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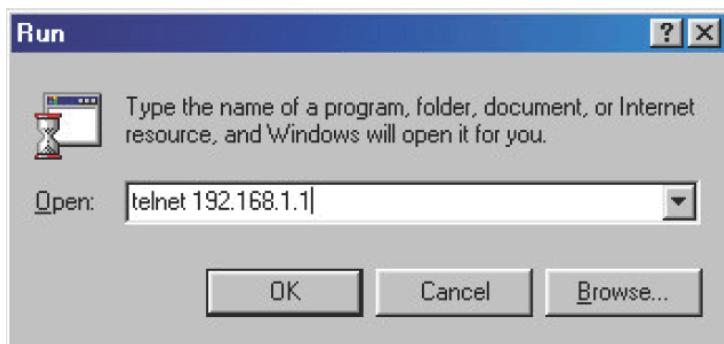
Click OK. The Telnet terminal will be open. If an administrator password has not already been assigned, follow the on-screen instructions to assign one.

```
*** WARNING ******************************************************************
* System has no password.                                                    *
* Please set password, using "sys pass" commands.                            *
******************************************************************************
```

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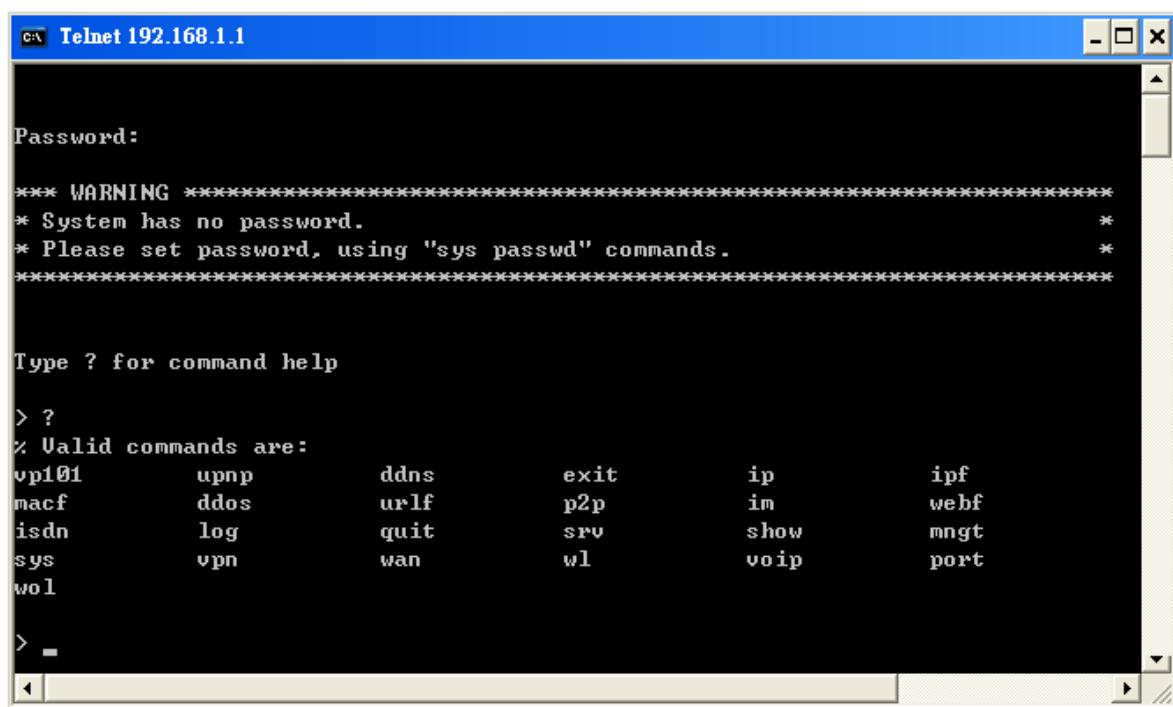
1.2 Valid Commands

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 2700 Series**, **Vigor 2800 Series** **Vigor2910 Series** and **2950 Series**.

Valid Command Types for Vigor 2700 Series (F/W: V2.6.3_RC1)

upnp	ddns	exit	ip	ipf	p2p
lm	ddos	urlf	isdn	log	quit
srv	sys	register	show	mngt	vpn
wan	adsl	voip	port	wol	vigbrg

Valid Command Types for Vigor 2800 Series (F/W: V2.7.1_B4_Y01)

upnp	ddns	exit	ip	ipf	p2p
lm	ddos	urlf	isdn	log	quit
srv	sys	register	show	mngt	vpn
wan	adsl	wl	voip	port	wol
vigbrg	portmaptime				

Valid Command Types for Vigor 2910 Series (F/W: V3.0.2_RC1a)

upnp	ddns	exit	ip	ipf	csm
ddos	urlf	isdn	log	quit	srv
sys	register	show	mngt	vpn	wan
wl	voip	port	wol		

Valid Command Types for Vigor 2950 Series (F/W: V3.0.0)

upnp	ddns	exit	ip	ipf	csm
ddos	urlf	log	quit	srv	sys
register	show	mngt	vpn	wan	wl
wol					

2. Commands Descriptions

2.1 upnp

2.1.1 upnp off

This command can close UPnP function.

Example

```
>upnp off
UPNP say bye-bye
```

2.1.2 upnp on

This command can enable UPnP function.

Example

```
>upnp on
UPNP start.
```

2.1.3 upnp nat

This command can display IGD NAT status.

Example

```
> upnp nat
*****************  IGD NAT Status  ***************

((0))
InternalClient >>202.168.1.0<<, RemoteHost >>0.0.0.0<<
InternalPort >>21<<, ExternalPort >>21<<
PortMapProtocol >>TCP<<
The tmpvirtual server index >>0<<
PortMapLeaseDuration >>0<<, PortMapEnabled >>0<<
Ftp Example [MICROSOFT]
((1))
InternalClient >>0.0.0.0<<, RemoteHost >>0.0.0.0<<
InternalPort >>0<<, ExternalPort >>0<<
PortMapProtocol >>*<<
The tmpvirtual server index >>0<<
PortMapLeaseDuration >>0<<, PortMapEnabled >>0<<
```

2.1.4 upnp service

This command can display the information of the UPnP service.

Example

```
>  upnp service
>>>>> SERVICE TABLE1 <<<<<
  serviceType urn:schemas-microsoft-com:service:OSInfo:1
  serviceId   urn:microsoft-com:serviceId:OSInfo1
  SCPDURL    /upnp/OSInfo.xml
  controlURL  /OSInfo1
  eventURL    /OSInfoEvent1
  UDN        uuid:f858949e-a0c6-4e4c-9eac-00507fd484f0

>>>>> SERVICE TABLE2 <<<<<
  serviceType urn:schemas-upnp-org:service:WANCommonInterfaceConfig:1
  serviceId   urn:upnp-org:serviceId:WANCommonIFC1
  SCPDURL    /upnp/WComIFCX.xml
  controlURL  /upnp?control=WANCommonIFC1
  eventURL    /upnp?event=WANCommonIFC1
  UDN        uuid:aeadf384-d05a-429c-9f5f-d6e6f0591c43
```

2.1.5 upnp subscribe

This command can show all subscribers of UPnP services.

Example

```
> upnp subscribe
>>>> (1) serviceType urn:schemas-microsoft-com:service:OSInfo:1
  ----- Subscribtion1 -------
    sid = b6ebf734-bb66-4fcb-9481-ec12f852768c
    eventKey =1, ToSendEventKey = 1
    expireTime =85736
    active =1
    DeliveryURLs =<http://192.168.1.10:5000/notify>
>>>> (2) serviceType urn:schemas-upnp-org:service:WANCommonInterfaceConfig:1
  ----- Subscribtion1 -------
    sid = b3bed84b-c49c-4caf-8da7-88691e5c38ea
    eventKey =1, ToSendEventKey = 1
    expireTime =85737
    active =1
    DeliveryURLs =<http://192.168.1.10:5000/notify>
>>>> (3) serviceType urn:schemas-upnp-org:service: WANDSLLinkConfig:1
>>>> (4) serviceType urn:schemas-upnp-org:service:WANPPPConnection:1
  ----- Subscribtion1 -------
    sid = 789aab3a-e35f-487f-b7c5-5c19a26b2428
    eventKey =1, ToSendEventKey = 1
    expireTime =85738
    active =1
    DeliveryURLs =<http://192.168.1.10:5000/notify>
```

2.1.6 upnp tmpvs

This command can display current status of temp Virtual Server of your router.

Example

```
******************  Temp virtual server status  ***************

((0))
real_addr  >>192.168.1.10<<, pseudo_addr >>172.16.3.229<<
real_port >>0<<, pseudo_port >>0<<
hit_portmap_index >>0<<
The protocol >>TCP<<
time >>0<<


((1))
real_addr  >>0.0.0.0<<, pseudo_addr >>0.0.0.0<<
real_port >>0<<, pseudo_port >>0<<
hit_portmap_index >>0<<
The protocol >>0<<
time >>0<<
```

2.2 ddns

2.2.1 ddns log

Displays the DDNS log.

Example

```
>ddns log
01:07:38.0 >>>>> DDNS is updating. <<<<<
```

2.2.2 ddns time

Sets and displays the DDNS time.

ddns time *<update in minutes>*

Syntax Description

Update in minutes   Type the value as DDNS time. The range is from 1 to 1440.

Example

```
> ddns time
ddns time <update in minutes>
Valid: 1 ~ 1440
%Now: 1440
> ddns time 1000
ddns time <update in minutes>
Valid: 1 ~ 1440
%Now: 1000
```

2.3 exit

Type this command will leave telnet window.

2.4 ip

2.4.1 ip 2ndsubnet

This command allows users to enable or disable the second subnet for your router.

ip 2ndsubnet *<Enable/Disable>*

Syntax Description

Enable   Enable the second subnet.

Disable   Disable the second subnet.

Example

```
>ip 2ndsubnet Disable
2nd subnet disabled!
>ip 2ndsubnet Enable
2nd subnet enabled!
```

2.4.2 ip 2ndaddr

This command allows users to set the second IP address for your router.

ip 2ndaddr *?*

ip 2ndaddr *<2nd subnet IP address>*

Syntax Description

?	Display an IP address which allows users set as second subnet IP address.
2nd subnet IP address	Specify an IP address. The system will set the one that you specified as the second subnet IP address.

Example

```
>ip 2ndaddr 192.168.2.1
% Set 2nd subnet IP address done!!!
```

2.4.3 ip 2ndmask

This command allows users to set the second IP address for your router.

ip 2ndmask *?*

ip 2ndmask *<2nd subnet mask>*

Syntax Description

?   Display a subnet mask address which allows users set as second
                                  subnet mask.

2nd subnet IP address   Specify a subnet mask. The system will set the one that you specified
                                  as the second subnet mask.

Example

```
>ip 2ndmask 255.255.255.0
% Set 2nd subnet mask done!!!
```

2.4.4 ip aux

This command allows users to set a specified WAN IP for joining into the NAT Pool. Basically, the WAN IP has been added in WAN IP Alias but not joined to NAT Pool yet.

ip aux add *[IP] [Join to NAT Pool]*

ip aux remove *[index]*

Syntax Description

IP	It means the auxiliary WAN IP address.
Join to NAT Pool	0 (disable) or 1 (enable)
[index]	Type the index number of the table displayed on your screen.

Example

```
>ip aux 172.16.3.113 1
>
```

When you type *ip aux?*, the current auxiliar WAN IP Address table will be shown as the following:

```
Index no.   Status   IP address   NAT IP pool
---------------------------------------------
    1        Enable   172.16.3.229    Yes
    2        Enable   172.16.3.56     No
    3        Enable   172.16.3.113    No
```

2.4.5 ip addr

This command allows users to set/add a specified LAN IP your router.

ip addr *[IP address]*

Syntax Description

IP address   It means the LAN IP address.

Example

```
>ip addr 192.168.50.1
% Set IP address OK !!!
```

Note: When the LAN IP address is changed, the start IP address of DHCP server are still the same. To make the IP assignment of the DHCP server being consistent with this new IP address (they should be in the same network segment), the IP address of the PC must be fixed with the same LAN IP address (network segment) set by this command for accessing into the web configurator of the router. Later, modify the start addresses for the DHCP server.

2.4.6 ip arp

ARP displays the matching condition for IP and MAC address.

ip arp add *[IP address] [MAC address] [LAN or WAN]*

ip arp del *[IP address] [LAN or WAN]*

ip arp flush

ip arp status

In which, **arp add** allows users to add a new IP address into the ARP table; **arp del** allows users to remove an IP address; **arp flush** allows users to clear arp cache; **arp status** allows users to review current status for the arp table.

Syntax Description

IP address	It means the LAN IP address.
MAC address	It means the MAC address of your router.
LAN or WAN	It indicates the direction for the arp function.

Example

```
>ip arp status
[ARP Table]
Index    IP Address       MAC Address
1        192.168.1.10     00-0E-A6-2A-D5-A1
```

2.4.7 **ip dhcpc**

This command is available for WAN DHCP.

ip dhcpc *option*

ip dhcpc *release*

ip dhcpc *renew*

ip dhcpc *status*

Syntax Description

option   It is an optional setting for DHCP server.

release   It means to release current WAN IP address.

renew   It means to renew the WAN IP address and obtain another new one.

status   It displays current status of DHCP client.

Example

```
>ip dhcpc status
I/F#3 DHCP Client Status:

DHCP Server IP      : 172.16.3.7
WAN Ipm             : 172.16.3.40
WAN Netmask         : 255.255.255.0
WAN Gateway         : 172.16.3.1
Primary DNS         : 168.95.192.1
Secondary DNS       : 0.0.0.0
Leased Time         : 259200
Leased Time T1      : 129600
Leased Time T2      : 226800
Leased Elapsed      : 259194
Leased Elapsed T1   : 129594
Leased Elapsed T2   : 226794
```

2.4.8 ip ping

This command allows users to ping IP address of WAN1 or WAN2 for verifying if the WAN connection is OK or not.

ip ping *[IP address] [WAN1/WAN2]*

Syntax Description

IP address   It means the LAN IP address.

WAN1/WAN2   It means the WAN port that the above IP address passes through.

Example

```
>ip ping 172.16.3.229 WAN1
Pinging 172.16.3.229 with 64 bytes of Data:
Receive reply from 172.16.3.229, time=0ms
Receive reply from 172.16.3.229, time=0ms
Receive reply from 172.16.3.229, time=0ms
Packets: Sent = 5, Received = 5, Lost = 0 <0% loss>
```

2.4.9 ip tracert

This command allows users to trace the routes from the router to the host.

ip tracert *[Host/IP address] [WAN1/WAN2]*

Syntax Description

IP address   It means the target IP address.

WAN1/WAN   It means the WAN port that the above IP address passes through.

Example

```
>ip tracert 22.128.2.62 WAN1
Traceroute to 22.128.2.62, 30 hops max
1   172.16.3.7  10ms
2   172.16.1.2  10ms
3   Request Time out.
4   168.95.90.66    50ms
5   211.22.38.134   50ms
6   220.128.2.62    50ms
Trace complete
```

2.4.10 ip telnet (for 2950 Series only)

This command allows users to telnet another server (terminal) in the LAN or WAN side.

ip telnet *[IP address] [Port]*

Syntax Description

IP address   It means the target IP address.

Port   It means the LAN port that the above IP address passes through.

Example

```
>ip telnet 192.168.1.1 3
```

2.4.10 ip rip

This command allows users to set the RIP (routing information protocol) of IP.

ip rip *[0/1/2]*

Syntax Description

0/1/2   0 means disable; 1 means first subnet and 2 means second subnet.

Example

```
>ip rip 1
%% Set RIP 1st subnet.
```

2.4.11 ip route

This command allows users to set static route.

ip route *add [dst] [netmask][gateway][iface][rtype]*

ip route *del [dst] [netmask][rtype]*

ip route *status*

Syntax Description

add	It means to add an IP address as static route.
del	It means to delete specified IP address.
status	It means current status of static route.
dst	It means the IP address of the destination.
netmask	It means the netmask of the specified IP address.
gateway	It means the gateway of the connected router.
iface	It means the connection interface., 0 : LAN; 3: WAN1; 4: WAN2
rtype	It means the type of the route, default : default route; static: static route.

Example

```
> ip route add 172.16.2.0 255.255.255.0 172.16.2.4 3 static
> ip route status

Codes: C - connected, S - static, R - RIP, * - default, ~ - private
C~      192.168.1.0/  255.255.255.0 is directly connected, IF0
S       172.16.2.0/  255.255.255.0 via 172.16.2.4, IF3
```

2.4.12 ip igmp_proxy

This command allows users to set

ip igmp_proxy *[set/rset/status]*

Syntax Description

set   It means

reset   It means

status   it means

Example

```
>ip igmp_proxy status
%% ip igmp_proxy [set|rset|status], IGMP Proxy is ON
%%% igmp_proxy LAN:
    239.255.255.250     state=1
%%% igmp_proxy WAN:
    224.0.0.9   timer=0
    239.255.255.250     timer=0
```

2.4.13 ip wanaddr

This command allows users to set WAN address for the router.

ip wanaddr *[IP address][IP netmask][gateway ip]*

Syntax Description

IP address   It means the WAN IP address.

IP netmask   It means the netmask of the specified IP address.

gateway ip   It means the IP address for gateway.

Example

```
>ip wanaddr 172.16.2.4 255.255.255.0
% Set WAN IP address OK!!!
```

2.4.14 ip wan2addr

This command allows users to set second WAN address for the router.

ip wan2addr *[IP address][IP netmask]*

Syntax Description

IP address   It means the WAN IP address.

IP netmask   It means the netmask of the specified IP address.

gateway ip   It means the IP address for gateway.

Example

```
>ip wan2addr 172.16.2.4 255.255.255.0
% Set WAN IP address OK!!!
```

2.4.16 ip dmz (for 2700/2950 series only)

Specify MAC address of certain device as the DMZ host.

ip dmz *[mac]*

Syntax Description

mac   It means the MAC address of the device that you want to specify.

Example

```
>ip dmz ?
% ip dmz <mac>,  now : 00-00-00-00-00-00
> ip dmz 11-22-33-44-55-66
> ip dmz ?
% ip dmz <mac>,  now : 11-22-33-44-55-66
>
```

2.4.17 ip dmzswitch (for 2700 series)

This command allows users to set DMZ mode.

ip dmzswitch *off*

ip dmzswitch *private*

ip dmzswitch *active_trueip*

Syntax Description

off	It means to turn off DMZ function.
private	It means to set DMZ as private IP.
active_truei	It means to set the DMZ as active true IP DMZ.

Example

```
>ip dmzswitch off
```

2.4.19 ip session

This command allows users to set maximum session limit number for the specified IP.

ip session *on*

ip session *off*

ip session *default num*

ip session *status*

ip session *show*

ip session *[add/del][IP1-IP2][num]*

Syntax Description

on	It means to turn on session limit for each IP.
off	It means to turn off session limit for each IP.
default num	It means to set the default number of session num limit.
status	It means to display the current settings.
show	It means to display all session limit settings in the IP range.
add	It means to add the session limits in an IP range.
del	It means to delete the session limits in an IP range.
IP1-IP2	It means the range of IP address specified for this command.
num	It means the number of the session limits, e.g., 100.

Example

```
>ip session default 100
>ip session add 192.168.1.5. – 192.168.1.100 100
>ip session status
IP range:
    192.168.1.50-192.168.1.100 : 100
Current ip session limit is turn on
Current default session number is 100
```

2.4.20 ip bandwidth

This command allows users to set maximum bandwidth limit number for the specified IP.

ip bandwidth *on*

ip bandwidth *off*

ip bandwidth *default [tx_rate][rx_rate]*

ip bandwidth *status*

ip bandwidth *show*

ip bandwidth *[add/del] [IP1-IP2][tx][rx]*

Syntax Description

on	It means to turn on the IP bandwidth limit.
off	It means to turn off the IP bandwidth limit.
default [tx_rate][rx_rate]	It means to set default tx and rx rate of bandwidth limit. The range is from 0 – 65535 Kpbs.
status	It means to display the current settings.
show	It means to display all the bandwidth limits settings within the IP range.
add	It means to add the bandwidth within the IP range.
del	It means to delete the bandwidth within the IP range.
IP1-IP2	It means the range of IP address specified for this command.
tx	It means to set transmission rate for bandwidth limit.
rx	It means to set receiving rate for bandwidth limit.

Example

```
>ip bandwidth default 200 800
>ip bandwidth add 192.168.1.50 - 192.168.1.100 10 60
>ip bandwidth status

IP range:
    192.168.1.50 – 192.168.1.100 : Tx:10 Rx:60
Current ip Bandwidth limit is turn on

Current default Bandwidth rate is Tx:200 Rx:800 Kbps
```

2.4.21 ip bindmac

This command allows users to set IP-MAC binding for LAN host.

ip bandmac *on*

ip bandmac *off*

ip bandmac *strict_on*

ip bandmac *show*

ip bandmac *add [IP][MAC]*

ip bandmac *del [IP]/all*

Syntax Description

on	It means to turn on IP bandmac policy. Even the IP is not in the policy table, it can still access into network.
off	It means to turn off all the bindmac policy.
strict_on	It means that only those IP address in IP bindmac policy table can access into network.
show	It means to display the IP address and MAC address of the pair of binded one.
add	It means to add one ip bindmac.
del	It means to delete one ip bindmac.
IP	It means to type the IP address for binding with specified MAC address.
MAC	It means to type the MAC address for binding with the IP address specified.
All	It means to delete all the IP bindmac settings.

Example

```
>ip bindmac add 192.168.1.46 00:50:7f:22:33:55
>ip bindmac show
ip bind mac function is turned ON
```

2.5 ipf

This command allows users to view the version of the IP filter, to view/set the log flag, to view the running IP filter rules.

2.5.1 ipf view

ipf *[-VzZ][-1 block]*
ipf *[-VzZ][-1 pass]*
ipf *[-VzZ][-1 nomatch]*
ipf *[-VzZ][-1 none]*
ipf *view [-cdfhrtz]*

Syntax Description

V	It means to show the version of this IP filter.
z	It means to clear a filter rule's statistics.
Z	It means to clear IP filter's gross statistics.
-1	It means to set the log flag.
block	It means to log the packet which will be blocked by IP filter.
pass	It means to log the packet that passes through IP filter.
nomatch	It means to log the packet that doesn't match any rule in IP filter.
none	It means logging or not depends on filter rule setting.
-c	It means to show the running call filter rules.
-d	It means to show the running data filter rules.
-f	It means to show IP fragment states.
-h	It means to show the hit-number of the filter rules.
-r	It means to show the running call and data filter rules.
-t	It means to display to the end.
-z	It means to clear the statistics of IP filter rules.

Example

```
>ipf –V –1 pass
Ipf: IP Filter: v3.3.1 <416>
Kernel: IP Filter: v3.3.1
Running: yes
Log Flags: 0x0 = none set
Default: pass all, Logging: available
>ipf view –c
------ Call Filter Rules ------
[Set 1 Rule 1]
Schedule:
Source IP : any
Destination IP: any
Service Type: TCP/UDP port from 137-139 to any
Fragments: Don't Care
Action: Block immediately
```

2.5.2 ipf set (for 2950 series only)

This command is used to set filter rule for firewall.

ipf set *[SET_NO]* **rule** *[RULE_NO] [Options]*

ipf set *[Options]*

Syntax Description

SET_NO	It means to specify the index number (from 1 to 12) of filter set.
RULE_NO	It means to specify the index number (from 1 to 7) of filter rule set.
Options	There are several options provided here, such as *-v*, *-c [SET_NO]*, *-d [SET_NO]*, *-l [VALUE]*, *- p [VALUE]*, *-C [CSM_NO]*, *-i [VALUE]* and *-f [VALUE]*.
-v	Type "-v" to view the configuration of general set
-c [SET_NO]	It means to setup Call Filter, e.g., **-c 2**. The range for the index number you can type is "0" to "12" (0 means "disable).
-d [SET_NO]	It means to setup Data Filter, e.g., **-d 3**. The range for the index number you can type is "0" to "12" (0 means "disable).
-l [VALUE]	It means to setup Log Flag, e.g., **-l 2** Type "0" to disable the log flag. Type "1" to display the log of passed packet. Type "2" to display the log of blocked packet. Type "3" to display the log of non-matching packet.
- p [VALUE]	It means to setup actions for packet not matching any rule. e.g., **-p 1** Type "0" to let all the packets pass; Type "1" to block all the packets.
-C [CSM_NO]	It means to setup CSM for packet not matching any rule. Type the index number of CSM profile (0 to 32, 0=None), e.g., **-C 32**
-i [VALUE]	It means to apply IP filter to VPN incoming packets. Type "0" to disable; type "1" to enable, e.g., **-i 1**
-f [VALUE]	It means to accept large incoming fragmented UDP or ICMP packets. Type "0" to disable; type "1" to enable, e.g., **-f 0**

Example

```
> ipf set 2 rule 1 -p 0
Setting saved.
> ipf set 2 rule 1 -v
Filter Set 2 Rule 1:
Status      : Enable
Comments    : xNetBios -> DNS
Index(1-15) in Schedule Setup: <null>, <null>, <null>, <null>
Direction                 : LAN -> WAN
Source IP                 : Any
Destination IP            : Any
Service Type              : TCP/UDP, Port: from 137~139 to 53
```

```
Fragments                    : Don't Care
Pass or Block                : Pass Immediately
Branch to Other Filter Set   : None
Content Management           : None
Log                          : Disable


> ipf set -v
Call Filter : Enable (Start Filter Set = 1)
Data Filter : Enable (Start Filter Set = 2)
Log Flag    : None
Actions for packet not matching any rule:
  Pass or Block      : Pass
  Content Management: None


Apply IP filter to VPN incoming packets            : Disable
Accept large incoming fragmented UDP or ICMP packets    : Enable
```

2.5.3 ipf flowtrack (for 2950 series only)

This command is used to set and view flowtrack sessions.

ipf flowtrack set *[-r]*

ipf flowtrack view *[-f]*

Syntax Description

-r   It means to refresh the flowstate.

-f   It means to show all sessions state of flowtrack.

Example

```
> ipf flowtrack set -r
Refresh the flowstate ok
> ipf flowtrack view -f
Start to show the flowtrack sessions state:

ORIGIN>>  192.168.1.10 : 4771  ->  207.46.3.2    :  80 ,ifno=0
REPLY >>  207.46.3.2   :  80 ->  172.16.3.229  :54357 ,ifno=3
      proto=6, age=7532140(2620), flag=4033
End to show the flowtrack sessions state
```

2.6 p2p

This command allows users to block Peer-to-Peer file-sharing applications.

p2p *[-a | -d | -s | -b P2P_P | -p P2P_P | -t]*

Syntax Description

-a	It means to activate the Peer-to-Peer blocking system.
-d	It means to deactivate the Peer-to-Peer blocking system.
-s	It means to view the configuration of Peer-to-Peer blocking system.
-b	It means to enable blocking function for a specific protocol.
-p	It means to disable blocking function for a specific protocol.
-t	It means to set the time schedule that P2P applications will be blocked.
P2P_P	It means to specifies one or more of the following P2P protocol(s) *eDonkey***:** protocol of eDonkey and eMule applications *Upload*: restrict upload of eDonkey and eMule applications only *FastTrack*: protocol of KazaA, iMesh and Grokster applications *Gnutella*: protocol of BearShare, Gnucleus and Limewire applications *BitTorrent*: protocol of BitTorrent application

Example

```
> p2p -s
Peer-to-Peer Blocking system: Deactived


eDonkey protocol blocking status: Disable
FastTrack protocol blocking status: Disable
Gnutella protocol blocking status: Disable
BitTorrent protocol blocking status: Disable

Time schedule:
```

2.7 im

This command allows users to block IM (Instant Messenger) applications.

im *[-a | -d | -s | -b IM_APP | -p IM_APP]*

Syntax Description

-a	It means to activate Instant Messenger blocking function.
-d	It means to deactivate Instant Messenger blocking function.
-s	It means to view the configuration of Instant Messenger blocking function.
-b	It means to enable blocking function for a specific application.
-p	It means to disable blocking function for a specific application.
-t	It means to set the time schedule that IM applications will be blocked.
IM_APP	It means to specify one or more of the following IM applications, i.e., MSN, Yahoo, ICQ.

Example

```
> im –s
 Instant Messenger Blocking function: Deactived


MSN messenger blocking status: Disable
Yahoo Messenger blocking status: Disable
ICQ/AOL blocking status: Disable


 Time schedule:
```

2.8 csm (for 2910/2950 series)

This command allows you to set CSM profile to define policy profiles for different policy of IM (Instant Messenger)/P2P (Peer to Peer) application.

csm -i *INDEX [-v | -n NAME | -e AP | -d AP]*

Syntax Description

INDEX	It means to specify the index number of CSM profile, from 1 to 32.
- v	It means to view the configuration of the CSM profile.
- n	It means to set a name for the CSM profile.
NAME	It means to specify a name for the CSM profile, less then 15 characters.
- e	It means to enable the blocking for specific application.
- d	It means to disable the blocking for specific application.
AP	It means to specify one or more of the following CSM applications:

MSN:	*MSN*
YM:	*Yahoo Messenger*
ICQ:	*ICQ*
AIM:	*AIM*
QQ:	*QQ*
iChat:	*iChat*
GT:	*Google Talk*
WIM:	*Web IM (http://www.e-messenger.net/)*
WMSN:	*Web MSN (http://webmessenger.msn.com/)*
jajah:	*jajah*
Skype:	*Skype*
SoulSeek:	*SoulSeek protocol*
eDonkey:	*eDonkey protocol*
FastTrack:	*FastTrack protocol*
Gnutella:	*Gnutella protocol*
BitTorrent:	*BitTorrent protocol*

Example

```
> csm –i 1 –n downloadbad
The name of csm profile 1 was set.
> csm –i 1 –v
CSM Profile 1:
    Profile name: downloadbad
    Block MSN                  : Disable
    Block Yahoo Messenger      : Disable
    Block ICQ                  : Disable
    Block AIM                  : Disable
    Block QQ                   : Disable
    Block iChat                : Disable
    Block Google Talk          : Disable
    Block Web IM               : Disable
```

```
Block Web MSN              : Disable
Block jajah                : Disable
Block Skype                : Disable
Block SoulSeek protocol    : Disable
Block eDonkey protocol     : Disable
Block FastTrack protocol   : Disable
Block Gnutella protocol    : Disable
Block BitTorrent protocol  : Disable
```

2.9 ddos

This command allows users to configure the settings for DoS defense system.

ddos *[-V | D | A]*

ddos *[-s ATTACK_F [THRESHOLD][TIMEOUT]]*

ddos *[-a | e [ATTACK_F][ATTACK_0] | d [ATTACK_F][ATTACK_0]]*

Syntax Description

-V	It means to view the configuration of DoS defense system.
-D	It means to deactivate the DoS defense system.
-A	It means to activate the DoS defense system.
-s	It means to enable the defense function for a specific attack and set its parameter(s).
ATTACK_F	It means to specify the name of flooding attack(s) or portscan, e.g., synflood, udpflood, icmpflood, or postscan.
THRESHOLD	It means the packet rate (packet/second) that a flooding attack will be detected. Set a value larger than 20.
TIMEOUT	It means the time (seconds) that a flooding attack will be blocked. Set a value larger than 5.
-a	It means to enable the defense function for all attacks listed in ATTACK_0.
-e	It means to enable defense function for a specific attack(s).
ATTACK_0	It means to specify a name of the following attacks: ip_option, tcp_flag, land, teardrop, smurf, pingofdeath, traceroute, icmp_frag, syn_frag, unknow_proto, fraggle.
-d	It means to disable the defense function for a specific attack(s).

Example

```
>ddos –A
The Dos Defense system is Activated
>ddos –s synflood 50 10
Synflood is enabled! Threshold=50 <pke/sec> timeout=10 <pke/sec>
```

2.10 urlf

2.10.1 urlf blist

This command allows users to set the URL access control.

urlf blist *[noip]*

urlf blist *[on|off]*

urlf blist *[status]*

urlf blist *[INDEX –e |d [KEYWORD[SYMBOL KEYWORD]]*

urlf blist *[white | black]*

Syntax Description

noip	It means to prevent web access from the IP address.
on	It means to activate the functionality of the URL access control.
off	It means to deactivate the functionality of the URL access control.
status	It means to show the current configuration of the URL access control.
INDEX	It means the number of the specific item (e.g., 1-8).
-e	It means to enable the specific item with user's configuration.
-d	It means to disable the specific item for URL.
KEYWORD	It means the blocking keyword(s). The maximum length is 32.
SYMBOL	It means the space, comma or semicolon.
white	It means to block all packets except the ones that match the keyword in the list.
black	It means to pass all packets except the ones that match the keyword in the list.

Example

```
>urlf blist on
The functionality of the URL access control is activated!!
>urlf blist 1 –e news
The blocking keyword list valued with news and numbered with 1 has been enabled.
```

2.10.2 urlf setdefault

This command will reset all the configuration data for the contenet filtering.

Example

```
>urlf setdefault
All configuration data of the content filtering function is reset!!
```

2.10.3 urlf esubnet

This command allows users to deal with the exempt subnets.

urlf esubnet *[on/off]*

urlf esubnet *[status]*

urlf esubnet *[INDEX –e |d [IP_ADDRESS SUBNET_MASK]]*

Syntax Description

on	It means to activate the functionality of the exempt subnets.
off	It means to deactivate the functionality of the exempt sunbnets.
status	It means to show the current configuration of the exempt subnets.
INDEX	It means the number of the specific item (e.g., 1-4).
-e	It means to enable the specific item with the user's configuration.
-d	It means to disable the specific item.

Example

```
>urlf esubnet on
The functionality of the exceptional subnet is activated!!
>urlf esubnet 1 –e 192.168.1.55 255.255.255.0
The exceptional subnet list 192.168.1.55/255.255.255.0 and numbered with 1 has
been enabled
>urlf esubnet status
[V]Enable the functionality of the exceptional Subnets!!
1.[V]192.168.1.55/255.255.255.0
2.[ ]0.0.0.0/0.0.0.0
3.[ ]0.0.0.0/0.0.0.0
4.[ ]0.0.0.0/0.0.0.0
```

2.10.4 urlf webf

This command allows users to restrict the web filter features.

urlf webf *[on/off]*

urlf webf *[status]*

urlf webf *[-e/d [java][zip][exe][mms][cookie][proxy]]*

Syntax Description

on	It means to activate the functionality of the restricted web features.
off	It means to deactivate the functionality of the restricted web features.
status	It means to show the current configuration of the restricted web features.
-e	It means to enable the specific item.
-d	It means to disable the specific item.

Example

```
>urlf webf on
The functionality of restricted web features is activated!!
>urlf webf –e java mms
Java is enabled!

mms is enabled!
>urlf webf status
[V]Enable restrict web feature!!
[V]java [ ]activex  [ ]zip  [ ]exe  [V]mms
[ ]cookie [ ] proxy
>
```

2.10.5 urlf tschedule

This command allows users to choose the call schedule for URL access control. You can choose up to four sets of call schedule profiles.

urlf tschedule *Schedule1[,Schedule2][, Schedule3][, Schedule4]*

Syntax Description

Schedule1~4   It means the index of the profile for the call schedule setup (1-15). You can set 4 schedules in this command from the 15 sets of call schedules. Action/Idle Timeout settings in the Call Schedule setting page will be ignored. Set "0" to clear current settings.

Example

```
>urlf tschedule 1
New URL Filter time schedule: 1
```

2.11 isdn

2.11.1 isdn blknum

This command allows users to block MSN number.

isdn blknum *add [index][BlockNumber]*

isdn blknum *del [index]*

isdn blknum *status*

Syntax Description

add	It means to add one MSN number for block.
del	It means to delete one existing MSN block number.
index	It means item number (from 0 to 4) of MSN number.
blockNumber	It means the specified MSN number which is not allowed to be dialed out by the router.
Status	It means to show the setting of blocked ISDN MSN number.

Example

```
>isdn blknum add 0 10
```

2.11.2 isdn dial

This command allows users to specify the ISP name if you want to access the Internet via a single ISP connection.

isdn dial *[Dest Name]*

Syntax Description

Dest Name   It means the ISP name that you want to dial through ISDN connection.

Example

```
>isdn dial prima
```

2.11.3 isdn drop

This command allows users to cut off the ISDN connection (B1/B2).

isdn drop *[B1 or B2]*

Syntax Description

B1 or B2   It means channel B1 (first channel) and B2 (second channel).

Example

```
>isdn drop B1
```

2.11.4 isdn vci

This command allows users to specify remote ISDN number as ISDN voice call. For example, isdn vci 10 represents to dial ISDN number by using "10" .

isdn vci *<dial number>*

Syntax Description

dial number   It means the remote ISDN phone number.

Example

```
> isdn vci 20
```

2.11.5 isdn overlap

This command allows users to make an ISDN voice call with overlap sending or en-bloc sending.

isdn overlap *[on/off]*

isdn overlap *[status]*

Syntax Description

on   It means to turn on the ISDN Overlap sending. The ISDN phone number will be sent out digit by digit.

off   It means to turn off the ISDN Overlap sending. The ISDN phone number will be sent out after collecting all the digits completely. (En-bloc Sending).

status   It means to show the status of ISDN overlap sending.

Example

```
>isdn overlap on
% Overlap sending ON.
```

2.12 log

This command allows users to view log for WAN, ISDN interface such as call log, IP filter log, flush log buffer, etc.

log *[-cfhiptwx?] [-F a| c |f | w]*

Syntax Description

-c	It means to show the latest call log.
-f	It means to show the IP filter log.
-F	It means to show the flush log buffer. a: flush all logs c: flush the call log f: flush the IP filter log s: flush the IP state log w: flush the WAN(ISDN and PPP) log
-h	It means to show this usage help.
-i	It means to show all the exchange message on ISDN interface.
-p	It means to show PPP/MP log.
-t	It means to show all logs saved in the log buffer.
-w	It means to show WAN (ISDN and PPP) log.
-x	It means to show packet body hex dump.

Example

```
>log -w
0:12:23.690---- >DHCP Len=300 Release XID = 0x5261da
        Client IP      =10.0.0.211
        Your IP        = 0.0.0.0
        Next server IP = 0.0.0.0
        Relay agent IP = 0.0.0.0
        Option 53: Message Type = 7
        Option 61: Client Identifier = 01 00 50 7f 31 9d 70
        Option 54: Server Identifier = 10.0.0.2
0:12:24.920---- >DHCP Len=300 Release XID = 0x80a6f950
………………
```

2.13 quit

This command can exit the telnet command screen.

2.14 srv

2.14.1 srv dhcp

This command allows users to set relational settings for DHCP server.

2.14.1.1 srv dhcp fixip

srv dhcp fixip *add [IP Addr][MAC Addr XX-XX-XX-XX-XX-XX][Host ID]*

srv dhcp fixip *clr*

srv dhcp fixip *del [IP Addr]*

Syntax Description

add	It means to add a new specified dhcp client.
IP Addr	It means the IP address of the specified client.
MAC Addr	It means the MAC address of the specified client.
Host ID	It means to specify the ID name of local host.
clr	It means to clear all the fixed IP addresses.
del *[IP Addr]*	It means to delete the specified IP address.

Example

```
> srv dhcp fixip add 192.168.1.56 22-33-44-55-66-77
> srv dhcp fixip clr
> srv dhcp fixip add 192.168.1.68 33-44-55-66-77-88
> srv dhcp fixip del 192.168.1.68
```

2.14.1.2 srv dhcp gateway

This command allows users to specify gateway address for DHCP server.

srv dhcp gateway *[?]*

srv dhcp gateway *[Gateway]*

Syntax Description

?	It means to display current gateway that you can use.
Gateway	It means to specify a gateway address used for DHCP server.

Example

```
> srv dhcp gateway 192.168.1.1
This function need rebooting router, please type "sys reboot" command to reboot
router.
```

2.14.1.3 srv dhcp ipcnt

This command allows users to specify IP counts for DHCP server.

srv dhcp ipcnt *[?]*

srv dhcp ipcnt *[IP counts]*

Syntax Description

?   It means to display current used IP count number.

IP counts   It means the number that you have to specify for the DHCP server.

Example

```
> srv dhcp ipcnt 50
This function need rebooting router, please type "sys reboot" command to reboot
router.
```

2.14.1.4 srv dhcp off
This function allows users to turn off DHCP server. It needs rebooting router, please type "sys reboot" command to reboot router.

2.16.1.5 srv dhcp on

This function allows users to turn on DHCP server. It needs rebooting router, please type "sys reboot" command to reboot router.

2.16.1.6 srv dhcp startip

srv dhcp startip *[?]*

srv dhcp startip *[IP address]*

Syntax Description

?   It means to display current used start IP address.

IP address   It means the IP address that you can specify for the DHCP server as
                             the starting point.

Example

```
> srv dhcp startip 192.168.1.53
 This function need rebooting router, please type "sys reboot" command to reboot
 router.
```

2.14.1.7 srv dhcp status

This command can display general information for the DHCP server, such as IP address, MAC address, leased time, host ID and so on.

Example

```
> srv dhcp status
```

```
DHCP server: Running

Default gateway: 192.168.1.1

Index   IP Address      MAC Address             Leased Time     HOST ID

1       192.168.1.1     00-50-7F-00-00-00        ROUTER IP
2       192.168.1.10    00-0E-A6-2A-D5-A1        4:09:33.300    ok-lccgjyiy075u
```

2.14.1.8 srv dhcp leasetime

This command can set the lease time for the DHCP server.

srv dhcp leasetime *[?]*

srv dhcp leasetime *[Lease Time (sec)]*

Syntax Description

?	It means to display current leasetime used for the DHCP server.
Lease Time (sec)	It means the lease time that DHCP server can use. The unit is second.

Example

```
> srv dhcp leasetime ?
% srv dhcp leasetime <Lease Time (sec.)>
% Now: 259200
> srv dhcp leasetime 25900
```

2.14.1.9 srv dhcp frcdnsmanl

This command can force the router to invoke DNS Server IP address.

srv dhcp frcdnsmanl *[on]*

srv dhcp frcdnsmanl *[off]*

Syntax Description

?	It means to display the current status.
on	It means to use manual setting for DNS setting.
Off	It means to use auto settings acquired from ISP.

Example

```
> srv dhcp frcdnsmanl on
% Domain name server now is using manual settings!
> srv dhcp frcdnsmanl off
% Domain name server now is using auto settings!
```

2.14.1.10 srv dhcp dns1

This command allows users to set primary DNS setting.

srv dhcp dns1 *[?]*

srv dhcp dns1 *[DNS IP address]*

Syntax Description

?	It means to display current IP address of DNS 1 for the DHCP server.
DNS IP address	It means the IP address that you want to use as DNS1.

Example

```
> srv dhcp dns1 168.95.1.1
>
```

2.14.1.11 srv dhcp dns2

This command allows users to set secondary DNS setting.

srv dhcp dns2 *[?]*

srv dhcp dns2 *[DNS IP address]*

Syntax Description

?	It means to display current IP address of DNS 2 for the DHCP server.
DNS IP address	It means the IP address that you want to use as DNS2.

Example

```
> srv dhcp dns2 168.95.1.10
>
```

2.14.1.12 srv dhcp relay

This command allows users to set DHCP relay setting.

srv dhcp relay servip *[server ip]*

srv dhcp relay subnet *[index]*

Syntax Description

server ip	It means the IP address that you want to used as DHCP server.
Index	It means subnet 1 or 2. Please type 1 or 2. The router will invoke this function according to the subnet 1 or 2 specified here.

Example

```
> srv dhcp relay servip 192.168.1.46
> srv dhcp relay subnet 2
>
```

2.14.1.14 srv dhcp public

This command allows users to configure DHCP server for second subnet.

srv dhcp public *start [IP address]*

srv dhcp public *cnt [IP counts]*

srv dhcp public *status*

srv dhcp public *add [MAC Addr XX-XX-XX-XX-XX-XX]*

srv dhcp public *del [MAC Addr XX-XX-XX-XX-XX-XX/all/ALL]*

Syntax Description

start	It means the starting point of the IP address pool for the DHCP server.
IP address	It means to specify an IP address as the starting point in the IP address pool.
cnt	It means the IP count number.
IP counts	It means to specify the number of IP addresses in the pool. The maximum is 10.
status	It means the execution result of this command.
add	It means creating a list of hosts to be assigned.
MAC Addr	It means to specify MAC Address of the host.
del	It means removing the selected MAC address.

2.14.2 srv nat

2.14.2.1 srv nat dmz

This command allows users to set DMZ host. Before using this command, please set WAN IP Alias first.

srv nat dmz *mapping [Index][Private IP address]*

srv nat dmz *remove [Index]*

Syntax Description

mapping	It means to map selected WAN IP to certain host.
Index	It means the number of the DMZ host. Default setting is "1" (WAN 1). It is only available for Static IP mode. If you use other mode, you can set 2 ~ 8 in this field.
Private IP address	It means to specify the private IP address of the DMZ host.
remove	It means removing DMZ host setting.

Example

```
> srv nat dmz mapping 1 192.168.1.66
>
```

2.14.2.2 srv nat openport

This command allows users to set open port settings for NAT server.

srv nat openport *list*

srv nat openport *enable [index]*

srv nat openport *disable [index]*

srv nat openport *comment [index][Comment]*

srv nat openport *dstip [index][Destination local IP address]*

srv nat openport *add [Profile index][Subitem index] [WAN IP addr][Pvt IP addr][Protocol][Start port][End port]*

srv nat openport *remove [Profile index] [Subitem index]*

srv nat openport *flush*

Syntax Description

list	It means a detailed list for open port settings.
enable [index]	It means to activate the specified entry of open port settings.
disable [index]	It means to inactivate the specified entry of open port settings.
comment [index]	It means the entry number of the comment.
Comment	It means to type the description for the defined network service.
dstip [index]	It means to choose a index number for the destination.

[Destination local IP address]	It means to type the destination IP address.
add	It means creating a new open port setting.
Profile index	It means to specify the number for this profile. The range is from 1 to 10.
Subitem index	It means to specify the subitem number for this profile. The range is from 1 to 10.
WAN IP addr	It means to specify the public IP address for this profile.
Pvt IP addr	It means to specify the private IP address of local computer.
protocol	It means to specify TCP or UDP as the protocol.
start port	It means to specify the starting port number of the service offered by the local host.
endt port	It means to specify the ending port number of the service offered by the local host.
remove	It means deleting the specified open port setting.
Profile index	It means to specify the entry number of the profile.
subitem index	It means to specify the entry number of subitem.
flush	It means to clear all the open port settings.

Example

```
> srv nat openport flush
 Ok.
>
```

2.14.2.3 srv nat portmap

This command allows users to set port redirection table for NAT server.

srv nat portmap *add [idx][serv name][proto][pub port][pri ip][pri port]*

srv nat portmap *del [idx]*

srv nat portmap *disable [idx]*

srv nat portmap *enable [idx] [proto]*

srv nat portmap *flush*

srv nat portmap *table*

Syntax Description

Add[idx]	It means to add a new port redirection table with an index number. Available index number is from 1 to 10.
serv name	It means to type one name as service name.
proto	It means to specify TCP or UDP as the protocol.
pub port	It means to specify which port can be redirected to the specified Private IP and Port of the internal host

pri ip	It means to specify the private IP address of the internal host providing the service.
pri port	It means to specify the private port number of the service offered by the internal host.
del [idx]	It means to remove the selected port redirection setting.
disable [idx]	It means to inactivate the selected port redirection setting.
enable [idx]	It means to activate the port mapping settings of the specified
flush	It means to clear all the port mapping settings.
table	It means to display NAT Port Redirection Configuration Table:

Example

```
> srv nat portmap add 1 game tcp 80 192.168.1.11 100
>> srv nat portmap table

NAT Port Redirection Configuration Table:

Index  Service Name    Protocol  Public Port   Private IP          Private Port
 1     game                 6        80      192.168.1.11            100
 2                          0         0                                0
 3                          0         0                                0
 4                          0         0                                0
 5                          0         0                                0
 6                          0         0                                0
 7                          0         0                                0
 8                          0         0                                0
 9                          0         0                                0
10                          0         0                                0

Protocol: 0 = Disable, 6 = TCP, 17 = UDP
```

2.14.2.4 srv nat status

This command allows users to view NAT Port Redirection Running Table.

2.14.3 srv vta

This command allows users to turn upon or off the virtual TA.

isdn vat *[on/off]*

isdn vta *[status]*

Syntax Description

on	It means the turn on virtual TA.
off	It means to turn off virtual TA.
status	It means to show current status of virtual TA.

Example

```
> srv vta on
>
> srv vta off
>
> srv vta status
% Remote CAPI server: Stop
```

2.15 show

2.15.1 show lan1

This command displays current status of LAN1 settings.

Example

```
> show lan1
%% 1st subnet settings:
%%     IP address: 192.168.1.1
%%     Subnet mask: 255.255.255.0
%%     RIP : [Disable]
```

2.15.2 show lan2

This command displays current status of LAN2 settings.

Example

```
> show lan2
%% 2nd subnet settings:
%%     Status: [Inactive]
%%     IP address: 192.168.2.1
%%     Subnet mask: 255.255.255.0
%%     RIP : [Disable]
```

2.15.3 show dhcp

This command displays current status of DHCP server.

Example

```
> show dhcp
%% DHCP settings:
%%     Status: [Active]
%%     Start IP address for offering: 192.168.1.10
%%     Maximus offer IP address count: 50
%%     Default gateway: 192.168.1.1

%%     DHCP Relay: [Inactive]
```

2.15.4 show dmz

This command displays current status of DMZ host.

Example

```
> show dmz
%%     DMZ mapping status:
 Index  Status  WAN aux IP     Private IP
-------------------------------------------
   1    Disable 172.16.3.229
```

2.15.5 show dns

This command displays current status of DNS setting

Example

```
> show dns
%%      Domain name server settings:
%           Primary DNS: [Not set]
%           Secondary DNS: [Not set]
```

2.15.6 show openport

This command displays current status of open port setting.

Example

```
> show openport
%%      Openport settings:
Index   Status  Comment         Local IP Address
********************************************************
                No data entry.
```

2.15.7 show nat

This command displays current status of NAT.

Example

```
> show nat
NAT Port Redirection Running Table:

Index  Protocol  Public Port  Private IP      Private Port
 1        0          0     0.0.0.0                0
 2        0          0     0.0.0.0                0
 3        0          0     0.0.0.0                0
 4        0          0     0.0.0.0                0
 5        0          0     0.0.0.0                0
 6        0          0     0.0.0.0                0
 7        0          0     0.0.0.0                0
 8        0          0     0.0.0.0                0
 9        0          0     0.0.0.0                0
10        0          0     0.0.0.0                0
11        0          0     0.0.0.0                0
12        0          0     0.0.0.0                0
13        0          0     0.0.0.0                0
14        0          0     0.0.0.0                0
15        0          0     0.0.0.0                0
16        0          0     0.0.0.0                0
17        0          0     0.0.0.0                0
18        0          0     0.0.0.0                0
19        0          0     0.0.0.0                0
20        0          0     0.0.0.0                0
--- MORE ---   ['q': Quit, 'Enter': New Lines, 'Space Bar': Next Page] ---
```

2.15.8 show session

This command displays current status of current session.

Example

```
> show session
% Maximum Session Number: 10000
% Maximum Session Usage: 1
% Current Session Usage: 1
```

2.15.9 show adsl

This command displays current status of ADSL.

Example

```
> show adsl
  -------------------------- ATU-R Info (hw: annex B, f/w: annex B) -----------
  Running Mode              :  T1.413            State          :    READY
  DS Actual Rate            :      0 bps   US Actual Rate        :      0 bps
  DS Path Mode              :     Fast    US Path Mode           :      Fast
  NE Current Attenuation    :     0 dB    Cur SNR Margin         :     0  dB
  ADSL Firmware Version     : 131812_B
  -------------------------- ATU-C Info --------------------------------
  Far Current Attenuation:      0 dB       Far SNR Margin        :     0  dB
  CO ITU Version[0]        : 00000000      CO ITU Version[1] : 00000000
  DSLAM CHIPSET VENDOR     : < Alcatel >
>
```

2.16 mngt

2.16.1 mngt ftpport

This command allows users to set FTP port for management.

mngt ftpport *[?]*

mngt ftpport *[FTP port]*

Syntax Description

? It can display current FTP port number setting.

FTP port It means to type the number for FTP port. The default setting is 21.

Example

```
> mngt ftpport 21
% Set FTP server port to 21 done.
```

2.16.2 mngt httpport

This command allows users to set HTTP port for management.

mngt httpport *[?]*

mngt httpport *[Http port]*

Syntax Description

? It can display current HTTP port number setting.

Http port It means to enter the number for HTTP port. The default setting is 80.

Example

```
> mngt httpport 80
% Set web server port to 80 done.
```

2.16.3 mngt httpsport

This command allows users to set HTTPS port for management.

mngt httpsport *[?]*

mngt httpsport *[Https port]*

Syntax Description

?   It can display current HTTPS port number setting.

Https port   It means to type the number for HTTPS port. The default setting is
                            443.

Example

```
> mngt httpsport 443
% Set web server port to 443 done.
```

2.16.4 mngt telnetport

This command allows users to set telnet port for management.

mngt telnetport *[?]*

mngt telnetport *[Telnet port]*

Syntax Description

?   It can display current telnet port number setting.

Telnet port   It means to type the number for telnet port. The default setting is 23.

Example

```
> mngt telnetport 23
% Set Telnet server port to 23 done.
```

2.16.5 mngt ftpserver

This command can enable/disable FTP server.

mngt ftpserver *[?]*

mngt ftpserver *[Enable]*

mngt ftpserver *[Disable]*

Syntax Description

?	It can display current status of FTP server.
Enable	It means to activate FTP server function.
Disable	It means to inactivate FTP server function.

Example

```
> mngt ftpserver enable
%% FTP server has been enabled.

> mngt ftpserver disable
%% FTP server has been disabled.
```

2.16.6 mngt noping

This command allows users to reject or accept PING packets from the Internet.

mngt noping *[on]*

mngt noping *[off]*

mngt noping *[viewlog]*

mngt noping *[clearlog]*

Syntax Description

on	It means to reject all PING packets from the Internet.
off	It means to accept all PING packets from the Internet.
viewlog	It means to display a log of ping action, including source MAC and source IP.
clearlog	It means to remove the log of ping action.

Example

```
> mngt noping off
No Ping Packet Out is OFF!!
```

2.16.7 mngt defenseworm

This command can block specified port for passing through the router.

mngt defenseworm *[?]*

mngt defenseworm *[on]*

mngt defenseworm *[off]*

mngt defenseworm *[add port]*

mngt defenseworm *[del port]*

mngt defenseworm *[viewlog]*

mngt defenseworm *[clearlog]*

Syntax Description

?	It means to display current status. The default setting for Block TCP port includes 135, 137, 138, 139 and 445.
on	It means to activate the function of defense worm packet out.
off	It means to inactivate the function of defense worm packet out.
add port	It means to add a new TCP port for block.
del port	It means to delete a TCP port for block.
viewlog	It means to display current log of
clearlog	It means the
viewlog	It means to display a log of defense worm packet, including source MAC and source IP.
clearlog	It means to remvoe the log of defense worm packet.

Example

```
> mngt defenseworm add 21
Add TCP port 21
Block TCP port list: 135, 137, 138, 139, 445, 21
> mngt defenseworm del 21
Delete TCP port 21
Block TCP port list: 135, 137, 138, 139, 445
```

2.16.8 mngt rmtcfg

This command can allow the system administrators to login from the Internet. By default, it is not allowed.

mngt rmtcfg *[?]*

mngt rmtcfg *[Enable]*

mngt rmtcfg *[Disable]*

Syntax Description

?	It can display current setting for your reference.
Enable	It means to allow the system administrators to login from the Internet.
Disable	It means to deny the system administrators to login from the Internet.

Example

```
> mngt rmtcfg enable
%% Remote configure function has been enabled.
```

2.16.9 mngt echoicmp

This command allows users to activate/inactivate echo ICMP packet function.

mngt echoicmp *[?]*

mngt echoicmp *[Enable]*

mngt echoicmp *[Disable]*

Syntax Description

?	It can display current setting for your reference.
Enable	It means to activate the function of echo ICMP packet.
Disable	It means to inactivate the function of echo ICMP packet.

Example

```
> > mngt echoicmp enable
%% Echo ICMP packet enabled.
```

2.16.10 mngt accesslist

This command allows you to specify that the system administrator can login from a specific host or network. A maximum of three IPs/subnet masks is allowed.

mngt accesslist *list*

mngt accesslist *add [index][ip addr][mask]*

mngt accesslist *remove [index]*

mngt accesslist *flush*

Syntax Description

list	It can display current setting for your reference.
add	It means adding a new entry.
index	It means to specify the number of the entry.
ip addr	It means to specify an IP address.
mask	It means to specify the subnet mask for the IP address.
remove	It means to delete the selected item.
flush	It means to remove all the settings in the access list.

Example

```
> mngt accesslist add 1 192.168.1.89 255.255.255.0
%% Set OK.
```

2.17 sys

2.17.1 sys admin

This command allows users to add a name for administrator.

sys admin *[?]*

sys admin *[ASCII string]*

Syntax Description

?	It means to display current name of administrator.
ASCII string	It means the name specified for the administrator, maximum 23 characters.

Example

```
> sys admin BBQ
```

2.17.2 sys cfg

This command reset the router with factory default settings. When a user types this command, all the configuration will be reset to default setting.

sys cfg default

sys cfg status

Syntax Description

default   It means to reset current settings with default values.

status   It means to display current profile version and status.

Example

```
> sys cfg status
Profile version: 0x2   Status: 1 (0x273cb001)
> sys cfg default
```

2.17.3 sys cmdlog

This command displays the history of the commands that you have typed.

Example

```
> >> sys cmdlog
% Commands Log: (The lowest index is the newest !!!)
    [1] sys cmdlog
    [2] sys ?
    [3] sys version
    [4] sys tftpd off
    [5] sys tftpd ?
    [6] sys tftpd
    [7] sys tftpd on
    [8] sys passwd ?
    [9] sys name
    [10] sys name >
    [11] sys name clear
    [12] sys name clear clear
    [13] sys name ?
    [14] sys name
    [15] sys name
    [16] sys name clear
    [17] sys name routera
    [18] sys name router a
    [19] sys name ?
    [20] sys iface
```

2.17.4 sys ftpd

This command displays current status of FTP server.

sys cfg *on*

sys cfg *off*

Syntax Description

on	It means to turn on the FTP server of the system.
off	It means to turn off the FTP server of the system.

Example

```
> sys ftpd on
% sys ftpd turn on !!!
```

2.17.5 sys domainname

This command can set and remove the domain name of the system.

sys domainname*[Domain Name Suffix]*

Syntax Description

Domain Name Suffix   It means the name for the domain of the system. The maximum character that you can set is 40.

clear   It means to remove the domain name of the system.

Example

```
> sys domainname clever
> sys domainname ?
% sys domainname <Domain Name Suffix (max. 40 characters)>
% sys domainname clear
% Now: clever

> sys domainname clear
>
> sys domainname ?
% sys domainname <Domain Name Suffix (max. 40 characters)>
% sys domainname clear
% Now:
```

2.17.6 sys iface

This command displays the current interface connection status (UP or Down) with IP address, MAC address and Netmask for the router.

Example

```
> sys iface
Interface 0 Ethernet:
Status: UP
IP Address: 192.168.1.1     Netmask: 0xFFFFFF00 (Private)
IP Address: 0.0.0.0         Netmask: 0xFFFFFFFF
MAC: 00-50-7F-D5-D4-40
Interface 3 PPPoE:
Status: UP
IP Address: ---         Netmask: 0xFFFFFFFF
MAC: 00-50-7F-D5-D4-41
>
```

2.17.7 sys name

This command can set and remove the name for the router.

sys name *[ASCII string]*

Syntax Description

ASCII   It means the name for router. The maximum character that you can
                           set is 20.

Example

```
> sys name >
>>
```

Note: Such name can be used to recognize router's identification in SysLog dialog.

2.17.8 sys passwd

This command allows users to set password for the administrator.

sys passwd *[ASCII string]*

Syntax Description

ASCII string　　　　　　　It means the password for administrator. The maximum character that you can set is 23.

Example

```
> sys passwd 1234
>
```

2.17.9 sys reboot

This command allows users to restart the router.

Example

```
> sys reboot
>
```

2.17.10 sys commit

This command allows users to save current settings to FLASH. Usually, current settings will be saved in SRAM. Yet, this command will save the file to FLASH.

Example

```
> sys commit
>
```

2.17.11 sys tftpd

This command can turn on TFTP server.

Example

```
> sys tftpd on
% TFTP server enabled !!!
```

2.17.12 sys cc

This command can display current code and wireless region of this device.

Example

```
> sys cc
Country Code      : 0x 0 [International]
Wireless Region Code: 0x30
>
```

2.17.13 sys version

This command can display current version for the system.

Example

```
> sys version
Router Model: XXXXX series    Version: 2.7_RC13_Y01 English
Profile version: 0x2    Status: 1 (0x189a82e1)
Router IP: 192.168.1.1    Netmask: 255.255.255.0
Firmware Build Date/Time: Tue Jun 6 15:1:54.84 2006
Revision: 2426 v2.6
ADSL Firmware Version: Y.1.28.187        Annex A
```

2.17.14 sys qrybuf

This command can display the system memory status and leakage list.

Example

```
> sys qrybuf
System Memory Status and Leakage List

# of free L-Buffer=128, minimum=126, leak num:0
# of free M-Buffer=32, minimum=32, leak num:0
# of free Nc-Buffer=42, minimum=17
```

2.17.15 sys pollbuf

This command can turn on or turn off polling buffer for the router.

sys pollbuf *[on]*

sys pollbuf *[off]*

Syntax Description

On	It means to turn on pulling buffer.
Off	It means to turn off pulling buffer.

Example

```
> sys pollbuf on
% Buffer polling is on!

> sys pollbuf off
% Buffer polling is off!
```

2.17.16 sys sip_alg

This command can turn on/off SIP ALG (Application Layer Gateway) for NAT traversal.

sys sip_alg *[1]*

sys sip_alg *[0]*

Syntax Description

1	It means to turn on SIP ALG.
0	It means to turn off SIP ALG.

Example

```
> sys sip_alg ?
usage: sys sip_alg [value]
 0 - disable SIP ALG
 1 - enable SIP ALG
 current SIP ALG is disabled
```

2.18 register

This command allows users to register to VigorView. It is only available for VigorView user.

register ems *<server> [key]*

Syntax Description

server   It means VigorView server URL.

key   It means the key of authentication for VigorView access.

Example

```
> register 172.176.2.220 1234
```

2.19 vpn

2.19.1 vpn l2lset

This command allows users to set advanced parameters for LAN to LAN function.

vpn l2lset *[list index]* **peerid** *[peerid]*

vpn l2lset *[list index]* **localid** *[localid]*

vpn l2lset *[list index]***main** *[auto/proposal index]*

vpn l2lset *[list index]* **aggressive** *[g1/g2]*

vpn l2lset *[list index]***pfs** *[on/off]*

vpn l2lset *[list index]* **phase***1[lifetime]*

vpn l2lset *[list index]* **phase2***[lifetime]*

Syntax Description

list index	It means the index number of L2L profile.
peerid	It means the peer identity for aggressive mode.
localid	It means the local identity for aggressive mode.
main	It means to choose proposal for main mode.
auto index	It means to choose default proposals.
proposal index	It means to choose specified proposal.
aggressive	It means the chosen DH group for aggressive mode.
pfs	It means "perfect forward secresy".
on/off	It means to turn on or off the PFS function.
phase1	It means phase 1 of IKE.
lifetime	It means the lifetime value (in second) for phase 1 and phase 2.
phase2	It means phase 2 of IKE.

Example

```
> VPN l2lset 1 peerid 10226
>
```

2.19.2 vpn 2ndsubnet

This command allows users to enable 2ndsubnet IP as VPN server ID.

vpn 2ndsubnet *on*

vpn 2ndsubnet *off*

Syntax Description

on/off   It means to enable or disable second subnet.

Example

```
> vpn 2ndsubnet on
%Enable second subnet IP as VPN server IP!
```

2.20 wan

2.20.1 wan **ppp_ipcp_vso**

This command allows users to enable or disable PPP IPCP VSO (Vendor Specific Option) function. It is used for specific network.

wan ppp_ipcp_vso *[on]*

wan ppp_ipcp_vso *[off]*

wan ppp_ipcp_vso *[default]*

Syntax Description

on/off   It means to enable or disable PPP IPCP VSO.

default   It means to recover to the default setting.

Example

```
> wan ppp_ipcp_vso default
>
```

2.20.2 **ppp_mru**

This command allows users to adjust the size of PPP LCP MRU. It is used for specific network.

wan ppp_mru *[value]*

Syntax Description

value   It means the number of PPP LCP MRU. The available range is from 1400 to 1600.

Example

```
> wan ppp_mru 1450
> wan ppp_mru ?
% wan ppp_mru <MRU size: 1400 ~ 1600>
% Now: 1450
```

2.20.3 wan ppp_mss

This command allows you to adjust the parameters for TCP protocol, MSS (maximum section size) for WAN side. The more the size is, the more the packets of payload will be.

wan ppp_mss *[MSS size]*

Syntax Description

MSS size   It means to set suitable size for MSS. The available range for this
                                    setting is 1000 to 1500.

Example

```
> wan ppp_mss 1442
```

2.20.4 wan DF_check

This command allows you to enable or disable the function of DF (Don't fragment)

wan DF_check *[on]*

wan DF_check *[off]*

Syntax Description

on/off   It means to enable or disable DF.

Example

```
> wan DF_check on
%DF bit check enable!
```

2.20.5 wan disable

This command allows you to disable wan connection.

Example

```
> wan disable
%WAN diabled.
```

2.21 adsl

2.21.1 adsl txpct

This command allows users to set the percentage of the transmission rate.

adsl txpct *[auto]*

adsl txpct *[percent]*

Syntax Description

auto	It means to determine the transmission rate by the router automatically.
percent	It means to specify the percentage of the transmission rate. The range is 10 ~ 100.

Example

```
>adsl txpct 70
tx percentage : 70
```

2.21.2 adsl rxpct

This command allows users to set the percentage of the data receiving rate.

adsl rxpct *[auto]*

adsl rxpct *[percent]*

Syntax Description

auto	It means to determine the transmission rate by the router automatically.
percent	It means to specify the percentage of the transmission rate. The range is 10 ~ 100.

Example

```
>adsl rxpct 80
rx percentage : 70
```

2.21.3 adsl status

This command can display the link status of the ADSL router and the basic information between router and CO.

Example

```
>adsl status
------------------------- ATU-R Info (annex A) ----------------------------
 Running Mode              :  T1.413       State            : HANDSHAKE
 DS Actual Rate            :        0 bps  US Actual Rate   :        0 bps
 DS maximum Rate           :        0 bps  US maximum Rate  :        0 bps
 DS Path Mode              :  Interleave   US Path Mode     :  Interleave
 NE Current Attenuation    :    0.0  dB    Cur SNR Margin   :    0.0  dB
 DS actual PSDM(C)         : 00000000      US actual PSDM(R) : 00000000
 ADSL Firmware Version     : E.38.2.23
 ------------------------------ ATU-C Info --------------------------------
 Far Current Attenuation :    0.0  dB      Far SNR Margin   :    0.0  dB
 CO ITU Version[0]         : 00000000      CO ITU Version[1] : 00000000
 DSLAM CHIPSET VENDOR      : < Unknown >
 -------------------------------------------------------------------------
 INTL,  DSTREAM bytes/depth=  0, symbols/codewords =  0, latency= 0*0.25ms.
     , USTREAM bytes/depth=  0, symbols/codewords =  0, latency= 0*0.25ms.
 CODE,  DSTREAM fast parity bytes=  0, fast codeword=  0.
        DSTREAM intl parity bytes=  0, intl codeword=  0.
 CODE,  USTREAM fast parity bytes=  0, fast codeword=  0.
        USTREAM intl parity bytes=  0, intl codeword=  0.
 Setting>>
    FDQ : Enable, TCM : Enable, EC : Disable, Framing Mode : 3.
 Running>>
    FDQ :   Off, TCM :   Off, EC :   Off.
    DS : Framing Mode 3, US : Framing Mode 3.
 ADI ADSL Firmware Version: E.38.2.23
```

2.21.4 adsl ppp

This command can set the Internet Access mode for the router.

adsl ppp *[? | pvc_no vci vpi Encap Proto modu acqIP idle [Username Password]*

Syntax Description

pvc_no	It means *pvc* number and must be between 0(Channel 1) to 7(Channel 8).
Encap	0 : VC_MUX, 1: LLC/SNAP, 2: LLC_Bridge, 3: LLC_Route, 4: VCMUX_Bridge, 5: VCMUX_Route.
Proto	It means the protocol used to connect Internet. 0: PPPoA; 1: PPPoE; 2: MPoA.
Modu	0: T1.413, 1: G.Lite, 2: G.dmt, 4: Multi, 5: ADSL2, 8:ADSL2+.
acqIP	It means the way to acquire IP address. 0 : fix_ip, 1: dhcp_client/PPPoE/PPPoA (acquire IP method)
idle	-1: always on, else idle timeout. This parameter is used only for PPPoE/PPPoA.
Username	This parameter is used only for PPPoE/PPPoA.
Password	This parameter is used only for PPPoE/PPPoA.

Reboot the system when you set it on Route mode.

Example

```
> adsl ppp o 35 8 1 1 4 1 -1 draytek draytek
pvc no.=0
vci=35
vpi=8
encap=LLC(1)
proto=PPPoE(1)
modu=MULTI(4)
AcquireIP: Dhcp_client(1)
Idle timeout:-1
Username=draytek
Password=draytek
```

2.21.5 adsl bridge (for 2700 series)

This command can specify a LAN port for mapping to certain PVC, and the mapping port/PVC will be operated in bridge mode.

adsl bridge *[pvc_no/status] [on/off/clear] [px ...]*

Syntax Description

pvc_no	It means *pvc* number and must be between 0(Channel 1) to 7(Channel 8).
status	It means to shown the whole bridge status.
on/off	It means to turn on/off bridge mode for the specific channel.
clear	It means to turn off all the PVC settings.
px	It means the number of LAN port (x=2~4). Port 1 is locked for NAT.

Example

```
support pure bridge mode in PVC y and map it to lan port x (x=2~4).
status  : show whole bridge status.
pvc_no  : pvc number and it must be between 4(Channel-5) to 7(Channel-8)
on/off  : turn on/off bridge mode for the specific channel.
clear   : turn off and clear ports.

ex: adsl bridge 4 on p2 p3 p4
   PVC 4 will map to lan port 2/3/4 in bridge mode.
> adsl bridge 4 on p2 p3
 PVC  Bridge   p1   p2   p3   p4
 --------------------------------
   4    ON       0    1    1    0
```

2.21.6 adsl idle

This command can make the router accessing into the idle status. If you want to invoke the router again, you have to reboot the router by using "reboot" command.

Example

```
> adsl idle
%Idle Mode!
You has to use {adsl reboot} to restart booting.
```

2.21.7 adsl reboot

This command can wake up the idle router.

Example

```
> adsl reboot
% Adsl is Rebooting...
```

2.21.8 adsl oamlb

This command is used to test if the connection between CPE and CO is OK or not.

adsl oamlb *[n][type]*

Syntax Description

n   It means the total number of transmitted packets.

type   It means the protocol that you can use.
                                      1 – for F4 Seg-to-Seg (VP level)
                                      2 – for F4 End-to-End (VP level)
                                      4 – for F5 Seg-to-Seg (VC level)
                                      5 – for F5 End-to-End (VC level)

Example

```
>adsl oamlb 10 2
Tx cnt=10
Rx Cnt=10
```

2.21.9 adsl vcilimit

This command can cancel the limit for vci value.

Some ISP might set the vci value under 32. In such case, we can cancel such limit manually by using this command. Do not set the number greater than 254.

Example

```
> adsl vcilimit 33
change VCI limitation from 32 to 33.
```

2.21.10 adsl showbins(for 2800 series)

This command can display the allocation for each Bin (Tone) SNR, Gain, and Bits.

adsl showbins *[startbin endbin]*

Syntax Description

startbin   The number is between 0 ~ 251.
          (0 ~30 is used for upstream, 31 ~ 251 is used for downstream)

endbin   The number is between 4 ~ 255.
          (4 ~30 is used for upstream, 31 ~ 255 is used for downstream)

Example

```
> adsl showbins 2 30
 --------------------------------------------------------------------------
 Bin  SNR  Gain Bi - Bin  SNR  Gain Bi - Bin  SNR  Gain Bi - Bin  SNR  Gain Bi
      dB   dB  ts        dB   dB  ts        dB   dB  ts        dB   dB  ts
 --- ----- ---- -- - --- ----- ---- -- - --- ----- ---- -- - --- ----- ---- --
   0  0.0  0.0  0 *   1  0.0  0.0  0 *   2  0.0  0.0  0 *   3  0.0  0.0  0
   4  0.0  0.0  0 *   5  0.0  0.0  0 *   6  0.0  0.0  0 *   7  0.0  0.0  8
   8  0.0  0.0 10 *   9  0.0  0.0 10 *  10  0.0  0.0 11 *  11  0.0  0.0 11
  12  0.0  0.0 11 *  13  0.0  0.0 11 *  14  0.0  0.0 12 *  15  0.0  0.0 12
  16  0.0  0.0 12 *  17  0.0  0.0 12 *  18  0.0  0.0 12 *  19  0.0  0.0 12
  20  0.0  0.0 12 *  21  0.0  0.0 12 *  22  0.0  0.0 12 *  23  0.0  0.0 12
  24  0.0  0.0 11 *  25  0.0  0.0 11 *  26  0.0  0.0 11 *  27  0.0  0.0 10
  28  0.0  0.0 10 *  29  0.0  0.0 10 *  30  0.0  0.0  9 *  31  0.0  0.0  9
  32  0.0  0.0  0 *  33  0.0  0.0  0 *  34  0.0  0.0  0 *  35  0.0  0.0  0
 --- ----- ---- -- - --- ----- ---- -- - --- ----- ---- -- - --- ----- ---- --
 Bin  SNR  Gain Bi - Bin  SNR  Gain Bi - Bin  SNR  Gain Bi - Bin  SNR  Gain Bi
      dB   dB  ts        dB   dB  ts        dB   dB  ts        dB   dB  ts
```

2.21.11 adsl codinggain (for 2800 series))

This command allows users to set level of the coding gain.

adsl codinggain *[value]*

Syntax Description

value   Each number represents different level:
                            "0" means Auto.
                            "1" means 0 dB.
                            "2" means 1 dB.
                            "3" means 2 dB.
                            "4" means 3 dB.
                            "5" means 4 dB.
                            "6" means 5 dB.
                            "7" means 6 dB.
                            "8" means 7 dB.

Example

```
> adsl codinggain
Coding gain=3db
```

2.21.12 adsl maxdnrate(for 2800 series)

This command allows users to set the maximum downstream rate. This function is available for ADSL only.

adsl maxdnrate *[value]*

Syntax Description

value　　　　　　　　The number is between 3M ~8M.
　　　　　　　　　　　0 means Auto mode
　　　　　　　　　　　3 means 3Mbps.
　　　　　　　　　　　4 means 4Mbps.
　　　　　　　　　　　5 means 5Mbps.
　　　　　　　　　　　6 means 6Mbps.
　　　　　　　　　　　7 means 7Mbps.
　　　　　　　　　　　8 means 8Mbps.

Example

```
> adsl maxdnrate 3M
Value=101, about 3Mbps
```

2.21.13 adsl duallatency (for 2800 series)

This command allows users to enable or disable the function of dual latency of the router. Users must confirm with ISP if they want to use this command.

adsl duallatency *[0/1]*

Syntax Description

0/1
          It means to enable or disable dual latency function.
0 means Disable; 1 means Enable.

Example

```
> adsl duallatency 1
Dual Latency: = Enable
```

2.21.14 adsl annex (for 2700 series)

This command can display the annex interface of this router.

Example

```
> adsl annex
% hardware is annex B.
% modem code is annex B; built at 01/15,07:34.
```

2.21.15 adsl savecfg

This command can save the configuration into FLASH with a file format of cfg.

Example

```
> adsl savecfg
% Xdsl Cfg Save OK!
```

2.21.16 adsl atm (for 2700 series)

This command can set QoS parameter for ATM.

adsl atm *pcr [pvc_no][PCR]max*

adsl atm *pcr status*

Syntax Description

pvc_no	It means *pvc* number and must be between 0(Channel 1) to 7(Channel 8).
PCR	It means Peak Cell rate for upstream. The range for the number is "0" to "DSL upstream rate/53/8".
max	It means to get the highest speed for the upstream.
status	It means to display PCR setting.

Example

```
> adsl atm pcr 1 200 max
% PCR is 200 for pvc 1.

> adsl atm pcr status
  pvc    channel         PCR
 --------------------------
   0       1            0
   1       2            200
   2       3            0
   3       4            0
   4       5            0
   5       6            0
   6       7            0
   7       8            0
```

2.22 wl

2.22.1 wl set (for 2910 series)

This command allows users to configure basic wireless settings.

wl set *SSID [CHAN[En]]*

Syntax Description

SSID	It means to type the SSID for the router. The maximum character that you can use is 32.
CHAN[En]	It means to specify required channel for the router. The range for the number is between 1 ~ 13.

Example

```
> wl set MKT 2 on
```

2.22.2 wl act (for 2910 series)

This command allows users to activate wireless settings.

wl act *[En]*

Syntax Description

En   on - enable this function.
                                   off - disable this function.

Example

```
> wl act on
```

2.22.3 wl wpa

This command allows users to set WPA mode for wireless connection.

wl wpa *[1/2/3]*

Syntax Description

1/2/3   "1" means WPA+WPA2.
                           "2" means WPA2 Only.
                           "3" means WPA only.

Example

```
> wl wap 1
```

2.22.4 wl pwrtst (for 2900 series)

This command allows you to enable the power test.

wl pwrtst *[on]*

wl pwrtst *[off]*

Syntax Description

on	It means to enable the power test procedure.
off	It means to disable the power test procedure.

Example

```
> wl pwrtst on
% Wl pwrtst is Enabled!
```

2.22.5 wl emi (for 2900 series)

This command allows you to wireless settings for emi.

wl emi *[mode][chan][rate][pream][len][modu][ant][loop][cca]*

Syntax Description

mode	It means to specify mode with the following number, 0: idle, 3: continue Rx, 4: continue
chan	It means the channel number(1~13).
rate	It means the data rate (110=11 Mbps, 540=54 Mbps)
pream (preamble)	It means the preamble value, 1: short, 0: long.
len	It means the data frame length.
modu	It means to specify modulation, 0: disable, 1: enable.
ant	It means to specify antenna_rx, 0, 1 or 2(diversity).
loop	It means to enable or disable the power loop, 0: disable, 1: enable.
cca	It means to specify cca mode, 0: disable, 1:ED, 2:CS.

Example

```
> wl emi 4 1 60 0 1514 0 0 1 0
% Your setting is:
% mode=4
% Channel=1
% rate=60
% preamble=0
% length=1514
% modulation=0
% antenna_rx=0
% power_loop=1
% ccamode=0
```

2.23 voip

2.23.1 voip block

This command allows users to block the VoIP number with specified prefix number.

voip block *n [-<command><parameter>]*

voip block *n[…]*

Syntax Description

n	It means the index number of the VoIP settings.
-<command><parameter>	The available commands with parameters are listed below. *-m 0*: it means to disable the block mode *-m 1:* it means to enable the block mode *-n #*: it means the number typed here will be blocked. The maximum character you can type is 11.
[...]	It means that you can type in several commands in one line, e.g., *-m 1 –n 0204*.

Example

```
> voip block 1 -m 1 -n 0204
> voip block -v
-------index: 1 active------
number: 0204
domain:
interface: 0
```

2.23.2 voip debug

This command can display debug message on the screen.

voip debug *[flush]*

voip debug *[showmsg]*

Syntax Description

flush	It means to clear current log.
showmsg	It means to show current log.

Example

```
> > voip debug showmsg
-->Send Message to 192.168.1.2:5060 <02:35:16>
INVITE sip:192.168.1.2 SIP/2.0
Via: SIP/2.0/UDP 192.168.1.1:5060;branch=z9hG4bK-YMa-3630;rport
From:  <sip:change_me@192.168.1.1>;tag=WLJ-11782
To: <sip:192.168.1.2>
Call-ID: PbU-25312@192.168.1.1
CSeq: 1 INVITE
Contact: <sip:change_me@192.168.1.1>
Max-Forwards: 70
supported: 100rel, replaces
User-Agent: DrayTek UA-1.2.3 DrayTek Vigor2910
Allow: INVITE, ACK, CANCEL, OPTIONS, BYE, INFO, REFER, NOTIFY, PRACK
Content-Type: application/sdp
Content-Length:   264

v=0
o=change_me 5972727 56415 IN IP4 192.168.1.1
```

2.23.3 voip dial_plan

This command allows users to set phone book settings.

voip dial_plan *n [-<command><parameter>]*

voip dial_plan *n[…]*

Syntax Description

n	It means the index number of the VoIP settings.
-<command><parameter>	The available commands with parameters are listed below:
-d <number>	It means the speed dial number, e.g., -d 886.
-c <url>:	It means the contact sip url, e.g., -c 8201@iptel.org
-n <name>:	It means the name of the peer that you want to contact, e.g, -n david.
-a 1/0	It means to enable (1) or disable (0) this entry.
-m 0/1/2	It means the backup number mode, none (0), ISDN (1) and (2) PSTN.
-b <number>	It means the back number, e.g., 241
-w	It means to delete this entry.
-v	It means to display current settings.
[…]	It means that you can type in several commands in one line

Example

```
> > voip dial_plan 1 -d 688 -c 8201@iptel.org –n david -a 1
> voip dial_plan -v
-------index: 1 active------
phone number: 688
name: david
address: 8201@iptel.org
backup number:  [mode=0]
```

2.23.4 voip rtp

2.23.4.1 voip rtp codec
This command allows users to set RTP codec type and size.

voip rtp codec *[index]***type***[value]*

voip rtp codec *[index]***size***[value]*

voip rtp codec *[index]***vad***[value]*

voip rtp codec *[index]***d711***[value]*

voip rtp codec *[index]***one***[value]*

Syntax Description

index	It means the index number of the VoIP settings.
type	It means to specify codec for VoIP call. The *value* for the type includes 0(G.711MU),1(G.711A),2(G.729A/B,3(G.723),and 4(G.726_32).
size	It means the amount of data contained in a single packet. The *value* for the size includes 0(10ms), 1(20ms), 2(30ms), 3(40ms), 4(50ms), 5(60ms).
vad	It means to detect if the voice on both sides is active or not. The *value* for vad includes 0(Disable) and 1(Enable).
d711	It means to activate or inactivate codec G.711A and G.711MU. The *value* for d711 includes 0(Disable) and 1(Enable).
one	It means to activate or inactivate single codec. The *value* for one includes 0(Disable) and 1(Enable).

Example

```
> > voip rtp codec 1 type 1
> voip rtp codec ?
usage:
%voip rtp codec <index> <type|size|vad|d711|one> <value>
%type: 0. G.711MU  1. G.711A    2. G.729A/B   3. G.723   4. G.726_32
%size: 0. 10ms  1. 20ms  2. 30ms  3. 40ms  4. 50ms  5.60ms
%VAD:  0. Disable   1. Enable
-----------------------------------------
%Current Setting:
%[index]-codec type/packet size/vad/disable g.711/single codec
[1]-1/1/off/No/No
[2]-2/1/off/No/No
[3]-2/1/off/No/No
```

2.23.4.2 voip rtp dtmf

This command allows users to set payload type for RTP DTMF.

voip rtp dtmf *[index]* **mode** *[value]*

voip rtp dtmf *[index]***payloadtype** *[value]*

Syntax Description

index	It means the phone index number of SIP accounts.
mode	It means the DTMF mode. 0 means Inband, 1 means Outband 2 means IP INFO (cisco) 3 means SIP INFO (nortel)
payloadtype	This setting is available for the OutBand (RFC2833) mode. The value for payload type is ranged from 96 to 127, the default value was 101.

Example

```
>voip rtp dtmf 1 payloadtype 99
> voip rtp dtmf ?
usage:
%voip rtp dtmf <index> <mode | payloadtype> <value>
%payload type: [96~127]
%mode:  0. Inband  1. Outband  2. SIP INFO (cisco) 3. SIP INFO (nortel)
---------------------------------------------
%Current Setting:
[1]DTMF mode: 0  Payload type: 99
[2]DTMF mode: 0  Payload type: 101
[3]DTMF mode: 0  Payload type: 101
```

2.23.4.3 voip rtp port

This command allows users to set rtp port range for VoIP call.

voip rtp port *[?]*

voip rtp port start*[value]*

voip rtp port end *[value]*

Syntax Description

?   It can display current port settings on the screen.

start   It means to set start port for RTP stream.

end   It means to set end port for RTP stream.

value   It means the number set for the start port and end port.

Example

```
> voip rtp port start 10060
> voip rtp port end 11000
> voip rtp port ?
usage:
%voip rtp port <start|end> <value>
current start port: 10060
current end port: 11000
```

2.23.4.4 voip rtp symmetric

This command allows user to set the data transmission going through on both ends of local router and remote router not misleading due to IP lost.

voip rtp symmetric *[?]*

voip rtp symmetric *[value]*

Syntax Description

?   It can display current settings on the screen.

value   It means to activate or inactivate rtp symmetric function. The *value* for rtp symmetric includes 0(Disable) and 1(Enable).

Example

```
> voip rtp symmetric 1
> voip rtp symmetric ?
usage:
%voip rtp symmetric <value>
current symmetric rtp : enable
```

2.23.4.5 voip rtp tos

This command allows users to set level of VoIP package.

voip rtp tos *[?]*

Syntax Description

?   It can display current settings on the screen.

Example

```
> voip rtp tos 160
> voip rtp tos
IP Type of Service
%voip rtp tos [value]
Current TOS: 0xa0
```

2.23.5 voip sip

2.23.5.1 voip sip acc

This command allows users to set SIP account.

voip sip acc *n [-<command><parameter>]*

voip sip acc *n[…]*

Syntax Description

n	It means the index number of the VoIP settings.
-<command><parameter>	The available commands with parameters are listed below:
-p<profile>	It means the name of the account profile (maximum 11 characters).
-r 0/1/2/3	It means registration mode. 0: none 1: auto 2: WAN 3: LAN/VPN
-o<port>	It means to set the port number for sending/receiving SIP message for building a session. The default value is 5060.
-d<domain>	It means to set the domain name or IP address of the SIP Registrar server. The maximum is 63 characters.
-y<proxy>	It means to set domain name or IP address of SIP proxy server. The maximum is 63 characters.
-b 0/1	It means to enable/disable SIP account outbound proxy. 0 means Disable; and 1 means Enable.
-s 0/1	It means to enable/disable the locating SIP server. 0 means Disable; and 1 means Enable.
-N<name>	It means to set the display name for SIP account. The maximum is 23 characters.
-n<number>	It means to set the number for the SIP account. The maximum is 63 characters.
-a<id>	It means to set an ID used for authentication. The maximum is 63 characters.
-A 0/1	It means to enable/disable the usage of SIP authentication ID. 0 means Disable; and 1 means Enable.
-p <passwd>	It means to set the password of the SIP account. The maximum is 63 characters.
-e <sec>	It means to set the expiry time for the SIP account. The default value is 3600 seconds.
-w 0/1	It means to enable/disable phone call without register. 0 means Disable; and 1 means Enable.

-m 0/1/2/3	It means to set NAT Traversal mode. 0 means Disable; 1 means stun; 2 means manual; and 3 means nortel.
-g 1/2/3/4	It means the account ring port. 1 means port1; 2 means port 2; 3 means port 3 and 4 means ISDN-FXO port.
-z 1/2/3/4/5/6	It means the account ring pattern.
-i 0/1	It means to remove all bindings while they are un-registered. 0 means Disable; and 1 means Enable.
-v	It means to display current settings for users to view.
[…]	It means that you can type in several commands in one line

Example

```
> voip sip acc 1 -P test -d iptel.org -y iptel.org -n 8201 -g 1
> voip sip acc 1 -v
index       :  1
profile     :  test
reg mode    :  0 | reg. [No]
domain      :  iptel.org
proxy       :  iptel.org | outbound [No] | DNS-SRV [No]
noreg call  :  No
disp. Name  :
acc number  :  8201
auth. ID    :   | [disable]
expiry      :  3600
NAT mode    :  0
ring ports  :  1
ring pat.   :  1
```

2.23.5.2 voip sip calllog

This command displays the SIP call log.

Example

```
> voip sip calllog
Index     Date          Time      Duration  IN/OUT   Peer ID
No.1   06-12-2006     02:35:16      0        OUT     192.168.1.2
No.2   00-00-  0      00:00:00      0        -
No.3   00-00-  0      00:00:00      0        -
No.4   00-00-  0      00:00:00      0        -
No.5   00-00-  0      00:00:00      0        -
No.6   00-00-  0      00:00:00      0        -
No.7   00-00-  0      00:00:00      0        -
No.8   00-00-  0      00:00:00      0        -
No.9   00-00-  0      00:00:00      0        -
No.10  00-00-  0      00:00:00      0        -
>
```

2.23.5.3 voip sip ep

This command allows users to set

voip sip ep *n [-<command><parameter>]*

voip sip ep *n[…]*

Syntax Description

n	It means the index number of the VoIP settings.
-<command><parameter>	The available commands with parameters are listed below:
-o <acc>	It means the default dial out account (1 ~ 6).
-L <url>	It means the hot line sip url (max. 63 characters).
-l <enable>	It means to enable or disable hot line (0: disable, 1: enable)
-w <enable>	It means to enable or disable call waiting (0: disable, 1: enable)
-x <enable>	It means to enable or disable call transfer (0: disable, 1: enable)
-f <mode>	It means to specify the call forwarding mode (0: disable, 1: always, 2: busy, 3: no answer)
-F <url>	It means to specify call forwarding sip url (max. 63 characters).
-t <sec>	It means to specify call forwarding timer (unit: second)
-d <enable>	It means to enable or disable DND (Do Not Disturb, 0: disable, 1: enable).
-s <id>	It means to specify DND schedule s1[s2, s3, s4] (max. 4 schedule).
-h <enable>	It means to enable or disable calling line identification restriction (CLIR, 0: disable, 1: enable)
-u <mode>	It means to specify CLIR mode. (0: draft-ietf-sip-privacy, 1: rfc 3323/3325)
-z <enable>	It means to enable or disable play dial tone when registered on sip server.
-n <enable>	It means to enable or disable session timer (0: disable, 1: enable).
-m <sec>	It means to specify session timer (unit: sec)
-8 <enable>	It means to enable or disable T.38 fax relay (0: disable, 1: enable)
-c <val>	It means to specify default call route (0: to VoIP, 1: to ISDN)
-p <kyes>	It means to specify alternate route to VoIP, 1 or 2 keys. The valid digits are 0-9,*,#
-i <kyes>	It means to specify alternate route to ISDN, 1 or 2 keys. The valid digits are 0-9,*,#
-q <enable>	ISDN to VoIP call enable (0: disable, 1: enable)

-r <enable>	It means to enable or disable VoIP to ISDN call (0: disable, 1: enable).
-j <enable>	It means to enable or disable On-Net PIN control (0: disable, 1: enable).
-k <enable>	It means to enable or disable Off-Net PIN control (0: disable, 1: enable).
-b <code>	It means to specify On-Net PIN code.
-e <code>	It means to specify Off-Net PIN code.
-v [option]	It means to view current settings
[…]	It means that you can type in several commands in one line.

Example

```
> > voip sip ep 1 -w 1 -x 1
> voip sip ep -v
index          : 1
dial out acc   : 1
hot line enable : no
hot line url   :
call fwd mode  : 0
call fwd url   :
call fwd timer : 30
call waiting   : yes
call transfer  : yes
CLIR enable    : no [0]
dnd enable     : no
dnd schedule   : 0
dial tone on reg: no
t.38 fax relay : no
session timer  : 3600 [no]
call route to  : VoIP
alt. to ISDN   : 0000
alt. to VoIP   : 0000
```

2.23.5.4 voip sip misc (for 2800 series)

This command allows users to set miscellaneous settings for the device.

voip sip misc *[-<command> <parameter> | ...]*

Syntax Description

<command> <parameter>	The available commands with parameters are listed below.
-c <parameter>	Enable compact header (0: disable, 1: enable)
-i <parameter>	Enable CODEC change w/o Re-INVITE (0: disable, 1: enable)
-r <val>	ISDN On/Off Net retry counter (3 ~ 255, default is 3)
-v	View current settings
[...]	It means that you can type in several commands in one line.

Example

```
> voip sip misc -v
sip misc. settings:

Use compact header: no
Alter codec no INV: no
Auth. retry times : 3
```

2.23.5.5 voip sip nat

This command allows users to set NAT Traversal Setting.

voip sip nat *n [-<command><parameter>]*

voip sip nat *n[…]*

Syntax Description

n	It means the index number of the VoIP settings.
-<command><parameter>	The available commands with parameters are listed below:
-s <server>	It means stun server address or website.
-t <sec>	It means the sip ping interval.
-i <ip>	It means the external IP address (use x.x.x.x input)
-v	It means to display current settings.
[…]	It means that you can type in several commands in one line

Example

```
> voip sip nat -s stun.fwdnet.net
> voip sip nat -v
NAT settings:

STUN server: stun.fwdnet.net
NAT type = 0
SIP PING interval :  150
External IP = 255.255.255.255
> voip sip nat -t 180 -i 192.168.1.1
> voip sip nat -v
NAT settings:

STUN server:
NAT type = 0
SIP PING interval :  180
External IP = 192.168.1.1
```

2.23.6 voip dsp

2.23.6.1 voip dsp countrytone

This command allows users to set the region for the tone settings. Different regions usually need different tone settings.

voip dsp countrytone *[channel][value]*

Syntax Description

channel   It means the FXS interface used for VoIP phone. 1 means FXS 1; 2 and means FXS 2.

value   It means the region of the tone settings.
                   "2" means UK
                   "3" means USA
                   "4" means Denmark
                   "5" means Italy
                   "6" means Germany
                   "7" means Netherland
                   "8" means Portugal
                   "9" means Sweden
                   "10" means Australia

Example

```
> > voip dsp countrytone 1 3
===========  Channel=1  ==============
----------- ( Dial tone ) --------------------
 Feq1=350, Feq2=440, OneOn=60000, Off=0, TwoOn=0, TwoOff=0
----------- ( Ringing tone ) -----------------
 Feq1=440, Feq2=480, OneOn=2000, OneOff=4000, TwoOn=0, TwoOff=0
----------- ( Busy tone ) --------------------
```

2.23.6.2 voip dsp dialtonepwr

This command allows user to set the dial tone power level.

voip dsp dialtonepwr *[channel] [AbsoluteValue]*

Syntax Description

channel	It means the FXS interface used for VoIP phone. 1 means FXS 1; 2 and means FXS 2.
AbsoluteValue	This setting is used to adjust the loudness of the dial tone. The smaller the number is, the louder the dial tone is. It is recommended for you to use the default setting (27).

Example

```
> voip dsp dialtonepwr 1 15
Current power level of dialtone:15 (-8db), channel=1
```

2.23.6.4 voip dsp ringfeq

This command allows users to set ring frequency for the ring tone.

voip dsp ringfeq *[channel] [value]*

Syntax Description

channel	It means the FXS interface used for VoIP phone. 1 means FXS 1; and 2 means FXS 2.
value	This setting is used to drive the frequency of the ring tone. It is recommended for you to use the default setting.

Example

```
> voip dsp ringfeq 1 30
Current ring-feq: 30HZ, channel=1
```

2.23.6.5 voip dsp cidtype

This command allows users to set caller ID type.

voip dsp cidtype *[channel] [value]*

Syntax Description

channel	It means the FXS interface used for VoIP phone. 1 means FXS 1; and 2 means FXS 2.
value	It means the standard for displaying the caller ID on the panel of the telephone set. "1" means FSK_ETSI "2" means FSK_ETSI(UK) "3" menas FSK_BELLCORE(US/AU) "4" means DTMF "5" means DTMF(DK) "6" means DTMF(SE, NL, FIN)

Example

```
> voip dsp cidtype 1 4
channel=1, current cidType: 4
```

2.23.6.6 voip dsp micgain

This command allows users to set volume of microphone.

voip dsp micgain *[channel] [value/(1~10)]*

Syntax Description

channel	It means the FXS interface used for VoIP phone. 1 means FXS 1; and 2 means FXS 2.
value/(1~10)	It means the volume of the sound. Type the number from 1- 10. The larger of the number is, the louder the volume is.

Example

```
> voip dsp micgain 1 8
Current MicGain: 8 on channel 1
```

2.23.6.7 voip dsp spkgain

This command allows users to set volume of speaker.

voip dsp spkgain *[channel] [value/(1~10)]*

Syntax Description

channel	It means the FXS interface used for VoIP phone. 1 means FXS 1; and 2 means FXS 2.
value/(1~10)	It means the volume of the sound. Type the number from 1- 10. The larger of the number is, the louder the volume is.

Example

```
> voip dsp spkgain 1 7
Current Speaker Gain: 7 on channel 1
```

2.23.6.8 voip dsp timer

This command allows users to set the waiting time for dialing out.

voip dsp timer *[Timer] [PHONE_NUM_LEN]*

Syntax Description

?	It displays current timer and PHONE_NUM_LEN settings.
Timer	It means to set the timer settings. The unit is mini-second. The range is from 1 to 255. Value "1" is corresponding to 500ms. That is to say, Value "6" is corresponding 3000ms (i.e., 3 seconds)
PHONE_NUM_LEN	It means the length of the phone number, that is, the phone digits. E.g., the value you set here is "6" and the phone number setting is "256789". When you press "25" and stop, after passing through 3 seconds, the router will start a phone call with the number "25" automatically.

Example

```
> voip dsp timer 6 8
 Current timer:6, PHONE_NUM_LEN=8
```

2.24 port (for 2910 series only)

This command allows users to set the speed for specific port of the router.

port *[1,2,3,4] [AN, 100F, 100H, 10F, 10H, status]*

Syntax Description

1,2,3,4   It means the number of LAN port.

AN... 10H, status   It means the physical type for the specific port.
                           AN: auto-negotiate.
                           100F: 100M Full Duplex.
                           100H: 100M Half Duplex.
                           10F: 10M Full Duplex.
                           10H: 10M Half Duplex.

Example

```
> port ?
  %% port <1,2,3,4> <AN,100F,100H,10F,10H,status>
> port 1 AN
```

2.25 wol

This command allows user to wake up LAN host through the router. Yet the network card installed in that host must support WOL function.

wol *up [MAC Address]*

wol *up [IP address]*

Syntax Description

MAC Address   It means the MAC address of the host.

IP address   It means the LAN IP address of the host. If you want to wake up LAN host by using IP address, be sure that that IP address has been binded with the MAC address (IP BindMAC).

Example

```
> wol up 00:50:7f:02:12:27
> wol up 192.168.1.50
```

2.26 vigbrg

This command can make the router to be regarded as a modem but not a router.

2.26.1 vigbrg on

This command can make the router to be regarded as a modem but not a router.

Example

```
> vigbrg on
```

2.26.2 vigbrg off

This command can disable vigor bridge function.

Example

```
> vigbrg off
```

2.26.3 vigbrg status

This command can show whether the Vigor Bridge Function is enabled or disabled.

Example

```
> vigbrg status
%Vigor Bridge Function is disabled.
```

2.26.4 vigbrg cfgip

This command allows user to transfer a bridge modem into adsl router by accessing into and adjusting specified IP address. Users can access into Web UI of the router to manage the router through the IP address configured here.

vigbrg cfgip

Syntax Description

?   It displays current IP address for vigor router.

Example

```
> vigbrg cfgip 192.168.1.10
```

2.26.5 vigbrg wanstatus

This command can display the existed WAN connection status for the modem (change from ADSL router into bridge modem), including index number, MAC address, Stamp Time, PVC, VLAN port for Vigor Bridge Function.

Example

```
> vigbrg wanstatus
Vigor Bridge: Running
WAN mac table:
Index  MAC Address          Stamp Time      PVC        VLan    Port
```

2.26.6 vigbrg wlanstatus

This command can display the existed WLAN connection status for the modem (change from ADSL router into bridge modem), including index number, MAC address, Stamp Time, PVC, VLAN port for Vigor Bridge Function.

Example

```
> vigbrg wlanstatus
Vigor Bridge: Running
WAN mac table:
Index  MAC Address          Stamp Time        PVC        VLan    Port
```

2.27 portmaptime (for 2800 Series)

This command allows you to set a time of keeping the session connection for specified protocol.

portmaptime *[-<command> <parameter> | ...]*

Syntax Description

DelayTime	It displays current IP address for vigor router.
-t <TCP>	It means "TCP" protocol.
-u <UDP>	It means "UDP" protocol.
-i <IGMP>	It means "IGMP" protocol.
-l <List>	List all settings.
[...]	It means that you can type in several commands in one line.

Example

```
> portmap -t 86400 -u 300 -i 10
> portmap -l
-------Your setting (min)------
-------TCP Time: 86400 ------
-------UDP Time: 300 ------
-------IGMP Time: 10 ------
```