Draytek Telnet Commands for Vigor3300 Series

Reference Guide

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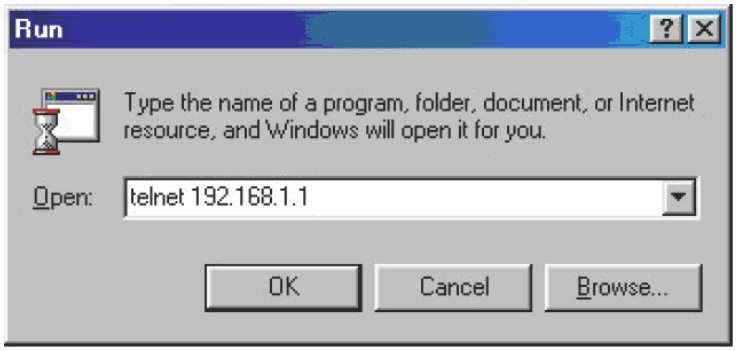
1. Introduction

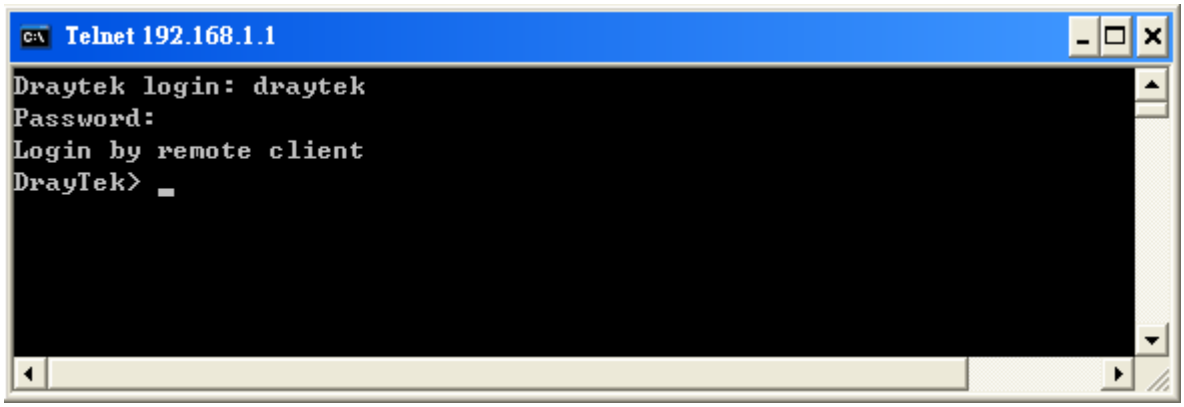
1.1 Accessing Telnet

Click **Start** >> **Run** and type **Telnet 192.168.1.1** in the Open box as below. Note that the IP address in the example is the default address of the router. If you have changed the default, enter the current IP address of the router.

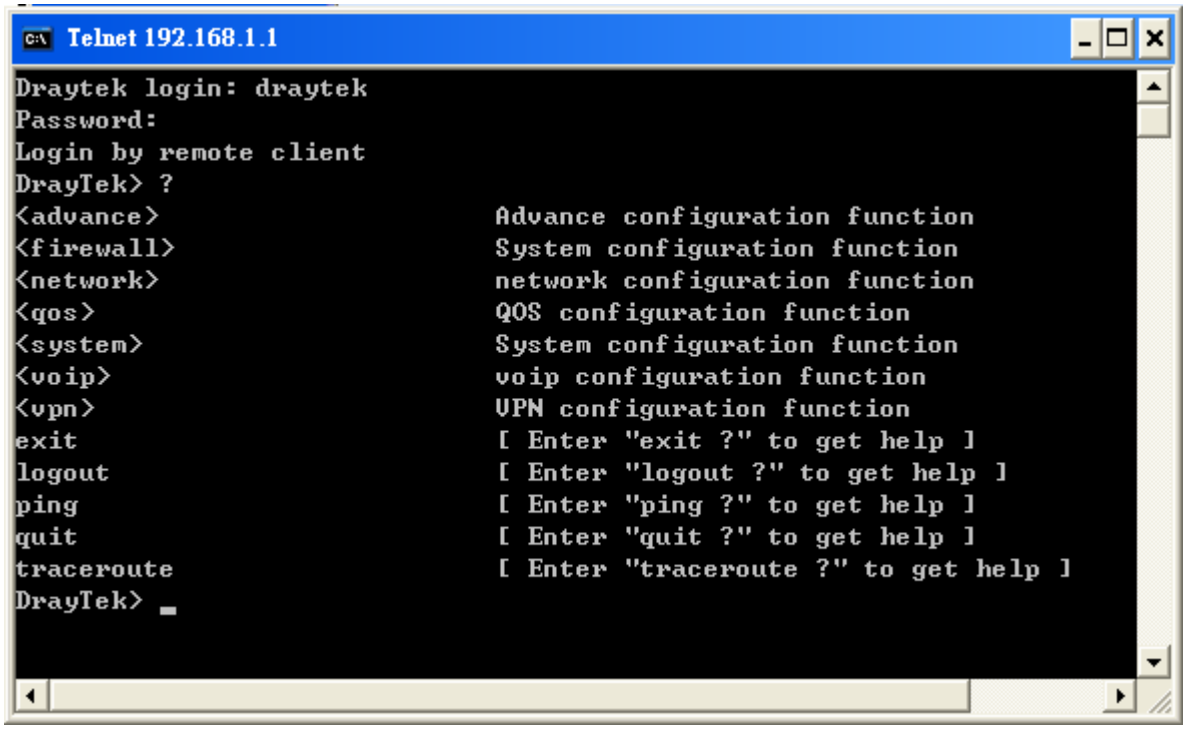


Click OK. The Telnet terminal will open. If an administrator password has not already been assigned, follow the on-screen instructions to assign one.

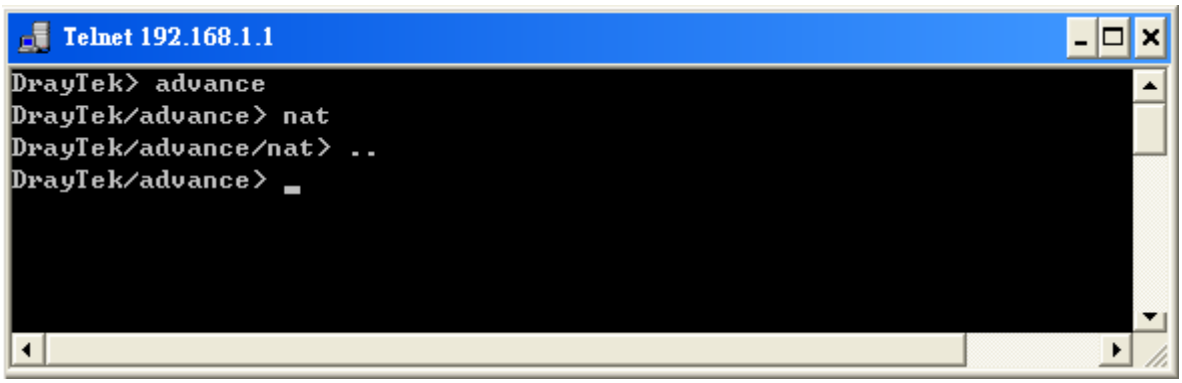
You have to enter “draytek” as the login name and enter “1234” as the password.



After assigning a password, type “**?**”. You will see a list of valid/common commands depending on the router that your use.



To access into next level of the command, please type the first level directly; to return to previous level, please type "**..**" .



1.2 Valid Commands

The valid commands will differ according to the router and the firmware version that you have. At present, commands explained in this manual are for **Vigor 3300 Series**. Please refer to the following table for quick searching the telnet command for your necessity.

F/W: V2.5.7.3 (RC1)

Commands Type	Valid subcommands		
	First Layer	Second Layer	Third Layer
advance	nat	addressmap dmz portlist redirectport status	
	nnmp	community trap2sink	
	block blockstatus callsch lanvlan portmirror staticroute tagvlan wanportmirror		
Firewall	Dos	icmpflood	enable threshold
		packetblock	option
		portscan	enable threshold
		synflood	enable threshold
		udpflood	enable threshold
		enable	
	Ipfilter	filterrule	Add Delete Edit status
		general	startup
		group	Add Delete Edit status
	urlfilter	category	Eptallow Eptdeny Server set
		exception	Add Delete Edit
		keyword	Add Block_mode Delete edit
		schedule	Option time
		web	Accessbyip

Commands Type	Valid subcommands		
	First Layer	Second Layer	Third Layer
			filetype
		enable	
network	lan	dhcp Ip_nat Ip_route	
	wan	advance	
		active dhcp dmz mac ppp_detect pppoe pptp rate show speed static static_detect	
	highava policy static_dhcp		
qos	incoming	active class filter	
	outgoing	active class filter	
system	acl administrator ntp port reboot status syslog		
voip	advspdial	advspdial	
	In_barring	allow deny set	
	misc	dialing_timeout fxo_auto_disconnect fxs_ringing line_reversal rtp_port t38port t38redundancy tos	
	port	callforward codec disconnect dtmf_relay fax gain group hotline phonenumber proxy voip_ip	

Commands Type	Valid subcommands		
	First Layer	Second Layer	Third Layer
	protocol	mgcp	callagent epidstyle localport wildrsip
		sip	localport set
		set	
	speeddial	del set show	
	tone	user_defined	busy callerid congestion dial ringing
		country	
	nat qos save siplog status		
vpn	ipsec	connect disconnect log lolicy status	
	pptp	auth general group 12tp	
exit			
logout			
ping			
quit			
traceroute			

2. Commands Descriptions

2.1 advance

2.1.1 nat

2.1.1.1 addressmap

The full name of this command is - Address mapping function. If you have a group of static IP addresses, then you can use the address-mapping feature to transport them into specific IP address (which is set in IP Alias List) for accessing Internet.

addressmap -s <*Index*>
addressmap -e <*Index*> <*Index*> <*Protocol*> <*Public IP*><*Private IP*> <*Subnet Mask*>
addressmap -d <Index>

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number of the item for the setting you want to execute specific action.
Protocol	Available settings that you can use include 0 (means TCP), 1(means UDP) and 2 (means All).
Public IP	Enter the public IP address for mapping with the private IP. It is set in IP Alias List.
Private IP	Enter the private IP address for mapping with the public IP.
Subnet Mask	Available settings that you can enter here include /24, /16, /8, /25, /26, /27, /28, /29, /30, /31, /32

Example

```
DrayTek/advance/nat> addressmap -e 1 2 172.16.3.200 192.168.1.100 /24
DrayTek/advance/nat> addressmap -s 1
-------------------
 NAT Address Map
-------------------
Index: 1
Protocol: All
Public IP: 172.16.3.200
Private IP: 192.168.1.100
Subnet Mask: /24
```

2.1.1.2 dmz

This command can set a DMZ host that maps *ALL* unsolicited data on any protocol to a single host in the LAN.

dmz -s <*Index*>

dmz -e <*Index*> <*Private IP*> ***0*** <*WAN Interface*>

dmz -e <*Index*> <*Private IP*> ***1*** <*Aux.WAN IP*>

dmz -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number of the item for the setting you want to execute specific action.
Private IP	Specify the private IP address for DMZ setting.
WAN Interface	There are four WAN interfaces for Vigor3300 series. Enter the one you want to make change. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
Aux.WAN IP	Specify an IP as WAN alias IP.
0	It means “disable”.
1	It means “enable”.

Example

```
DrayTek/advance/nat> dmz -e 1 192.168.1.100 1 172.16.3.200
DrayTek/advance/nat> dmz -s 1
-------------------
 NAT DMZ
-------------------
Index: 1
Use IP Alias: Enable
WAN Interface: WAN1
IP Alias: 172.16.3.200
Private IP: 192.168.1.100
```

2.1.1.3 portlist

This command can display a list of all well-know ports for your reference.

portlist -s

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.

Example

```
DrayTek/advance/nat> portlist -s
#      Service / Application                      Protocol       Port Number
1.     File Transfer Protocol (FTP)                  TCP           21

2.     SSH Remote Login Protocol (ex. pcAnyWhere)    UDP           22

3.     Telnet                                        TCP           23

4.     Simple Mail Transfer Protocol (SMTP)          TCP           25

5.     Domain Name Server (DNS)                      UDP           53

6.     WWW Server (HTTP)                             TCP           80

7.     Post Office Protocol ver.3 (POP3)             TCP           110

8.     Network News Transfer Protocol (NNTP)         TCP           119

9.     Point-to-Point Tunneling Protocol (PPTP)      TCP           1723

10.    pcANYWHEREdata                                TCP           5631

11.    pcANYWHEREstat                                UDP           5632

12.    WinVNC                                        TCP           5900
```

2.1.1.4 redirectport

The full name of this command is – redirect port function. This command can expose internal servers to the public domain or open a specific port to internal hosts.

redirectport -s *<Index>*

redirectport -mtom *<Index> <Protocol><Public Port Start> <Public Port End> <Private IP><Private Port Start> <Private Port End> <Use IP Alias Off> <WAN Interface>*

redirectport -mtom *<Index> <Protocol><Public Port Start> <Public Port End> <Private IP><Private Port Start> <Private Port End><Use IP Alias On> <IP Alias>*

redirectport -mto1 *<Index> <Protocol><Public Port Start> <Public Port End> <Private IP><Private Port Start><Use IP Alias Off> <WAN Interface>*

redirectport -mto1 *<Index> <Protocol><Public Port Start> <Public Port End> <Private IP>*

redirectport -1to1 *<Index> <Protocol> <Public Port Start><Private IP> <Private Port Start> <Use IP Alias Off> <WAN Interface>*

redirectport -1to1 *<Index> <Protocol><Public Port Start><Private IP> <Private Port Start><Use IP Alias On> <IP Alias>*

redirectport -m *<Index> <Protocol><Public Port Start> <Public Port End> <Private IP><Use IP Alias Off> <WAN Interface>*

redirectport -m *<Index> <Protocol>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
-mtom	It means to redirect multiple ports for public IP to multiple ports of certain IP address.
-mto1	It means to redirect multiple ports for public IP to certain port of specific IP address.
-1to1	It means to redirect one port for public IP to one port of certain IP address.
-m	It means to redirect one port for public IP to certain IP address.
Index	Enter the number of the item for the setting you want to execute specific action.
Protocol	Available settings that you can use include 0 (means TCP) and 1(means UDP).
Public Port Start	The available range is from 1 to 65535.
Public Port End	The available range is from 1 to 65535.
Private IP	Specifgy the IP address for mapped by the public port(s).

Private Port Start	The available range is from 1 to 65535.
Private Port End	The available range is from 1 to 65535.
Use IP Alias On	Enter “1” to open IP alias.
Use IP Alias Off	Enter “0” to close IP alias.
WAN Interface	There are four WAN interfaces for Vigor3300 series. Enter the one you want to make change. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
IP Alias	Enter the IP address from the IP alias list.

Example

```
DrayTek/advance/nat> redirectport -mtom 1 0 5000 6000 192.168.1.10 5000 6000
0 1
DrayTek/advance/nat> redirectport -s 1
-------------------
 NAT Redirect Port
-------------------
Index: 1
Protocol: TCP
Public Port Start: 5000
Public Port End: 6000
Private IP: 192.168.1.10
Private Port Start: 5000
Private Port End: 6000
Use IP Alias: Disable
WAN Interface: WAN1
IP Alias:
Comment:
```

2.1.1.5 status

This command can display current NAT status including total session count, connected session count and max. session count.

Syntax Description

Syntax	*Description*
status	Display NAT status.

Example

```
DrayTek/advance/nat> status
------------------
 NAT Status:
------------------
Total session count: 6
Connected session count: 72
Max session count: 30000
```

2.1.2 snmp

2.1.2.1 community

This command can define a community with string, host/mask, authority as read only or read/write.

community -s *<Index>*

community -e *<Index> <Community> <Host/mask> <MAX Access>*

community -d *<Index>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number of the item for the setting you want to execute specific action.
Community	Available settings that you can use include public (means Public) and private (means Private).
Host/mask	Enter the mask address for the host.
MAX Access	Select the authority as **Read only** or **Read/Write**. Available settings that you can use include 0 (means read only) and 1 (means read/write).

Example

```
DrayTek/advance/snmp> community -e 1 public 192.168.1.100/24 1
DrayTek/advance/snmp> community -s 1
-------------------
 EMS SNMP Community
-------------------
Index: 1
Community: public
Host/mask: 192.168.1.100/24
Max Access: Read/Write
```

2.1.2.2 trap2sink

This command can notify the management station of an unusual event that may demand further attention.

trap2sink -s <*Index*>

trap2sink -e <*Index*> <*Trap server*> <*Trap community*> <*Trap server port*>

trap2sink -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number of the item for the setting you want to execute specific action.
Trap server	Enter the IP address of trap server.
Trap community	Enter the string (e.g., “public” or “private”) as trap community.
Trap server port	Enter the port number for Trap server using. The default value for SNMP port is 161.

Example

```
DrayTek/advance/snmp> trap2sink -e 1 192.168.1.100 public 161
DrayTek/advance/snmp> trap2sink -s 1
-------------------
 EMS SNMP Traps
-------------------
Index: 1
Trap server: 192.168.1.100
Trap community: public
Trap server port: 161
```

2.1.3 block

Vigor3300 Series supports ten port numbers to be blocked for filtering some unnecessary packets or attacking packets on Internet environment (or LAN network). This command can block specified port number.

block -s

block <*Index*> <*Disable*>

block <*Index*> <*Enable*> <*Port number*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
Index	Enter the number of the item for the setting you want to execute specific action. The range for the available setting is starting from 0 to 10.
Disable	Enter “0” to disable the block function.
Enable	Enter “1” to enable the block function.
Port number	The range for the available setting is starting from 1 to 65535.

Example

```
DrayTek/advance> block 1 1 80
DrayTek/advance> block -s
-------------
 Index  Port
-------------
1.   Enable   80
2.   Disable
3.   Disable
4.   Disable
5.   Disable
6.   Disable
7.   Disable
8.   Disable
9.   Disable
10.  Disable
```

2.1.4 blockstatus

This command can display block status.

blockstatus

Syntax Description

Syntax	*Description*
blockstatus	Display current block status.

Example

```
DrayTek/advance> blockstatus
Attack info:Source MAC:00:0e:a6:2a:d5:a1 Source IP:192.168.1.10 Type:TCP:80
Attack info:Source MAC:00:40:f4:6f:86:0d Source IP:172.16.2.153 Type:TCP:80
```

2.1.5 callsch

The full name of this command is - Setting the PPPoE Call Scheduler. This command can set time schedule for executing router settings.

callsch -s <*index*>

callsch -e <*index*> <*disable*>

callsch -e <*index*> <*enable*>,<*date*>,<*time*>,<*action*>,<*once*>,<*wan_interface*>

callsch -e <*index*> <*enable*>,<*date*>,<*time*>,<*action*>,<*weekdays*>,<*week option*>,<*wan_interface*>

callsch -d <*index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
index	Enter the number of the item for the setting you want to execute specific action.
disable	Enter “0” to disable the call schedule function.
enable	Enter “1” to enable the call schedule function.
date	Enter “yyyy-mm-dd”.
time	Enter “hh:mi”.
action	0: force on ; 1: force down
once	Enter “0” to specify the call command executed for just one time.
weekdays	Enter “1” to specify the call command executed for specific day in a week.
week option	Enter the specific day in a week with 0000000 . For example, type “1000000” means Monday.
WAN Interface	There are four WAN interfaces for Vigor3300 series. Enter the one you want to make change. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4

Example

```
DrayTek/advance> callsch -e 1 1 2006-10-20 09:00 0 1 1111100 1
DrayTek/advance> callsch -s 1
------------------
 Call Schedule
```

```
-------------------
Index1
Status: Enable
Date: 2006-10-20
Time: 09:00
Action: force off
How often: weekdays
Week Option: Mon. Tue. Wed. Thu. Fri.
WAN: WAN1
```

2.1.6 lanvlan

The full name of this command is - LAN VLAN Setting. This command can isolate traffic between different users and it can provide better security application. User can select some ports to add into a VLAN group.

lanvlan -s

lanvlan <*Enable*>

lanvlan <*Enable*> <*Index*> <*P1*> <*P2*> <*P3*> <*P4*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
Enable	Enter “1” to enable the setting. Enter “0” to disable the setting.
index	Enter the number of the item for the setting you want to execute specific action. 0: VLAN0 1: VLAN1 2: VLAN2 3: VLAN3
<P1> - <P4>	P1 to P4 represents LAN port 1 to 4. Enter “1” to enable that port; enter “0” to disable that port.

Example

```
DrayTek/advance> lanvlan 1 1 0 0 1 1
DrayTek/advance> lanvlan -s
Status: Enable
VLAN0-P1: Disable
VLAN0-P2: Disable
VLAN0-P3: Disable
VLAN0-P4: Disable
VLAN1-P1: Disable
VLAN1-P2: Disable
VLAN1-P3: Enable
VLAN1-P4: Enable
```

```
VLAN2-P1: Disable
VLAN2-P2: Disable
VLAN2-P3: Disable
VLAN2-P4: Disable
VLAN3-P1: Disable
VLAN3-P2: Disable
VLAN3-P3: Disable
VLAN3-P4: Disable
```

2.1.7 portmirror

This command can copy traffic from one or more specific ports to a target port for monitoring all traffics. This mechanism can help manager to track the network errors or abnormal packets transmission without interrupting the flow of data access the network.

portmirror -s

portmirror *<Enable><Mirroring> <P1> <P2> <P3> <P4>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of port mirroring.
Enable	Enter “1” to enable the setting. Enter “0” to disable the setting.
Mirroring	Select a port to view traffic that sent from mirrored ports. 1: LAN Port1 2: LAN Port2 3: LAN Port3 4: LAN Port4 The port you choose here cannot be used as mirrored port. For example, if you enter “1” as the mirroring port, then you cannot specify <P1> as mirrored port.
<P1> - <P4>	Specify which port(s) will be mirrored. Enter “1” to enable that port; enter “0” to disable that port.

Example

```
DrayTek/advance> portmirror 1 1 0 1 0 0
DrayTek/advance> portmirror -s
Status: Enable
Mirroring Port: Port 1
Port 1 be Mirrored: Enable
Port 2 be Mirrored: Enable
Port 3 be Mirrored: Disable
Port 4 be Mirrored: Disable
```

2.1.8 staticroute

The full name of this command is Static Route function. This command can set rules to forward data from one specified subnet to another specified subnet without the presence of RIP.

staticroute -s *<Index>*

staticroute -e *<Index> <Network Interface> <Destination IP> <Gateway IP> <Subnet Mask>*

staticroute -d *<Index>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of specified item.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number of the item for the setting you want to execute specific action.
Network Interface	Select a network interface as a destination to be sent. 0 : LAN ; 1 : WAN1 ; 2 : WAN2 ; 3 : WAN3 ; 4 : WAN4
Gateway IP	Assign an IP address of the gateway for the interface selected above.
Destination IP	Assign the IP address of the destination that data will be transferred to.
Subnet Mask	Assign a value of subnet mask for destination IP address. There are several items for you to choose. /24 ; /25 ; /26 ; /27 ; /28 ; /29 ; /30 ; /31 ; /32 ; /8 ; /9 ; /10 ; /11 ; /12 ; /13 ; /14 ; /15 ; /16 ; /17 ; /18 ; /19 ; /20 ; /21 ; /22 ; /23 ; /0

Example

```
DrayTek/advance> staticroute -e 1 1 202.66.88.99 172.16.3.223 /24
DrayTek/advance> staticroute -s 1
------------------
 Static Route
------------------
Index: 1
Network Interface: WAN1
Destination IP: 202.66.88.99
Gateway IP: 172.16.3.223
Mask: /24
```

2.1.9 tagvlan

The full name of this command is - Tag VLAN Setting. This command can set VLAN based on 802.1Q.

tagvlan -s

tagvlan <*Mode*>

tagvlan -p <*Port_Index*> <*VLAN_ID*>

tagvlan -g <*Group_Index*> <*Enable*> <*Name*> <*VLAN_ID*><*P1*> <*P2*> <*P3*> <*P4*> <*P1_Tag*> <*P2_Tag*><*P3_Tag*> <*P4_Tag*>

tagvlan -d <*Group_Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying the Tag VLAN settings.
-d	It is used for deleting the specified group.
Mode	Enter “1” to enable the Tag VLAN setting. Enter “0” to disable the Tag VLAN setting.
Enable	Enter “1” to enable this group setting. Enter “0” to disable this group setting.
-p	It means to set port setting.
-g	It means to set group setting.
Port_Index	Enter the number of the port (from 1 to 4) that you want to execute specific action.
VLAN_ID	Enter a number used for identification on VLAN for your computer. The available range is from 1 to 4094, except 10,11,12 and 13.
Group_Index	Enter the number of the group (from 1 to 4) that you want to execute specific action.
Name	Specify the name for the four groups of VLAN.
<P1>,<P2>,<P3>,<P4>	Enter “0” to represent “Not a Member”. Enter “1” to represent “Group Member”.
<P1_Tag>,<P2_Tag> <P3_Tag>,<P4_Tag>	“0” means Frame Unmodified. “1” means Frame Untagged. ”2” means Frame Tagged. Type the number for each setting respectively.

Example

```
DrayTek/advance> tagvlan -g 1 1 VLAN5 5 1 0 0 0 1 2 2 0
After reboot, changes will take effect. Reboot now? (y/n) y
Draytek login: draytek
```

```
Password:
Login by remote client
DrayTek> advance
DrayTek/advance> tagvlan -s
# Active Name   Vlanid  P1 P2 P3 P4    P1Tag P2Tag P3Tag P4Tag Ifname
1.1    VLAN5    5       1   0  0  0      1     2     2     0     vlan5
2.0    VLAN6    6       0   1  0  0      2     1     2     2
3.0    VLAN7    7       0   0  1  0      2     2     1     2
4.1    VLAN8    8       0   0  0  1      2     2     2     1     vlan8
#      VID
1.     5
2.     6
3.     7
4.     8
```

Note: VID means “VLAN ID in port settings”.

2.1.10 wanportmirror

This command can copy traffic from one or more specific ports to a target port for monitoring all traffics. This mechanism can help manager to track the network errors or abnormal packets transmission without interrupting the flow of data access the network.

wanportmirror -s

wanportmirror <*Enable*><*Mirroring*> <*P1*> <*P2*> <*P3*> <*P4*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying the settings of WAN port mirroring.
Enable	Enter “1” to enable the setting. Enter “0” to disable the setting.
Mirroring	Select a port to view traffic that sent from mirrored ports. 1: WAN Port1 2: WAN Port2 3: WAN Port3 4: WAN Port4 The port you choose here cannot be used as mirrored port. For example, if you enter “1” as the mirroring port, then you cannot specify <P1> as mirrored port.
<P1> - <P4>	Specify which port(s) will be mirrored. Enter “1” to enable that port; enter “0” to disable that port.

Example

```
DrayTek/advance> wanportmirror 1 1 0 1 0 0
DrayTek/advance> wanportmirror -s
Status: Enable
Mirroring Port: Port 1
Port 1 be Mirrored: Enable
Port 2 be Mirrored: Enable
Port 3 be Mirrored: Disable
Port 4 be Mirrored: Disable
```

2.2 firewall

2.2.1 dos

2.2.1.1 icmpflood

This command can enable or disable ICMPFlood detection function and set the threshold of icmpflood detection.

Enable *<0/1>*

threshold*<Value> <Timeout>*

threshold -s

Syntax Description

Syntax	*Description*
Enable	Enter “Enable 1” to enable ICMPFlood detection. Enter “Enable 0” to disable ICMPFlood detection.
Value	Enter the number of the threshold for ICMPFlood detection. The range is from 0 to 65535. (default=300 packets/sec)
Timeout	Enter the value (greater than 5) for the time out. The unit is second.
-s	It is used for displaying the settings of current threshold.

Example

```
DrayTek/firewall/dos/icmpflood> enable 0
DrayTek/firewall/dos/icmpflood> enable 1
DrayTek/firewall/dos/icmpflood> threshold 300 600
DrayTek/firewall/dos/icmpflood> threshold -s
Firewall Dos ICMP flood Threshold: 300 Packets/sec
Timeout: 600 sec
```

2.2.1.2 packetblock

This command can enable some packet block functions.

option <*Value*>

Syntax Description

Syntax	*Description*
Value	1: Enable block ip option 2: Enable block TCP option 4: Enable block land 8: Enable tear drop 16:Enable block smurf 32:Enable block ping of death 64:Enable block trace route 128:Enable block icmp fragement 256:Enable SYN fragement 512:Enable Unknow protocol 1024:Enable Fraggle attrack
-s	It is used for displaying the settings of current threshold.

Example

```
DrayTek/firewall/dos/packetblock> option 64
DrayTek/firewall/dos/packetblock> option -s
Block IP Options: Disable
Block TCP flag scan: Disable
Block Land: Disable
Block Tear Drop:Disable
Block Smurf: Disable
Block Ping of Death: Disable
Block Trace route: Enable
Block ICMP fragment: Disable
Block SYN fragment: Disable
Block Unkown Protocol: Disable
Block Fraggle attack: Disable
```

2.2.1.3 portscan

This command can enable or disable port scan detection function and set the threshold of port scan detection function. Port scan sends packets with different port numbers to find available services, which respond. The router will identify it and report a warning message if the port scanning rate in packets per second exceeds the user-defined threshold value.

Enable *<0/1>*

threshold*<Value>*

threshold -s

Syntax Description

Syntax	*Description*
enable	Enter “Enable 1” to enable port scan detection. Enter “Enable 0” to disable port scan detection.
value	Enter the number of the threshold for port scan detection. The range is from 0 to 65535. (default=300 packets/sec)
-s	It is used for displaying the settings of current threshold.

Example

```
DrayTek/firewall/dos/portscan> enable 1
DrayTek/firewall/dos/portscan> threshold 200
DrayTek/firewall/dos/portscan> threshold -s
Firewall Port Scan Threshold: 200 Packets/sec
```

2.2.1.4 synflood

This command can activate the SYN flood defense function. If the amount of TCP SYN packets from the Internet exceeds the user-defined threshold value, the router will be forced to randomly discard the subsequent TCP SYN packets within the user-defined timeout period.

enable *<0/1>*

threshold*<value> <timeout>*

threshold -s

Syntax Description

Syntax	*Description*
enable	Enter “Enable 1” to enable SYN flood defense. Enter “Enable 0” to disable SYN flood defense.
value	Enter the number of the threshold for SYN flood defense. The range is from 0 to 65535. (default=300 packets/sec)
timeout	Enter the value (greater than 5) for the time out. The unit is second.
-s	It is used for displaying the settings of current threshold.

Example

```
DrayTek/firewall/dos/synflood> enable 1
DrayTek/firewall/dos/synflood> threshold 320 200
DrayTek/firewall/dos/synflood> threshold -s
Firewall Dos SYN flood Threshold: 320 Packets/sec
Timeout: 200 sec
```

2.2.1.5 udpflood

This command can activate the UDP flood defense function. If the amount of UDP packets from the Internet exceeds the user-defined threshold value, the router will be forced to randomly discard the subsequent UDP packets within the user-defined timeout period.

enable *<0/1>*

threshold*<value> <timeout>*

threshold -s

Syntax Description

Syntax	*Description*
enable	Enter “Enable 1” to enable udp flood defense. Enter “Enable 0” to disable udp flood defense.
value	Enter the number of the threshold for udp flood defense. The range is from 0 to 65535. (default=300 packets/sec)
timeout	Enter the value (greater than 5) for the time out. The unit is second.
-s	It is used for displaying the settings of current threshold.

Example

```
DrayTek/firewall/dos/udpflood> threshold 30 60
```

2.2.1.6 enable

This command can enable or disable DoS function.

enable *<0/1>*

Syntax Description

Syntax	*Description*
enable	Enter “Enable 1” to enable udp flood defense. Enter “Enable 0” to disable udp flood defense.

Example

```
DrayTek/firewall/dos> enable 1
```

2.2.2 ipfilter

2.2.2.1 filterrule

This command can add/delete/edit a filter rule for IP filter and display the status for filter rule. Please add a new group first (refer to 2.2.2.3), then use this command to add rules under such group.

add <*GroupId*>

delete <*GroupId*> <*RuleIndex*>

edit <*GroupId*> <*RuleIndex*> **-src** <*Source/Subnet*>

edit <*GroupId*> <*RuleIndex*> **-sport X**

edit <*GroupId*> <*RuleIndex*> **-sport** <*Op1*><*Sourceport1*>

edit <*GroupId*> <*RuleIndex*> **-sport** <*Op1*><*Sourceport1*> <*Sourceport2*>

edit <*GroupId*> <*RuleIndex*> **-des** <*Destination/Subnet*>

edit <*GroupId*> <*RuleIndex*> **-dport X**

edit <*GroupId*> <*RuleIndex*> **-dport** <*Op2*><*Destinationport1*>

edit <*GroupId*> <*RuleIndex*> **-dport** <*Op2*><*Destinationport1*> <*Destinationport2*>

edit <*GroupId*> <*RuleIndex*> **-p** <*Protocol*>

edit <*GroupId*> <*RuleIndex*> **-b**<*Blockop*> <*Nextgroupid*>

edit <*GroupId*> <*RuleIndex*> **-d** <*Direction*>

edit <*GroupId*> <*RuleIndex*> **-f** <*Fragment*>

edit <*GroupId*> <*RuleIndex*> **-a** <*Active*>

delete <*GroupId*> <*RuleIndex*>

status <*GroupId*>

Syntax Description

Syntax	*Description*
Add	It is used for adding a new rule for IP filter.
edit	It is used for editing a rule for IP filter.
delete	It is used for delete a rule for IP filter.
status	It is used for displaying status for current IP filter rule settings.
-src	It is used for editing the IP address and subnet mask for source.
-sport X	Clear source port value.
-sport	It is used for editing source port of selected filter rule.
-des	It is used for editing the IP address and subnet mask for destination.
-dport X	Clear destination port value.
-dport	It is used for editing destination port of selected filter rule.

-p	It is used for editing the protocol used by selected filter rule.
-b	It is used for editing the action of “block or pass” of selected filter rule.
-d	It is used for configuring the direction of selected filter rule.
-f	It is used for editing the fragmented packets setting of selected filter rule.
-a	It is used for editing the activation of selected filter rule.
GroupId	Enter the name of the group that you want to add new rules.
RuleIndex	Enter the index number of the filter rule that you want to change.
Source/Subnet	Enter the source IP address with subnet mask.
Op1	Enter the following character to specify operators for source port. 0: = ; 1: != ; 2: > ; 3: < ; 4: between
Sourceport1	Enter the start port value for source port.
Sourceport2	Enter the end port value for source port. When you set <Op1> with1~3, you have to set the same value for <Destinationport2> and <Destinationport1>.
Destination/Subnet	Enter the destination IP address with subnet mask.
Op2	Enter the following character to specify operators for destination port. 0: = ; 1: != ; 2: > ; 3: < ; 4: between
Destinationport1	Enter the start port value for destination.
Destinationport2	Enter the end port value for destination. When you set <Op2> with 1~3, you have to set the same value for <Destinationport2> and <Destinationport1>.
Protocol	Enter the number listed below to specify certain protocol for filter rule. 0: TCP ; 1: UDP ; 2: ICMP
Blockop	Enter the number listed below to specify certain action executed when packets match the rule. 0: Block 1: Pass 2: Block if no future match 3: Pass if no future match
Nextgroupid	Enter the group name that you want to specify as next filter group.

Direction	Enter the number listed below to specify certain option. The direction of packet flow **VPN In** is for incoming packets. **VPN Out is** for outgoing packets, and **Any** is for both directions. 0: WAN to LAN ; 1: LAN to WAN ; 2: Any ; 3: LAN to DMZ ; 4: DMZ to LAN ; 5: WAN to DMZ ; 6: DMZ to WAN ; 7: LAN to LAN ; 8: WAN to WAN ; 9: VPN In ; 10: VPN Out
Fragment	Enter the number listed below to specify certain option. Enter “0 ” to specify no fragment option. Enter “1” to apply the rule to un-fragment packets. Enter “2” to apply the rule to fragmented packets.
Active	Enter the number listed below to specify certain option. Enter “0” to disable selected filter rule. Enter “1” to enable selected filter rule.

Example

```
DrayTek/firewall/ipfilter/filterrule> add blockgambling
DrayTek/firewall/ipfilter/filterrule> status blockgambling
   Src IP       Port    Des IP         Port    Protocol       Block
1. any          any           TCP     Pass
DrayTek/firewall/ipfilter/filterrule> add blockgambling
DrayTek/firewall/ipfilter/filterrule> status blockgambling
   Src IP       Port    Des IP         Port    Protocol       Block
1. any          any           TCP     Pass
2. any          any           TCP     Pass
```

2.2.2.2 general

This command can set the start group for IP filter.

Startup <*GroupId*> <*Enable*>

Syntax Description

Syntax	*Description*
GroupId	Enter the name of the group for IP filter.
enable	Enter “Enable 1” to enable IP filter function. Enter “Enable 0” to disable IP filter function.

Example

```
DrayTek/firewall/ipfilter/general> startup pass 0
```

2.2.2.3 group

This command can add/delete/edi a new group for ip filter and display the status for the group.

add <*GroupId*> <*NextGroupId*> <*Comment*>

delete <*GroupId*>

edit <*GroupId*> <*NextGroupId*> <*Comment*>

Status

Syntax Description

Syntax	*Description*
GroupId	Enter the name of a new group.
NextGroupId	Enter the name of the group specified as the next one.
Comment	Enter the comment for the new group.
Status	Display current group status.

Example

```
DrayTek/firewall/ipfilter/group> add test1 Pass test
DrayTek/firewall/ipfilter/group> status

   Group Name    Next Group     Comment
1. Pass         Block   Group for pass rules
2. Block        none    Group for block rules
3. test1        Pass    test
```

2.2.3 urlfilter

2.2.3.1 catetory

This command can set exceptionally allowed URL from the categorized access. URL content filter can prevent employee on SME from accessing inappropriate Internet resources.

eptallow -s

eptallow -a <*URL*>

eptallow -d <*Index*>

eptdeny -s

eptdeny -a <*URL*>

eptdeny -d <*Index*>

server -s

server <*Disable/Enable*>

server <*Enable*> <*Address*>

set -s

set -a

set -a <*Code*>

set -d <*Code*>

Syntax Description

Syntax	*Description*
eptallow	It allows to set exceptionally allowed URL from the categorized access.
eptdeny	It allows to set exceptionally denied URL from the categorized access.
set	It allows to set conditions for URL filter function.
-s	It is used for displaying the settings of current allow list/deny list.
-a	It is used for adding an exception URL to allow list/deny list.
eptallow -d eptdeny -d	It is used for deleting an exception URL from allow list/deny list.
URL	Enter the URL that is allowed (or denied) to access through this router.
index	It means the index number of the URL in allow list/deny list.
disable/Enable	Enter “1” to enable category setting. Enter “0” to disable category setting.
address	It means the IP/Domain Name of the CPA server.
set -a	It will put a category into the denial list (choose from deny list).

set -d	It will put a category into the denial list (choose from allow list).
code	Chosen category code.

Example

```
DrayTek/firewall/urlfilter/category> eptallow -a www.yahoo.com
DrayTek/firewall/urlfilter/category> eptallow -s
------------------------------
  Excetion Allow List
------------------------------
1. www.yahoo.com/
2.
3.
4.
```

2.2.3.2 exception

This command can add/edit/delete an IP subnet to the exception IP list.

add <*ip*> <*netmask*>

delete <*index*>

edit <*index*> <*ip*> <*netmask*>

Syntax Description

Syntax	*Description*
add	It can add an IP subnet from the exception IP list.
delete	It can delete an IP subnet from the exception IP list.
edit	It can edit an IP subnet to the exception IP list.
ip	Enter the source IP of packets which do not apply the filter rules.
netmask	Enter the subnet mask which is used to specify the source subnet of packets which do not apply the filter rules.
index	Enter the number of the item for the setting you want to execute specific action.

Example

```
DrayTek/firewall/urlfilter/exception> add 192.168.1.25 255.255.255.0
DrayTek/firewall/urlfilter/exception>
```

Note: If you want to review the status of this command, please refer to Web user interface.

2.2.3.3 keyword

This command can add keyword list for URL filter function.

add <*Keyword*>

block_mode <*Mode*>

delete <*KeywordIndex*>

edit <*KeywordIndex*> <*Keyword*>

Syntax Description

Syntax	*Description*
add	It can add a new keyword used for URL filter function.
Keyword	Enter the keyword that url filter function used to filter out web access.
block_mode	It allows or blocks websites match keywords.
Mode	Enter “0” to block websites with matching keywords. Enter “1” to allow websites with matching keywords.
delete	It can delete keyword from keyword list used for url filter function.
KeywordIndex	It means the index number of the keyword that you want to modify.
edit	It can edit keyword list for url filter function.

Example

```
DrayTek/firewall/urlfilter/keyword> add gambling
DrayTek/firewall/urlfilter/keyword>
```

2.2.3.4 schedule

This command can set the scheduler used for url filter function.

option <*Value*>

time <*Timeofday*> <*Dayofweek*>

Syntax Description

Syntax	*Description*
Option	It means to execute the schedule with the settings you determined.
Value	Enter “0” to block url filter at any time. Enter “1” to block url filter by the setting configured in schedule.
time	It means to set the time for url filter function.

Timeofday	Set the hour/minutes/seconds for the scheduler. The syntax must be “hh:mm:ss”.
Dayofweek	Set the days that you want to invoke for the time schedule. Type 0,1,2,4,8,16,32,64 for your necessity. 0: All Days 1: Sunday (means to invoke the time schedule on every Sunday) 2: Monday (means to invoke the time schedule on every Monday) 4: Tuesdy (means to invoke the time schedule on every Tuesdy) 8: Wensday (means to invoke the time schedule on every Wensday) 16:Thirsday (means to invoke the time schedule on every Thirsday) 32:Friday (means to invoke the time schedule on every Friday) 64:Saturday (means to invoke the time schedule on every Saturday)

Example

```
DrayTek/firewall/urlfilter/schedule> time 13:20 18:20 0 0 0 0 0 0 0
```

2.2.3.5 web

This command can set the way to accessing web site through IP address or choose the type of the file to be blocked by URL filter.

accessbyip <*enable*>

filetype <*enable*> <*filetype*>

Syntax Description

accessbyip	It allow to access web site through IP address.
enable	Enter “0” to disable this function. Enter “1” to enable this function.
filetype	Choose the type of file to be blocked by url filter. Please enter the value listed below for different purposes. 0: java 1:activex 2:compressed file 3:cookies 4:execure file

	5:proxy 6:multimedia

Example

```
DrayTek/firewall/urlfilter/web> filetype 1 0
DrayTek/firewall/urlfilter/web>
```

2.2.3.6 enable

This command can enable or disable the URL filter function.

enable <*Option*>

Syntax Description

Syntax	*Description*
Option	Enter “Enable 1” to enable udp flood defense. Enter “Enable 0” to disable udp flood defense.

Example

```
DrayTek/firewall/urlfilter> enable 1
```

2.3 network

2.3.1 lan

2.3.1.1 dhcp

This command can configure DHCP Server settings for LAN.

dhcp -s <*Index*>

dhcp -mode <*Index*> <*Mode*>

dhcp -range <*Index*> <*Start IP*> <*End IP*>

dhcp -dns <*Index*> <*Primary DNS*> <*Secondary DNS*>

dhcp -dns <*Index*> <*Primary DNS*>

dhcp -gateway <*Index*> <*Gateway IP*>

dhcp -lease <*Index*> <*Lease Time*>

dhcp -relay <*WAN IF*> <*DHCP Server IP*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current DHCP setting.
-mode	It is used for disable/enable DHCP Server status or specify relay agent for DHCP Server.
-range	It is used for configuring DHCP Server settings for LAN.
-dns	It is used for invoke DNS setting.
-gateway	It is used for enabling gateway address.
-lease	It is used for setting lease time.
-relay	It is used for setting relay agent.
Index	Enter the number of the LAN port you want to execute specific action. 1: LAN1, 2: LAN2, 3: LAN3, 4: LAN4
Mode	Enter the number to specify status for DHCP Server: 0: Disable, 1: Enable, 2: Relay Agent
Start IP	Enter the starting IP address of the IP address pool for DHCP server.
End IP	Enter the ending IP address of the IP address pool for DHCP server.
Primary DNS	Enter the private IP address of the primary DNS.
Secondary DNS	Enter the private IP address of the secondary DNS.
Gateway IP	Enter a gateway IP address for the DHCP server.
Lease Time	Enter a lease time for the DHCP server. The time unit is minute.

WAN IF	Enter the number of WAN interface for applying relay agent. 1: WAN1, 2: WAN2, 3:WAN3, 4: WAN4
DHCP Server IP	Enter the IP address for the DHCP server (unit is minute)

Example

```
DrayTek/network/lan> dhcp -s 1
-------------------
 DHCP Usage
-------------------
Status: Enable
Start IP: 192.168.1.10
End IP: 192.168.1.254
Primary DNS:
Secondary DNS:
Lease Time: 1440
Gateway IP:
DrayTek/network/lan> dhcp -range 1 192.168.1.5 192.168.1.55
After reboot, changes will take effect. Reboot now? (y/n)y
```

2.3.1.2 ip_nat

This command can set LAN IP address for NAT usage.

ip_nat -s <*Index*>

ip_nat <*Index*> <*Address*> <Netmask>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current NAT settings.
Index	Enter the number of the LAN port you want to execute specific action. 1: LAN1, 2: LAN2, 3: LAN3, 4: LAN4
Address	Enter an IP address for the LAN interface.
Netmask	Enter the subnet mask for the LAN interface.

Example

```
DrayTek/network/lan> ip_nat 1 192.168.1.66 255.255.255.0
After reboot, changes will take effect. Reboot now? (y/n)
```

2.3.1.3 ip_route

This command can set LAN IP address for routing usage.

ip_route -s <*WAN Interface*>

ip_route -disable <*WAN Interface*>

ip_route -enable <*WAN Interface*> <*Address*> <*Netmask*> <*LAN Interface*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current IP route settings.
-disable	It is used for disabling IP route for WAN port.
-enable	It is used for enabling IP route for WAN port.
WAN Interface	Enter the number of the WAN port you want to execute specific action. 1: WAN1, 2:WAN2, 3: WAN3, 4: WAN4
Adress	Enable the second subnet.
Netmask	Enter the subnet mask for the LAN interface.
LAN Interface	Enter the number of the LAN port you want to execute specific action. 1: LAN1, 2: LAN2, 3: LAN3, 4: LAN4

Example

```
DrayTek/network/lan> ip_route -enable 1 172.16.3.221 255.255.0.0 1
After reboot, changes will take effect. Reboot now? (y/n)y

DrayTek/network/lan> ip_route -s 1
-------------------
 Routing Usage
-------------------
WAN Interface:1
Status: 1
IP Address: 1
Subnet Address: 172.16.3.211
LAN Interface: 255.255.0.0
```

2.3.2 wan

2.3.2.1 advance

This command can set load balance, enables or disables backup function for WAN interface and sets the weight load (10-90%) for WAN interfaces.

backup -s

backup <*status*>

loadbalance -*s*

loadbalance <*status*> <*autoweight*>

loadbalance -*cache* <*cache mode*>

weight -s

weight <*WAN1*> <*WAN2*> <*WAN3*> <*WAN4*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
backup	It is used for setting WAN backup configuration.
loadbalance	It is used for setting WAN load balance configuration.
weight	It is used for weighting configuration of WAN load balance.
staus	0: Disable 1: Enable
autowight	The system will distribute data in and out of the Internet automatically. Enter the number to enable or disable this function. 0: Disable 1: Enable
-cache	It is used for cache algorithm.
cache mode	0: Cache by source and destination IP 1: Cache by source IP only
WAN1 – WAN4	Enter the number (representing different percentage) for each WAN interface respectively. 1: 10%, 2: 20%, 3: 30%, 4: 40%, 5: 50%, 6: 60%, 7: 70%, 8: 80%, 9: 90%

Example

```
DrayTek/network/wan/advance> loadbalance -cache 1
After reboot, changes will take effect. Reboot now? (y/n)y
```

2.3.2.2 active

This command can activate WAN setting for the device.

active <*index*> <*status*> <*default route*>

active <*index*> <*status*> <*default route*> <*loadbalance*> <*backupmaster*> <*backupslave*>

Syntax Description

Syntax	*Description*
Index	Enter the number for specify WAN port. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
status	Enter the number to activate status displaying. 0: inactive ; 1: active
default route	Enter the number to invoke default route setting. 0: non-default ; 1: default
loadbalance	Enter the number to join loadbalance or not. 0: not join to loadbalance ; 1: join to loadbalance
backupmaster	Enter the number to backup settings for master device. 0: not backupmaster ; 1: backupmaster
backupslave	Enter the number to backup settings for slave device. 0: not backupslave ; 1: backupslave

Example

```
DrayTek/network/wan> active 1 1 1
After reboot, changes will take effect. Reboot now? (y/n)
```

2.3.2.3 dhcp

This command can set WAN to DHCP mode.

dhcp -s <*index*>

dhcp <*index*>

dhcp <*index*> <*hostname*> <*domainname*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
index	1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
hostname	Enter the name for the host.
domainname	Enter the name of the domain for ???

Example

```
DrayTek/network/wan> dhcp 1 3300v www.3300.com
After reboot, changes will take effect. Reboot now? (y/n) n
DrayTek/network/wan> dhcp -s 1
-------------------
 WAN1 DHCP
-------------------
Host Name: 3300v
Domain Name: www.3300.com
```

2.3.2.4 dmz

This command can set WAN to dmz mode (NAT and Routing mode) let user access lots of servers in secure via Internet environment.

dmz -s <*index*>

dmz -public <*index*> <*out*>

dmz -private <*index*> <*IP*> <*Netmask*>

dmz -hostip <*index*> <*ip_index*> <*IP*>

Syntax Description

Syntax	*Description*
index	1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
out	Enter the number for specify WAN port for routing mode. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
IP	Enter the IP address for NAT mode.
Netmask	To specify NAT mode, you have to enter the netmask for the IP address.
ip_index	Enter the number from 1 to 8 for specify an item for DMZ function configuration.
-s	It is used for displaying current settings.
-public	It is used for specifying routing mode for DMZ function.
-private	It is used for specifying NAT mode for DMZ function.
-hostip	It is used for specifying host IP for routing mode.

Example

```
DrayTek/network/wan> dmz pbulic 1 172.16.3.88 1
DrayTek/network/wan>
```

2.3.2.5 macf

This command can configure MAC address for WAN interface.

mac -s <*index*>

mac <*index*> <*Use Default*>

mac <*index*> <*User Define*> <*Mac Address*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
index	Enter the number for specifying WAN port. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
Use Default	Enter “0” to use default value for MAC address setting.
User Define	Enter “1” to use the customer’s defined MAC address.
Mac Address	Enter the MAC address as customer’s defined.

Example

```
DrayTek/network/wan> mac 1 0
After reboot, changes will take effect. Reboot now? (y/n)y
```

2.3.2.6 ppp_detect

This command can detect the settings for PPPoE/PPTP (using LCP Echo Request) connection.

ppp_detect -s <*index*>

ppp_detect <*index*> <*detect interval*> <*No-Reply Count*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
index	Enter the number for specifying WAN port. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
detect interval	It is used for setting interval time for detection each time. The value must be greater than “3”.
no-Replay Count	It is used for setting the maximum times of detection failure. The value must be greater than “1”. The system will try for the times you set here and if there is no replay, the detection job will be stopped.

Example

```
DrayTek/network/wan> ppp_detect 1 4 2
DrayTek/network/wan> ppp_detect -s 1
-------------------
 Connection Detect
-------------------
Detect Interval:  4
Max Unreply Times:  2
```

2.3.2.7 pppoe

This command can set PPPoE mode as WAN interface.

pppoe -s <*index*>

pppoe <*index*> <*Username*> <*Password*><*Authentication Mode*> <*Service Name*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
index	Enter the number for the WAN interface that you want to set with PPPoE mode. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
Username	Enter the user account assigned by ISP.
Password	Enter the user password assigned by ISP.
Authentication Mode	Enter the representing number to specify authentication mode. 0:PAP 1:CHAP
Service Name	Enter the service name assigned by ISP (this is optional).

Example

```
DrayTek/network/wan> pppoe 1 test test 1
After reboot, changes will take effect. Reboot now? (y/n)y
```

2.3.2.8 pptp

This command can set PPTP mode as WAN interface.

pptp -s <*index*>

pptp <*index*> <*Username*> <*Password*> <*Authenticate Mode*> <*Local IP*><*Local Netmask*> <*Server IP*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
index	Enter the number for the WAN interface that you want to set with PPPoE mode. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
Username	Enter the user account assigned by ISP.
Password	Enter the user password assigned by ISP.
Local IP	Enter the local IP address of PPTP assigned by ISP.
Local Netmask	Enter a netmask value for IP address of PPTP assigned by ISP.
Server IP	Enter a remote IP address of PPTP server assigned by ISP.

Example

```
DrayTek/network/wan> pptp test test 0 192.168.1.33 255.255.255.0 192.168.1.10
After reboot, changes will take effect. Reboot now? (y/n) y
```

2.3.2.9 rate

This command can configure downstream and upstream rate for WAN interface.

rate -s <*index*>

rate <*index*> <*Downstream*> <*Upstream*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
index	Enter the number for the WAN interface that you want to specify downstream and upstream rate. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
Downstream	Enter the number of downstream rate. The range is from 0 to 102400. The default rate is 102400.
Upstream	Enter the number of upstream rate. The range is from 0 to 102400. The default rate is 102400.

Example

```
DrayTek/network/wan> rate -s 1
WAN1 Current Stream
Downstream:  102400
Upstream:   102400
```

2.3.2.10 show

This command can display current settings (such as Static, DHCP, PPPOE, PPTP, or DMZ configuration) and values of settings for WAN.

show

show <*index*>

Syntax Description

Syntax	*Description*
show	It is used for displaying the status for all the WAN interfaces.
index	Enter the number for the WAN interface that you want to know current status of that one. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4

Example

```
DrayTek/network/wan> show
-------------
  WAN
-------------
Loadbalance:  Disable
Default router:
Autoweight:  Disable
Backup:  Disable
Backup Master:  0
Backup Slave:  0
DrayTek/network/wan> show 1
-------------
  WAN1
-------------
active
IP Mode: DHCP
Physical Mode: Auto Negotiation
Type: fast ethernet
Mac Using: use router default
Mac Address: 00:00:00:00:00:02
Downstream Rate: 102400
Upstream Rate: 102400
```

2.3.2.11 speed

This command can configure speed & duplex for WAN interface.

speed -s <*index*>

speed <*index*> <*Speed & Duplex*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
index	Enter the number for the WAN interface that you want to configure speed and duplex settings. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
Speed & Duplex	Enter the number to specify speed and duplex setting for the specified WAN interface. 1:Auto Negotiation 2:100M / Full Duplex 3:100M / Half Duplex 4:10M / Full Duplex 5:10M / Half Duplex

Example

```
DrayTek/network/wan> speed -s 1
Current Speed of WAN1: Auto Negotiation
```

2.3.2.12 static

This command can set static IP mode as WAN interface.

static -s <*index*>

static <*index*> <*IP*> <*Netmask*> <*Gateway*><*Primary DNS*> <*Secondary DNS*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
index	Enter the number for the WAN interface that you want to set with static IP mode. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
IP	Enter a private IP address for the WAN interface.
Netmask	Enter a subnet mask value for the WAN interface.
Gateway	Enter a private IP address as the gateway.
Primary DNS	Enter a private IP address as the primary DNS.
Secondary DNS	Enter a private IP address as the secondary DNS.

Example

```
DrayTek/network/wan> static -s 1
-------------------
 WAN1 Static Setting
-------------------
IP Address: 172.16.3.229
Subnet Mask: 255.255.0.0
Default Gateway: 172.16.3.4
Primary DNS:
Secondary DNS:
```

2.3.2.13 static_detect

This command can detect the settings for Static/DHCP connection.

static_detect -s <*index*>

static_detect <*index*> **0** <*detect interval*> <*No-Reply Count*>

static_detect <*index*> **1** <*detect interval*> <*No-Reply Count*> <*detect destination*>

static_detect <*index*> **2** <*detect interval*> <*No-Reply Count*> <*detect destination*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
0	It is used for detecting the settings of sending ARP to Gateway.
1	It is used for detecting the settings of checking with PING command.
2	It is used for detecting the settings of data transmission in HTTP.
index	Enter the number for the WAN interface that you want to check. 1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
detect interval	It is used for setting interval time for detection each time. The value must be greater than “3”.
No-Reply Count	It is used for setting the maximum times of detection failure. The value must be greater than “1”. The system will try for the times you set here and if there is no replay, the detection job will be stopped.
detect destination	Enter the IP address or domain name for detecting current status.

Example

```
DrayTek/network/wan> static_detect -s 1
-------------------
 Connection Detect
-------------------
Detect Type:  ARP
Detect Interval:  10
No-Reply Count:  2
Detect Destination:
```

2.3.3 highava

This command can show all LAN Backup settings.

highava -s

highava <*Disable*>

highava <*Enable*> <*Group*> <*Role*> <*Virtual IP*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Disable	Enter “0” to disable the backup setting.
Enable	Enter “1” to enable the backup setting.
Group	Enter the number (1 ~ 255) to specify the group that you want to set high availability.
Role	When you enable High Availability function, please specify the role for the vigor device. Enter “0” to make the vigor device being Master device. Enter “1” to make the vigor device being Slave device.
Virtual IP	Enter the IP address as virtual IP.

Example

```
DrayTek/network> highava -s
---------------
  High Avaliability
---------------
Enable/Disable:  Disable
Group:
Role:  Master
Virtrual IP:
```

2.3.4 policy

This command can configure Load Balance Policy.

policy -s <*Index*>

policy -used

policy -e <*Index*> <*Protocol*> <*Source IP*><*Subnet Mask*> <*Dest Port Start*><*Dest Port End*> <*Network Interface*><*Dest IP*> <*Subnet Mask*>

policy -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying settings for the specified item.
-used	It is used for displaying settings for all the used index entries.
-e	It is used for editing the settings of specified item. When you want to edit the policy, you have to specify two sets of subnet mask. One is for source IP and the other is for Destination IP.
-d	It is used for deleting the settings of specified item.
Index	Enter the number (from 1 to 10) that you want to set for specific configuration.
Protocol	Enter the number listed below to specify speicfic protocol. 0 : TCP ; 1 : UDP ; 2 : FTP ; 3 : TFTP ; 4 : HTTP ; 5 : SMTP ; 6 : POP3 ; 7 : TCP/UDP ; 8 : ALL ; 9 : ICMP ;
Source IP	Enter the IP address as the source IP.
Subnet Mask	Enter the subnet mask for the specified WAN interface.
Dest Port Start	Enter a port number as the starting point of the destination. The range is 1 - 65535
Dest Port End	Enter a port number as the ending point of the destination. The range is 1 – 65535.
Network Interface	Enter the number listed below to specify WAN interface for applying load balance policy. 1 : WAN1 ; 2 : WAN2 ; 3 : WAN3 ; 4 : WAN4
Dest IP	Enter the IP address as the destination.

Example

```
DrayTek/network> policy -s 1
-------------------
 Load Balance Policy
-------------------
Index: 1
```

```
Protocol: TCP
Source IP:
Source Subnet Mask:
Dest Port Start:
Dest Port End:
Network Interface: LAN
Dest IP:
Dest Subnet Mask:
DrayTek/network> policy -used
Used Index:
```

2.3.5 static_dhcp

This command can set Static DHCP configuration.

static_dhcp -s <*Index*>

static_dhcp -e <*Index*> <*Host MacAddress*> <*Assign IP*>

static_dhcp -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number (from 1 to 10) that you want to set for specific configuration.
Host MacAddress	Enter the MAC address of the Host.
Assign IP	Enter the IP address for the host.

Example

```
DrayTek/network> static_dhcp -e 2 10:24:33:15:26:00 192.168.1.56
DrayTek/network> static_dhcp -s 2
-------------------
 Static Dhcp
-------------------
Index: 2
Mac address: 10:24:33:15:26:00
Assign IP address: 192.168.1.56
```

2.4 qos

2.4.1 incoming

This command can set bandwidth percentage for data and voice signals transmission.

2.4.1.1 active

This command can enable Incoming QoS function.

active -s

active <*Status*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Status	Enter “0” to disable incoming QoS function. Enter “1” to enable incoming QoS function.

Example

```
DrayTek/qos/incoming> active -s
Status: Disable
```

2.4.1.2 class

This command can set the incoming class table for QoS function.

class -s <*Index*>

class -e <*Index*> <*Classname*> <*Bandwidth*>

class -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number (from 1 to 7) of incoming class that you want to set for specific configuration.
Classname	Enter the name for each queue.
Bandwidth	Enter the usage percentage (with number) for each queue. The total sum of bandwidth has to be 100 percent for all configured queues. Any leftover bandwidth is assigned to eight queues to meet 100 percent totally.

Example

```
DrayTek/qos/incoming> class -e 1 discussion 15
DrayTek/qos/incoming> class -s 1
Index: 1
Class Name: discussion
Bandwidth: 15
```

2.4.4.3 filter

This command can set incoming filter table for QoS function.

Filter -s <*Index*>

Filter -e <*Index*> <*SrcAddr*> <*SrcMask*> <*DstAddr*><*DstMask*> <*STStatus*> <*ServiceType*><*Protocol*> <*Source Port Start*> <*Source Port End*><*Destination Port Start*> <*Destination Port End*><*DSCPStauts*> <*DSCPType*> <*DSCP*> <*FilterTo*>

Filter -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number (from 1 to 10) of incoming class that you want to set for specific configuration.
SrcAddr	Enter the source IP address to be applied for this filter.
SrcMask	Enter the subnet mask value (/24 ; /16 ; /8 ; /25 ; /26 ; /27 /28 ; /29 ; /30 ; /31 ; /32) for the source IP address to be applied for this filter.
DstAddr	Enter the destination IP address to be applied for this filter.
DstMask	Enter the subnet mask value (/24 ; /16 ; /8 ; /25 ; /26 ; /27 /28 ; /29 ; /30 ; /31 ; /32) for the destination IP address to be applied for this filter.
STStatus	It is used for specifying if service type, protocol will be configured. Ener the number (0,1 or 2) to specify service type status. 0: Basic (Only the **Service Type** field is allowed to be configured.); 1: Advanced (The **Protocol** and **Port** fields are allowed to be configured.); 2: None (No field is allowed to be configured.)
ServiceType	There are thirty-five service types provided here. The available

	number that you can enter is 0 ~ 34.
Protocol	Enter the number (0,1 or 2) to specify protocol. 1: TCP ; 2: UDP; 3:TCP/UDP
Source Port Start	Enter the number (1 ~ 65535) as the source port start for this filter.
Source Port End	Enter the number (1 ~ 65535) as the source port end for this filter.
Destination Port Start	Enter the number (1 ~ 65535) as the destination port start for this filter.
Destination Port End	Enter the number (1 ~ 65535) as the destination port end for this filter.
DSCPStatus	Enter the number (0,1 or 2) to specify DiffServ CodePoint status. 0: Basic (Only the **DiffServ CodePoint Type** field can be configured) ; 1: Advanced (Only the **DiffServ CodePoint** field can be configured); 2: None (No field is allowed to be configured)
DSCPType	There are twenty-one types supported. The available number that you can enter is 0 ~ 20.
DSCP	Enter the number (by hex mode) to be applied for incoming filter.
FilterTo	Enter the number (1 ~ 8) to choose a filtering condition to be applied.

Example

```
DrayTek/qos/incoming> filter -s 1
-------------------
 QoS Incoming Filter
-------------------
Index: 1
Source IP Address:
Source Mask:
Destination IP Address:
Destination Mask:
Service Type Status: Basic
Service Type: AUTH(TCP:113)
Protocol:
Source Port Start:
Source Port End:
Destination Port Start:
Destination Port End:
DSCP Status: Basic
DSCP Type: BE
DSCP:
Filter to:
```

2.4.2 outgoing

2.4.2.1 active

This command can enable outgoing QoS function.

active -s

active <*Status*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Status	Enter “0” to disable outgoing QoS function. Enter “1” to enable outgoing QoS function.

Example

```
DrayTek/qos/outgoing> active -s
Status: Disable
```

2.4.2.2 class

This command can set the outgoing class table for QoS function.

class -s <*Index*>

class -e <*Index*> <*Classname*> <*Bandwidth*>

class -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number (from 1 to 7) of outgoing class that you want to set for specific configuration.
Classname	Enter the name for each queue.
Bandwidth	Enter the usage percentage (with number) for each queue. The total sum of bandwidth has to be 100 percent for all configured queues. Any leftover bandwidth is assigned to eight queues to meet 100 percent totally.

Example

```
DrayTek/qos/outgoing> class -e 1 upload 15
DrayTek/qos/outgoing> class -s 1
Index: 1
Class Name: upload
Bandwidth: 15
```

2.4.2.3 filter

This command can set outgoing filter table for QoS function.

Filter -s <*Index*>

Filter -e <*Index*> <*SrcAddr*> <*SrcMask*> <*DstAddr*><*DstMask*> <*STStatus*> <*ServiceType*><*Protocol*> <*Source Port Start*> <*Source Port End*><*Destination Port Start*> <*Destination Port End*><*DSCPStauts*> <*DSCPType*> <*DSCP*> <*FilterTo*>

Filter -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number (from 1 to 10) of outgoing class that you want to set for specific configuration.
SrcAddr	Enter the source IP address to be applied for this filter.
SrcMask	Enter the subnet mask value (/24 ; /16 ; /8 ; /25 ; /26 ; /27 /28 ; /29 ; /30 ; /31 ; /32) for the source IP address to be applied for this filter.
DstAddr	Enter the destination IP address to be applied for this filter.
DstMask	Enter the subnet mask value (/24 ; /16 ; /8 ; /25 ; /26 ; /27 /28 ; /29 ; /30 ; /31 ; /32) for the destination IP address to be applied for this filter.
STStatus	It is used for specifying if service type, protocol will be configured. Ener the number (0,1 or 2) to specify service type status. 0: Basic (Only the **Service Type** field is allowed to be configured.); 1: Advanced (The **Protocol** and **Port** fields are allowed to be configured.); 2: None (No field is allowed to be configured.)
ServiceType	There are thirty-five service types provided here. The available number that you can enter is 0 ~ 35.
Protocol	Enter the number (0,1 or 2) to specify protocol. 1: TCP ; 2: UDP; 3:TCP/UDP
Source Port Start	Enter the number (1 ~ 65535) as the source port start for this

	filter.
Source Port End	Enter the number (1 ~ 65535) as the source port end for this filter.
Destination Port Start	Enter the number (1 ~ 65535) as the destination port start for this filter.
Destination Port End	Enter the number (1 ~ 65535) as the destination port end for this filter.
DSCPStatus	Enter the number (0,1 or 2) to specify DiffServ CodePoint status. 0: Basic (Only the **DiffServ CodePoint Type** field can be configured) ; 1: Advanced (Only the **DiffServ CodePoint** field can be configured); 2: None (No field is allowed to be configured)
DSCPType	There are twenty-one types supported. The available number that you can enter is 0 ~ 21.
DSCP	Enter the number (by hex mode) to be applied for incoming filter.
FilterTo	Enter the number (1 ~ 8) to choose a filtering condition to be applied.

Example

```
DrayTek/qos/outgoing> filter -s 1
-------------------
 QoS outgoing Filter
-------------------
Index: 1
Source IP Address:
Source Mask:
Destination IP Address:
Destination Mask:
Service Type Status: Basic
Service Type: AUTH(TCP:113)
Protocol:
Source Port Start:
Source Port End:
Destination Port Start:
Destination Port End:
DSCP Status: Basic
DSCP Type: BE
DSCP:
Filter to:
```

2.5 System

2.5.1 acl

This command can set PING restriction for Access Control function.

acl -s

acl <Disable LAN PING> <Disable WAN PING>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Disable LAN PING	It can reject all ICMP packets from LAN side. Enter “0” to disable this function. All ICMP packets will be accepted. Enter “1” to enable this function. All ICMP packets will be rejected.
Disable WAN PING	It can reject all ICMP packets from WAN side. Enter “0” to disable this function. All ICMP packets will be accepted. Enter “1” to enable this function. All ICMP packets will be rejected.

Example

```
DrayTek/system> acl -s
Access Control Setting:
   Disable ping from LAN: Disable
   Disable ping from WAN: Disable
```

2.5.2 administrator

This command can set password for administrator. After finishing the settings,you have to reboot to take effect the changes.

administrator *<old password> <new password><verify password>*

Syntax Description

Syntax	*Description*
old password	Enter the old password for the administrator to access into Vigor3300 series.
new password	Enter a new password for the administrator to access into Vigor3300 series.
verify password	Enter the new password again for confirmation.

Example

```
DrayTek/system> administrator 1234 5678 5678
Password is changed!!
```

2.5.3 ntp

This command can set Network Time Protocol (NTP) client and the router can get standard time from the time server.

ntp -s

ntp *<Disable>*

ntp *<Enable> <NTP Server IP><Daylight savings time> <Update Interval><area>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Disable	Enter “0” to use the browser time from the remote administrator PC host as router’s system time.
Enable	Enter “1” to use the time from an NTP server as router’s system time.
NTP Server IP	Enter a public IP address or domain name of the NTP server.
Daylight savings time	Enter “0” to close the daylight saving time. Or enter “1” to activate daylight saving time. This function is useful for some areas only.
Update Interval	Enter a time interval with number of 30/60/300/600 for updating from the NTP server. 30 : 30 seconds ; 60 : 1 minute: 300 : 5 minutes; 600 : 10 minutes
area	Enter the number (0 – 72) to specify the time zone for different areas.

Example

```
DrayTek/system> ntp -s
Status: Disable
NTP Server IP:
Daylight savings time: 0
Update Interval: 3030 Seconds
area: 22 (refer to manual)
```

2.5.4 port

This command can set port management configuration. After finishing the settings, you have to reboot to take the changes effect.

port -s

port -r

port *<HTTP Enable> <TELNET Enable> <SSH Enable><Use Default Port or Not> <Manage from WAN>*

port -p *<Http> <Telnet> <SSH>*

port -i *<Permit IP1>*

port -i *<Permit IP1> <Permit IP2>*

port -i *<Permit IP1> <Permit IP2> <Permit IP3>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
-r	It is used for restarting the router for applying new changes.
-p	It is used for configuring port number for HTTP/telnet/SSH.
-i	It is used for specifying IP address as network administrator. Three sets of IP addresses are allowed.
HTTP Enable	Accept HTTP protocol as network administration. Enter 1 to accept it, enter 0 to discard it.
TELNET Enable	Accept TELNET protocol as network administration. Enter 1 to accept it, enter 0 to discard it.
SSH Enable	Accept SSH protocol as network administration. Enter 1 to accept it, enter 0 to discard it.
Use Default Port or Not	Enter 0 to use default setting; enter 1 to use customized setting. 0 : Default ; 1 : User Define
Manage from WAN	Enter the number to specify the management from WAN. 0 : Disable all from WAN; 1 : Enable all from WAN; 2 : Enable only defined WAN IP;
Http	Type the protocol number for HTTP. The default setting is 80.
Telnet	Type the protocol number for TELNET. The default setting is 23.
SSH	Type the protocol number for SSH. The default setting is 22.
Permit IP1	Type the IP address for the first permitted group, ex. 192.168.1.55
Permit IP2	Type the IP address for the second permitted group, ex. 192.168.1.58
Permit IP3	Type the IP address for the third permitted group, ex.

	192.168.1.59

Example

```
DrayTek/system> port -i 192.168.1.6 192.168.1.88
DrayTek/system> port -s
Default or user define port : Default
Manage from WAN : Disable All
Permit IP1 : 192.168.1.6
Permit IP2 : 192.168.1.88
Permit IP3 :
HTTP: Enable  (80)
TELNET: Enable  (23)
```

2.5.5 reboot

This command can reboot the router.

reboot <*Use default configuration*>

Syntax Description

Syntax	*Description*
Use default configuration	Enter “default” to use default setting to reboot the router.

Example

```
DrayTek/system> reboot default
After reboot, changes will take effect. Reboot now? (y/n) y
```

2.5.6 status

This command can display current status of router.

status

Syntax Description

Syntax	*Description*
status	Displays firmware, hardware, build date & time, CPU usage, IP address, MAC address of the router.

Example

```
DrayTek/system> status
-------------------
 System Status
-------------------
Model: Vigor3300V
Firmware Version: 2.5.7.2 fix cli
Hardware Version: 1.0
Build Date&Time: Mon Oct  2 10:51:10 CST 2006
System Uptime: 0 days 0 hours 28 minutes 39 seconds
CPU Usage: 0.5063%
Memory Usage: 57.8761%
IP Address: 192.168.1.1
MAC Address: 00:00:00:00:00:01
```

2.5.7 syslog

This command can set syslog server for keeping a record of abnormal conditions. The router will send Syslog packets to a Syslog server on the remote site. The administrator can observe any abnormal events from the router.

syslog -s

syslog <*Disable*>

syslog <*Enable*> <*IP*> <*Port*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Disable	Enter “0” to disable syslog displaying. The router will not send out any message about system log.
Enable	Enter “1” to enable syslog displaying. The router will send system log message for your reference.
IP	Enter the IP address of the Syslog server. If a user assigns an IP address of “0.0.0.0”, the Syslog function will be disabled. Then, Vigor3300 will not send Syslog packets to the Syslog server.
Port	Enter a port for the Syslog protocol.

Example

```
DrayTek/system> syslog 1 192.168.1.75 680
DrayTek/system> syslog -s
-------------------
 Syslog Setting
-------------------
Syslog Status: 1
Syslog Server IP: 192.168.1.75
Syslog Port: 514
```

2.6 voip

2.6.1 advspdial

2.6.1.1 advspdial

This command can set advanced speed dial.

advspdial -s *<Index>*

advspdial -e *<Index> <Prefix> <Strip> <Append><Destination> <Memo>*

advspdial -d *<Index>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
-e	It is used for editing the settings of specified item.
-d	It is used for deleting the settings of specified item.
Index	Enter the number (from 1 to 30) that you want to set for specific configuration.
Prefix	Type a prefix for checking the phone number that users dial out. e.g., 101. For example, suppose that there are two outgoing calls with phone numbers of 03654321 and 04556890. In which, 03654321 is suitable for this speed dial rule.
Strip	Type a length of digit to be removed from the original phone number. For example, suppose the original phone number is 03654321 and the strip length is 2. The first two numbers (03) will be removed and the final phone number becomes 654321.
Append	Type a new number to be added before the phone number (after removing length of digit). For example, suppose the original phone number is 03654321. The strip length is 2 and the append number is 886. Then, the final phone number will be 886654321.
Destination	Type an IP address (or domain name) for the destination which the SIP message would be sent to
Memo	Type a description (text) for the specified number.

Example

```
DrayTek/voip/advspdial> advspdial -e 2 05 2 86 192.168.1.50 joy
DrayTek/voip/advspdial> advspdial -s 2
------------------
 VoIP Advanced Speed Dial
------------------
Index: 2
Prefix: 05
Strip Length: 2
```

```
Append: 86
Destination: 192.168.1.50
Memo: joy
```

2.6.2 in_barring

Incoming Call Barring (in_barring) can be used to bar incoming VoIP calls from the Internet.

2.6.2.1 allow

This command can set allow list of incoming calls. Only the people listed in this list can call this router

allow -s *<Index>*

allow *<Index> <Name> <IP/Domain>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Index	Enter the number (from 1 to 30) that you want to set for specific configuration.
Name	Type name or number in the allow list.
IP/Domain	Type IP address or domain name to be allowed.

Example

```
DrayTek/voip/in_barring> allow 1 john 192.168.1.6
DrayTek/voip/in_barring> allow -s 1
Name : john
IP/Domain : 192.168.1.6
```

2.6.2.2 deny

This command can set deny list of incoming calls. Only people listed in this list **cannot** call this router.

deny -s <*Index*>

deny <*Index*> <*Name*> <*IP/Domain*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Index	Enter the number (from 1 to 30) that you want to set for specific configuration.
Name	Type name or number in the allow list.
IP/Domain	Type IP address or domain name to be allowed.

Example

```
DrayTek/voip/in_barring> deny 1 tom 192.168.1.55
DrayTek/voip/in_barring> deny -s 1
Name : tom
IP/Domain : 192.168.1.55
```

2.6.2.3 set

This command can block incoming VoIP calls from the Internet. Barring classes can be specified to allow or deny incoming calls. There are five barring classes on the device. The default setting is **Allow all incoming calls**.

set -s

set *<class><Match Method Name><Match Method IP/Domain><Speed Dial Entries From><Speed Dial Entries To>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
class	Enter the number from 0 to 4 to specify barring class for incoming calls. 0 : Allow all incoming calls 1 : Allow only calls from allow list 2 : Allow only calls from speed dial entries 3 : Deny only calls from deny list 4 : Deny all incoming calls
Match Method Name	This setting can make values set in **Speed Dial Phone Number** be effective. Enter “0” to disable this function. Enter ‘1” to enable this function.
Match Method IP/Domain	This setting can make values set in **Speed Dial Destination** be effective. Enter “0” to disable this function. Enter ‘1” to enable this function.
Speed Dial Entries From	Enter the start point (with index number) of the speed dial phone number for block. The available number you can enter is 1 – 150.
Speed Dial Entries To	Enter the end point (with index number) of the speed dial phone number for block. The available number you can enter is 1 – 150.

Example

```
DrayTek/voip/in_barring> set -s
Class : Allow all incoming calls
Match Method - Name : Enable
Match Method - IP/Domain : Enable
Speed Dial Entries - From : 1
Speed Dial Entries - To : 150
```

2.6.3 misc

2.6.3.1 dialing_timeout

This command can specify the dialing completion timeout. The system will force to dial the incomplete number after the time you set in this field to finish that call.

dialing_timeout -s

dialing_timeout <*value*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
value	The unit is second. Available range is 1 to 60.

Example

```
DrayTek/voip/misc> dialing_timeout 30
DrayTek/voip/misc> dialing_timeout -s
VOIP Dialing Completion Timeout :30
```

2.6.3.2 fxo_auto_disconnect

This command can determine the time length for the FXO disconnecting automatically when there is no packet received.

fxo_auto_disconnect -s

fxo_auto_disconnect <*value*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
value	The unit is second. Available range is 1 to 60.

Example

```
DrayTek/voip/misc> fxo_auto_disconnect 30
DrayTek/voip/misc> fxo_auto_disconnect -s
VOIP FXO auto disconnect time :30
```

2.6.3.3 fxs_ringing

This command can specify the FXS Ringing cadence and frequency.

fxs_ringing -s

fxs_ringing <*Cadence_On*> <*Cadence_Off*> <*Frequency*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Cadence_On	It can determine the length of the ringing time for incoming calls. Enter a proper number. The unit is msec.
Cadence_Off	It can determine the length of the ringing time for incoming calls. Enter a proper number. The unit is msec.
Frequency	Enter the number to specify frequency for the incoming calls. Available number you can enter is: 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 68

Example

```
DrayTek/voip/misc> fxs_ringing 2000 4000 25
DrayTek/voip/misc> fxs_ringing -s
==== VoIP FXS Ringing ===
Cadence On: 2000
Cadence Off: 4000
Frequency: 25
```

2.6.3.4 line_reversal

This command can generate line polarity reversal while the remote user picks up the phone call.

line_reversal -s

line_reversal <*Mode*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Mode	Enter “0” to disable this function. Enter “1” to enable this function.

Example

```
DrayTek/voip/misc> line_reversal 0
DrayTek/voip/misc> line_reversal -s
Line Polarity Reversal as Callee Answer :Disable
```

2.6.3.5 rtp_port

This command can set port number for sending/receiving RTP packets.

rtp_port -s

rtp_port <*Port number*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Port number	Enter the port number. The available number is 1 to 65535. The default setting is 13456.

Example

```
DrayTek/voip/misc> rtp_port 13456
DrayTek/voip/misc> rtp_port -s
RTP Starting Port: 13456
```

2.6.3.6 t38port

This command can set T38 starting port.

t38port -s

t38port <*port*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Port	Enter the port number. The available number is 1 to 65535. The default setting is 49170.

Example

```
DrayTek/voip/misc> t38port 49170
DrayTek/voip/misc> t38port -s
T.38 Starting Port: 49170
```

2.6.3.7 t38redundancy

This command can set T38 redundancy number.

t38redundancy -s

t38redundancy <*Number*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Number	Enter the redundancy number for T.38 protocol (how many payloads attaching to the tail of the packet). The default value is 1. Available range is 0 ~ 4.

Example

```
DrayTek/voip/misc> t38redundancy 2
DrayTek/voip/misc> t38redundancy -s
T.38 Redundancy number: 2
```

2.6.3.8 tos

This command can set IP ToS (type of service) bits of RTP packet.

tos -s

tos <*Value*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Value	Enter the number for RTP packet. Available range is 00 ~ ff (hex value).

Example

```
DrayTek/voip/misc> tos a0
DrayTek/voip/misc> tos -s
VOIP ToS :0xa0
```

2.6.4 port

2.6.4.1 callforward

This command can set call forwarding to forward all incoming calls to the specified SIP URL site.

callforward -s

callforward <*Port*> <*Mode*>

callforward <*Port*> <*Mode*> <*SIP URL*>

callforward <*Port*> <*Mode*> <*SIP URL*> <*No Answer Rings*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Port	Enter the item number that you want to set or edit for processing the incoming calls.
Mode	It determines the call forwarding function. Enter a proper number to apply different effect. 0: Disable 1: Call forwarding all calls 2: Call forwarding busy 3: Call forwarding no answer
SIP URL	Enter a SIP URL (ex: 101@iptel.org) site to receive forwarded calls.
No Answer Rings	Enter the number of answer rings. After ringing for the times set here, the incoming calls will be forwarded to the specified URL site. Available range is 1~10.

Example

```
DrayTek/voip/port> callforward 1 1
DrayTek/voip/port> callforward -s
-------------------------------------------------------------------------
Port        Mode                 SIP URL          No Answer Rings
-------------------------------------------------------------------------
1   Call forwarding all calls                          3
2   Disable                                          3
3   Disable                                          3
4   Disable                                          3
5   Disable                                          3
6   Disable                                          3
7   Disable                                          3
8   Disable                                          3
```

2.6.4.2 codec

This command can set codec related setting.

codec -s

codec <*Device port*> <*Prefer*> <*Rate*> <*VAD*>

codec -single <*Device port*> <*Mode*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
-single	It is used for configuring single codec. That is, only preferred codec will be used for outgoing and incoming calls.
Device port	Enter the item number that you want to set or edit.
Prefer	Enter the number listed below (0 ~ 4) for using as preferred Codec for outgoing calls. 0:G.711U(PCMU) -64kbps 1:G.711A(PCMA) -64kbps 2:G.729A -8kbps 3:G.723.1 -6.3kbps 4:G.726 -32kbps
Rate	Enter the rate value (20/30/40) to be applied on this port. 20 or 40 - for PCMU or PCMA (DEFAULT 20) 20 or 40 or 60 or 80 - for G.729A (DEFAULT 20) 30 or 60 - for G.723.1 (DEFAULT 30) 20 or 40 - for G.726 (DEFAULT 20)
VAD	It means Voice Activity Detection and can detect whether the voice activity is progressing or not. Enter “0” to disable this function. Enter “1” to enable this function.
Mode	Enter “0” to disable single codec function. Enter “1” to enable single codec function.

Example

```
DrayTek/voip/port> codec 1 1 20 1
DrayTek/voip/port> codec -s
#      Codec Prefer    Codec Rate(ms)  Codec VAD      Single Codec
1.     G.711A(PCMA) - 64kbps   20     Enable  Disable
2.     G.729A - 8kbps  20     Disable Disable
3.     G.729A - 8kbps  20     Disable Disable
4.     G.729A - 8kbps  20     Disable Disable
5.     G.729A - 8kbps  20     Disable Disable
```

```
6.      G.729A - 8kbps  20      Disable Disable
7.      G.729A - 8kbps  20      Disable Disable
8.      G.729A - 8kbps  20      Disable Disable
```

2.6.4.3 disconnect

This command can disconnect FXO connection.

disconnect <*Device port*>

Syntax Description

Syntax	*Description*
Device port	Enter the item number that you want to disconnect.

Example

```
DrayTek/voip/port> disconnect 1
```

2.6.4.4 dtmf_relay

This command can set DTMF relay function.

dtmf_relay -s

dtmf_relay <*Device port*> <*Mode*>

dtmf_relay <*Device port*> <*Mode*> <*SIP_INFO_Mode*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Device port	Enter the item number that you want to set or edit.
Mode	Enter “0” to disable this function. Enter “1” to enable this function with RFC2833 (the router will capture the keypad number you pressed and transform it to digital form then send to the other side). Enter “2” to enable this function with SIP INFO (the router will capture the DTMF tone and transfer it into SIP form and be sent to the remote end with SIP message.
SIP_INFO_Mode	Enter “0” to set CISCO. Enter “1” to set NORTEL.

Example

```
DrayTek/voip/port> dtmf_relay 1 2 1
DrayTek/voip/port> dtmf_relay -s
-----------------------------------------------
Port    DTMF-RELAY     SIP_INFO_Mode
-----------------------------------------------
1       SIP INFO       NORTEL
2       RFC2833
3       RFC2833
4       RFC2833
5       RFC2833
6       RFC2833
7       RFC2833
8       RFC2833
```

2.6.4.5 fax

This command can set fax transport mode.

fax -s

fax <*Device port*> <*Mode0*>

fax <*Device port*> <*Mode1*>

fax <*Device port*> <*Mode2*> <*Codec*> <*Rate*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Device port	Enter the item number that you want to set or edit.
Mode0	Enter “0” to set transparent mode.
Mode1	Enter “1” to set T.38 relay mode.
Mode2	Enter “2” to set bypass mode.
Codec	Enter the number listed below (0 ~ 4) to select one option applied if **Bypass** mode is chosen. 0:G.711U(PCMU) -64kbps 1:G.711A(PCMA) -64kbps 2:G.729A -8kbps 3:G.723.1 -6.3kbps 4:G.726 -32kbps
Rate	Select one option (20 or 40) to be applied if **Bypass** mode is chosen. The stability for the faxing result of documents with codec rate 20ms is higher than 40ms. Yet, the bandwidth request for 40ms is less than 20ms.

Example

```
DrayTek/voip/port> fax 1 2 1 20
DrayTek/voip/port> fax -s
#      Fax Mode       Bypass Codec    Codec Rate(ms)
1.     Bypass  G.711A(PCMA)-64kbps     20
2.     T.38 Relay
3.     T.38 Relay
4.     T.38 Relay
5.     T.38 Relay
6.     T.38 Relay
7.     T.38 Relay
8.     T.38 Relay
```

2.6.4.6 gain

This command can set Gain control for Device Port

gain -s

gain <*Device port*> <*RX Gain*> <*TX Gain*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Device port	Enter the item number that you want to set or edit.
RX Gain	Enter gain value while receiving voice. Available setting is -32~31(db).
TX Gain	Enter the gain value while transmitting voice. Available setting is -32~31(db).

Example

```
DrayTek/voip/port> gain 1 -30  -31
DrayTek/voip/port> gain -s
#      Rx Gain (dB)    Tx Gain (dB)
1.     -30     -31
2.     0       0
3.     0       0
4.     0       0
5.     0       0
6.     0       0
7.     0       0
8.     0       0
```

2.6.4.7 group

This command can set user group setting.

group -s

group *<Mode>*

group *<Mode> <Group of Port 1> <Group of Port 2><Group of Port 3> <Group of Port 4><Group of Port 5> <Group of Port 6><Group of Port 7> <Group of Port 8><Rings>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Mode	Enter “0” to disable this function. Enter “1” to enable this function.
Group of Port 1 – 8	Enter the number (1 to 8) to specify different group.
Rings	Enter the number (0 to 2) to set ring configuration. 0: Rings all ports in the same group while receiving incoming calls 1: Rings the first available port while receiving incoming calls 2: Rings by round robin while receiving incoming calls

Example

```
DrayTek/voip/port> group 1 2 3 4 6 7 8 5 1 1
DrayTek/voip/port> group -s
Mode: Enable
Group of Port 1: 2
Group of Port 2: 3
Group of Port 3: 4
Group of Port 4: 6
Group of Port 5: 7
Group of Port 6: 8
Group of Port 7: 5
Group of Port 8: 1
Rings: Rings the first available port
```

2.6.4.8 hotline

This command can set hotline.

hotline -s

hotline <*Dir*> <*Device port*> <*Digits*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Dir	Enter “0” or “1” to specify hotline type. 0: Hotline to Inetrnet (Pre-set a phone number to make the port dialing out to Internet automatically.) 1: Hotline to PBX / PSTN (Pre-set a phone number to make the port dialing out to PBX/PSTN automatically.)
Device port	Enter the item number (1 to 8) that you want to set or edit.
Digits	Enter the digits as the number of hotline.

Example

```
DrayTek/voip/port> hotline 0 1 558
DrayTek/voip/port> hotline -s
-----------------------------------------------------------------
Index    Hotline Number to Internet    Hotline Number to PBX/PSTN
-----------------------------------------------------------------
1       558
2
3
4
5
6
7
8
```

2.6.4.9 phonenumber

This command can activate phone number settings.

set -s

set *<Device port> <Active>*

set *<Device port> <Active> <Phone number> <Password><Display name> <Authentication ID>*

(PS: syntax error, "set" should be changed with "phonenumber". Otherwise, users cannot do anything.)

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Device port	Enter the item number (1 to 8) that you want to set or edit.
Active	Enter "0" to turn off phone number setting of this port. Enter "1" to turn on phone number setting of this port.
Phone number	Enter a number as a phone number.
Password	Enter the user password for each phone line.
Display name	Enter the user name to be displayed on another phone terminal.
Authentication ID	Enter the characters for authenticate this port.

Example

```
DrayTek/voip/port> phonenumber -s
-----------------------------------------------------------------------
Index  Active  Username  Password  Display Name  Authentication ID
-----------------------------------------------------------------------
1      Enable  1001    ****    1001    1001
2      Enable  1002    ****    1002    1002
3      Enable  1003    ****    1003    1003
4      Enable  1004    ****    1004    1004
5      Enable  1005    ****    1005    1005
6      Enable  1006    ****    1006    1006
7      Enable  1007    ****    1007    1007
8      Enable  1008    ****    1008    1008
```

2.6.4.10 proxy

This command can display Proxy server information or specify a SIP proxy server to be used. Before using this command, you **have to** enter necessary information for SIP proxy server.

proxy -s

proxy <*Device port*> <*Proxy#*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Device port	Enter the item number (1 to 8) that you want to set or edit.
Proxy#	Enter the number below to specify a SIP proxy server to be applied on this port. 0: Disable 1: use Proxy 1 2: use Proxy 2 3: use Proxy 3

Example

```
DrayTek/voip/port> proxy -s
-----------------------------------------------
Port   Proxy
-----------------------------------------------
1
2      serverone
3
4
5
6
7
8
```

2.6.4.11 voip_ip

This command can set VoIP IP on WAN or LAN/VPN. If LAN/VPN is selected, VoIP can be applied through a VPN tunnel to create a high security voice phone.

voip_ip <*Port*> **-s**

voip_ip <*Port*> <*IF*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Port	Enter the item number (1 to 8) that you want to set or edit.
IF	Enter the number to specify interface for VoIP traffics. 0: WAN 1: VPN/LAN1 2: VPN/LAN2 3: VPN/LAN3 4: VPN/LAN4

Example

```
DrayTek/voip/port> voip_ip 2 3
DrayTek/voip/port> voip_ip 2 -s
Port1 VoIP IP: LAN3/VPN
```

2.6.5 protocol

There are two protocols can be used for VoIP - SIP and MGCP. You should click either one of buttons to set corresponding settings for VoIP phones. Be aware that both sides (local end and remote end) should use same protocol for VoIP phones.

2.6.5.1 mgcp

a. callagent

This command can set MGCP Call Agent.

callagent -s

callagent <*Address*> <*Port number*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Address	Enter the IP address or domain name of the Call Agent server in MGCP.
Port number	Enter the UDP port number for the Call Agent server . Available range is 1 to 65535.

Example

```
DrayTek/voip/protocol/mgcp> callagent 172.16.3.55 2727
DrayTek/voip/protocol/mgcp> callagent -sAddress: 172.16.3.55
Port number: 2727
```

b. epidstyle

This command can set name ID style of endpoint for the VoIP settings.

epidstyle -s

epidstyle <*Mode*>

epidstyle <*Mode*> <*Value*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Mode	Enter the number listed below to specify certain mode: 0: aaln/#@[ip_addr] (default setting) 1: mac_addr/#1@[ip_addr] 2: aaln/#@mac_addr 3: aaln/#@domain_name
Value	When you choose “3” as the mode, please set value after @ for the mode you choose.

Example

```
DrayTek/voip/protocol/mgcp> epidstyle 2
DrayTek/voip/protocol/mgcp> epidstyle -s
EndPoint Name Style: aaln/#@mac_addr
domain_name:
```

c. localport

This command can set local listening port number for MGCP. UDP port number in MGCP local terminal.

localport -s

localport <*Port number*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Port number	Enter the UDP port number in MGCP local terminal . Available range is 1 to 65535.

Example

```
DrayTek/voip/protocol/mgcp> localport 247
DrayTek/voip/protocol/mgcp> localport -s
localport: 247
```

d. wildrsip

This command can enable or disable the action of sending RSIP with wildcarded endpoint ID. For VoIP phone call with MGCP configuration, each port will send RSIP to call agent for notifying that port is initiated or restarted.

wildrsip -s

wildrsip <*Enable*>

wildrsip <*Disable*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Enable	Type “1” to enable this function.
Disable	Type “0” to disable this function.

Example

```
DrayTek/voip/protocol/mgcp> wildrsip 1
DrayTek/voip/protocol/mgcp> wildrsip -s
Wild RSIP: Enable
```

2.6.5.2 sip

a. localport

This command can set local listening port number for SIP.

localport -s

localport <*Port number*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Port number	Enter the UDP port number for SIP protocol . Available range is 1 to 65535. The default value is 5060.

Example

```
DrayTek/voip/protocol/sip> localport 6567
DrayTek/voip/protocol/sip> localport -s
SIP Port: 6567
```

b. set

This command can set SIP proxy server.

set -s

set <*Proxy#*> <*Active*>

set <*Proxy#*> <*Active*> <*Outbound*>

set <*Proxy#*> <*Active*> <*Outbound*> <*Proxy Name*> <*Proxy Addr*> <*Proxy Port*><*Registrar Addr*> <*Registrar Port*> <*Expires*> <*Domain*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Proxy#	Enter the number (1 – 3) to specify SIP proxy server.
Active	Enter “0” to disable the specified SIP proxy server. Enter “1” to enable the specified SIP proxy server.
Outbound	Enter “0” to disable this function. This setting is default. Enter “1” to enable this function for sending SIP protocol packets to an SIP proxy server.
Proxy Name	Enter the name of the SIP proxy server.
Proxy Addr	Enter the IP address or domain name of the SIP proxy server.
Proxy Port	Enter the port number of the SIP proxy server. Available range is 1 to 65535.

Registrar Addr	Enter the IP address or domain name of the SIP registrar server.
Registrar Port	Enter the port number of the SIP registrar server. Available range is 1 to 65535.
Expires	Enter the timeout value for SIP protocols. The default value is 300. And the minimum is 60 (seconds).
Domain	Enter the IP address or domain name of the SIP Domain/Realm.

Example

```
DrayTek/voip/protocol/sip> $.3.228 5060 172.16.3.1 5060 60 www.test.com
DrayTek/voip/protocol/sip> set -s
#      Acitve  Proxy Name     Proxy Addr     Proxy Port     Registrar Addr
Registrar Port  Expires Domain  Outbound Proxy
1.     Enable  test    172.16.3.228    5060    172.16.3.1     5060    60
www.test.com    Enable, as an outbound proxy
2.     Disable        0      5060    0      5060    300    0      Disable

3.     Disable        0      5060    0      5060    300    0      Disable
```

Note: $ means the hidden information due to the screen limitation. It does not affect the configuration.

2.6.5.3 set

This command can set Set Default VoIP Protocol as SIP or MGCP.

set -s

set <*Protocol*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Protocol	Enter the number to specify SIP or MGCP as the default VoIP protocol. 0: MGCP, 1: SIP

Example

```
DrayTek/voip/protocol> set 0
DrayTek/voip/protocol> set -s
VOIP Protocol: MGCP
```

2.6.6 speeddial

It allows you to set a simple way to dial a specific number. Up to 150 numbers can be stored in Vigor3300V.

2.6.6.1 del

This command can delete speed dial setting.

del <*Index*>

Syntax Description

Syntax	*Description*
Index	Enter the number of the speed dial setting that you want to remove. The available range is 1 to 150.

Example

```
DrayTek/voip/speeddial> del 3
DrayTek/voip/speeddial>
```

2.6.6.2 set

This command can set speed dial setting.

set <*Index*> <*Number*> <*Destination*> <*Memo*>

Syntax Description

Syntax	*Description*
Index	Enter the number of the speed dial setting that you want to set. The available range is 1 to 150.
Number	Enter the phone number to be used as quick dial, ex: 101.
Destination	Enter the destination address of the dial, ex: 101@iptel.org.
Memo	Enter a description for the specified number.

Example

```
DrayTek/voip/speeddial> set 1 512 512@iptel.org first
DrayTek/voip/speeddial>
```

2.6.6.3 show

This command can show speed dial setting.

show

show <*start*> <*end*>

Syntax Description

Syntax	*Description*
start	Enter the start point of the whole speed dial list that you want to check. The available range is 1 to 150.
end	Enter the end point of the whole speed dial list that you want to check. The available range is 1 to 150.

Example

```
DrayTek/voip/speeddial> show 1 8
-----------------------------------------------
Index   Phone Number   Destination       Memo
-----------------------------------------------
1       512           512@iptel.org     first
2
3
4
5
6
7
8
```

2.6.7 tone

2.6.7.1 user_defined

This command can set tone settings to fit the telecommunication custom for the local area of the router installed manually.

a. busy

This command can set busy tone for VoIP calls.

busy -s

busy <*Lowfreq*> <*Howfreq*> <*Ton1*> <*Toff1*> <*Ton2*> <*Toff1*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Lowfreq	Enter the low frequency number in Hertz.
Howfreq	Enter the high frequency number in Hertz.
Ton1	Enter the duration of the first ring. The unit 10msec.
Toff1	Enter the silence duration after the first ring. The unit 10msec.
Ton2	Enter the duration of the next continuous ring. The unit 10msec.
Toff1	Enter the silence duration after the next continuous ring. The unit 10msec.

Example

```
DrayTek/voip/tone/user_defined> busy 10 100 10 10 10 10
DrayTek/voip/tone/user_defined> busy -s
==== VoIP Busy Tone ===
LowFreq: 10
HignFreq: 100
TOn1: 10
TOff1:10
TOn2: 10
TOff2: 10
```

b. callerid

This command can set Caller ID type.

callerid -s

callerid <*Type*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Type	Enter the number listed below to specify type of caller ID. 0:North America 1:JAPAN 2:ETSI (DEFAULT) 3:DTMF

Example

```
DrayTek/voip/tone/user_defined> callerid 0
DrayTek/voip/tone/user_defined> callerid -s
VoIP Caller ID Type :North America
```

c. congestion

This command can set congestion mode to indicate the network is busy.

congestion -s

congestion <*Lowfreq*> <*Howfreq*> <*Ton1*> <*Toff1*> <*Ton2*> <*Toff1*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Lowfreq	Enter the low frequency number in Hertz.
Howfreq	Enter the high frequency number in Hertz.
Ton1	Enter the duration of the first ring. The unit 10msec.
Toff1	Enter the silence duration after the first ring. The unit 10msec.
Ton2	Enter the duration of the next continuous ring. The unit 10msec.
Toff1	Enter the silence duration after the next continuous ring. The unit 10msec.

Example

```
DrayTek/voip/tone/user_defined> congestion 10 50 50 50 50 50
```

```
DrayTek/voip/tone/user_defined> congestion -s
==== VoIP Congestion Tone ===
LowFreq: 10
HignFreq: 50
TOn1: 50
TOff1:50
TOn2: 50
TOff2: 50
```

d. dial

This command can set dial tone which can indicate a phone line is ready to make a call.

dial -s

dial <*Lowfreq*> <*Howfreq*> <*Ton1*> <*Toff1*> <*Ton2*> <*Toff1*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Lowfreq	Enter the low frequency number in Hertz.
Howfreq	Enter the high frequency number in Hertz.
Ton1	Enter the duration of the first ring. The unit 10msec.
Toff1	Enter the silence duration after the first ring. The unit 10msec.
Ton2	Enter the duration of the next continuous ring. The unit 10msec.
Toff1	Enter the silence duration after the next continuous ring. The unit 10msec.

Example

```
DrayTek/voip/tone/user_defined> dial 20 50 200 200 200 200
DrayTek/voip/tone/user_defined> dial -s
==== VoIP Dial Tone ===
LowFreq: 20
HignFreq: 50
TOn1: 200
TOff1:200
TOn2: 200
TOff2: 200
```

e. ringing

This command can set features for ringing calls.

ringing -s

ringing <*Lowfreq*> <*Howfreq*> <*Ton1*> <*Toff1*> <*Ton2*> <*Toff1*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Lowfreq	Enter the low frequency number in Hertz.
Howfreq	Enter the high frequency number in Hertz.
Ton1	Enter the duration of the first ring. The unit 10msec.
Toff1	Enter the silence duration after the first ring. The unit 10msec.
Ton2	Enter the duration of the next continuous ring. The unit 10msec.
Toff1	Enter the silence duration after the next continuous ring. The unit 10msec.

Example

```
DrayTek/voip/tone/user_defined> ringing 30 60 60 60 60 60
DrayTek/voip/tone/user_defined> ringing -s
==== VoIP Dial Tone ===
LowFreq: 30
HignFreq: 60
TOn1: 60
TOff1:60
TOn2: 60
TOff2: 60
```

2.6.7.2 country

This command can select country for tone setting.

country -s

country <Country Code>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Country Code	Enter the number listed below to choose the proper country for tone setting. If you want to change the phone settings manually, you have to enter “0” to choose user defined mode. 0 : User Defined 1 : Canada, USA 31 : Netherlands 33 : France 44 : British 45 : Denmark 47 : Norway 49 : Germany 65 : Singapore 81 : Japan 86 : China 358: Finland 852: Hong Kong 886: Taiwan

Example

```
DrayTek/voip/tone> country -s
Country: British
```

2.6.8 nat

This command can set VoIP NAT traversal.

nat -s

nat <*Disable Mode*>

nat <*Manual Mode*> <*NatIpAddr*>

nat <*Auto Mode*> <*Type*> <*LocalPort*><*ServerIP*> <*ServerPort*>

nat -sym <*sym_rtp_t38*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
Disable Mode	Enter “0” to disable NAT traversal(this is default setting.).
Manual Mode	Enter “1” for inputting NAT IP address manually.
Auto Mode	Enter “2” for discovering NAT IP address automatically.
NatIpAddr	Enter the IP address to be used as the NAT IP address.
Type	Enter “0” to configure NAT information manually by users. Enter “1” to make NAT information configuring automatically.
LocalPort	Enter the local listening port number for STUN client.
Server IP	Enter the IP address of STUN server.
Server Port	Enter the port number of STUN server.
Sym_rtp_t38	It means Symmetric Media Setting. When Vigor3300 detects the IP address of the receiving packets differing with the address informed by remote end, Vigor3300 will change the IP address automatically according to the real IP address of the packets to ensure the remote receiver can get the packets. Enter “0” to make RTP and T.38 being not symmetrical. Enter “1” to make RTP and T.38 being symmetrical.

Example

```
DrayTek/voip> nat 2 1 558 172.16.3.1 8080
DrayTek/voip> nat -s
Mode: Auto Discover NAT IP Address
NAT IP Address: 127.0.0.1
STUN Local Port: 558
STUN Server Address: 172.16.3.1
STUN Server Port: 8080
Type: Full-auto
Sym RTP: Disable
```

2.6.9 qos

This command can set VoIP QoS features.

qos -s

qos <*mode*> <*LFI*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying current settings.
mode	Enter the number listed below to specify a mode for QoS. 0: Disable (Voice Quality: Normal , Data Rate: High) 1: Normal QoS (Voice Quality: Good , Data Rate: Medium) 2: Strict QoS(The mode only for special model) (Voice Quality: Excellent , Data Rate: Low)
LFI	Enter “0” to disable the function of shrinking the packet for fast sending (this is default setting). Enter “1” to enable the function of shrinking the packet for fast sending.

Example

```
DrayTek/voip> qos 1 1
After reboot, changes will take effect. Reboot now? (y/n)y
```

2.6.10 save

This command can save VoIP message.

save

Example

```
DrayTek/voip> save
```

2.6.11 siplog

This command can display log for SIP usage. If there is no SIP usage, it will display “not found”.

siplog <*Mode*>

siplog <*Mode*> <*Line*>

Syntax Description

Syntax	*Description*
Mode	Enter the number for displaying SIP log. 0: Output last 50 lines 1: Output last N lines
Line	Print last N lines for mode 1.

Example

```
DrayTek/voip> siplog 0
/bin/tail: not found
DrayTek/voip> siplog 1 100
/bin/tail: not found
```

2.6.12 status

This command can display VoIP connection status.

status

Syntax Description

Syntax	*Description*
status	Enter this word to display connection status of VoIP (eight ports).

Example

```
DrayTek/voip> status
-------------------
 Port 1
-------------------
Register Status :
Call Status : Idle
Call Type :
Caller Number :
Callee Number :
Start Time :
Remote RTP Address :
Remote RTP Port :
Codec Type :
Packet Period :
```

2.7 vpn

2.7.1 ipsec

This command can configure IPSec settings.

2.7.1.1 connect

This command can set VPN connection.

connect <*Index*>

Syntax Description

Syntax	*Description*
Index	Enter the number of the VPN configuration that you want to connect. The available range is 1 to 10.

Example

```
DrayTek/vpn/ipsec> connect 1
DrayTek/vpn/ipsec>
```

2.7.1.2 disconnect

This command can break VPN connection.

disconnect <*Index*>

Syntax Description

Syntax	*Description*
Index	Enter the number of the VPN configuration that you want to disconnect. The available range is 1 to 10.

Example

```
DrayTek/vpn/ipsec> disconnect 1
DrayTek/vpn/ipsec>
```

2.7.1.3 log

This command can display VPN log.

Example

```
DrayTek/vpn/ipsec> log
-------------------------------------
VPN IPSec Log [Date/Time, Description]
-------------------------------------
```

2.7.1.4 policy

This command can set policy table.

policy -s *<Index>*

policy -e *<Index> <Name> <Preshared Key> <Security Protocol><Admin Status> <WAN Interface> <Local Subnet> <Local Subnet Mask><Remote IP Address> <Remote Subnet> <Remote Subnet Mask>*

policy -cert_any *<Index> <Local Certificate>*

policy -cert *<Index> <Local Certificate> <Remote ID>*

policy -proposal *<Index> <Phase1 Lifetime> <Phase1 Proposal 1><Phase1 Proposal 2> <Phase1 Proposal 3> <Phase1 Proposal 4><Phase2 Lifetime> <Phase2 Proposal 1> <Phase2 Proposal 2><Phase2 Proposal 3> <Phase2 Proposal 4> <PFS> <Accepted Proposal>*

policy -dpd *<Index> <DPD Enable> <Delay> <Timeout>*

policy -dhcp *<Index> <DHCP-over-IPSec>*

policy -nat-t *<Index> <NAT-T Enable>*

policy -d *<Index>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying all the policy tables.
-e	It is used for editing Preshared Key.
-d	It is used for deleting the specified policy.
-cert_any	It is used for utilizing Local Certificate and accepting any Remote ID for RSA signature. To utilize local certificate and accept the remote ID of peer only, please use the syntax of "**policy -cert** *<Index> <Local Certificate> <Remote ID>"*.
Index	Enter the item number on the policy table that you want to edit.
Name	Enter the name for VPN connection (ex. "VPN1"). The maximum length of name is 20 characters including spaces.
Preshared Key	Enter the number as Preshared Key for the Policy. The maximum length is 40 characters, including spaces.
Security Protocol	Enter "0" to specify "ESP" to make the data being encrypted and authenticated. Enter "1" to specify "AH" to make the data being authenticated but not be encrypted
Admin Status	Enter "0" to initiate IPSec Tunnel. Enter "1" to disable IPSec Tunnel. Enter "2" to invoke this profile automatically by the system for every 30 seconds.
WAN Interface	Enter the number (1 to 4) as the WAN interface for the policy.

	1: WAN1 ; 2: WAN2 ; 3: WAN3 ; 4: WAN4
Local Subnet	Enter a subnet address as local subnet.
Local Subnet Mask	Enter the number (0-32) as the local subnet mask.
Remote IP Address	Enter an IP Address as remote gateway.
Remote Subnet	Enter a subnet address as remote subnet.
Remote Subnet Mask	Enter the number (0-32) as the remote subnet mask.
Local Certificate	The local certificate is active for authentication if the **RSA Signature** option is set in the **Authentication** field. These options come from the user certificate file. Enter the number from 1 to 10.
Remote ID	Enter the identification number for the remote gateway (ID of Remote Gateway).
Phase1 Lifetime	Enter the rekey-renegotiated period of the IKE Phase1 keying channel of a connection. Available range is 5-480.
Phase1 Proposal 1 - 4	Enter the number to specify corresponding proposal. -1: none ; 0: des-md5-modp768 ; 1: des-md5-modp1024 ; 2: des-md5-modp1536; 3: des-sha-modp768; 4: des-sha-modp1024; 5: des-sha-modp1536 ;
Phase2 Lifetime	Enter the rekey-renegotiated period of the IKE Phase2 keying channel. Available range is 5-1440.
Phase2 Proposal 1 - 4	Enter the number to specify proposed encryption and/or authentication algorithms for IKE Phase2 negotiations.
PFS	Enter “0” to enable this function. Enter “1” to disable this function.
Accepted Proposal	If you choose **Only accept proposal listed above**, only the selected proposal will be accepted and applied by this device. If you choose **Accept all supported proposal**, all the proposals supported by this device will be accepted and applied. Enter “0” to enable “**Only accept proposal listed above”.** Enter “1” to enable **“Accept all supported proposal”.**
DPD Enable	Enter “0” to enable Dead Peer Detection function. Enter “1” to disable this function.
Delay	Enter “0” to disable this function. Or enter a umber to enable this function. A Hello message will be emitted periodically when a tunnel is idle. The recommended value is 30 seconds if enabled.
Timeout	Enter “0” to disable this function. Or enter a umber to enable this function. The recommended value is 120 seconds if enabled.

DHCP-over-IPSec	Enter “0” to enable this function. Enter “1” to disable this function.
NAT-T Enable	Enter “0” to enable this function. Enter “1” to disable this function.

Example

```
DrayTek/vpn/ipsec> policy –e 1 test_tunnel 123 0 2 1 192.168.1.0 24 172.16.1.3
192.168.2.0 24
DrayTek/vpn/ipsec>
```

2.7.1.5 status

This command can display current VPN connection.

Example

```
DrayTek/vpn/ipsec> status
---------------------
VPN Connection Status
---------------------
Index :1
Name :test_tunnel
Status :down
Algorithm :no
Remote IP :172.16.1.3
Remote Subnet :192.168.2.0/24
Packet In :0
Byte In :0
Packet Out :0
Byte Out :0
Uptime :0
---------------------
```

2.7.2 pptp

This command can set VPN configuration for PPTP.

2.7.2.1 auth

This command can set PPTP Authentication function.

auth -s <*Index*>

auth -e <*Index*> <*username*> <*password*> <*Group ID*>

auth -d <*Index*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying all the policy tables.
-e	It is used for editing the specified policy.
-d	It is used for deleting the specified policy.
Index	Enter the item number on the user profile table that you want to edit or delete There are 30 sets of accounts for authentication can be configured.
username	Enter the name for the index that you want to edit.
password	Enter the password for the index that you want to edit.
Group IP	Enter A, B, C or D to specify certain group for the index that you want to edit. 1:Group A; 2:Group B; 3:Group C; 4:Group D

Example

```
DrayTek/vpn/pptp> auth -e 1 vpn1 vpn1 1
DrayTek/vpn/pptp> auth -s 1
------------------
 VPN PPTP Authentication
------------------
Index: 1
User Name: vpn1
User Password: ****
Group: A
```

2.7.2.2 general

This command can set general configuration for PPTP VPN tunnel.

general -s

general <*Inactive*>

general <*Active*> <*PPTP Auth*> <*Encryption*> <*User Auth*> <*Disable Mutual*>

general <*Active*> <*PPTP Auth*> <*Encryption*><*User Auth*> <*Enable Mutual*><*username*> <*password*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying all the policy table.
Inactive	Enter “0” to disable this general setting.
Active	Enter “1” to enable this general setting.
PPTP Auth	Enter the number (0 – 3) listed below to choose an authentication mode to be used. 0:PAP ; 1:CHAP ; 2:MS-CHAP ; 3:MS-CHAP-V2
Encryption	Enter the number (0 – 2) listed below to choose an encryption mode to be used. 0:No Encryption; 1:MPPE 40 bits; 2:MPPE 40 bits / 128 bits
User Auth	Enter “0” to user authentication to **Local** server. Enter “1” to user authentication to **Radius Server** server.
Disable Mutual	Enter “0” to disable this function.
Enable Mutual	Enter “1” to enable this function.
username	Enter the user name that the other side provides for carrying out mutual authentication whenever you want.
password	Enter the password that the other side provides for carrying out mutual authentication whenever you want.

Example

```
DrayTek/vpn/pptp> general 1 0 1 0 0
DrayTek/vpn/pptp> general -s
-------------------
 PPTP General Setting
-------------------
Status: Active
PPTP Authentication: PAP
PPTP Encryption: MPPE 40 bits
User Authentication: Local
Status: Disable
User Name:
Password:
```

2.7.2.3 group

This command can assign IP, netmask, subnet, subnet mask for a VPN PPTP group.

group -s

group *<Group ID> <Assign IP> <Assign Netmask><Subnet> <Subnet Mask>*

Syntax Description

Syntax	*Description*
-s	It is used for displaying all the policy table.
Group ID	Enter the group ID (A, B, C or D) to specify certain group for the index that you want to edit.
Assign IP	Enter the IP address for client. The default group value for this setting is 192.168.1.224.
Assign Netmask	Enter the value of subnet mask for the Assign IP. The available settings include /24 ; /16 ; /8 ; /25 ; /26 ; /27; /28 ; /29 ; /30 ; /31 ;
Subnet	Enter the IP address for client (destination IP).
Subnet Mask	The available settings include /24 ; /16 ; /8 ; /25 ; /26 ; /27; /28 ; /29 ; /30 ; /31 ;/32.

Example

```
DrayTek/vpn/pptp> group A 192.168.1.224 /28 192.168.1.5 /24
DrayTek/vpn/pptp> group -s
== Group A ==
Assign IP: 192.168.1.224
Assign netmask: /28
Subnet: 192.168.1.5
Subnet Mask: /24
== Group B ==
```

2.7.2.4 12tp

This command can configure L2TP General Setup for VPN connection.

l2tp -s

l2tp <*Inactive*>

l2tp <*Active*> <*PPTP Auth*><*User Auth*> <*Disable Mutual*>

l2tp <*Active*> <*PPTP Auth*><*User Auth*> <*Enable Mutual*><*username*> <*password*>

Syntax Description

Syntax	*Description*
-s	It is used for displaying all the policy table.
Inactive	Enter “0” to disable this general setting.
Active	Enter “1” to enable this general setting.
PPTP Auth	Enter the number (0 – 3) listed below to choose an authentication mode to be used. 0:PAP ; 1:CHAP ; 2:MS-CHAP ; 3:MS-CHAP-V2
User Auth	Enter “0” to user authentication to **Local** server. Enter “1” to user authentication to **Radius Server** server.
Disable Mutual	Enter “0” to disable this function.
Enable Mutual	Enter “1” to enable this function.
username	Enter the user name that the other side provides for carrying out mutual authentication whenever you want.
password	Enter the password that the other side provides for carrying out mutual authentication whenever you want.

Example

```
DrayTek/vpn/pptp> l2tp -s
------------------
 L2TP General Setting
------------------
Status: Active
L2TP Authentication: CHAP
User Authentication: Local
Status: Disable
User Name:
Password:
```

2.8 exit/logout/quit

This command (exit or logout) can set exit telnet command screen of Vigor3300V series.

2.9 ping

This command can execute ping funuction with telnet command.

ping <*Source Interface*> <*Destination Address*>

Syntax Description

Syntax	*Description*
Source Interface	Enter the number listed below (0 – 4) to specify WAN or LAN interface for pinging. 0 : LAN ; 1 : WAN1 ; 2 : WAN2; 3 : WAN3; 4 : WAN4
Destination Address	Enter domain name or IP address as the destination for pinging.

Example

```
DrayTek> ping 1 172.16.3.229
Reply from 172.16.3.229: time=0 ms
Reply from 172.16.3.229: time=0 ms
Reply from 172.16.3.229: time=0 ms
Reply from 172.16.3.229: time=0 ms
```

2.10 traceroute

This command can trace the path of route.

traceroute <*Destination Address*>

Syntax Description

Syntax	*Description*
Destination Address	Enter domain name or IP address as the destination for tracing.

Example

```
DrayTek> traceroute 172.16.3.229
traceroute to 172.16.3.229 (172.16.3.229), 30 hops max, 84 byte packets
 1  172.16.3.229 (172.16.3.229)  0.949 ms  0.914 ms  0.897 ms
```