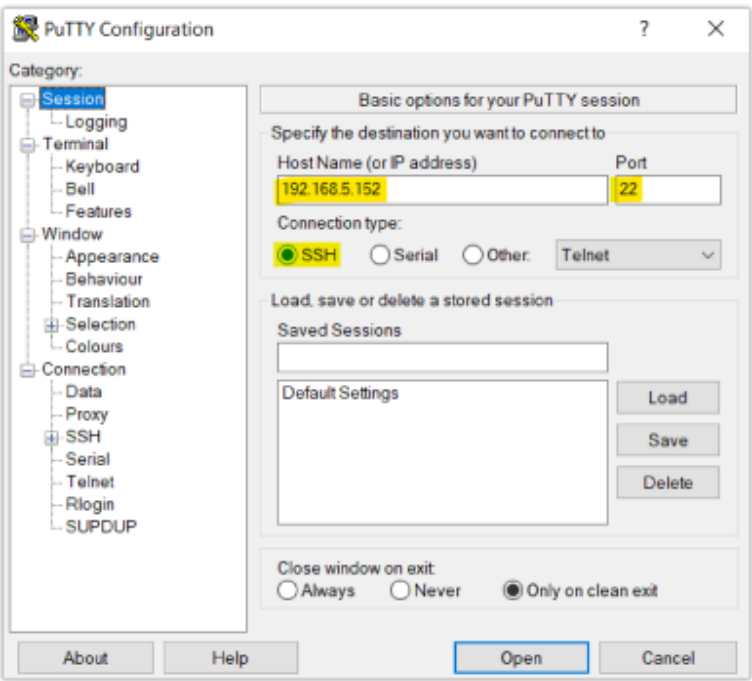
CONNECTING TO THE DEVICE

Connect using SSH

Secure Shell (SSH) provides both secure authentication and secure communications to the CLI. The first step to do is to run the SSH client application (PuTTY in our case) and set the following:

- **Host Name or IP Address:** GCC6000 series’s IP Address, (example: 192.168.5.152).
- **Port:** 22, this is the default port for the SSH protocol.
- **Connection type:** Set this to SSH

The settings should be similar to the following figure:



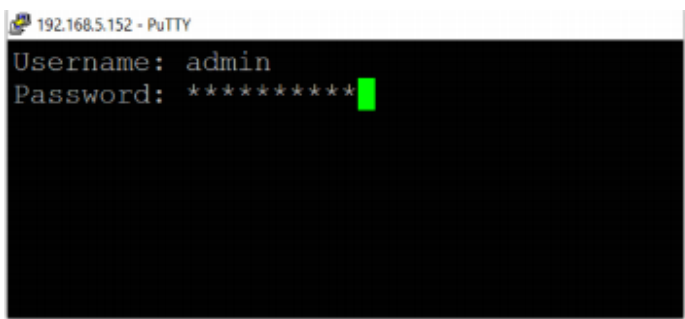
Putty SSH Configuration

Once done, you can press **Open** to start the SSH session and open the console.

Once pressing **Open** to start the session, the login prompt will appear on the CLI. Enter the Username and the Password to log in.

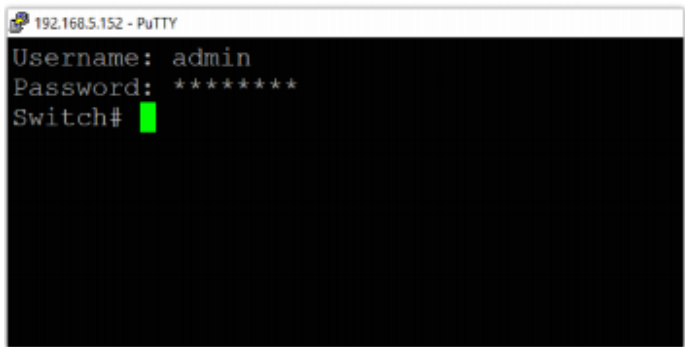
Note

If this is the first login or there are no users created yet, the default username is “admin” and the password is printed on the device sticker



CLI Login

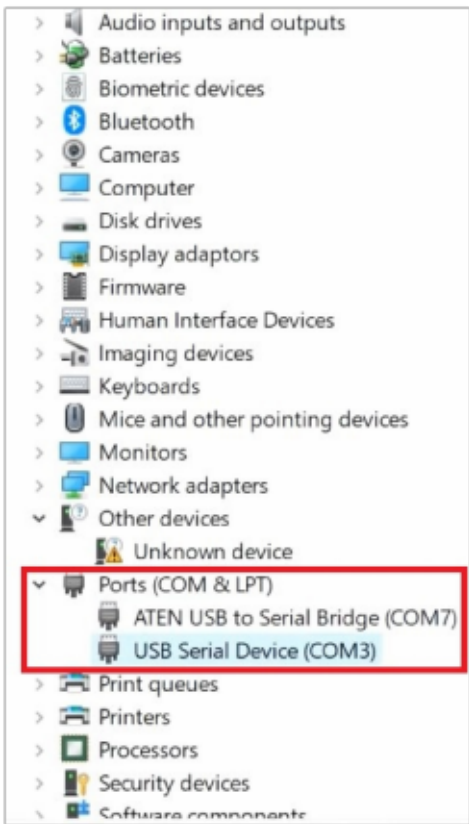
After clicking “Enter”, the user should now have access to the device.



Successful login

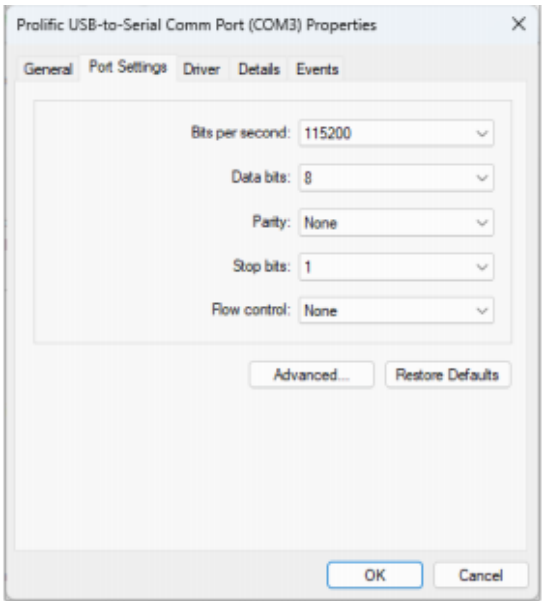
Connect using the Console port

First, connect the GCC device with the computer using the console port on the device, then in device manager (example: Windows) under ports, check which Serial line (ex, COM3, COM7 ...) has been used. Please refer to the figure below:



Windows Device Manager

Then, **left click on the port used (USB Serial Device (COM3)) → Properties → Port Settings** and make sure to match the port settings as shown below:

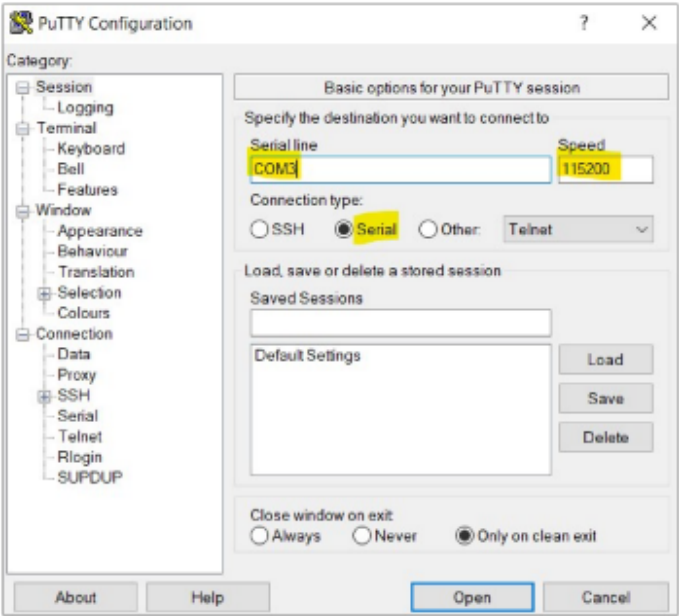


Port Settings Console

We can use PuTTY again to connect to the GCC device. Please use the following configuration:

- **Serial line:** Use the same serial line previously checked on the device manager.
- **Connection type:** select Serial.
- **Speed:** Set speed to 115200

Once finished, click on the “**Open**” button at the bottom to open the CLI.



PuTTY Console configuration

Note

Once the user establishes the connection with the device, below are all the commands to view, configure, and manage the GCC602x series.

SPECIAL FEATURE

Semi-Affair config system

When configuring the CLI in a sub-mode under global configuration mode, such as the vlan interface configuration mode, the wan interface configuration mode and etc, the detailed configuration changes will be applied as a whole unit for that sub-mode only when you exit that sub-mode.

In other words, the system attempts to commit all the configuration changes made within the sub-mode at once, upon exiting. Suppose any part of the configuration is incorrect or fails. In that case, the entire set of changes within that sub-mode will not be applied, ensuring consistency and preventing partial configurations from being activated.

This approach helps manage complex configurations effectively by grouping related settings and applying them together, thus minimizing potential errors and simplifying troubleshooting.

Basic Operation Guidance

question mark<?>	Type in any location<?>key for detailed online help information.
Normal buttons	· If the matching keyword is not unique, press<Tab>key, and the system will cycle through all keywords that begin with the input string.
Backspace key<Backspace>	Delete the character before the cursor position and move the cursor forward
Left cursor key<←>	Move the cursor one character position to the left
Right cursor key<→>	Move the cursor one character position to the right
Up cursor key<↑>	Access the previous history command
Down cursor key<↓>	Access the next history command

<Tab>key	After entering an incomplete keyword, press the <Tab>key, and the system automatically completes the keyword:
	· If the matching keyword is unique, the system will replace the original input with this complete keyword and display it on a new line.
	After entering an incomplete keyword, press the <Tab>key, the system automatically completes the keyword:
	· If there is no matching keyword, the system will not make any changes and will re-wrap the original input.

OVERVIEW

Configure

Command: configure

Mode: Privileged Exec Mode

Parameter: none

Description: Enter global configuration mode

Example:

```
GCC6021 # configure
GCC6021 (config) #
```

End

Command: end

Mode: none

Parameter: none

Description: Return directly to privileged EXEC mode in other configuration modes except user mode

Example:

```
GCC6021# configure

GCC6021 (config) # interface Ethernet NET3

GCC6021 (interface-Ethernet-NET3) # end

GCC6021#
```

Exit

Command: exit

Mode: none

Parameter: none

Description: Deploy the configuration of this view (if it exists) and return to the parent view

Example:

```
GCC6021# configure

GCC6021(config)#interface Ethernet NET3

GCC6021(interface-Ethernet-NET3)# exit

GCC6021(config)# exit

GCC6021#
```

System messages

Check the basic information of the device

Command: show system basic-info

Mode: Privileged Exec Mode

Parameter:

Parameter	Description
System Name	device name
Device model	Production model(such as GCC6021)
Hardware Version	hardware version
Firmware Version	Software version/system version
MAC Address	MAC address
PN Series number	PN serial number
SN Series number	SN serial number
Uptime	run time
System Time	System time
LAN IP(Default)	The ip address of the default LAN.
Subnet Mask	Subnet Mask

Description: Check the basic information of the device

Example:

```
View basic information
GCC6021# show system basic-info
  System Name      : GCC6021
  Device model     : GCC6021
  Hardware Version : V1.1A
  Firmware Version : 1.0.0.1
  MAC Address      : EC:74:D7:78:B6:14
  Part Number      : 9640014911A
  Series Number    : 3510539DA0
  Boot Version     : 1.0.0.2
  Uptime           : 3:03
  System Time      : 2025-03-14 04:51:01 CDT
```

ETHERNET SERVICE

Basic port configuration

Start port configuration

Command:

1. **interface Ethernet ETH-IFNAME**

Mode: global configuration mode

Parameter:

Parameter	Description
ETH-IFNAME	Interface name(e.g. NET1)

Description: Enter the Ethernet interface configuration mode.

Note

use “?” to display help information, input the exact name to specify the port.

Example:

```
GCC6021#config
GCC6021(config)# interface Ethernet
  ETH-IFNAME      Interface name(e.g. NET1)
    |name      |role
    NET1       LAN
    NET2       LAN
    NET3       LAN
    NET4       LAN
    NET5       LAN
    NET6       LAN
    NET7       LAN
    NET8       LAN
    NET9       LAN
    NET10      LAN
    NET11      LAN
    NET12      LAN
    NET13      LAN
    NET14      LAN
    NET15      LAN
    NET16      WAN
    NET17      LAN
    NET18      LAN
    NET19      WAN
    NET20      WAN
    NET21      LAN
    NET22      LAN
    NET23      LAN
    NET24      LAN
    SFP25      LAN
    SFP26      LAN
    SFP27      LAN
    SFP28      WAN
    HA1        HA
    HA2        HA
    MGMT       MGMT
GCC6021(config)# interface Ethernet NET3
GCC6021(interface-Eth-NET3)#
```

Open/close the port

Command:

- 1. **No shutdown**
- 2. **shutdown**

Mode: Ethernet interface configuration mode

Parameter: none

Description: Open/close the port

Example:

```
close port NET3
GCC6021# config
GCC6021(config)# interface Ethernet NET3
GCC6021(interface-Eth-NET3)# shutdown
GCC6021(interface-Eth-NET3)# exit
The command completed successfully.
open port NET3
GCC6021# config
GCC6021(config)# interface Ethernet NET3
GCC6021(interface-Eth-NET3)# no shutdown
GCC6021(interface-Eth-NET3)# exit
The command completed successfully.
```

Configure the port rate and duplex mode

Command:

speed-duplex MODE

Mode: Ethernet interface configuration mode

Parameter:

Parameter	Description
MODE	Choose a speed/duplex combination to input

Description: Configure port speed and duplex mode.

Example:

```
GCC6021# config
GCC6021(config)# interface Ethernet NET3
GCC6021(interface-Eth-NET3)# speed-duplex
    MODE  Choose a speed/duplex combination to input
    AUTO
    10M/HALF
    10M/FULL
    100M/HALF
    100M/FULL
    1G/FULL
GCC6021(interface-Eth-NET3)# speed-duplex AUTO
GCC6021(interface-Eth-NET3)# exit
The command completed successfully.
```

View port information

Command:

- 1. show interface Ethernet brief

- 2. show interface Ethernet ETH-IFNAME
- 3. show interface Ethernet all

Mode: Privileged Exec Mode

Parameter:

Parameter	Description
ETH-IFNAME	Interface name(e.g. NET1)

Description: View port information

Example:

```
GCC6021# show interface Ethernet brief
Interface|Link status|Enable      |Phy-type|Role|Speed      |Flow control
NET1      Down      Yes       GE      LAN  AUTO      Auto
NET2      Down      Yes       GE      LAN  AUTO      Auto
NET3      Down      Yes       GE      LAN  AUTO      Auto
NET4      Down      Yes       GE      LAN  AUTO      Auto
NET5      Down      Yes       GE      LAN  AUTO      Auto
NET6      Down      Yes       GE      LAN  AUTO      Auto
NET7      Down      Yes       GE      LAN  AUTO      Auto
NET8      Down      Yes       GE      LAN  1G/FULL    Auto
NET9      Down      Yes       GE      LAN  AUTO      Auto
NET10     Up        Yes       GE      LAN  1G/FULL    Auto
NET11     Down      Yes       GE      LAN  AUTO      Auto
NET12     Down      Yes       GE      LAN  AUTO      Auto
NET13     Down      Yes       GE      LAN  AUTO      Auto
NET14     Up        Yes       GE      LAN  1G/FULL    Auto
NET15     Down      Yes       GE      LAN  AUTO      Auto
NET16     Up        Yes       GE      WAN  1G/FULL    Auto
NET17     Down      Yes       2.5G GE  LAN  AUTO      Auto
NET18     Down      Yes       2.5G GE  LAN  AUTO      Auto
NET19     Down      Yes       2.5G GE  WAN  AUTO      Disable
NET20     Down      Yes       2.5G GE  LAN  AUTO      Disable
NET21     Down      Yes       2.5G GE  LAN  AUTO      Auto
NET22     Down      Yes       2.5G GE  WAN  AUTO      Auto
NET23     Down      Yes       2.5G GE  LAN  AUTO      Disable
NET24     Down      Yes       2.5G GE  LAN  AUTO      Disable
SFP25     Down      Yes       10G SFP  LAN  AUTO      Auto
SFP26     Down      Yes       10G SFP  LAN  AUTO      Auto
SFP27     Up        Yes       10G SFP  LAN  1G/FULL    Auto
SFP28     Down      Yes       10G SFP  WAN  10G/FULL   Auto
HA1       Down      Yes       GE       HA   AUTO      Auto
HA2       Down      Yes       GE       HA   AUTO      Auto
MGMT      Down      Yes       GE       MGMT AUTO      Auto
```

```
GCC6021# show interface Ethernet NET16
Interface Ethernet NET16:
  Link status      : Up
  Enable           : Yes
  Physical type    : Gigabit Ethernet
  Speed/Duplex:    : 1 Gbps / Full Duplex
  Flow control:    : Auto
  POE info         :
    Supply mode    : Active PoE(802.3af/at)
    Voltage        : 53.90V
    Current        : 0.00mA
    Power          : 0.00W
    Temperature    : 45.00°C
    Supply status  : Off
  POE info         :
    Supply mode    : NONE
    Voltage        : 0.0V
    Current        : 0.0mA
    Power          : 0.00W
    Temperature    : 0.0°C
    Supply status  : Abnormal
  Network role:    : WAN
  WAN info         :
    Wan id         : wan2
    Wan name       : WAN3
    IPv4 address   : 192.168.103.161
    IPv4 netmask   : 255.255.255.0
    Gateway        : 192.168.103.1
    First dns      : 192.168.103.1
    Internet status : Online
    Gateway status : Online
```

VLAN

VLAN Basics

Configure Trunk mode VLAN(there is the default mode trunk, which is the only mode in CLI phase-A)

Command:

1. **switchport trunk allowed vlan** <add|remove> <VLAN-LIST|all>
2. **switchport trunk native vlan** <1-4094> **Mode:** Ethernet interface configuration mode

Parameter:

Parameter	Description
add/remove	Configure the port link type as Trunk to add /remove vlan
VLAN-LIST/all	The range of the VLAN list is 1-4094 or all VLANs
<1-4094>	Configure the PVID range of the port to be 1-4094

Description:

1. **switchport trunk allowed vlan** command configures the VLANs added /removed by the trunk port
2. **switchport trunk native vlan** command configures the PVID of the trunk port

Example:

```
GCC6021# configure
GCC6021(config)# interface vlan 2
GCC6021(interface-vlan-2)# exit
The command completed successfully.
GCC6021(config)# interface Ethernet NET3
GCC6021(interface-Eth-NET3)# switchport trunk allowed vlan add 2
GCC6021(interface-Eth-NET3)# switchport trunk native vlan 1
GCC6021(interface-Eth-NET3)# exit
The command completed successfully.#
```

IP

VLAN interface

Create/delete VLAN interface

Command:

1. interface vlan VLAN-ID
2. no interface vlan VLAN-ID

Mode: global configuration mode

Parameter:

Parameter	Description
VLAN-ID	(1-4094) VLAN interface number

Description:

If the VLAN ID exists, use command no.1 to edit the VLAN interface.

If the VLAN ID is new, use command no.1 to create a VLAN interface.

Use command no.2 to delete an existing VLAN interface.

Note: use “?” to display help information, input the exact VLAN ID, specify the configured VLAN interface.

Example:

```
GCC6021#config
GCC6021(config)# interface vlan
    VLAN-ID   (1-4094) VLAN interface number
    Configured vlans:
    |vlan-id|name
    1         Default
    2         TestVlan2Name
    3         VLAN 3
GCC6021(config)# interface vlan 3
GCC6021(interface-vlan-3)# exit
The command completed successfully.
GCC6021(config)# interface vlan 4
GCC6021(interface-vlan-4)# exit
The command completed successfully.
GCC6021(config)# no interface vlan
    VLAN-ID   (1-4094) VLAN interface number
    Configured vlans:
    |vlan-id|name
    1         Default
    2         TestVlan2Name
    3         VLAN 3
    4         VLAN 4
GCC6021(config)# no interface vlan 4
The command completed successfully.
```

Configure the firewall destination group of the VLAN interface

Command:

- 1. forward-destination add <FIREWALL-ZONE|all>
- 2. forward-destination remove <FIREWALL-ZONE|all>

Mode: Vlan Interface Configuration Mode

Parameter:

Parameter	Description
FIREWALL-ZONE	Specify the firewall zone(s). e.g. zone0,zone1,zone3
all	All zones. (If all zones are removed, permit forwarding to all WANs in default.)

Description: Add and remove the firewall destination zone group of the VLAN interface.

Example:

```
GCC6021# configure
GCC6021(config)# interface vlan 2015
GCC6021(interface-vlan-2015)# forward-destination remove all
GCC6021(interface-vlan-2015)# forward-destination add zone1,zone2015,zone2020
GCC6021(interface-vlan-2015)# exit
The command completed successfully.
GCC6021(config)# exit
```

Set the name of the VLAN interface

Command: name NAME

Mode: Vlan Interface Configuration Mode

Parameter:

Parameter	Description
NAME	Vlan name(0-64 bytes)

Description: Set the name of the VLAN interface.

Example:

```
GCC6021# config
GCC6021(config)# interface vlan 2
GCC6021(interface-vlan-2)# name TestVlan2Name
GCC6021(interface-vlan-2)# exit
The command completed successfully.
GCC6021(config)#
```

Configure IPv4 address of VLAN interface

Command:

ip address A.B.C.D netmask A.B.C.D

Mode: Vlan Interface Configuration Mode

Parameter:

Parameter	Description
A.B.C.D	Ip address

Description:

Sets the management IPv4 address of the VLAN interface.

Example:

```
GCC6021# config
GCC6021(config)# interface vlan 2
GCC6021(interface-vlan-2)#
GCC6021(interface-vlan-2)# ip address 192.168.102.1 netmask 255.255.255.0
GCC6021(interface-vlan-2)# exit
The command completed successfully.
GCC6021(config)#
```

Disable the IPv4 configuration of the VLAN interface

Command:

no ip address

Mode: VLAN interface configuration mode

Parameter: none

Description: Disable the IPv4 configuration of the VLAN interface

Example:

```
GCC6021#config

GCC6021(config)#interface vlan 2

GCC6021(interface-vlan-2)#no ip address
```

Configure DHCP server pool of VLAN interface

Command: ip dhcp server pool

Mode: Vlan interface configuration mode

Parameter: none

Description: Enter the DHCP configuration mode, and start configuring DHCP server pool features.

Example:

```
GCC6021#config

GCC6021(config)# interface vlan 2

GCC6021(interface-vlan-2)# ip dhcp server pool

GCC6021(interface-vlan-2-dhcp)#
```

Disable the DHCP server pool configuration of the VLAN interface

Command: no ip dhcp server pool

Mode: vlan interface configuration mode

Parameter: none

Description: Disable the DHCP server pool configuration of the VLAN IPv4 interface

Example:

```
GCC6021#config

GCC6021(config)#interface vlan 2

GCC6021(interface-vlan-2)#no ip dhcp server pool
```

Set the gateway of the DHCP server pool under VLAN interface

Command: gateway A.B.C.D

Mode: DHCP configuration mode under the VLAN interface

Parameter:

Parameter	Description
A.B.C.D	gateway address

Description: Set the gateway of the DHCP server pool under VLAN interface

Example:

```
GCC6021#config
GCC6021(config)# interface vlan 2
GCC6021(interface-vlan-2)# ip dhcp server pool
GCC6021(interface-vlan-2-dhcp)# gateway 192.168.102.1
```

Set IPv4 address allocation range of the DHCP server pool under VLAN interface

Command: ip range A.B.C.D A.B.C.D

Mode: DHCP configuration mode under the vlan interface

Parameter:

Parameter	Description
A.B.C.D	IPv4 address

Description: Set IPv4 Address Allocation Range of the DHCP server pool, under the VLAN interface.

Example:

```
GCC6021#config
GCC6021(config)# interface vlan 2
GCC6021(interface-vlan-2)# ip dhcp server pool
GCC6021(interface-vlan-2-dhcp)# ip-range ip-range 192.168.102.1 192.168.102.254
```

Set the release time of the DHCP server pool under the VLAN interface

Command: lease (60-2880)

Mode: DHCP configuration mode under the vlan interface

Parameter:

Parameter	Description
(60-2880)	minutes

Description:

Set the release time of the DHCP server pool under the VLAN interface. The default value is 120(minutes).

Example:

```
GCC6021#config
GCC6021(config)# interface vlan 2
GCC6021(interface-vlan-2)# ip dhcp server pool
GCC6021(interface-vlan-2-dhcp)# lease 120
```

Set dns servers of the DHCP server pool under VLAN interface

Command: dns-list A.B.C.D [A.B.C.D]

Mode: DHCP configuration mode under the VLAN interface

Parameter:

Parameter	Description
A.B.C.D	Preferred DNS Server
[A.B.C.D]	Alternative DNS Server(optional)

Description:

Set dns servers of the DHCP server pool, under the VLAN interface.

Example:

```
GCC6021#config
GCC6021(config)# interface vlan 2
GCC6021(interface-vlan-2)# ip dhcp server pool
GCC6021(interface-vlan-2-dhcp)# dns-list 192.168.183.1 114.114.114.114
```

View VLAN interface information

Command:

- 1. show interface vlan VLAN-ID
- 2. show interface vlan all

Mode: Privileged Exec Mode

Parameter:

Parameter	Description
VLAN-ID	(1-4094) VLAN interface number

Description: View vlan interfaces information

Example:

```
GCC6021# show interface vlan 1

interface vlan 1
  Name           : Default
  IPv4 Enable    : Yes
  IPv4 Address   : 192.168.80.1
  IPv4 Netmask   : 255.255.255.0
  IPv4 Dhcp Server : On
    Gateway      : 192.168.80.1
    Address range : 192.168.80.2-192.168.80.254
    Lease        : 120
```

WAN interface

Create/delete WAN interface

Command:

- 1. interface wan WAN-ID
- 2. no interface wan WAN-ID
- 3. interface wan new

Mode: global configuration mode

Parameter:

Parameter	Description
WAN-ID	Specify by the WAN id.(e.g. wan0)

Description:

Use command no.1 to edit the WAN interface.

Use command no.3 to create a WAN interface.

Use command no.2 to delete an existing WAN interface.

Note: Use “?” to display help information, input the exact WAN ID to specify the configured WAN interface.

Example:

```
#edit WAN
GCC6021(config)# interface wan
  WAN-ID Specify by the WAN id.(e.g. wan0)
  Configured Wans:
    |WAN-id |name (Eth-if-name)
  wan0      |WAN name (SFP28)
  wan1      |WAN1 (NET19)
  wan2      |WAN3 (NET16)
  wan3      |WAN4 (NET20)
  new       Create an new WAN.
GCC6021(config)# interface wan wan3
GCC6021(interface-wan-wan3)# exit
The command completed successfully.
GCC6021(config)# exit
GCC6021#

#delete WAN
GCC6021(config)# no interface wan
  WAN-ID Specify by the WAN id.(e.g. wan0)
  Configured Wans:
    |WAN-id |name (Eth-if-name)
  wan0      |WAN name (SFP28)
  wan1      |WAN1 (NET19)
  wan2      |WAN3 (NET16)
  wan3      |WAN4 (NET20)
GCC6021(config)# no interface wan wan3
The command completed successfully.
GCC6021(config)# exit
GCC6021#

#create an new WAN
GCC6021# configure
GCC6021(config)# interface wan new
GCC6021(interface-wan-new)# interface Ethernet NET22
GCC6021(interface-wan-new)# name WAN5
GCC6021(interface-wan-new)# exit
The command completed successfully.
GCC6021(config)# exit
GCC6021#
```

Open/close the WAN interface

Command:

- 1. no shutdown
- 2. shutdown

Mode: WAN interface configuration mode

Parameter: none

Description: Open/close the WAN interface

Example:

```
#close interface wan wan1
GCC6021# configure
GCC6021(config)# interface wan wan1
GCC6021(interface-wan-wan1)# shutdown
GCC6021(interface-wan-wan1)# exit
The command completed successfully.
GCC6021(config)# exit
GCC6021#

#open interface wan wan1
GCC6021(config)# interface wan wan1
GCC6021(interface-wan-wan1)# no shutdown
GCC6021(interface-wan-wan1)# exit
orig ipv4 type 0, new ipv4 type 0
The command completed successfully.
GCC6021(config)# exit
GCC6021#
```

Set the name of the WAN interface

Command: name NAME

Mode: WAN interface Configuration Mode

Parameter:

Parameter	Description
NAME	Wan name(1-64 characters)

Description: Set the name of the WAN interface.

Example:

```
GCC6021# config
GCC6021(config)# interface wan wan3
GCC6021(interface-wan-wan3)# name WAN3test
GCC6021(interface-wan-wan3)#
```

Select the port of the WAN interface

Command:

interface Ethernet ETH-IFNAME

Mode: WAN interface Configuration Mode

Parameter:

Parameter	Description
ETH-IFNAME	Interface name(e.g. NET1)

Description: Select the port of this WAN interface

Note: use “?” to display help information, input the exact name to specify the port.

```
GCC6021#config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# interface Ethernet NET24
```

Configure the type of IPv4 address of the WAN interface

Command:

ip address-type <static|dhcp-client|pppoe>

Mode: WAN interface Configuration Mode

Parameter:

Parameter	Description
static	Static address
dhcp-client	Obtain the address as a DHCP client
pppoe	Obtain the address through the PPPoE

Description: Select the IP address type of this WAN interface, and continue to configure specific contents in the corresponding sub-mode.

Example:

```
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# ip address-type
    dhcp-client    Obtain address as a dhcp client
    pppoe          Obtain address through the pppoe
    static         Static address
GCC6021(interface-wan-wan2)# ip address-type pppoe
GCC6021(interface-wan-wan2-ip-pppoe)# exit
GCC6021(interface-wan-wan2)# ip address-type static
GCC6021(interface-wan-wan2-ip-static)# exit
GCC6021(interface-wan-wan2)# ip address-type dhcp-client
GCC6021(interface-wan-wan2-ip-dhcp-client)# exit
GCC6021(interface-wan-wan2)#
```

Configure static IPv4 address mode of the WAN interface

Set the static IPv4 address of the WAN interface

Command:

ip address A.B.C.D netmask A.B.C.D gateway A.B.C.D

Mode: ip static mode under the WAN interface

Parameter:

Parameter	Description
A.B.C.D	IPv4 address

Description: Set the static IPv4 address of the WAN interface

Example:

```
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# ip address-type static
GCC6021(interface-wan-wan2-ip-static)# ip address 192.168.102.107 netmask 255.255.255.0 gateway
192.168.102.1
```

set static ipv4 dns servers of WAN interface

Command: dns-list A.B.C.D[A.B.C.D]

Mode: IP static mode under WAN interface

Parameter:

Parameter	Description
A.B.C.D	Preferred DNS Server
[A.B.C.D]	Alternative DNS Server(optional)

Description: Set dns servers of the DHCP server pool, under the VLAN interface.

Example

```
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# ip address-type static
GCC6021(interface-wan-wan2-ip-static)# dns-list 114.114.114.114 8.8.8.8
```

Configure dhcp client mode of WAN interface

Configure dns servers of dhcp client mode under WAN interface

Command: dns-list <dynamic|A.B.C.D [A.B.C.D]>

Mode: dhcp client mode under WAN interface

Parameter:

Parameter	Description
dynamic	Dynamic server
A.B.C.D	Preferred DNS Server
[A.B.C.D]	Alternative DNS Server(optional)

Description: Configure the DNS server as a DHCP client, either be dynamic DNS server or set static DNS server(s). The default is dynamic mode.

Example:

```
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# ip address-type dhcp-client
GCC6021(interface-wan-wan2-ip-dhcp-client)# dns-list 114.114.114.114 8.8.8.8
```

Configure PPPoE mode of WAN interface

Configure PPPoE authentication info of the WAN interface

Command: pppoe account ACCOUNT password PASSWORD

Mode: PPPoE mode under the WAN interface

Parameter:

Parameter	Description
ACCOUNT	Account (1-64 characters)
PASSWORD	Password (1-64 characters))

Description:

Configure PPPoE authentication info of WAN interface

Example:

```
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# ip address-type pppoe
GCC6021(interface-wan-wan2-ip-pppoe)# pppoe account ACCOUNT password PASSWORD
```

Configure PPPoE service name of WAN interface

Command: pppoe service SERVICE

Mode: PPPoE mode under WAN interface

Parameter:

Parameter	Description
SERVICE	Service (1-64 characters)

Description:

Configure the PPPoE service name of the WAN interface

Example:

```
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# ip address-type pppoe
GCC6021(interface-wan-wan2-ip-pppoe)# pppoe service SERVICE
```

Configure dns servers of PPPoE mode under WAN interface

Command: dns-list <dynamic|A.B.C.D [A.B.C.D]>

Mode: PPPoE mode under WAN interface

Parameter:

Parameter	Description
dynamic	Dynamic server
A.B.C.D	Preferred DNS Server
[A.B.C.D]	Alternative DNS Server(optional)

Description:

Configure the DNS server of the PPPoE mode, either be dynamic DNS server or set static DNS server(s).

The default is dynamic mode.

Example:

```
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# ip address-type pppoe
GCC6021(interface-wan-wan2-ip-pppoe)# dns-list 114.114.114.114 8.8.8.8
GCC6021(interface-wan-wan2)# ip address-type dhcp-client
GCC6021(interface-wan-wan2-ip-dhcp-client)# dns-list 114.114.114.114 8.8.8.8
```

Configure the connection detection mode of WAN interface

Command:

- 1. connection-detect
- 2. no connection-detect

Mode: WAN interface Configuration Mode

Parameter: none

Description:

- 1. Enable and configure the connection detection mode of WAN interface
- 2. Disable connection detection of WAN interface

Example:

```
# Enable and configure connection detecting mode of WAN interface
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# connection-detect
GCC6021(interface-wan-wan2-connect-detect)#

# Disable connection detecting of WAN interface
GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# no connection-detect
```

Configure track ip of connection detecting of WAN interface

Command:

tracking-ip <default|A.B.C.D [A.B.C.D [A.B.C.D [A.B.C.D [A.B.C.D [A.B.C.D [A.B.C.D [A.B.C.D]]]]]]>

Mode: Connection detecting mode under WAN interface

Parameter:

Parameter	Description
default	Default mode.
A.B.C.D	Tracking-ip format is A.B.C.D where (A/B/C/D = 0 ~ 255). Up to 8 ones can be specified

Description:

Specify the tracking IP of the WAN interface. Either by default of the IP list.

Example:

```

GCC6021# config
GCC6021(config)# interface wan wan2
GCC6021(interface-wan-wan2)# connection-detect
GCC6021(interface-wan-wan2-connect-detect)# tracking-ip 192.168.122.1 8.8.8.8

```

View wan interfaces information

Command:

- 1. show interface wan WAN-ID
- 2. show interface wan all

Mode: Privileged Exec Mode

Parameter:

Parameter	Description
WAN-ID	Specify by the WAN id.(e.g. wan0)

Description: View the WAN interface’s information

Example:

```
GCGCC6021# show interface wan wan2
Interface wan wan2:
  Name           : WAN3
  Enable         : Yes
  Ethernet interface : NET16
  IPv4 type      : DHCP-client
  IPv4 Status    : Connected
  IPv4 Address   : 192.168.103.161
  IPv4 Netmask   : 255.255.255.0
  IPv4 Gateway   : 192.168.103.1
  VRRP Enable    : Yes
  VRRP Name      : VRRP 200
  VRRP Id        : 200
```

```
GCC6021# show interface wan all
Interface wan wan0:
  Name           : WAN name
  Enable         : Yes
  Ethernet interface : SFP28
  IPv4 type      : Static
  IPv4 Status    : Disconnected
  IPv4 Address   : -
  IPv4 Netmask   : -
  IPv4 Gateway   : -
  VRRP Enable    : No
```

```
Interface wan wan2:
  Name           : WAN3
  Enable         : Yes
  Ethernet interface : NET16
  IPv4 type      : DHCP-client
  IPv4 Status    : Connected
  IPv4 Address   : 192.168.103.161
  IPv4 Netmask   : 255.255.255.0
  IPv4 Gateway   : 192.168.103.1
  VRRP Enable    : No
```

```
Interface wan wan1:
  Name           : WAN1
  Enable         : Yes
  Ethernet interface : NET19
  IPv4 type      : DHCP-client
  IPv4 Status    : Disconnected
  IPv4 Address   : -
  IPv4 Netmask   : -
  IPv4 Gateway   : -
  VRRP Enable    : No
```

```
Interface wan wan3:
  Name           : WAN5
  Enable         : No
  Ethernet interface : NET22
  IPv4 type      : DHCP-client
  IPv4 Status    : Disconnected
  IPv4 Address   : -
  IPv4 Netmask   : -
  IPv4 Gateway   : -
  VRRP Enable    : No
```

```
GCC6021#
```

SYSTEM

Restart and view the running configuration

Reboot

Command: Reboot

Mode: privileged EXEC mode

Parameter: none

Description: reboot device

Example:

```
GCC6021 # reboot
```

View running configuration

Command: show running-config

Mode: privileged EXEC mode

Parameter: none

Description:

View the running configuration of the current View.

Example:

```
GCC6021# show running-config
```

Diagnose

Configuring Local Mirroring

Command:

- 1. mirror session Session-ID source interface Ethernet ETH-IFNAME
- 2. mirror session Session-ID destination interface Ethernet ETH-IFNAME
- 3. no mirror session Session-ID

Mode: System diagnose mode

Parameters:

Parameter	Description
Session-ID	Mirror group, value range: 1-3.
source	Source port (mirrored port).
<i>ETH-IFNAME</i>	Switch port numbers, including Ethernet ports and aggregate interfaces
destination	Destination port (observer port).

Description:

- 1. Specify the source interface of a mirror session.
- 2. Specify the destination interface of a mirror session.
- 3. Clear the mirror configuration of the specific mirror session

Only supported in GCC6021.

Example:

```
GCC6021#
GCC6021# configure
GCC6021(config)# system-diagnose
GCC6021(config-sysdiag)# mirror session
GCC6021(config-sysdiag)# mirror session 1 source interface Ethernet NET21
GCC6021(config-sysdiag)# mirror session 1 destination interface Ethernet NET22
GCC6021(config-sysdiag)# mirror show session
Session 1 Configuration
  Mirror Type : PORT MIRROR
  Source RX Port      : NET21
  Source TX Port      : NET21
  Destination port    : NET22
  Ingress State: enabled

Session 2 Configuration
  Source RX Port      : --
  Source TX Port      : --
  Destination port    : --
  Ingress State: disabled

Session 3 Configuration
  Source RX Port      : --
  Source TX Port      : --
  Destination port    : --
  Ingress State: disabled

GCC6021(config-sysdiag)# no mirror session 1
GCC6021(config-sysdiag)# mirror show session
Session 1 Configuration
  Source RX Port      : --
  Source TX Port      : --
  Destination port    : --
  Ingress State: disabled

Session 2 Configuration
  Source RX Port      : --
  Source TX Port      : --
  Destination port    : --
  Ingress State: disabled

Session 3 Configuration
  Source RX Port      : --
  Source TX Port      : --
  Destination port    : --
  Ingress State: disabled

GCC6021(config-sysdiag)# exit
GCC6021(config)# exit
GCC6021#
```

Viewing Mirror Group Configuration

Command:

mirror show session

Mode: System diagnose mode

Parameters:

Parameter	Description
Session-ID	Mirror group, value range: 1-3.

Description:

Check the configuration of the mirror group(s).

Only supported in GCC6021.

Example:

```
GCC6021#
GCC6021# configure
GCC6021(config)# system-diagnose
GCC6021(config-sysdiag)# mirror session
GCC6021(config-sysdiag)# mirror session 1 source interface Ethernet NET21
GCC6021(config-sysdiag)# mirror session 1 destination interface Ethernet NET22
GCC6021(config-sysdiag)# mirror show session
Session 1 Configuration
  Mirror Type : PORT MIRROR
  Source RX Port : NET21
  Source TX Port : NET21
  Destination port : NET22
  Ingress State: enabled

Session 2 Configuration
  Source RX Port : --
  Source TX Port : --
  Destination port : --
  Ingress State: disabled

Session 3 Configuration
  Source RX Port : --
  Source TX Port : --
  Destination port : --
  Ingress State: disabled

GCC6021(config-sysdiag)# no mirror session 1
GCC6021(config-sysdiag)# mirror show session
Session 1 Configuration
  Source RX Port : --
  Source TX Port : --
  Destination port : --
  Ingress State: disabled

Session 2 Configuration
  Source RX Port : --
  Source TX Port : --
  Destination port : --
  Ingress State: disabled

Session 3 Configuration
  Source RX Port : --
  Source TX Port : --
  Destination port : --
  Ingress State: disabled

GCC6021(config-sysdiag)# exit
GCC6021(config)# exit
GCC6021#
```

Show the status of packet capture

Command:

Packet-capture show status

Mode: System diagnose mode

Parameters: None

Description:

Show the current status of capturing packets.

Note: The result file is automatically saved with the '.cap' extension.

Example:

```
GCC6021# configure
GCC6021(config)# system-diagnose
GCC6021(config-sysdiag)# packet-capture start test1602.cap network wan2 storage external sda limit none
The command completed successfully.
GCC6021(config-sysdiag)# packet-capture show status
  Packet capture status:
    Recent file name      : test1602.cap
    Started               : Yes
    Capturing             : Yes
    Limit                 : None
    Storage type          : USB

GCC6021(config-sysdiag)# exit
GCC6021(config)# exit
GCC6021#
```

Start packet capture

Command:

packet-capture start FILENAME network CAPTURE-ZONE storage external EXTERNAL-DEVICE limit <(1-1440)|none>

[filter <{protocol CAPTURE-PROTOCOL|ip A.B.C.D|mac YY:YY:YY:YY:YY:YY}>] [size (1-128)]

Mode: System diagnose mode

Parameters:

Parameter	Description
FILENAME	1-64 bytes. The result file is automatically saved with the '.cap' extension.
CAPTURE-ZONE	Network zone.
EXTERNAL-DEVICE	Specify protocol(e.g. tcp).Please input by help information.
(1-86400)	Seconds.
none	No limit
CAPTURE-PROTOCOL	(MB). The default is 20(MB).
A.B.C.D	IP Address format is A.B.C.D where (A/B/C/D = 0 ~ 255)
YY:YY:YY:YY:YY:YY	MAC address
(1-128)	(MB). Default is 20(MB).

Description:

Start capturing packets.

Note: Only one packet capture can be performed at the same time.

The file name of the capture result would be automatically saved with the '.cap' extension.

Example:

```
GCC6021# configure
GCC6021(config)# system-diagnose
GCC6021(config-sysdiag)# packet-capture start test1602 network wan2 storage external sda limit none
The command completed successfully.
GCC6021(config-sysdiag)# packet-capture show status
  Packet capture status:
    Recent file name      : test1602.cap
    Started               : Yes
    Capturing             : Yes
    Limit                 : None
    Storage type          : USB

GCC6021(config-sysdiag)# exit
GCC6021(config)# exit
GCC6021#
```

Stop packet capture

Command:

packet-capture stop

Mode: System diagnose mode

Parameters: None

Description:

Stop capturing packets.

Example:

```
GCC6021# configure
GCC6021(config)# system-diagnose
GCC6021(config-sysdiag)# packet-capture stop
GCC6021(config-sysdiag)# packet-capture show status
  Packet capture status:
    Recent file name      : test1602.cap
    Started               : No
    Capturing             : No
    Limit                 : None
    Storage type          : USB

GCC6021(config-sysdiag)# exit
GCC6021(config)# exit
GCC6021#
```

Show the output files of the packet capture

Command:

Packet-capture show files

Mode: System diagnose mode

Parameters: None

Description:

Start capturing packets.

Example:

```
GCC6021# configure
GCC6021(config)# system-diagnose
GCC6021(config-sysdiag)# packet-capture show files
USB captured packet files:
  File name : GCC6021_Capture_20250328064901_0.cap
  Modified Time : Fri Mar 28 19:49:08 2025
  Size       : 1523 bytes (1.49 KB)

  File name : GCC6021_Capture_20250328071607_0.cap
  Modified Time : Fri Mar 28 20:16:08 2025
  Size       : 632 bytes (0.62 KB)

  File name : test01041056.cap
  Modified Time : Thu Apr  3 10:58:28 2025
  Size       : 36037 bytes (35.19 KB)

  File name : test1602.cap
  Modified Time : Fri May  9 16:03:40 2025
  Size       : 31844 bytes (31.10 KB)

-----
GCC6021(config-sysdiag)# exit
GCC6021(config)# exit
GCC6021#
```

Show the external device info that can be used for packet capture

Command:

packet-capture show external

Mode: System diagnose mode

Parameters: None

Description:

Start capturing packets.

Example:

```
GCC6021# configure
GCC6021(config)# system-diagnose
GCC6021(config-sysdiag)# packet-capture show external
Device Name : sda
  Device type  : USB
  Mount Path   : /mnt/E631-6531
  Usable Size  : 9.098
GBGCC6021(config-sysdiag)# exit
GCC6021(config)# exit
GCC6021#
```

Change Log

This section highlights significant changes and updates in the GCC6000 series CLI Guide. Major feature additions and improvements are documented below. Minor updates for corrections or editing are not documented here.

Version 1.0.1.1

- This is the initial version.

Supported Devices

Supported Device	Fimrware
GCC6020	1.0.7.32+
GCC6021	1.0.7.32+



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