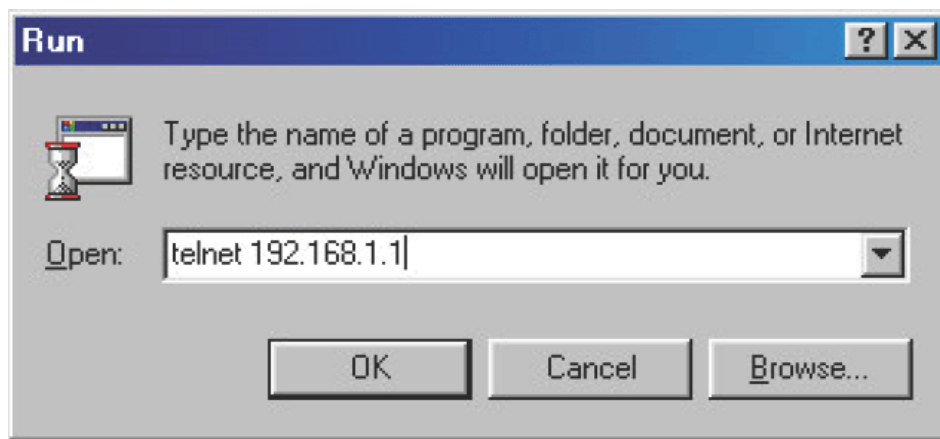# 1. Introduction

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. The screen will show [login].Type a valid administrator name and press Enter . And then show [Password], type the password for this administrator and press Enter will appears following screen.
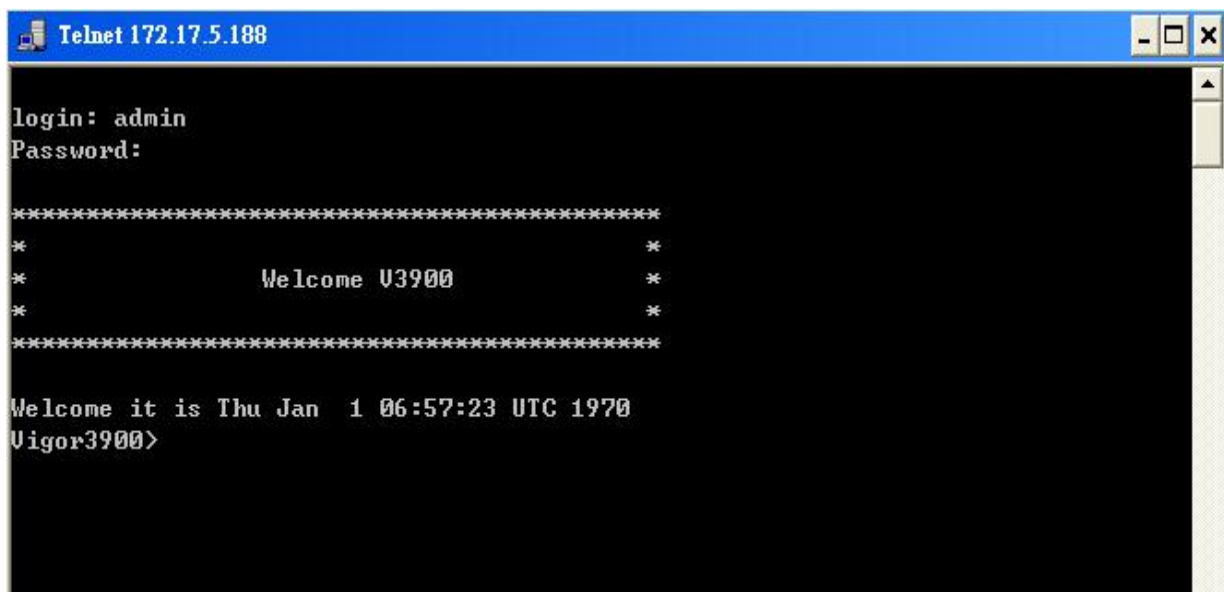
1.2 System Commands Overview

1.2.1 User mode

  When the screen appears the Vigor3900> , You have connected to the Vigor3900 CLI and you can enter CLI commands to configure. Under Vigor3900>, only the vigor 3900 global command listed below could be used.

Vigor 3900 Global Command

Command	DESCRIPTION
apply	Apply setting
enable	Change to enable mode
help	Display an overview of the CLI syntax
history	Display the current session's command line history
logout	Logout of the current CLI session
ping	Send ICMP ECHO_REQUEST packets to network host
status	Get current system related status
traceroute	Print the route packets trace to network host
wd_off	Close watch dog, ps: watch dog is running in default after reboot
exit	Exit

1.apply **[config]**
   When you modify the configure , create,delete,edit,You have to type this command to
   save the equipment of set.

2.Enable
   Change to enable mode
   Example:
   Vigor3900> status
   Vigor3900> enable
   Vigor3900# configure [command]==>enable mode

3.help

CONTEXT SENSITIVE HELP	
[?]	Display context sensitive help. This is either a list of possible command completions with summaries, or the full syntax of the current command. A subsequent repeat of this key, when a command has been resolved, will display a detailed reference.
AUTO-COMPLETION The following keys both perform auto-completion for the current command line. If the command prefix is not unique then the bell will ring and a subsequent repeat of the key will display possible completions.	
[enter]	Auto-completes, syntax-checks then executes a command. If there is a syntax error then offending part of the command line will be
[space]	Auto-completes, or if the command is already resolved inserts a space.
MOVEMENT KEYS	
[CTRL-A]	Move to the start of the line
[CTRL-E]	Move to the end of the line.
[up]	Move to the previous command line held in history.

[down]	Move to the next command line held in history.
[left]	Move the insertion point left one character.
[right]	Move the insertion point right one character.
DELETION KEYS	
[CTRL-C]	Delete and abort the current line
[CTRL-D]	Delete the character to the right on the insertion point.
[CTRL-K]	Delete all the characters to the right of the insertion point.
[CTRL-U]	Delete the whole line.
[backspace]	Delete the character to the left of the insertion point.
ESCAPE SEQUENCES	
!!	Subsitute the the last command line
!N	Substitute the Nth command line (absolute as per 'history' command)
!-N	Substitute the command line entered N lines before (relative)

4.ping **[host] [src_if]**
   Send ICMP ECHO_REQUEST packets to network host
   [host]   Target host [ ]
   [src_if]   Source Interface [unspecified]

5.status [command]
Get the following list system related status.

Command	DESCRIPTION
arp	Get current ARP status
conn_num	Get conntrack number
conntrack	Get conntrack session
dhcp	Get DHCP active session
firewall	Get current firewall config and status
lan	Get current lan status
lut	Get current switch lookup table info
neighbor6	Get current IPv6 neighbor table
process	Get current process status
route	Get current route table
route6	Get current IPv6 route table
switch	Get current switch status
system	Get current system status
vpn	Get current vpn status
wan	Get current wan status

> Note1:Type **..** to go back to upper layer menu
> Type exit to go back to main menu

1.2.2 enable mode

Key in "enable" command to enter enable mode. Now, you could use "configure" command to set Vigor3900. At the same time, the vigor 3900 global commands are also valid. Refer to the following chapters for descriptions of commonly used commands.

example
Vigor3900> status ---->user mode
Vigor3900> enable
Vigor3900# configure [command] ----->enable mode

Vigor 3900 configure Command

Command	DESCRIPTION
applications	Configure applications
bandwidth	Configure bandwidth management
fw	Configure firewall service
nat	Configure NAT
object_setting	Configure firewall object setting
system	Configure system management
terminal	Configure terminal
user	Configure user management
vpn	Configure VPN

> Note: type ? Will display a list of possible command completions with summaries,

2.WAN

Vigor3900 provides four functions in WAN – General Setup,Default Route, Load Balance(include load balancer pool,rule and auto load balance for china) , Switch. Users could use the commands below to set up the details.

Function Command	DESCRIPTION
autolb	auto load balance for china
defaultroute	default route
lbpool	configure load balancer pool
lbrule	configure load balancer rule
pf	Configure profile on wan
switch	Configure interface

Vigor3900# configure terminal
Vigor3900@config-t# wan
Vigor3900@config-t-wan# <command>

2.1General Setup

Vigor3900 supports multi-WAN function. It allows users to access Internet and combine the bandwidth of the WAN profiles to speed up the transmission through the network. Each WAN port can connect to different ISPs, even if the ISPs use different technology to provide telecommunication service (such as DSL, Cable modem, etc.). If any connection problem occurred on one of the ISP connections, all the traffic will be guided and switched to the normal communication port for proper operation.

In **Vigor3900@config-t-wan#** , users could use [pf] command to configure WAN Profile to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
pf add <SectionName>	Add profile on wan
pf delete <SectionName>	Delete profile on wan
pf show	Get configuration on wan
pf <profileName>	Modify the selected profile

example-
Vigor3900@config-t-wan# pf add <SectionName>
Vigor3900@config-t-wan# pf delete <SectionName>
Vigor3900@config-t-wan# pf show
Vigor3900@config-t-wan# pf <SectionName>

When you selected the profile or create a new profile, could use the commands below to set up the details.

Command	DESCRIPTION
..	Go back to upper layer menu
exit	Go back to config-t-wan menu
cdhost	Add or remove connection detection hosts to this profile
connect	DHCP/PPPoE/PPTP connect
disconnect	DHCP/PPPoE/PPTP disconnect
dns	Add or remove more DNS to this profile
dns6	Add or remove more ipv6 DNS to this profile
get	get configuration on this profile
ipalias	Add or remove IP alias to this profile
set	Configure profile

Vigor3900@config-t-wan# pf <SectionName>
Vigor3900@config-t-wan-pf<SectionName>#

2.1.1 Cdhost
In **Vigor3900@config-t-wan-pf<SectionName>#** , users could use [cdhost] command to configure this profile's connection detection hosts of this profile. Choose the [dhcp] or [static] item and   use [add] or [remove] to set the profile.

function	Item	Command	DESCRIPTION
Cdhost	dhcp	[add] [remove]	Add or remove DHCP connection detection hosts to this profile
	static	[add] [remove]	Add or remove static connection detection hosts to this profile

example
Vigor3900@config-t-wan# pf <profilename>
Vigor3900@config-t-wan-pf-<profilename># Cdhost dhcp add <profilename>
Vigor3900@config-t-wan-pf-<profilename># Cdhost static remove <profilename>

2.1.2 connect/ disconnect
In **Vigor3900@config-t-wan-pf-<SectionName>#** , use the [connect] or [disconnect] command to set the DHCP/PPPoE/PPTP connect ion or disconnection

example-
Vigor3900@config-t-wan# pf <profilename>
Vigor3900@config-t-wan-pf-<profilename># connect [dhcp][pppoe][pptp]
Vigor3900@config-t-wan-pf-<profilename># disconnect [dhcp][pppoe][pptp]

2.1.3 dns
In **Vigor3900@config-t-wan-pf<SectionName># ,** use the [dns] command to configure the DNS server to add or remove DNS server.

**[add]   Add dns server
**[remove]   Remove dns server

example-
Vigor3900@config-t-wan-pf-<profilename># dns add <IP address>
Vigor3900@config-t-wan-pf-<profilename># dns remove <IP address>

2.1.4 dns6
In **Vigor3900@config-t-wan-pf-<SectionName>#** , users could use [dns6] command to configure the ipv6 DNS profile. Choose the [dhcp6-ia_na] or [static6] item and use [add] or [remove] to set this profile.

function	Item	Command	DESCRIPTION
dns6	dhcp6-ia_na	[add] [remove]	Add or remove more ipv6 DNS to this profile
	static6	[add] [remove]	Add or remove more ipv6 DNS to this profile

example-
Vigor3900@config-t-wan# pf <profilename>
Vigor3900@config-t-wan-pf-<profilename># dns dhcp6-ia_na add <IP address>
Vigor3900@config-t-wan-pf-<profilename># dns static6 remove <IP address>

2.1.5 ipalias
In **Vigor3900@config-t-wan-pf-<SectionName>#** , users could use [ipalias] command to configure the IP alias address. Choose the [dhcp] or [static] item and use [add] or [remove] to set this profile.

function	Item	Command	DESCRIPTION
ipalias	dhcp	[add] [remove]	Add or remove DHCP IP alias address to this profile
	static	[add] [remove]	Add or remove static IP alias address to this profile

example-add
Vigor3900@config-t-wan# pf <profilename>
Vigor3900@config-t-wan-pf-<profilename># ipalias dhcp remove <IP address>
Vigor3900@config-t-wan-pf-<profilename># ipalias static add <IP address>

2.1.6 get configuration information
In **Vigor3900@config-t-wan-pf-<SectionName>#,**user could use [get] and the commands below list to get configuration of the profile.

Command	DESCRIPTION
dhcp	get DHCP configuration

dhcp6-ia_na	get IPv6 dhcp(ia_na) configuration
global	get global configuration
pppoe	get PPPoE configuration
pptp	get PPTP configuration
static	get static configuration
static6	get IPv6 static configuration

example-
Vigor3900@config-t-wan-pf-<SectionName># get dhcp

```
Vigor3900@config-t-wan-pf-wan1# get dhcp

ipaddr              :
mask                :
hostname            :
ipalias             :
mtu                 : 1500
cdmode              : ARP
cdhost              :
cdint               : 10
cdretry             : 3
```

Vigor3900@config-t-wan-pf-<SectionName># get static

```
Vigor3900@config-t-wan-pf-wan1# get static

ipaddr              : 172.17.5.188
mask                : 255.255.255.0
gateway             :
dns                 :
ipalias             : 172.17.3.188/24
mtu                 : 1500
cdmode              : ARP
cdhost              :
cdint               : 10
cdretry             : 3
```

2.1.7 set configuration information
In **Vigor3900@config-t-wan-pf-<SectionName>#,**user could use [set] and the commands below list to configure profiles.

Command	DESCRIPTION
dhcp	Profile DHCP configuration
dhcp6-ia_na	Profile IPv6 dhcp(ia_na) configuration
global	Profile global configuration
pppoe	Profile PPPoE configuration
pptp	Profile PPTP configuration
static	Profile static configuration

static6	Profile IPv6 static configuration

2.1.7.1 Profile dhcp configuration

In **Vigor3900@config-t-wan-pf-<SectionName>#** ,users could use [set dhcp] command to configure the dhcp profile configuration, and use the commands below to set up the details.

Vigor3900@config-t-wan-pf-<SectionName># set dhcp <command><Value>

function	command	Value	DESCRIPTION
dhcp	ipaddr	dhcp_ipaddress	DHCP IP address
	mask	dhcp_netmask	DHCP mask address
	hostname	dhcp_hostname	DHCP hostname
	ipalias	dhcp_ipalias	DHCP IP alias address
	mtu	dhcp_mtu	DHCP mtu/mru value (max: 1500)
	cdmode	dhcp_cd_mode	DHCP connection detection mode (ARP/PING/HTTP)
	cdhost	dhcp_cd_host	DHCP connection detection host
	cdint	dhcp_cd_interval	DHCP connection detection interval
	cdretry	dhcp_cd_retry	DHCP connection detection retry

Note:The value could reference the description below.

example-
Vigor3900@config-t-wan-pf-<SectionName># set dhcp ipaddr <DHCP IP address>
Vigor3900@config-t-wan-pf-<SectionName># set dhcp mask <DHCP mask address>
Vigor3900@config-t-wan-pf-<SectionName># set dhcp cdmode **<ARP/PING/HTTP>**

2.1.7.2 Profile ipv6 dhcp(ia_na) configuration

In **Vigor3900@config-t-wan-pf-<SectionName>#** ,users could use [set dhcp6-ia_na] command to configure the ipv6 dhcp(ia_na) profile configuration, and use the commands below to set up the details.

Vigor3900@config-t-wan-pf-<SectionName># set dhcp6-ia_na <command><Value>

function	Command	Value	DESCRIPTION
dhcp6-ia_na	gateway6	dhcp6_na_gateway6	dhcp6(ia_na) gateway address
	dns6	dhcp6_na_dns6	dhcp6(ia_na) DNS address

Note:The value could reference the description below.

example-
Vigor3900@config-t-wan-pf-<SectionName># set dhcp6-ia_na gateway6 <gateway address>

Vigor3900@config-t-wan-pf-<SectionName># set dhcp6-ia_na dns6 <DNS address>

2.1.7.3 Profile global configuration

In **Vigor3900@config-t-wan-pf-<SectionName># ,**users could use [set global] command to configure the global profile configuration, and use the commands below to set up the details.

Vigor3900@config-t-wan-pf-<SectionName># set global <command><Value>

function	Command	Value	DESCRIPTION
global	status	status	status (Enable/Disable)
	desc	description	profile description
	vid	vid	vlan id
	default_mac	default_mac	default mac (Enable/Disable)
	mac	macaddr	MAC address
	proto	proto	IPv4 protocol type (Static/DHCP/PPPoE/PPTP)
	proto6	proto6	ipv6 protocol type (Link-Local/ Static/DHCP-IA_NA/DHCP-IA_PD)

Note:The value could reference the description below.

example-
Vigor3900@config-t-wan-pf-<SectionName># set global status <enable/disable>
Vigor3900@config-t-wan-pf-<SectionName># set global vid <number>

2.1.7.4 Profile pppoe configuration

In **Vigor3900@config-t-wan-pf-<SectionName>#** ,users could use [set pppoe] command to configure the pppoe profile configuration, and use the commands below to set up the details.

Vigor3900@config-t-wan-pf-<SectionName># set pppoe <command><Value>

function	Command	Value	DESCRIPTION
pppoe	username	pppoe_username	PPPoE username
	password	pppoe_password	PPPoE password
	mtu	pppoe_mtu	PPPoE mtu/mru value (max: 1492)
	debug	pppoe_debug	enable PPPoE debug (Enable/Disable)
	always_on	pppoe_always_on	enable PPPoE always on (Enable/Disable)
	cdint	pppoe_cd_interval	PPPoE connection detection interval
	cdretry	pppoe_cd_retry	PPPoE connection detection retry
	ipalias	pppoe_ipalias	PPPoE IP alias address

Note:The value could reference the description below.

example-
Vigor3900@config-t-wan-pf-<SectionName># set pppoe username <name>
Vigor3900@config-t-wan-pf-<SectionName># set pppoe debug <enable/disable>

2.1.7.5 Profile pptp configuration

In **Vigor3900@config-t-wan-pf-<SectionName># ,**users could use [set pptp] command to configure the pptp profile configuration, and use the commands below to set up the details.

Vigor3900@config-t-wan-pf-<SectionName># set pptp   <command><Value>

function	Command	Value	DESCRIPTION
pptp	over	pptp_over	PPTP over protocol (Static/DHCP)
	server	pptp_server	PPTP server
	username	pptp_username	PPTP username
	password	pptp_password	PPTP password
	mtu	pptp_mtu	PPTP mtu/mru value (max: 1460)
	debug	pptp_debug	enable PPTP debug (Enable/Disable)
	always_on	pptp_always_on	enable PPTP always on (Enable/Disable)
	cdint	pptp_cd_interval	PPTP connection detection interval
	cdretry	pptp_cd_retry	PPTP connection detection retry

Note:The value could reference the description below.

example-
Vigor3900@config-t-wan-pf-<SectionName># set pptp over <dhcp/static>
Vigor3900@config-t-wan-pf-<SectionName># set pptp always_on <enable/disable>

2.1.7.6 Profile static configuration

In **Vigor3900@config-t-wan-pf-<SectionName># ,**users could use [set static] command to configure the static profile configuration, and use the commands below to set up the details.

Vigor3900@config-t-wan-pf-<SectionName># set static <command><Value>

function	Command	Value	DESCRIPTION
static	ipaddr	static_ipaddress	static IP address
	mask	static_mask	static mask address
	gateway	static_gateway	static gateway address
	dns	static_dns	static DNS address
	ipalias	static_ipalias	Static IP alias address
	mtu	static_mtu	static mtu/mru value
	cdmode	static_cd_mode	static connection detection mode (ARP/PING/HTTP)

	cdhost	static_cd_host	static connection detection host
	cdint	static_cd_interval	static connection detection interval
	cdretry	static_cd_retry	static connection detection retry

Note:The value could reference the description below.

example-
Vigor3900@config-t-wan-pf-<SectionName># set static ipaddr <static ip address>
Vigor3900@config-t-wan-pf-<SectionName># set static cdint <Unsigned integer>

2.1.7.7 *Profile static6 configuration*

In **Vigor3900@config-t-wan-pf-<SectionName>#** ,users could use [set static6] command to configure the static6 profile configuration, and use the commands below to set up the details.

Vigor3900@config-t-wan-pf-<SectionName># set static6 <command><Value>

Function	Command	Value	DESCRIPTION
static6	ip6addr	static_ip6address	static IPv6 address
	ip6length	static_ip6length	static IPv6 prefix length
	gateway6	static_gateway6	static IPv6 gateway address
	dns6	static_dns6	static IPv6 DNS address

Note:The value could reference the description below.

example-
Vigor3900@config-t-wan-pf-<SectionName># set static6 ip6addr <static ipv6 address>
Vigor3900@config-t-wan-pf-<SectionName># set static6 dns6 <static ipv6 DNS address>

2.2 Default Route

In **Vigor3900@config-t-wan#** , use [defaultroute] command to configure Default Route profile ,then type the [get] or [set] command to configure the Default Route profile details information.

 **[get]   get default route
 **[set]   configure default route

example-
 Vigor3900@config-t-wan# defaultroute get

Vigor3900@config-t-wan# defaultroute set [pool lb_pool]

Note: [pool lb_pool] the former pool is command, and the latter is value. The value

is wan profile/load balance pool.

2.3 Load Balance
2.3.1 Load Balancer Pool
In **Vigor3900@config-nat#** , users could use [lbpool] command to configure Load Balance Pool to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
lbpool add <SectionName>	add load balancer pool
lbpool delete <SectionName>	delete load balancer pool
lbpool show	get load balancer pool
lbpool <SectionName>	Modify the selected profile

selected the profile, then use the [get] , [set] command to configure the load balancer pool configuration, use the [add],[remove] command to add or remove the load balancer loadbalance interface.

**[get] get load balancer pool configuration
**[set] set load balancer pool configuration

Vigor3900@config-t-wan-lb-pool-<ProfileName># get
Vigor3900@config-t-wan-lb-pool-<ProfileName># set [mode mode] [lbif lb_iface] [primary primary_pf] [backup backup_pf]

Command	Value	DESCRIPTION
mode	mode	load balance mode (Load_Balance/Failover)
lbif	lb_iface	load balance interface
primary	primary_pf	primary profile
backup	backup_pf	backup profile

Note: [mode mode] the former mode is command, and the latter is value. The value could reference the description below.

**[add]   add load balancer loadbalance interface
**[remove] remove load balancer pool loadbalance interface

Command	Value	DESCRIPTION
add	lb_iface	load balance interface
	lb_iface_weight	load balance interface weight
remove lbif	lb_iface	load balance interface
	lb_iface_weight	load balance interface weight

Vigor3900@config-t-wan-lb-pool-<ProfileName># add <lb_iface>
Vigor3900@config-t-wan-lb-pool-<ProfileName># add <lb_iface_weight>

Vigor3900@config-t-wan-lb-pool-<ProfileName># remove bif <lb_iface>
Vigor3900@config-t-wan-lb-pool-<ProfileName># remove <lb_iface_weight>
----
example-create
Vigor3900@config-t-wan# lbpool add <SectionName>
Vigor3900@config-t-wan-lb-pool-<ProfileName># set mode <load balance mode>
Vigor3900@config-t-wan-lb-pool-<ProfileName># set primary <primary profile>
Vigor3900@config-t-wan-lb-pool-<ProfileName># add <WAN profile configuration>

example-edit
Vigor3900@config-t-wan# lbpool show
Vigor3900@config-t-wan# lbpool <SectionName>
Vigor3900@config-t-wan-lb-pool-<ProfileName># get

```
Vigor3900@config-t-wan-lb-pool-p2# get

mode              : Load_Balance
lbif              :
primary           : wan1
backup            : wan1
```

Vigor3900@config-t-wan-lb-pool-<ProfileName>#set backup <backup profile>
Vigor3900@config-t-wan-lb-pool-<ProfileName>#remove lbif <load balance interface>

example-delete
Vigor3900@config-t-wan# lbpool delete <SectionName>

2.3.2 Load Balancer Rule

In **Vigor3900@config-nat# ,** users could use [lbrule] command to configure Load Balance Rule to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
lbrule add <profileName>	add load balancer rule
lbrule delete <profileName>	delete load balancer rule
lbrule show	get load balancer rule
lbrule <profileName>	Modify the selected profile

selected the profile, then use the [get] , [set] command to configure the load balancer rule configuration,

**[get] get load balancer rule configuration
**[set] set load balancer rule configuration

example-add:
Vigor3900@config-t-wan# lbrule add <profilename>
Vigor3900@config-t-wan-lb-rule-<profilename># set <command Value>

example-edit:
Vigor3900@config-t-wan# lbrule show
Vigor3900@config-t-wan# lbrule <profilename>

Vigor3900@config-t-wan-lb-rule-<profilename># get

```
Vigor3900@config-t-wan-lb-rule-p1# get

status              : Enable
proto               : ALL
sip                 :
smask               :
dip                 :
dmask               :
dport               :
dport_end           :
pool                : wan5
```

Vigor3900@config-t-wan-lb-rule-<profilename># set [status status] [proto protocol] [sip src_ip] [smask src_mask] [dip dest_ip] [dmask dest_mask] [dport dest_port] [dport_end dest_port_end] [pool lb_pool]

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
proto	protocol	protocol (ALL/TCP/UDP/TCP/UDP/ICMP/FTP/TFTP/HTTP/SMTP/POP3)
sip	src_ip	source IP address
smask	src_mask	source mask
dip	dest_ip	destination IP address
dmask	dest_mask	destination mask
dport	dest_port	destination port
dport_end	dest_port_end	destination port end
pool	lb_pool	load balance pool/wan profile

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-t-wan# lbrule delete <profilename>

2.3.3 Auto load balance
   In **Vigor3900@config-t-wan# ,** use [autolb] command to configure auto load balance profile ,then type the [get] or [set] command to configure the auto load balance profile details information.

 **[get] get auto load balance
 **[set] configure auto load balance

 example-
 Vigor3900@config-t-wan# autolb get

```
Vigor3900@config-t-wan# autolb get

status              : Disable
telecom             : wan1
cnc                 : wan1
```

Vigor3900@config-t-wan# autolb set [status status] [telecom telecom_pool] [cnc cnc_pool]

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
telecom	telecom_pool	wan profile/load balance pool for cn telecom
cnc	cnc_pool	wan profile/load balance pool for cn cnc

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

2.4 Switch

In **Vigor3900@config-t-wan# ,** use [switch] command to configure Switch profile ,then type the [interface],[mirror],[vlan] command to configure the details information.

Command	DESCRIPTION
interface	Configure switch interface
mirror	Configure mirror
vlan	Configure switch vlan

Vigor3900@config-t-wan# switch
Vigor3900@config-t-wan-switch# [interface][mirror][vlan]

2.4.1 Configure switch Interface

In **Vigor3900@config-t-wan-switch# ,**users could use [interface] command to configure Switch interface.

Vigor3900@config-t-wan# switch
Vigor3900@config-t-wan-switch# interface <intf_num>

 **[intf_num]   switch interface number (WAN1/WAN2/WAN3/WAN4/WAN5)

2.4.2Configure switch Mirror

In **Vigor3900@config-t-wan-switch# ,** use [mirror] command to configure switch mirror profile ,then type the [get] or [set] command to configure the detail information.

 **[get] Get current switch mirror
 **[set] Configure switch port mirror

Vigor3900@config-t-wan# switch
Vigor3900@config-t-wan-switch# mirror get

Vigor3900@config-t-wan-switch# mirror set [status status] [mirroring mirroring] [mirrored mirrored]

Command	Value	DESCRIPTION
status	status	Switch mirror status (Enable/Disable)
mirroring	mirroring	Switch mirroring port (WAN1/WAN2/WAN3/WAN4/WAN5/CPU)
mirrored	mirrored	Switch mirrored port (WAN1/WAN2/WAN3/WAN4/WAN5/CPU)

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

2.4.3Configure switch Vlan

In **Vigor3900@config-t-wan-switch# ,** users could use [vlan] command to configure Switch Vlan to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
vlan add <profileName>	Create a new vlan
vlan delete <profileName>	Delete vlan configure
vlan show	Get current switch vlan configuration
vlan <profileName>	Modify the selected profile

selected the profile, then use the [get],[member],[untag] command to configure the vlan information.

**[get]   get switch vlan configuration
**[member]   Configure vlan member port ,then use [add] or [remove] to add or remove vlan member interface
**[untag]   Configure vlan untag interface

example-add:
Vigor3900@config-t-wan-switch# vlan add <Profilename>
Vigor3900@config-t-wan-switch-vlan-<Profilename># member add <Switch interface number>
Vigor3900@config-t-wan-switch-vlan-<Profilename># member remove <Switch interface number>>
Vigor3900@config-t-wan-switch-vlan-<Profilename># untag <interface>

example-edit:
Vigor3900@config-t-wan-switch# vlan show
Vigor3900@config-t-wan-switch# vlan <Profilename>
Vigor3900@config-t-wan-switch-vlan-<Profilename># get

example-delete:
Vigor3900@config-t-wan-switch# vlan delete <Profilename>

3.LAN

LAN (Local Area Network) is a group of subnets regulated and ruled by router. The design of network structure is related to what type of public IP addresses coming from your ISP. Vigor3900 provides many functions in LAN – Users could use the commands below to set up the details.

Function Command	DESCRIPTION
interlanRoute	Configure Inter-LAN routing
ipbindmac	Configure IP bind Mac
iprouting	Configure iprouting section
pf	Configure profile on LAN
route	Configure static route section
route6	Configure static route6 section
switch	Configure port

Vigor3900# configure terminal
Vigor3900@config-t# lan
Vigor3900@config-t-lan# <command>

3.1 Inter-LAN routing

In **Vigor3900@config-t-lan#**, users could use [interlanRoute] command to configure Inter-LAN routing, then type the [get] or [set] command to configure the Inter-LAN routing detail information.

[get] Show Inter-LAN routing
[set] Configure Inter-LAN routing

example-
Vigor3900@config-t-lan# interlanRoute get

Vigor3900@config-t-lan# interlanRoute set [status status]

Note: [status status**] the former** status **is command, and the latter is value.**
Status Value:Inter-LAN routing status (Enable/Disable)

example-
Vigor3900@config-t-lan# interlanRoute set status enable

3.2 Profile on LAN

In **Vigor3900@config-t-lan#**, users could use [pf] command to configure LAN Profile to add or delete the profile or use "show" to get the profile list in the directory. Enter the

profile name to open it and modify the profile directly.

Command	DESCRIPTION
pf add <profileName>	Create a new vlan
pf delete <profileName>	Delete vlan configure
pf show	Get current switch vlan configuration
pf <profileName>	Modify the selected profile

example-
   Vigor3900@config-t-lan# pf add <SectionName>
   Vigor3900@config-t-lan# pf delete <SectionName>
   Vigor3900@config-t-lan# pf show
   Vigor3900@config-t-lan# pf <SectionName>

When you selected the profile or create a new profile, could use the commands below to set up the details.

Command	DESCRIPTION
..	Go back to upper layer menu
exit	Go back to config-t-lan menu
2nd_subnet	Add or remove more 2nd_subnet to this profile
dhcp	Configure DHCP server
dhcp6	Configure DHCP6 server
dhcprelay	Configure DHCP relay agent
get	get current config
radvd	Configure radvd
set	Configure profile

   Vigor3900@config-t-lan# pf <SectionName>
   Vigor3900@config-t-lan-pf-<SectionName>#

3.2.1 2nd_subnet
  In **Vigor3900@config-t-lan-pf-<SectionName>#**   , users could use [2nd_subnet] command to configure the 2nd_subnet profile to add or remove 2nd_subnet .

  **[add]   add 2nd_subnet to this profile
  **[remove]   remove 2nd_subnet to this interface

  Vigor3900@config-t-lan-pf-<SectionName># 2nd_subnet add <ip address>

3.2.2 Configure dhcp server
  In **Vigor3900@config-t-lan-pf-<SectionName>#** , users could use [dhcp] command to configure dhcp server of Lan, then type the [get],[set],[dns] command to configure the detail information.

  Vigor3900@config-t-lan-pf-<SectionName># dhcp

Vigor3900@config-t-lan-pf-<SectionName>-dhcp# [dns][get][set]

**[dns]   Add or remove more dns
**[get]   get current config
**[set]   Configure dhcp server

example-dns
Vigor3900@config-t-lan-pf-<SectionName>-dhcp# dns [add][remove] <ip address>
Vigor3900@config-t-lan-pf-<SectionName>-dhcp# dns add <ip address>

example-get
Vigor3900@config-t-lan-pf-<SectionName>-dhcp# get

```
Vigor3900@config-t-lan-pf-lan1-dhcp#get

status              : Enable
start               : 192.168.7.1
end                 : 192.168.7.254
dns                 :
router              :
lease               : 86400
rdi_pool            : Disable
rdi_start           :
rdi_end             :
```

example- set
Vigor3900@config-t-lan-pf-<SectionName>-dhcp# set [status status] [start start] [end end] [dns dns] [router router] [lease lease] [rdi_pool rdi_pool] [rdi_start rdi_start] [rdi_end rdi_end]

Vigor3900@config-t-lan-pf-<SectionName>-dhcp# set status enable

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
start	start	pool_ip_start
end	end	pool_ip_end
dns	dns	DNS
router	router	router
lease	lease	IP lease time
rdi_pool	rdi_pool	specify pool for remote dial-in (Enable/Disable)
rdi_start	rdi_start	pool_ip_start for remote dial-in
rdi_end	rdi_end	pool_ip_end for remote dial-in

Note:The value could reference the description below.

Vigor3900@config-t-lan-pf-<SectionName>-dhcp# set status enable

3.2.3 Configure dhcp6 server
   In **Vigor3900@config-t-lan-pf-<SectionName>#** , users could use [dhcp6] command to configure dhcp6 server of LAN, then in **Vigor3900@config-t-lan-pf-lan1-**

<SectionName>-dhcp6# use the [get] or [set] command to configure the information.
  **[get]   get current config
  **[set]   Configure dhcp6s

  example-
  Vigor3900@config-t-lan-pf-<SectionName># dhcp6
  Vigor3900@config-t-lan-pf-lan1-<SectionName>-dhcp6# get

```
Vigor3900@config-t-lan-pf-lan1-dhcp6#get

status              : Disable
start               :
end                 :
dns                 :
```

  Vigor3900@config-t-lan-pf-lan1-dhcp6# set [status status] [start start] [end end] [dns dns]
  Vigor3900@config-t-lan-pf-lan1-dhcp6# set status enable

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
start	start	pool_ip_start
end	end	pool_ip_end
dns	dns	DNS

  Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

3.2.4 Configure dhcp relay agent
  In **Vigor3900@config-t-lan-pf-<SectionName>#** , use [dhcprelay] command to configure dhcp relay agent ,then type the [get] or [set] command to configure the details information.

  **[get]   get current config
  **[set]   Configure dhcp relay agent

  example-
  Vigor3900@config-t-lan-pf-<SectionName># dhcprelay
  Vigor3900@config-t-lan-pf-<SectionName>-dhcprelay# get

```
Vigor3900@config-t-lan-pf-lan1-dhcprelay#get

status              : Disable
wan                 :
server              :
```

  Vigor3900@config-t-lan-pf-<SectionName>-dhcprelay# set [status status] [wan wan_profile] [server server_ip]
  Vigor3900@config-t-lan-pf-<SectionName>-dhcprelay# set status enable

Command	Value	DESCRIPTION

status	status	status (Enable/Disable)
wan	wan_profile	DHCP server location
server	server_ip	DHCP server IP

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

3.2.5 Configure radvd

In **Vigor3900@config-t-lan-pf-<SectionName>#** , use [radvd] command to configure auto load balance profile ,then type the [get] or [set] command to configure the auto load balance profile details information.

**[get]   get current config
**[set]   Configure radvd

**example-
Vigor3900@config-t-lan-pf-<SectionName>#** radvd
Vigor3900@config-t-lan-pf-<SectionName>-radvd# get

```
Vigor3900@config-t-lan-pf-lan1-radvd#get

status             : Disable
lifetime           : 30
```

Vigor3900@config-t-lan-pf-<SectionName>-radvd# set [status status] [lifetime lifetime]

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
lifetime	lifetime	advertisement lifetime

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

3.2.6 get current config

In **Vigor3900@config-t-lan-pf-<SectionName>#,**user could use [get] to get current config

**example-
Vigor3900@config-t-lan-pf-<SectionName>#** get

```
Vigor3900@config-t-lan-pf-lan1# get

status              : Enable
desc                :
vid                 : 10
default_mac         : Enable
mac                 : 00:50:7f:71:07:f8
proto               : static
mode                : NAT
ipaddr              : 192.168.7.188
mask                : 255.255.255.0
gateway             :
2nd_subnet          :
proto6              : Link-Local
ip6addr             :
ip6length           : 64
sla_wan             : wan1
sla_id              : 1
```

3.2.7 Configure Lan profile

In **Vigor3900@config-t-lan-pf-<SectionName>#,**user could use [set] to configure the Lan profile details.

Vigor3900@config-t-lan-pf-lan1# set [status status] [desc description] [vid vid] [default_mac default_mac] [macmacaddr] [mode mode] [ipaddr ipaddress] [mask mask] [gateway gateway] [2nd_subnet 2nd_subnet] [proto6 proto6] [ip6addr static_ip6address] [ip6length static_ip6length] [sla_wan dhcp6_sla_wan] [sla_id dhcp6_sla_id]

example-
Vigor3900@config-t-lan-pf-lan1# set status enable
Vigor3900@config-t-lan-pf-lan1# set mode enable

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
desc	description	profile description
vid	vid	vlan id
default_mac	default_mac	default mac (Enable/Disable)
mac	macaddr	MAC address
mode	mode	From this subnet to remote network, you have to do NAT or ROUTING (NAT/ROUTING)
ipaddr	ipaddress	static LAN IP address
mask	mask	static LAN mask address
gateway	gateway	static LAN gateway addres
2nd_subnet	2nd_subnet	2nd_subnet
proto6	proto6	IPv6 protocol type (Link-Local/Static/DHCP-SLA)
ip6addr	static_ip6address	static ipv6 address

ip6length	static_ip6length	static IPv6 prefix length
sla_wan	dhcp6_sla_wan	DHCP SLA wan interface
sla_id	dhcp6_sla_id	DHCP SLA id

Note: [mode mode] the former mode is command, and the latter is value. The value could reference the description below.

3.3 IP Routing

In **Vigor3900@config-t-lan#** , users could use [iprouting] command to configure IP Routing to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
iprouting add <SectionName>	Add iprouting section
iprouting delete <SectionName>	Delete iprouting section
iprouting show	Show iprouting summary
iprouting <SectionName>	Modify the selected section

example-add
Vigor3900@config-t-lan# iprouting add <SectionName>
Vigor3900@config-t-lan-iprouting-<SectionName># set [status status] [wan_pf wan_profile] [lan_pf lan_profile] [ipaddr ipaddr] [mask mask]

example-edit
Vigor3900@config-t-lan# iprouting show
Vigor3900@config-t-lan# iprouting <SectionName>
Vigor3900@config-t-lan-iprouting-<SectionName># get


```
Vigor3900@config-t-lan-iprouting-test# get

status              : Enable
wan_pf              :
lan_pf              :
ipaddr              :
mask                :
```

Vigor3900@config-t-lan-iprouting-<SectionName># set [status status] [wan_pf wan_profile] [lan_pf lan_profile] [ipaddr ipaddr] [mask mask]

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
wan_pf	wan_profile	WAN profile
lan_pf	lan_profile	LAN profile
ipaddr	ipaddr	IP address
mask	mask	mask

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

3.4 Route

In **Vigor3900@config-t-lan# ,** users could use [route] command to configure Route to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
route add <SectionName>	Add static route section
route delete <SectionName>	Delete static route section
route show	Show static route summary
route <SectionName>	Modify the selected section

selected the profile, then use the [get] or [set] command to configure the route information.

**[get]   Get configuration on static route
**[set]   Set configuration on static route

example-add
Vigor3900@config-t-lan# route add <SectionName>
Vigor3900@config-t-lan-route- <SectionName># set [status status] [dest dest] [mask mask] [gateway gateway] [pf profile]

example-edit
Vigor3900@config-t-lan# route show
Vigor3900@config-t-lan# route <SectionName>
Vigor3900@config-t-lan-route- <SectionName># get


```
Vigor3900@config-t-lan-route-profile1# get

status             : Disable
dest               : 20.20.20.20
mask               :
gateway            : 1.1.1.1
pf                 : lan1
```

Vigor3900@config-t-lan-route- <SectionName># set [status status] [dest dest] [mask mask] [gateway gateway] [pf profile]

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
dest	dest	destination IP address
mask	mask	subnet mask
gateway	gateway	gateway IP address
pf	profile	network profile

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

3.5 Route6

In **Vigor3900@config-t-lan#** , users could use [route] command to configure Route6 to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
route add <SectionName>	Add static route6 section
route delete <SectionName>	Delete static route6 section
route show	Show static route6 summary
route <SectionName>	Modify the selected section

selected the profile, then use the [get] or [set] command to configure the route6 information.

**[get]   Get configuration on static route6
**[set]   Set configuration on static route6

example-add
Vigor3900@config-t-lan#route6 add <SectionName>
Vigor3900@config-t-lan-route6- <SectionName># set [status status] [dest dest] [prefix_len prefix_len] [nexthop nexthop] [pf profile]

example-edit
Vigor3900@config-t-lan#route6 show
Vigor3900@config-t-lan#route6 <SectionName>
Vigor3900@config-t-lan-route6- <SectionName># get

```
Vigor3900@config-t-lan-route6-profile6# get

status             : Disable
dest               : ::1
prefix_len         : 20
nexthop            : ::2
pf                 : lan1
```

Vigor3900@config-t-lan-route6- <SectionName># set [status status] [dest dest] [prefix_len prefix_len] [nexthop nexthop] [pf profile]

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
dest	dest	destination IP address
prefix_len	prefix_len	prefix length
nexthop	nexthop	nexthop address
pf	profile	network profile

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

3.6 Switch

In **Vigor3900@config-t-lan#** , use [switch] command to configure Switch of the LAN profile ,then type the [interface],[mirror],[vlan] command to configure the details information.

Command	DESCRIPTION
interface	Configure switch interface
mirror	Configure mirror
vlan	Configure switch vlan

Vigor3900@config-t-lan# switch
Vigor3900@config-t-lan-switch# [interface][mirror][vlan]

3.6.1 Configure switch Interface

In **Vigor3900@config-t-wan-switch#** ,users could use [interface] command to configure Switch interface.

Vigor3900@config-t-lan#switch
Vigor3900@config-t-lan-switch# interface <intf_num>

**[intf_num]   Lan switch port (LAN1/LAN2/LAN3)

Vigor3900@config-t-lan-switch# interface show
**[show]   Get lan current switch configuration

selected the Lan switch port, then use the [get] or [set] command to configure the detail information.

**[get]   get switch interface configuration
**[set]   Configure switch interface

example-
Vigor3900@config-t-lan-switch# interface <Lan switch port>
Vigor3900@config-t-lan-switch-<Lan switch port># get

```
Vigor3900@config-t-lan-switch-LAN1# get

status            : Enable
duplex            : Full
speed             : Auto
```

Vigor3900@config-t-lan-switch-<SectionName># set [status status] [duplex duplex] [speed speed]

Command	Value	DESCRIPTION

status	status	switch interface status (Enable/Disable)
duplex	duplex	switch interface duplex (Half/Full)
speed	speed	switch interface speed (10M/100M/1000M/Auto)

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

3.6.2 Configure switch Mirror

In Vigor3900@config-t-lan-switch**#,** use [mirror] command to configure Switch Mirror profile ,then type the [get] or [set] command to configure the Switch Mirror information.

**[get] Get current switch mirror configuration
**[set] Configure switch interface mirror

**example-
Vigor3900@config-t-lan-switch#** mirror get

```
Vigor3900@config-t-lan-switch# mirror get

status             : Disable
mirroring          : LAN2
mirrored           : LAN1
```

Vigor3900@config-t-lan-switch# mirror set [status status] [mirroring mirroring] [mirrored mirrored]

Command	Value	DESCRIPTION
status	status	Switch mirror status (Enable/Disable)
mirroring	mirroring	Switch mirroring port (LAN1/LAN2/LAN3/CPU)
mirrored	mirrored	Switch mirrored port (LAN1/LAN2/LAN3/CPU)

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

3.7 Vlan

In **Vigor3900@config-t-lan# ,** users could use [vlan] command to configure Vlan to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
vlan add <SectionName>	Create a new vlan
vlan delete <SectionName>	Delete vlan configure
vlan show	Get current switch vlan configuration
vlan <SectionName>	Modify the selected section

selected the profile, then use the [get],[member],[untag] command to configure the vlan information.

**[get]   get switch vlan configuration
**[member]   Configure vlan member interface,then use [add] or [remove] to add or remove
**[untag]   Configure vlan untag interface

example-add:
Vigor3900@config-t-lan-switch# vlan add <SectionName>
Vigor3900@config-t-lan-switch-vlan-<SectionName># member add <Switch interface number>
Vigor3900@config-t-lan-switch-vlan-<SectionName># member remove <Switch interface number>>
Vigor3900@config-t-lan-switch-vlan-<SectionName># untag <interface>

example-edit:
Vigor3900@config-t-lan-switch# vlan show
Vigor3900@config-t-lan-switch# vlan <SectionName>
Vigor3900@config-t-lan-switch-vlan-<SectionName># get

```
Vigor3900@config-t-lan-switch-vlan-10# get

member                : CPU, LAN1, LAN2, LAN3
untag                 : LAN1, LAN2, LAN3
```

Vigor3900@config-t-lan-switch-vlan-<SectionName>#untag [add][remove] <interface>

**[add]   Add vlan untag interface
**[remove] remove vlan untag interface

3.8 IP Bind Mac

In **Vigor3900@config-t-lan#** , users could use [ipbindmac] command to configure Vlan to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.
Also use the [get] or [set] command to configure the IP Bind Mac Mode.

Command	DESCRIPTION
ipbindmac add <SectionName>	Create IP Bind Mac Profile
ipbindmac delete <SectionName>	Delete IP Bind Mac Profile
ipbindmacshow	Show IP Bind Mac Info
ipbindmac <SectionName>	Modify the selected section
Ipbindmac get	Get IP Bind Mac Mode
Ipbindmac set	Set IP Bind Mac Mode

selected the profile, use the [get] or [set] command to configure the IP Bind Mac Configuration.

**[get]   get IP Bind Mac Configuration
**[set]   Set IP Bind Mac Configuration

example-add

Vigor3900@config-t-lan# ipbindmac add <profileName>
Vigor3900@config-t-lan-ipbindmac-<profileName># set [ip ip] [macaddr macaddr]

example-edit
Vigor3900@config-t-lan#ipbindmac show
Vigor3900@config-t-lan#ipbindmac <profileName>
Vigor3900@config-t-lan-ipbindmac-<profileName>#get

```
Vigor3900@config-t-lan-ipbindmac-199# get

ip                    : 192.168.1.199
macaddr               : 00:50:7f:11:12:33
```

Vigor3900@config-t-lan-ipbindmac-<profileName>#set [ip ip] [macaddr macaddr]

Command	Value	DESCRIPTION
ip	ip	IP address
macaddr	macaddr	Mac address

   Note: [ip ip] the former ip is command, and the latter is value. The value could reference the description below.

example-ipbindmac mode
Vigor3900@config-t-lan# ipbindmac get

```
Vigor3900@config-t-lan#ipbindmac get

mode                  : Disable
```

Vigor3900@config-t-lan# ipbindmac set [mode mode]

Command	Value	DESCRIPTION
mode	mode	IP bind MAC mode (Disable/Enable/Strict_Bind)

   Note: [mode mode] the former mode is command, and the latter is value. The value could reference the description below.

4.NAT

NAT (Network Address Translation) is a method of mapping one or more IP addresses and/or service ports into different specified services.Vigor3900 provides three functions in NAT – Port Redirection, DMZ Host and Address Mapping.Users could use the commands below to set up the details.

Functions Command	DESCRIPTION
address_mapping	Configure NAT address mapping
dmz	Configure DMZ
port_redirect	Configure NAT port redirection

Vigor3900# configure nat
Vigor3900@config-nat#   [port_redirect][dmz][address_mapping]

4.1 Port Redirect

4.1.1 Port Redirect

In **Vigor3900@config-nat# ,** users could use [**port_redirect**] command to configure Port Redirect to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile detail configuration directly.

Command	DESCRIPTION
port_redirect add <profileName>	Create port redirect profile
port_redirect delete <profileName>	Delete port redirect profile
port_redirect show	Show port redirect configuration
port_redirect <profileName>	Open the selected profile

selected the profile, then use the [get] or [set] command to configure the address mapping information.

**[get]   Show address mapping configuration
**[set]   configure NAT address mapping

example-add:
Vigor3900# configure nat
Vigor3900@config-nat# port_redirect add <profileName>
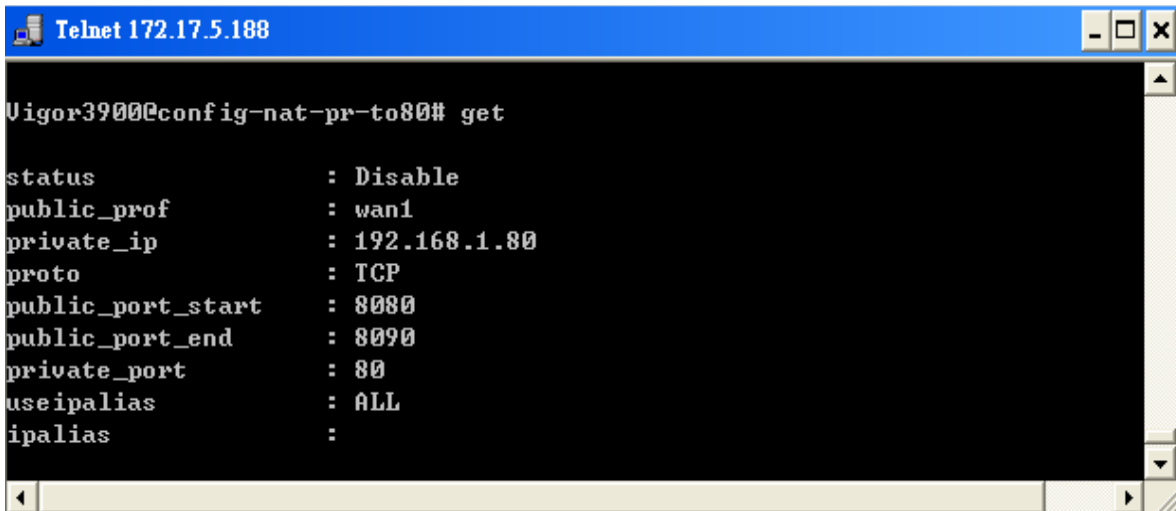**Vigor3900@config-nat-pr-<profileName>#** get

example-modify:
Vigor3900@config-nat#   port_redirect show
Vigor3900@config-nat#   port_redirect <profileName>

Vigor3900@config-nat-pr-<profileName># get

```
Telnet 172.17.5.188                                         _ □ ✕

Vigor3900@config-nat-pr-to80# get

status            : Disable
public_prof       : wan1
private_ip        : 192.168.1.80
proto             : TCP
public_port_start : 8080
public_port_end   : 8090
private_port      : 80
useipalias        : ALL
ipalias           :
```

Vigor3900@config-nat-pr-<profileName># set [status status] [public_prof public_prof] [private_ip private_ip] [proto proto] [public_port_start public_port_start] [public_port_end public_port_end] [private_port private_port] [useipalias useipalias] [ipalias ipalias]

Command	value	DESCRIPTION
status	status	Port redirection admin status <Enable/ Disable>
public_prof	public_prof	Profile <WAN profile>
private_ip	private_ip	Private IP address<IP address>
proto	proto	Protocol <TCP / UDP / TCP/UDP>
public_port_start	public_port_start	source port number <number>
public_port_end	public_port_end	source port number <number>
private_port	private_port	destination port number <number>
useipalias	Useipalias	IP alias is used or not <ALL/IP_ALIAS/WAN_INTERFACE>
ipalias	ipalias	IP alias <IP address>

Note: [status   status] the former status is prefix, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-nat# port_redirect delete <profileName>

4.2 DMZ Host
4.2.1 DMZ Host
In **Vigor3900@config-nat# ,** users could use [**dmz**] command to configure DMZ Host to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
dmz add <profileName>	Create DMZ profile
dmz delete <profileName>	Delete DMZ profile
dmz show	Show DMZ configuration
dmz <profileName>	Modify the selected profile

selected the profile, then use the [get] or [set] command to configure the address mapping information.
**[get]   Show DMZ Configuration
**[set]   configure DMZ

example-add:
Vigor3900@config-nat#   dmz add <profileName>
Vigor3900@config-nat-dmz-<profileName>#   get

example-modify:
Vigor3900@config-nat#   dmz show
Vigor3900@config-nat#   dmz <profileName>
Vigor3900@config-nat-dmz-<profileName>#   get

Vigor3900@config-nat-dmz-<profileName># set [status status] [prof prof] [ip private_ip] [useipalias useipalias] [ipalias ipalias]

Command	value	DESCRIPTION
status	Status	DMZ admin status < Enable/Disable>
prof	prof	WAN Profile<WAN profile>
ip	private_ip	private IP address<IP address>
useipalias	Useipalias	IP alias is used or not< Enable/Disable>
ipalias	Ipalias	IP alias<IP address>

Note: [status   status] the former status is prefix, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-nat#   dmz delete <profileName>

4.3 Address Mapping

4.3.1 Address Mapping

In **Vigor3900@config-nat# ,** users could use [**address_mapping**] command to configure Address Mapping to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
address_mapping Add <profileName>	Create dmz profile
address_mapping Delete <profileName>	Delete dmz profile
address_mapping show	Show dmz configuration
address_mapping <profileName>	Modify the selected profile

selected the profile, then use the [get] or [set] command to configure the address mapping information.

**[get]   Show NAT address mapping Configuration
**[set]   configure NAT address mapping

example-add:
 Vigor3900@config-nat#   address_mapping add <profileName>
 Vigor3900@config-nat-addrmap-<profileName>#   get

example-modify:
 Vigor3900@config-nat#   address_mapping show
 Vigor3900@config-nat#   address_mapping   <profileName>
 Vigor3900@config-nat-addrmap-<profileName>#   get

```
Vigor3900@config-nat-addrmap-to155# get

status            : Enable
dest              : wan1
private_ip        : 192.168.1.155
mask              : 255.255.255.0
proto             : All
useipalias        : Disable
ipalias           :
```

   Vigor3900@config-nat-addrmap-<profileName>#   set [status status] [dest dest] [private_ip private_ip] [mask mask] [proto proto] [useipalias useipalias] [ipalias ipalias]

Command	value	DESCRIPTION
status	status	Address Mapping admin status (Enable/Disable)
dest	dest	WAN profile
private_ip	private_ip	Private IP address
mask	mask	Subnet Mask
proto	proto	Protocol (TCP / UDP / TCP/UDP / All)
useipalias	useipalias	IP alias is used or not (Enable/Disable)

ipalias	ipalias	Public IP address

Note: [status   status] the former status is prefix, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-nat# address_mapping delete <profileName>

5.Firewall

The firewall controls the allowance and denial of packets through the router. Vigor3900 provides six functions in Firewall – Filter Setup (IP Filter, Application Filter, URL filter), Dos Defense, MAC Block and Port Block.Use this command to display information about Firewall. Users could use the commands below to set up the details.

functions Command	DESCRIPTION
appfilter	Application Filter Set
ddos	DDoS Defense
ipfilterset	IP Filter Set
macblock	Configure MAC Block
protblock	Configure Port Block
URL Filter	URL Filter Set

Vigor3900# configure fw
Vigor3900@config-fw# <appfilter/ ddos/......>

5.1 Filter setup

5.1.1 IP Filter

In **Vigor3900@config-fw# ,** users could use [**Ipfilterset**] command to configure IP Filter to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
Ipfilterset add <profileName>	Create IP Filter Set profile
Ipfilterset delete <profileName>	Delete IP Filter Set profile
ipfilterset show	Show IP Filter Set Info
ipfilterset <profileName>	Modify the selected profile

selected the profile, then use the [get].[set] or [ipfilterrule] command to configure the IP Filter information.

**[get] Show IP Filter Set
**[ipfilterrule] Configure IP Filter Rule Detail
**[set] configure IP Filter Set

example-add:
Vigor3900# configure fw
Vigor3900@config-fw# ipfilterset add <profilename>

example-modify:
Vigor3900@config-fw# ipfilterset show
Vigor3900@config-fw# ipfilterset <profilename>
Vigor3900@config-fw-ipset-<profilename># get

```
Vigor3900@config-fw-ipset-rd1# get

status            : Disable
comment           : for rd1
```

**Vigor3900@config-fw-ipset-<profilename># ** set [status status] [comment comment]

Command	value	DESCRIPTION
status	status	group status (Enable/Disable)
comment	comment	commet for IP filter group

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-nat# ipfilterset delete <profileName>

5.1.1.1 IP Filter Rule

In **Vigor3900@config-ipset-<profilename>#   ,** users could use [ipfilterrule] command to configure IP Filterr Rule to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
ipfilterrule add <profileName>	Create IP Filter Rule Profile Detail
ipfilterrule delete <profileName>	Delete IP Filter Rule Profile Detail
ipfilterrule show	Show IP Filter Rule Profile Info Detail
ipfilterrule <profileName>	Modify the selected profile

selected the profile, then use the [get].[set] or [ipfilterrule] command to configure the IP Filter Rule information.

**[get]   Show IP Filter Rule Detail configuration
**[set]   configure IP Filter Rule Detail

example-add
Vigor3900@config-fw-ipset-<profilename># ipfilterrule add <profile>
Vigor3900@config-fw-ipset-<profilename>-< ipfilterrule Profilename># get

example-modify
Vigor3900@config-fw-ipset-<profilename># ipfilterrule show
Vigor3900@config-fw-ipset-<profilename># ipfilterrule <profile>
Vigor3900@config-fw-ipset-<profilename>-< ipfilterrule Profilename># get

```
Vigor3900@config-fw-ipset-rd1-rd1detail# get

status              : Disable
time                : None
srcgrp              : Any
dstgrp              : Any
srv                 : Any
in                  : Any
out                 : Any
frag                : do_not_care
action              : Pass
nextgrp             : None
syslog              : disable
```

   Vigor3900@config-fw-ipset-<profilename>-< ipfilterrule Profilename># set [status status] [profile profile] [time time_profile] [srcgrp src_group] [dstgrp dst_group] [srv service_group] [in in_intf] [out out_intf] [frag fragment][action action] [nextgrp next_group] [syslog syslog]

Command	value	DESCRIPTION
status	status	rule status (Enable/Disable)
profile	profile	Profile
time	time_profile	Time Profile
srcgrp	src_group	Source IP Group
dstgrp	dst_group	Destination IP Group
srv	service_group	Service Type Group
in	in_intf	Input interface
out	out_intf	Output interface
frag	fragment	Fragment (do_not_care/fragment/unfragment)
action	action	Block action (Block/Pass/Block_If_No_Further_Match/ Pass_If_No_Further_Match)
nextgrp	next_group	Next group name
syslog	syslog	Syslog status (Enable/Disable)

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

   example-delete:
   Vigor3900@config-nat# ipfilterrule delete <profileName>

5.1.2 Application Filter
   In **Vigor3900@config-fw# ,** users could use [**appfilter**] command to configure Application Filter to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION

appfilter Add <profileName>	Create Application Filter Set profile
appfilter Delete <profileName>	Delete Application Filter Set profile
appfilter show	Show Application Filter Set Info
appfilter <profileName>	Modify the selected profile

selected the profile, then use the [get] or [set] command to configure the Application Filter information.

**[get] Show Application Filter Rule Detail configuration
**[set] configure Application Filter Rule

example-add:
Vigor3900# configure fw
Vigor3900@config-fw# appfilter add <profilename>
Vigor3900@config-fw-appfilter-<profilename># get

example-modify:
 Vigor3900@config-fw# appfilter show
 Vigor3900@config-fw# appfilter <profilename>
 Vigor3900@config-fw-appfilter-<profilename># get

```
Vigor3900@config-fw-appfilter-appfilter1# get

status          : Disable
time            : None
srcgrp          : Any
excpgrp         : None
imobj           : None
p2pobj          : None
protobj         : None
```

 Vigor3900@config-fw-appfilter-<profilename># set [status status] [time time_profile] [srcgrp src_group] [excpgrp excp_grp] [imobj imobjects] [p2pobj p2pobjects] [protobj protobjects]

Command	Value	DESCRIPTION
status	status	rule status (Enable/Disable)
time	time_profile	Time Profile
srcgrp	src_group	Source IP Group
excpgrp	excp_grp	Exception IP Group
imobj	imobjects	Block IM Object
p2pobj	p2pobjects	Block P2P Object
protobj	protobjects	Block Protocol Object

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:

Vigor3900@config-nat# appfilter delete <profileName>

5.1.3 URL Filter
In **Vigor3900@config-fw#** , users could use [**urlfilter**] command to configure URL Filter to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
urlfilter add <profileName>	Create URL Filter Set profile
urlfilter delete <profileName>	Delete URL Filter Set profile
urlfilter show	Show URL Filter Set Info
urlfilter <profileName>	Modify the selected profile

selected the profile, then use the [get] or [set] command to configure the URL Filter information.

**[get] Show URL Filter Rule Detail configuration
**[set] configure URL Filter Rule

eample-add:
Vigor3900# configure fw
Vigor3900@config-fw# urlfilter add <profilename>
Vigor3900@config-fw-urlfilter-<profilename># get

eample-modify:
Vigor3900# configure fw
Vigor3900@config-fw# urlfilter show
Vigor3900@config-fw# urlfilter <profilename>
Vigor3900@config-fw-urlfilter-<profilename># get

```
Vigor3900@config-fw-urlfilter-urlfilter1# get

status              : Disable
time                : None
srcgrp              : Any
white               : None
black               : None
fext                : None
webcat              : None
```

Vigor3900@config-fw-urlfilter-<profilename>#set [status status] [time time_profile] [srcgrp src_group] [white whitelist] [black blacklist] [fext fextobjects] [webcat webcategory]

Command	Value	DESCRIPTION
Status	Status	rule status (Enable/Disable)
time	time_profile	Time Profile
srcgrp	src_group	Source IP Group

white	whitelist	Allow websites with matching keywords
black	blacklist	Block websites with matching keywords
fext	fextobjects	Restrict Web Feature
webcat	webcategory	Content Filter Forbidden Categories

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-nat# urlfilter delete <profileName>

5.2 DoS Defense

5.2.1 Dos

In **Vigor3900@config-fw#** , users could use [**switch**] and [**system**] command to get the Dos profile information.

Command	DESCRIPTION
switch <get/set>	DDoS Defense on switch
system <get/set>	DDoS Defense on system

selected the profile, then use the [get] or [set] command to configure .

**[get] Get DoS Defense Configuration
**[set]   Set DoS Defense Configuration

example-switch:
Vigor3900@config-fw# ddos
Vigor3900@config-fw-ddos# switch get


```
Vigor3900@config-fw-ddos# switch get

bcast            : Disable
mcast            : Disable
unucast          : Disable
unmcast          : Disable
rate             : 1
```

Vigor3900@config-fw-ddos# switch set [bcast bcast] [mcast mcast] [unucast unucast] [unmcast unmcast] [rate rate]

Command	Vaule	DESCRIPTION
bcast	bcast	Broadcast Storm Defense (Enable/Disable)
mcast	mcast	Multicast Storm Defense (Enable/Disable)
unucast	unucast	Unknown Unicast Storm Defense (Enable/Disable)
unmcast	unmcast	Unknown Multicast Storm Defense (Enable/Disable)
rate	rate	Storm Filtering Rate (unit:64 kbps)

example-system:
  Vigor3900@config-fw# ddos
  Vigor3900@config-fw-ddos# system get

```
Vigor3900@config-fw-ddos# system get

status              : Disable
syn_flood           : Disable
syn_flood_threshold : 300
syn_flood_timeout   : 10
icmp_flood          : Disable
icmp_flood_threshold : 300
icmp_flood_timeout  : 10
udp_flood           : Disable
udp_flood_threshold : 300
udp_flood_timeout   : 10
port_scan           : Disable
udp_flood_threshold : 300
ip_options          : Disable
land                : Disable
smurf               : Disable
tracert             : Disable
syn_fragment        : Disable
fraggle             : Disable
teardrop            : Disable
ping_of_death       : Disable
icmp_fragment       : Disable
unknow_protocol     : Disable
```

Vigor3900@config-fw-ddos# system set [status status] [syn_flood syn_flood] [syn_flood_threshold syn_flood_threshold] [syn_flood_timeout syn_flood_timeout] [icmp_flood icmp_flood] [icmp_flood_threshold icmp_flood_threshold] [icmp_flood_timeout icmp_flood_timeout] [udp_flood udp_flood] [udp_flood_threshold udp_flood_threshold] [udp_flood_timeoutudp_flood_timeout] [port_scan port_scan] [udp_flood_threshold port_scan_threshold] [ip_options ip_options] [land land] [smurf smurf] [tracert tracert] [syn_fragment syn_fragment] [fraggle fraggle] [teardrop teardrop] [ping_of_death ping_of_death] [icmp_fragment icmp_fragment] [unknow_protocol unknow_protocol]

Command	Vaule	DESCRIPTION
status	status	DDoS admin status (Enable/Disable)
syn_flood	syn_flood	Block syn flood attack (Enable/ Disable)
syn_flood_threshold	syn_flood_threshold	Syn flood threshold (Packets/sec)
syn_flood_timeout	syn_flood_timeout	Syn flood timeout (sec)
icmp_flood	icmp_flood	Block ICMP flood attack (Enable/ Disable)
icmp_flood_threshold	icmp_flood_threshold	ICMP flood threshold (Packets/sec)
icmp_flood_timeout	icmp_flood_timeout	ICMP flood timeout (sec)
udp_flood	udp_flood	Block UDP flood attack (Enable/ Disable)
udp_flood_threshold	udp_flood_threshold	UDP flood threshold (Packets/sec)
udp_flood_timeout	udp_flood_timeout	UDP flood timeout (sec)

port_scan	port_scan	Block port scan attack (Enable/ Disable)
port_scan_threshold	port_scan_threshold	Port scan threshold (Packets/sec)
ip_options	ip_options	Block IP options attack (Enable/Disable)
land	land	Block land attack (Enable/Disable)
smurf	smurf	Block smurf attack (Enable/Disable)
tracert	tracert	Block trace route attack (Enable/Disable)
syn_fragment	syn_fragment	Block SYN fragment attack (Enable/Disable)
fraggle	fraggle	Block fraggle attack (Enable/Disable)
teardrop	teardrop	Block teardrop attack (Enable/Disable)
ping_of_death	ping_of_death	Block ping of death attack (Enable/Disable)
icmp_fragment	icmp_fragment	Block ICMP fragment attack (Enable/Disable)
unknown_protocol	unknown_protocol	Block unknown protocol attack (Enable/Disable)

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

5.3 MAC Block

5.3.1 Mac Block

In **Vigor3900@config-fw# ,** users could use [**macblock**] command to configure MAC Block to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
macblock add <profileName>	Create MAC Block profile
macblock delete <profileName>	Delete MAC Block profile
macblock show	Show MAC Block profile Info
macblock <profileName>	Modify the selected profile

 selected the profile, then use the [get] or [set] command to configure the MAC Block information.

 **[get] Show Mac Block configuration
 **[set] configure Mac Block profile

 example-add:
 Vigor3900@config-fw# macblock add <profilename>
 Vigor3900@config-fw-macblock-<profilename># get

 example-edit:
 Vigor3900@config-fw# macblock show
 Vigor3900@config-fw# macblock <profilename>

Vigor3900@config-fw-macblock-<profilename># get


```
Vigor3900@config-fw-macblock-blcokmac1# get

status            : Enable
mac               : 00:00:00:11:11:11
```

Vigor3900@config-fw-macblock-<profilename># set [status status] [mac mac]

Command	Value	DESCRIPTION
status	status	MAC block admin status (Enable/Disable)
mac	mac	MAC address

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-fw# macblock delete <profilename>

5.4 Port Block
5.4.1 Port Block
In **Vigor3900@config-fw# ,** users could use [**portblock**] command to configure Port Block to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
portblock add <profileName>	Create Port Block profile
portblock delete <profileName>	Delete Port Block profile
portblock show	Show Port Block profile Info
portblock <profileName>	Modify the selected profile

 selected the profile, then use the [get] or [set] command to configure the Port Block information.

 **[get] Show Port Block configuration
 **[set] configure Port Block

example-add:
 Vigor3900# configure fw
 Vigor3900@config-fw# portblock add <profilename>
 Vigor3900@config-nat-pr-<profileName># get

example-edit:
 Vigor3900@config-fw# portblock show
 Vigor3900@config-fw# portblock <profilename>
 Vigor3900@config-fw-<profileName># get

```
Vigor3900@config-fw-portblock-blockport1# get

status              : Enable
port                : 9999
```

Vigor3900@config-fw-portblock-<profilename># set [status status] [port port]

Command	Value	DESCRIPTION
status	status	Port block admin status (Enable/Disable)
port	port	port number

6.Objects Setting

Vigor3900 provides many functions in Objects Setting .Users could use the commands below to set up the details.

Funtion Command	DESCRIPTION
fext_object	Configure File Extension Object
im_object	Configure IM Object
ip_group	Configure IP Group
ip_object	Configure IP Object
keyword_group	Configure Keyword Group
keyword_object	Configure Keyword Object
p2p_object	Configure P2P Object
proto_object	Configure Protocol Object
service_group	Configure Service Group
service_object	Configure Service Object
time_group	Configure Time Group
time_object	Configure Time Object
web_category	Configure Web Category Object

Vigor3900# configure object_setting
Vigor3900@config-object# <fext_object/ im_object / ......>

6.1 IP Object

In **Vigor3900@config-object# ,** users could use [ip_object] command to configure IP Object to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
ip_object add <profileName>	Create IP Object profile
ip_object delete <profileName>	Delete IP Object profile
ip_object show	Show IP Object Profile Info
ip_object <profileName>	Modify the selected profile

selected the profile, then use the [get] or [set] command to configure the IP Object information.

[get] Show IP Object configuration
[set] configure IP Object

example-add:
Vigor3900@config-object# ip_object add <profileName>
Vigor3900@config-object-ipobj-<profileName># get

example-edit:
Vigor3900@config-object# ip_object show
Vigor3900@config-object# ip_object <profileName>
Vigor3900@config-object-ipobj-<profileName># get

```
Vigor3900@config-object-ipobj-iprange169# get

inf               : Any
type              : Range
sip               : 192.168.1.169
eip               : 192.168.1.254
mask              :
```

Vigor3900@config-object-ipobj-<profileName># set [inf interface] [type type] [sip start_ip] [eip end_ip] [mask mask]

Command	Value	DESCRIPTION
inf	interface	IP object attribute (Any/Source/Destination)
type	type	Address Type (Single/Range/Subnet)
sip	start_ip	Start IP Address
eip	end_ip	End IP Address
mask	mask	Subnet Mask

Note: [inf   interface] the former inf is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-object# ip_object delete <profileName>

6.2 IP Group

In **Vigor3900@config-object# ,** users could use [ip_group] command to configure IP Group to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
ip_group add <profileName>	Create Service Group profile
ip_group delete <profileName>	Delete IP Group profile
ip_group show	Show IP Group Profile Info
ip_group <profileName>	Modify the selected profile

selected the profile, then use the [get], [set],[objects] command to configure the IP Group information.

**[get]   Show IP Object Detail configuration
**[set]   configure IP Object Detail
**[objects] Configure objects member

example-add:
Vigor3900@config-object# ip_group add <profileName>
Vigor3900@config-object-ipgrp-<profileName># objects [add][remove] <member>

**[add]   Add objects member (IP Object configuration)
**[remove]   remove objects member (IP Object configuration)

 example-edit:
Vigor3900@config-object#   ip_group show
Vigor3900@config-object#   ip_group   <profileName>

Vigor3900@config-object-ipobj-<profileName># get

```
Vigor3900@config-object-ipgrp-alice# get

inf                   : Any
desc                  :
obj                   :
```

Vigor3900@config-object-ipobj-<profileName># set [inf interface] [desc description]

Command	Value	DESCRIPTION
Inf	interface	IP group attribute (Any/Source/Destination)
desc	description	Description

 Note: [inf   interface] the former inf is command, and the latter is value. The value could reference the description below.

 example-delete:
 Vigor3900@config-object# ip_object delete <profileName>

6.3 Service Type Object

   In **Vigor3900@config-object# ,** users could use [service_object] command to configure Service Type Object to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
service_object add <profileName>	Create Service Object Profile
service_object delete <profileName>	Delete Service Object Profile
service_object show	Show Service Object Profile Info
service_object <profileName>	Modify the selected profile

   selected the profile, then use the [get] or [set] command to configure the Service Type Object information.

 **[get]   Show Service Object configuration
 **[set]   configure Service Object

example-add:
Vigor3900@config-object# service_object add <profileName>
Vigor3900@config-object-srvobj-<profileName># [get][set] **same with the next edit

example-edit:
Vigor3900@config-object# service_object show
Vigor3900@config-object# service_object <profileName>
Vigor3900@config-object-srvobj-<profileName># get

```
Vigor3900@config-object-srvobj-service1# get

proto              : TCP
spt_start          : 1
spt_end            : 65535
dpt_start          : 1
dpt_end            : 65535
```

Vigor3900@config-object-srvobj-<profileName># set [proto protocol] [spt_startsrc_port_start] [spt_end src_port_end] [dpt_start dest_port_start] [dpt_end dest_port_end]

Command	Value	DESCRIPTION
proto	protocol	protocol (TCP/UDP/TCP/UDP/ICMP)
spt_start	src_port_start	Source port start
spt_end	src_port_end	Source port end
dpt_start	dest_port_start	Destination port start
dpt_end	dest_port_end	Destination port end

Note: [proto   protocol] the former proto is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-object# service_object delete <profileName>

6.4 Service Type Group

In **Vigor3900@config-object# ,** users could use [service_group] command to configure Service Group to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
service_group add <profileName>	Create Service Group Profile
service_group delete <profileName>	Delete Configure objects member Profile
service_groupshow	Show Service Group Profile Info
service_group <profileName>	Modify the selected profile

selected the profile, then use the [get],[set],[objects] command to configure the Service Group information.

**[get] Show Service Group configuration
**[set] configure Service Group
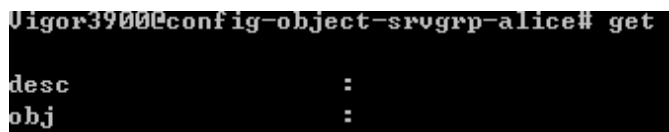**[objects] Configure objects member

example-add:
Vigor3900@config-object# service_group add <profileName>
Vigor3900@config-object-ipgrp-<profileName># objects [add][remove] <member>

**[add]   Add objects member
**[remove]   remove objects member

 example-edit:
 Vigor3900@config-object# service_group show
 Vigor3900@config-object# service_ group <profileName>
 Vigor3900@config-object-srvgrp-<profileName># get

 Vigor3900@config-object-srvobj-<profileName># set [desc description]
 **[desc]   Description

 Note: [desc description] the former desc is command, and the latter is value.

 example-delete:
 Vigor3900@config-object# service_group delete <profileName>

6.5 Keyword Object

   In **Vigor3900@config-object# ,** users could use [keyword_object] command to
configure Keyword Object to add or delete the profile or use "show" to get the profile list in
the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
keyword_object add <profileName>	Create Keyword Object profile
keyword_object delete <profileName>	Delete Keyword Object profile
keyword_object show	Show Keyword Object Profile Info
keyword_object <profileName>	Modify the selected profile

   selected the profile, then use the [get] or [member] command to configure the Keyword
Object information.

 **[get]   Show Keyword Object Detail configuration
 **[member]   configure member

example-add:
 Vigor3900@config-object# keyword_object add <profileName>
 Vigor3900@config-object-kwobj-<profileName># get

Vigor3900@config-object-kwobj-<profileName># member [add][remove]<member>

**[add]   Add objects member
**[remove]   remove objects member

 example-delete:
 Vigor3900@config-object# keyword_object delete <profileName>

6.6 Keyword Group

In **Vigor3900@config-nat# ,** users could use [keyword_ group] command to configure Keyword Group to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
keyword_ group add <profileName>	Create Keyword Group Profile
keyword_ group delete <profileName>	Delete Keyword Group Profile
keyword_ group show	Show Keyword Group Profile Info
keyword_ group <profileName>	Modify the selected profile

selected the profile, then use the [get] or [set] command to configure the Keyword Group information.

 **[get]   Show Keyword Group configuration
 **[set]   configure Keyword Group
 **[objects]   Configure objects member

example-add:
Vigor3900@config-object# keyword_ group add <profileName>
Vigor3900@config-object-kwgrp-<profileName># objects [add][remove]<member>

**[add] Add objects member
**[remove]   remove objects member

example-edit:
Vigor3900@config-object# keyword_ group show
Vigor3900@config-object# keyword_ group <profileName>
Vigor3900@config-object-kwgrp-<profileName># get

Vigor3900@config-object-kwgrp-<profileName># set [desc description]
**[desc] Description

Note: [desc description] the former desc is command, and the latter is value.

example-delete:
Vigor3900@config-object# keyword_ group delete <profileName>

6.7 File Extension Object

In **Vigor3900@config-nat#** , users could use [fext_object] command to configure File Extension Object to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
fext_object add <profileName>	Create File Extension Object Profile
fext_object delete <profileName>	Delete File Extension Object Profile
fext_object show	Show File Extension Object Profile Info
fext_object <profileName>	Modify the selected profile

Vigor3900@config-object# fext_object add <profileName>

Modify the selected profile then use below command to setting the File Extension Object detail information.

Command	DESCRIPTION
activex	Configure ActiveX file extension (.alx/.apb/.axs/.ocx/.olb/.ole/.tlb/.viv/.vrm)
audio	Configure Audio file extension (.asf/.avi/.mov/.mpe/.mpeg/.mpg/.mp4/.qt/.rm/.wmv/.3gp/.3gpp/.3gpp2/.3g2)
compression	Configure COMPRESSION file extension (.ace/.arj/.bzip2/.bz2/.cab/.gz/.gzip/.rar/.sit/.zip)
execution	Configure EXECUTION file extension (.bas/.bat/.com/.exe/.inf/.pif/.reg/.scr)
image	Configure Image file extension (.bmp/.dib/.gif/.jpeg/.jpg/.jpg2/.jp2/.pct/.pcx/.pic/.pict/.png/.tif/.tiff)
java	Configure JAVA file extension (.class/.jad/.jar/.jav/.java/.jcm/.js/.jse/.jsp/.jtk)
video	Configure Video file extension (.asf/.avi/.mov/.mpe/.mpeg/.mpg/.mp4/.qt/.rm/.wmv/.3gp/.3gpp/.3gpp2/.3g2)

Vigor3900@config-object# fext_object add <profileName>
Vigor3900@config-object-fext-<profileName># image [add][remove] <type>

**[add]   Add ACTIVEX file extension
**[remove]   remove ACTIVEX file extension

example-add:
Vigor3900@config-object# fext_object add <profileName>
Vigor3900@config-object-fext-<profileName># image add .bmp
Vigor3900@config-object-fext-<profileName># image add .jpg
Vigor3900@config-object-fext-<profileName># get

 **[get] Show File Extension Object Detail configuration

```
Vigor3900@config-object# fext_object add test2
Vigor3900@config-object-fext-test2# image add .bmp
Vigor3900@config-object-fext-test2# image add .jpg
Vigor3900@config-object-fext-test2# get

image                 : .bmp, .jpg
video                 :
audio                 :
java                  :
activex               :
zip                   :
exe                   :
```

example-delete:
Vigor3900@config-object# fext_object delete <profileName>

6.8 IM Object

In **Vigor3900@config-nat# ,** users could use [im_object] command to configure IM Object to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
im_object add <profileName>	Create IM Object profile
im_object delete <profileName>	Delete IM Object profile
im_object show	Show IM Object Profile Info
im_object <profileName>	Modify the selected profile

 selected the profile, then use the [get] or [member] command to configure the IM Object information.

 **[get] Show IM Object Detail configuration
 **[member] configure IM object member

example-add:
Vigor3900@config-object# im_object add <profileName>
Vigor3900@config-object-im-<profileName># get

```
Vigor3900@config-object-im-im1# get

member                : Web-IM
```

Vigor3900@config-object-im-<profileName># member [add][remove] <lm type>

 **[add] Add IM type

**[remove]   remove IM type

** IM type :MSN / AIM / Google-Talk / Yahoo-Msg / QQ / Web-IM / iCQ / iCHAT / SKYPE

example-edit:
Vigor3900@config-object#   im_object   show
Vigor3900@config-object#   im_object   <profileName>
Vigor3900@config-object-im-<profileName>##   im_object   <profileName>

 example-delete:
Vigor3900@config-object# im_object delete <profileName>

6.9 P2P Object

   In **Vigor3900@config-object# ,** users could use [p2p_object] command to configure
P2P Object to add or delete the profile or use "show" to get the profile list in the directory.
Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
p2p_object add <profileName>	Create P2P Object profile
p2p_object delete <profileName>	Delete P2P Object profile
p2p_object show	Show P2P Object Profile Info
p2p_object <profileName>	Modify the selected profile

   selected the profile, then use the [get] or [member] command to configure the P2P
Object information.

 **[get] Show P2P Object Detail configuration
 **[member]   Configure P2P object member

 example-add:
 Vigor3900@config-object# p2p_object add <profileName>
 Vigor3900@config-object-p2p-<profileName># member [add][remove]< P2P Type>

**[add] Add p2p type
**[remove]   remove p2p type
**P2P Type :SoulSeek/eDonkey/FastTrack/Gnutella/BT/OpenFT/OpenNap/Xunlei/
            Vagaa/PP365/POCO/Clubbox/Ares/ezPeer/Pando/Huntmine/Kuwo

 Vigor3900@config-object-p2p-<profileName># get


```
Vigor3900@config-object-kwobj-p2p# get

member               : bt, emule, deonkey
```

 example-delete:
 Vigor3900@config-object# p2p_object delete <profileName>

6.10 Protocol Object

   In **Vigor3900@config-object# ,** users could use [proto_object] command to configure
Protocol Object to add or delete the profile or use "show" to get the profile list in the

directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
proto_object add <profileName>	Create Protocol Object profile
proto_object delete <profileName>	Delete Protocol Object profile
proto_object show	Show Protocol Object Profile Info
proto_object <profileName>	Modify the selected profile

   selected the profile, then use the [get] or [set] command to configure the Protocol Object information.

 **[get]   Show Protocol Object Detail configuration
 **[member]   Configure Protocol object member

 example-add:
 Vigor3900@config-object# proto_object add <profileName>
 Vigor3900@config-object-proto-<profileName># member [add][remove] < Protocol Type>

 **[add] Add Protocol type
 **[remove]   remove Protocol type
 **Protocol Type : DNS/FTP/HTTP/IMAP/IRC/NNTP/POP3/SMB/SMTP/SNMP/SSH/
    SSL/TLS/TELNET/MSSQL/MYSQL/Oracle/PostgreSQL/Sybase/DB2/Informix

 Vigor3900@config-object-proto-<profileName># get

```
Vigor3900@config-object-proto-protocol1# get

member              : DNS, FTP, HTTP
```

 example-delete:
 Vigor3900@config-object# proto_object delete <profileName>

6.11 Web Category Object

 In **Vigor3900@config-object# ,** users could use [web_category] command to Configure Web Category Object to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
web_category add <profileName>	Create Web Category Object Profile
web_category delete <profileName>	Delete Web Category Object Profile
web_category show	Show Web Category Object Profile Info
web_category <profileName>	Modify the selected profile

 Vigor3900@config-object# web_category add <profileName>
 Vigor3900@config-object-webcate-<profileName># <command>

Command	DESCRIPTION
business	Configure Web Category - business
chat	Configure Web Category - chat
child_protect	Configure Web Category - Child Protect
computer	Configure Web Category - computer
get	Show Web Category Object Detail configuration
leisure	Configure Web Category - leisure
other	Configure Web Category - other

6.11.1 get Web Category Object Detail configuration
Vigor3900@config-object-webcate-<profile># get

```
Vigor3900@config-object-webcate-webc1# get

childp          : Alcohol-And-Tobacco, Weapons
leisure         : Entertainment
business        : Business
chat            :
computer        :
other           :
```

6.11.2 business
Vigor3900@config-object-webcate-<profile>#business [add][remove] <category_type>

**[add]   Add Web Category business type
**[remove]   remove Web Category business type
<category_type> :Business/Job-Search/Web-Based-Email

6.11.3 chat
Vigor3900@config-object-webcate-<profile># chat [add][remove] <category_type>

**[add]   Add Web Category chat type
**[remove]   remove Web Category chat type
<category_type> : Chat/Instant-Messaging

6.11.4 Child Protect
Vigor3900@config-object-webcate-<profile># child_protect [add][remove]
<category_type>

**[add]   Add Web Category Child Protect type
**[remove]   remove Web Category Child Protect type
<category_type> :Alcohol-And-Tobacco/Criminal-And-Activity/Gambling/Hate-And
              -Intolerance/Illegal-Drug/Nudity/Pornography-And-Sexually-explicit/
              Violence/Weapons/School-Cheating/Sex-Education/Tasteless/
              Child-Abuse-Images

6.11.5 computer
Vigor3900@config-object-webcate-<profile># computer [add][remove]
<category_type>

**[add]   Add Web Category computer type
**[remove]   remove Web Category computer type
<category_type>: Anonymizers/Forums-And-Newsgroups/Computers-And-Technology/
            Down-sites/Streamiing-Media-And-Downloads/Phishing-And-Fraud/
            Search-engines-And-Portals/Social-Networking/Spam-sites/Malware/
            Botnets/Hacking/Illegal-Softwares/Information-Security/Peer-to-Peer

6.11.6 leisure
Vigor3900@config-object-webcate-<profile># leisure [add][remove] <category_type>

**[add]   Add Web Category leisure type
**[remove]   remove Web Category leisure type
<category_type> : Entertainment/Games/Sports/Travel/Leisure-And-Recreation/
            Fashion-And-Beauty

6.11.7 other
 Vigor3900@config-object-webcate-<profile># other [add][remove] <category_type>

**[add]   Add Web Category other type
**[remove]   remove Web Category other type
<category_type> : Advertisement-And-Pop-Ups/Arts/Transportation/Compromised/
            Dating-And-Personals/Education/Finance/Government/
            Health-And-Medicine/News/Non-profits-And-NGOs/Persional-Sites/
            Politics/Real-Estate/Religion/Restaurants-And-Dining/Shopping/
            Translators/General/Cults/Greeting-Cards/Image-Sharing/Network-
            Errors/Parked-Domains/Private-IP-Address/Uncategorised-Sites

6.12 Time Object

   In **Vigor3900@config-object# ,** users could use [time_object] command to configure
Time Object to add or delete the profile or use "show" to get the profile list in the directory.
Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
time_object add <profileName>	Create Time Object Profile
time_object delete <profileName>	Delete Time Object Profile
time_object show	Show Time Object Profile Info
time_object <profileName>	Modify the selected profile

   selected the profile, then use the [get],[set],[weekdays] command to configure the Time
Object information.

 **[get] Show Time Object Detail configuration
 **[set] configure Time Object Detail
 **[weekdays] Configure weekdays

example-add:
Vigor3900@config-object# time_object add <profileName>

Vigor3900@config-object-timeobj-<profileName># weekdays add < Weekdays Type>

**[add] Add weekdays
**[remove] Remove weekdays
**Weekdays Type : Mon/Tue/Wed/Thu/Fri/Sat/Sun

example-edit:
Vigor3900@config-object# time_object show
Vigor3900@config-object# time_object <profileName>
Vigor3900@config-object-timeobj-<profileName># get

```
Vigor3900@config-object# time_object add test2
Vigor3900@config-object-timeobj-test2# get

freq                 : Once
sdate                : 2010-01-01
stime                : 00:00:00
edate                : 2010-01-01
etime                : 00:00:00
weekdays             :
```

Vigor3900@config-object-timeobj-<profileName># set set [freq frequency] [sdate startdate] [stime starttime] [edate enddate] [etimeendtime]

Command	Value	DESCRIPTION
freq	frequency	call schedule work frequency (Once/Weekdays)
sdate	startdate	call schedule start date
stime	starttime	call schedule start time
edate	enddate	call schedule stop date
etime	endtime	call schedule stop time

Note: [freq   frequency] the former freq is command, and the latter is value. The value could reference the description below.

Vigor3900@config-object-timeobj-<profileName># weekdays [add][remove] < Weekdays Type>

example-delete:
Vigor3900@config-object# time_object delete <profileName>

6.13 Time Group

In **Vigor3900@config-nat# ,** users could use [time_group] command to configure Time Group to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
time_group add <profileName>	Create Time Group Profile
time_group delete <profileName>	Delete Time Group Profile

time_group show	Show Time Group Profile Info
time_group <profileName>	Modify the selected profile

   selected the profile, then use the [get],[set],[objects] command to configure the Time Group information.

  **[get] Show Time Group configuration
  **[set] configure Time Group
  **[objects] Configure objects member

example-add:
Vigor3900@config-object# time_group add <profileName>
Vigor3900@config-object-kwgrp-<profileName># objects [add][remove] <member>

  **[add] Add objects member
  **[remove] remove objects member

example-edit:
Vigor3900@config-object# keyword_ group show
Vigor3900@config-object# keyword_ group <profileName>
Vigor3900@config-object-kwgrp-<profileName># get

```
Vigor3900@config-object-kwgrp-kgroup1# get

desc                    : x
obj                     :
```

  Vigor3900@config-object-kwgrp-<profileName># set [desc description]
  **[desc] Description
Note: [desc description] the former desc is command, and the latter is value.

  example-delete:
Vigor3900@config-object# keyword_ group delete <profileName>

7.User Management

 User Management can manage all the accounts (user profiles) to connect to Internet via different protocols.

 Vigor3900# configure user
 Vigor3900@config-user# users <command>

7.1 User Profile

 In **Vigor3900@config-user# ,** users could use [port_redirect] command to configure User Profile to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
users add <userName>	Add application users
users delete <userName>	Delete users
users show	Get configuration of application users
users <userName>	Modify the selected profile

 selected the profile, then use the [get] or [set] command to configure the User Profile information.

 **[get] Get users configuration system
 **[set] Set Application Usert

 example-add:
 Vigor3900@config-user# users add <profileName>
 Vigor3900@config-usr-<profileName># set <command>

 example-edit:
 Vigor3900@config-usr# users show
 Vigor3900@config-usr# users <profileName>
 Vigor3900@config-usr-<profileName># get

 Vigor3900@config-usr-<profileName># set [pass password] [pptp pptp] [if pptpif] [fixip fixip] [sysuser sysuser] [group group] [motp en_motp] [pin motp_pin] [secret motp_secret]

Command	Value	DESCRIPTION
pass	password	Password
pptp	pptp	PPTP/L2TP (Enable/Disable)
if	pptpif	PPTP/L2TP User LAN Group
fixip	fixip	Assign Fix IP Address
sysuser	sysuser	Is System User (true/false)
group	group	Group (User/Operator/Admin)
motp	en_motp	Use mOTP function (Enable/Disable)
pin	motp_pin	PIN code
secret	motp_secret	Initial Secret

Note: [pass password] the former pass is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-usr# users delete <profileName>

8.Application

Vigor3900 provides seven functions in Application– DDNS, RADIUS, UpnP....,.Users could use the commands below to set up the details.

Command	DESCRIPTION
ddns	Configure dynamic DNS service
exit	Go back to main menu
ha	Configure High Availability
rip	Configure RIP
samba	Configure Samba service
upnp	Configure UPnP
vs	Configure virtual system
wol	Wake on LAN

Vigor3900# configure applications
Vigor3900@config-app# <command> <profileName>

8.1Dynamic DNS

In **Vigor3900@config-app# ,** users could use [ddns] command to configure Dynamic Dns.User could use "show" to get the profile list in the directory, or selected the profile, then use the [get] or [set] command to configure the Dynamic Dns details information.

Vigor3900# configure applications
Vigor3900@config-app# ddns
Vigor3900@config-app-ddns# <command>

[show] Show current configurations
[get] Get ddns detail configurations
[set] Set ddns parameters

example-show:
Vigor3900@config-app-ddns# show

example-get:
  Vigor3900@config-app-ddns# get <profile name>

example-set:
  Vigor3900@config-app-ddns# set [status status] [if if-name] [provider provider] [stype server_type] [domain domain-name] [login login-name] [pw password] [wildcard wildcard] [backup_mx backup-mx] [mx mail-extender] <ProfileName>

Command	Value	DESCRIPTION
status	status	admin status (Enable/Disable)
if	if-name	profile name
provider	provider	DDNS service provider (dyndns/no-ip/dtdns/ changeip/huagai/dy-name-server/3322/vigorddns)
stype	server_type	DDNS service type (Dynamic/Static/Custom)
domain	domain-name	domain name
login	login-name	user login name
pw	password	password
wildcard	wildcard	wild card (Enable/Disable)
backup_mx	backup-mx	Backup MX (Enable/Disable)
mx	mail-extender	mail extender

 Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

8.2 UPnP Configuration

   In **Vigor3900@config-app# ,** users could use [upnp] command to configure UPnP.User could use the [get] or [set] command to configure the UPnP details information.

   Vigor3900@config-app# upnp
   Vigor3900@config-app-upnp# [get][set]

 **[get] Get UPnP detail configurations
 **[set] configure UPnP

example-get:
  Vigor3900@config-app-upnp#   get

```
Vigor3900@config-app-upnp# get

status          : Enable
download        : 1024
upload          : 512
external        : wan
internal        : lan
max_session     : 500
```

Vigor3900@config-app-upnp# set [status status] [download download] [upload upload] [external external] [internal internal] [max_session max_session]

Command	Value	DESCRIPTION
status	status	UPnP status (Enable/Disable)
download	download	Download speeds in kpbs
upload	upload	Upload speeds in kpbs
external	external	External Interface
internal	internal	Internal Interface
max_session	max_session	Max session

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

8.3 Virtual System

8.3.1 configure

In **Vigor3900@config-app# ,** users could use [vs] command to configure Virtual System to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
vs add <sectionName>	Add virtual system section
vs delete <sectionName>	Delete virtual system section
vs show	Show virtual system summary
vs <sectionName>	Modify the selected profile

selected the profile, then use the [get] or [set] command to configure the Virtual System information.

**[get] Get configuration on virtual system
**[set] Set configuration on virtual system

example-add:
Vigor3900@config-app# vs
Vigor3900@config-app-vs# vs add <sectionName>
Vigor3900@config-app-vs-<SectionName># set <command>

example-edit:
Vigor3900@config-app# vs

Vigor3900@config-app-vs# vs <SectionName>
Vigor3900@config-app-vs-<SectionName># get

```
Vigor3900@config-app-vs-vs1# get

status             : Disable
vlan               : lan1
df                 : Disable
```

　　Vigor3900@config-app-vs-<SectionName># set [status status] [vlan vlan] [df directly_forward]

Command	Value	DESCRIPTION
status	status	virtual system status (Enable/Disable)
vlan	vlan	local vlan
df	directly_forward	directly forward without local vlan (Enable/Disable)

　Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

　example-delete:
　Vigor3900@config-app-vs# vs delete <SectionName>

8.3.2 Tunnel

　In **Vigor3900@config-app-vs-<Section># ,** users could use [tunnel] command to configure vs-tunnel section to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
tunnel add <sectionName>	Add vs-tunnel section
tunnel delete <sectionName>	Delete vs-tunnel section
tunnel show	Show vs-tunnel summary
tunnel <sectionName>	Modify the selected section

　selected the section, then use the [get],[set],[subnet] command to configure the vs-tunnel information.

　**[get]   Get configuration on vs-tunnel
　**[set]   Set configuration on vs-tunnel
　**[subnet]   Add or remove more subnets to this tunnel

　example-add
　Vigor3900@config-app# vs
　Vigor3900@config-app-vs# vs <SectionName>
　Vigor3900@config-app-vs-<SectionName># tunnel add <SectionName>
　Vigor3900@config-app-vs-<SectionName># get

```
Vigor3900@config-app-vs-vs1# tunnel add test1
Vigor3900@config-app-vs-vs1-tunnel-test1# get

vs                      : vs1
desc                    :
subnet                  :
```

example-edit
  Vigor3900@config-app-vs-<SectionName># tunnel show <SectionName>
  Vigor3900@config-app-vs-<SectionName># tunnel <SectionName>
  Vigor3900@config-app-vs-<SectionName>-tunnel-<SectionName># get
  Vigor3900@config-app-vs-<SectionName>-tunnel-<SectionName># set [desc description] [subnet subnet]

  **[desc]   tunnel description
  **[subnet]   subnet

   Add more subnet or Remove the select subnet , use the [add],[remove] command to configurat

  Vigor3900@config-app-vs-<SectionName>-tunnel-<SectionName># subnet [add] [remove] <subnet>

  **[add]   Add more subnets to this tunnel
  **[remove]   Remove more subnets to this tunnel

  example-delete:
  Vigor3900@config-app-vs-<SectionName># tunnel delete <SectionName>

  ### 8.3.3 IPSec Policy
   In **Vigor3900@config-app-vs-<SectionName>-tunnel-<SectionName>** , users could use [ipsecpolicy] command to configure vs- IPSec Policy section.User could choose the ipsec policy is initate or not, then use the [get] or [set] command to configure the IPSec Policy details information.

  **[initiate]   initiate ipsec policy
  **[disconnect]   terminate ipsec policy

  **[get]   Get ipsec configuration on tunnel of virtual system
  **[set]   Set ipsec configuration on tunnel of virtual system

  example-
  Vigor3900@config-app-vs-<SectionName>-tunnel-<SectionName># ipsecpolicy
  Vigor3900@config-app-vs-<SectionName>-tunnel-<SectionName>-ipsecpolicy# [initiate][disconnect]

  Vigor3900@config-app-vs-<SectionName>-tunnel-<SectionName>-ipsecpolicy# get

```
Vigor3900@config-app-vs-vs1-tunnel-tunnel1-ipsecpolicy# get

status              : Disable
auth                : PSK
leftpem             :
psk                 :
secret_type         : ESP
localhost           : wan1
localsubnet         : 192.168.1.0/24
localnext           : 0.0.0.0
remotehost          : 0.0.0.0
remotesubnet        : 0.0.0.0/32
more_remotesubnet   :
aggrmode            : Disable
localid             :
remoteid            :
phase1keylifetime   : 28800
phase2keylifetime   : 3600
pfs                 : Disable
dpd                 : Enable
dpddelay            : 30
dpdtimeout          : 120
gre                 : Disable
localgreip          :
remotegreip         :
autogrekey          : Enable
grekeyin            :
grekeyout           :
ikephase1proposal   : DES_G1
ikephase1authproposal : ALL
ikephase2proposal   : 3DES_with_auth
ikephase2authproposal : ALL
acceptall           : acceptall
```

Vigor3900@config-app-vs-<SectionName>-tunnel-<SectionName>-ipsecpolicy# set
[status status] [auth auth] [leftpem leftpem] [psk psk] [secret_type secret_type][localhost
localhost] [localsubnet localsubnet] [localnext localnext] [remotehost remotehost]
[remotesubnet remotesubnet] [more_remotesubnet more_remotesubnet] [aggrmode
aggrmode] [localid localid] [remoteid remoteid][phase1keylifetimephase1keylifetime]
[phase2keylifetime phase2keylifetime] [pfs pfs] [dpd dpd][dpddelay dpddelay] [dpdtimeout
dpdtimeout] [dhcpoveripsec dhcpoveripsec] [l2tpoveripsec l2tpoveripsec] [gre gre]
[localgreip localgreip] [remotegreip remotegreip] [autogrekey autogrekey] [grekeyin
grekeyin] [grekeyout grekeyout] [ikephase1proposal ikephase1proposal]
[ikephase1authproposal ikephase1authproposal] [ikephase2proposal ikephase2proposal]
[ikephase2authproposal ikephase2authproposal] [acceptall acceptall]

Command	Value	DESCRIPTION
status	status	admin status (Enable / Disable)
auth	auth	auth type (PSK / RSA)
leftpem	leftpem	leftpem
psk	psk	preshared key
secret_type	secret_type	Security protocol (ESP / AH)
localhost	localhost	local host

localsubnet	localsubnet	local subnet
localnext	localnext	local next hop
remotehost	remotehost	remote host
remotesubnet	remotesubnet	remote subnet
more_remotesubnet	more_remotesubnet	More remote subnet
aggrmode	aggrmode	Aggressive mode (Enable / Disable)
localid	localid	local peer id
remoteid	remoteid	remote peer id
phase1keylifetime	phase1keylifetime	IKE phase1 key life time
phase2keylifetime	phase2keylifetime	IKE phase2 key life time
pfs	pfs	perfect forward secrecy status (Enable / Disable)
dpd	dpd	dead peer detection status (Enable / Disable)
dpddelay	dpddelay	DPD delay
dpdtimeout	dpdtimeout	DPD timeout
dhcpoveripsec	dhcpoveripsec	DHCP Over IPSec (Enable / Disable)
l2tpoveripsec	l2tpoveripsec	L2TP Over IPSec (Enable / Disable)
gre	gre	GRE function (Enable / Disable)
localgreip	localgreip	local GRE IP
remotegreip	remotegreip	remote GRE IP
autogrekey	autogrekey	auto generate GRE key (Enable / Disable)
grekeyin	grekeyin	GRE in key
grekeyout	grekeyout	GRE out key
ikephase1proposal	ikephase1proposal	IKE phase1 proposal (DES_G1/DES_G2 /DES_G5 /DES_G14 / 3DES_G1/3DES_G2/3DES_G5/3DES_G14/ AES128_G1/AES128_G2/AES128_G5/ AES128_G14/ AES192_G1 / AES192_G2 / AES192_G5 / AES192_G14/ AES256_G1 / AES256_G2 / AES256_G5 / AES256_G14)
ikephase1authproposal	ikephase1authproposal	IKE phase1 authentication (ALL / MD5 / SHA1)
ikephase2proposal	ikephase2proposal	IKE phase2 proposal (DES_without_auth / DES_with_auth / 3DES_without_auth / 3DES_with_auth / AES128_without_auth / AES128_with_auth / AES192_without_auth / AES192_with_auth / AES256_without_auth / AES256_with_auth)
ikephase2authproposal	ikephase2authproposal	IKE phase2 authentication (ALL / MD5 / SHA1)

| acceptall | acceptall | accepted proposal for dial-in (acceptall / acceptabove) |

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

8.4 High Availability

In **Vigor3900@config-app# ,** users could use [ha] command to configure High Availability .then use the [get] or [set] command to configure the High Availability information.

Vigor3900# configure applications
Vigor3900@config-app#   ha <command>

**[get]   Show High Availability Configuration
**[set]   Configure High Availability

example
Vigor3900@config-app#   ha get

```
Vigor3900@config-app# ha get

status              : Disable
lan                 :
vip                 :
vhid                : 1
role                : slave
pip                 :
```

Vigor3900@config-app#   ha set [status status] [lan lan] [vip vip] [vhid vhid] [role role] [pip pip]

Command	Value	DESCRIPTION
status	status	status (Enable/Disable)
lan	lan	LAN profile
vip	vip	virtual IP
vhid	vhid	Virtual Host ID
role	role	Role (Master/Backup)
pip	pip	Peer IP

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

8.5 RIP Configuration

In **Vigor3900@config-app# ,** users could use [rip] command to configure Rip, then use [show] to get the profile list in the directory or use the [get] or [pf] command to configure the Rip details information.

Vigor3900@config-app# rip
Vigor3900@config-app-rip# <command>

**[get]   Get Rip detail configurations

**[pf]   Add or remove more profile to support RIP

example-
Vigor3900@config-app# rip
Vigor3900@config-app-rip# show

```
Vigor3900@config-app-rip#show

status              : Disable
pf                  : wan
```

Vigor3900@config-app-rip# get

```
Vigor3900@config-app-rip#get

status              : Disable
pf                  : wan
```

Vigor3900@config-app-rip# pf [add][remove] <profilename>
**[add]   Add profile to support RIP
**[remove] Remove more profile to support RIP

8.6 SIP ALG

In **Vigor3900@config-app#** **,** users could use [sipalg] command to configure SIP ALG, then use [get] or [set] command to configure the details information.

Vigor3900@config-app# sipalg
Vigor3900@config-app-sipalg# [get][set <command]

**[get]   Get SIP ALG detail configurations
**[set]   configure SIP ALG

example-
Vigor3900@config-app# sipalg
Vigor3900@config-app-sipalg# get

```
Vigor3900@config-app-sipalg# get

status              : Disable
lan                 : lan1
wan                 : wan1
```

Vigor3900@config-app-sipalg# set [status status] [lan if_inbound] [wan if_outbound]

Command	Value	DESCRIPTION
status	status	SIP ALG status (Enable/Disable)
lan	if_inbound	LAN interface
wan	if_outbound	WAN interface

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

8.7 Wake on LAN

In **Vigor3900@config-app# ,** users could use [wol] command to configure Wake on LAN . Type the host that MAC address or IP address in the IP_Bind_MAC list.

example-
Vigor3900@config-app# wol [host]
 **[host]   MAC address or IP address in the IP_Bind_MAC list [ ]

9.VPN

 VPN(A Virtual Private Network) is the extension of a private network that encompasses links across shared or public networks like the Internet. In short, by VPN technology, user can send data between two computers across a shared or public network in a manner that emulates the properties of a point-to-point private link. Vigor3900 provides three functions in VPN – LAN-to-LAN, remote dial-in and VPN trunk.Users could use the commands below to set up the details.

Command	DESCRIPTION
lan2lan	Configure LAN-to-LAN VPN tunnel
remotedialin	Configure remote dial-in VPN tunnel
trunk	Configure VPN trunk tunnel

Vigor3900# configure vpn
Vigor3900@config-vpn# [lan2lan][remotedialin][trunk]

9.1 Remote Dial-in

In **Vigor3900@config-vpn# ,** users could use [remotedialin] command to configure Remote dial-in , then use [ipsecremotedialin][l2tpserver][pptpserver] command to set the details**.** Refer to the following chapters for descriptions of commonly used commands.

Vigor3900# configure vpn
Vigor3900@config-vpn# remotedialin
Vigor3900@config-vpn-remotedialin# [ipsecremotedialin][l2tpserver][pptpserver]

9.1.1 PPTP Server

In **Vigor3900@config-vpn-remotedialin# ,** users could use [pptpserver] command to configure pptp server ,then use the [get] or [set] command to configure the pptp server details information.

**[get]   Get configuration of pptp server
**[set]   Set configuration of pptp server

example-
Vigor3900@config-vpn-remotedialin# pptpserver
Vigor3900@config-vpn-remotedialin-pptpserver# get

```
Vigor3900@config-vpn-remotedialin-pptpserver# get

status            : Enable
auth              : MS-CHAP-v2
encp              : 128-bit
user_auth         : Local
lanpf             : lan1
mss               : 1360
```

Vigor3900@config-vpn-remotedialin-pptpserver# set [status status] [auth authentication] [encp encryption] [user_auth user_authentication] [lanpf lan_profile] [mss pptp_mss]

Command	Value	DESCRIPTION
status	status	PPTP server status (Enable/Disable)
auth	authentication	the authenticate protocol of PPTP server (PAP / CHAP / MS-CHAP / MS-CHAP-v2)
encp	encryption	the encrypt length of PPTP server (40/128-bit/128-bit/ Disable)
user_auth	user_authentication	the user authenticate type of PPTP server (Local/RADIUS)
lanpf	lan_profile	Choose an interface for local IP address
mss	pptp_mss	PPTP MSS value

 Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

9.1.2 L2TP Server

 In **Vigor3900@config-vpn-remotedialin#** , users could use [l2tpserver] command to configure L2TP Server ,then use the [get] or [set] command to configure the L2TP Server details information.

 **[get]   Get configuration of l2tp server
 **[set]   Set configuration of l2tp server

  example-
 Vigor3900@config-vpn-remotedialin# l2tpserver
 Vigor3900@config-vpn-remotedialin-l2tpserver# get

```
Vigor3900@config-vpn-remotedialin-l2tpserver# get

status             : Enable
auth               : CHAP
user_auth          : Local
lanpf              : lan1
```


    Vigor3900@config-vpn-remotedialin-l2tpserver# set [status status] [auth authentication] [user_auth user_authentication] [lanpf lan_profile]

Command	Value	DESCRIPTION
status	status	L2TP server status (Enable/Disable)
auth	authentication	the authenticate protocol of L2TP server (PAP/CHAP)
user_auth	user_authentication	the user authenticate type of L2TP server (Local/RADIUS)
lanpf	lan_profile	Choose an interface for local IP address

    Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

9.1.3 L2TP/DHCP over ipsec profile

In **Vigor3900@config-vpn-remotedialin#** , users could use [ipsecremotedialin] command to configure L2TP/DHCP over ipsec profile ,then use the [get] or [set] command to configure the L2TP/DHCP over ipsec profile details information.

**[get]   Get configuration of ipsec remote dial-in
**[set]   Set configuration of ipsec remote dial-in

example-
Vigor3900@config-vpn-remotedialin# ipsecremotedialin
Vigor3900@config-vpn-remotedialin-ipsecremotedialin# get

```
Vigor3900@config-vpn-remotedialin-ipsecremotedialin# get

status_l2tp          : Disable
status_dhcp          : Disable
psk                  :
localhost            : wan1
dhcp_lanif           : lan1
```

Vigor3900@config-vpn-remotedialin-ipsecremotedialin# set [status_l2tp status_l2tp] [status_dhcp status_dhcp] [psk psk] [localhost localhost] [dhcp_lanif dhcp_lanif]

Command	Value	DESCRIPTION
status_l2tp	status_l2tp	L2TP over IPSec status (Enable/Disable)
status_dhcp	status_dhcp	DHCP over IPSec status (Enable/Disable)
psk	psk	preshared key
ocalhost	ocalhost	local host
dhcp_lanif	dhcp_lanif	Choose an interface for DHCP over IPSec

Note: [status_l2tp status_l2tp] the former status_l2tp is command, and the latter is value. The value could reference the description below.

9.2 LAN to LAN

In **Vigor3900@config-vpn#** , users could use [lan2lan] command to configure LAN to LAN, then use [ipsecpolicy][ipsecsetup][pptpdialin][pptpdialout] command to set the details**.**Refer to the following chapters for descriptions of commonly used commands.

Vigor3900# configure vpn
Vigor3900@config-vpn# lan2lan
Vigor3900@config-vpn-l2l# [ipsecpolicy][ipsecsetup][pptpdialin][pptpdialout]

9.2.1 IPSec Policy

In **Vigor3900@config-vpn-l2l#** , users could use [ipsecpolicy] command to configure IPSec Policy to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly,

Command	DESCRIPTION
ipsecpolicy add <profileName>	Add IPSec section
ipsecpolicy delete <profileName>	Delete IPSec policy section

ipsecpolicy show	Show IPSec configuration
Ipsecpolicy <profileName>	Modify the selected profile

selected the profile, could choose the IPSec policy is initate or not, then use the [get] or [set] command to configure the IP Sec Policy details information.

 **[connect] initiate ipsec policy
 **[disconnect] terminate ipsec policy

 **[get] Get configuration on ipsec policy
 **[set] Set configuration on ipsec policy

example-add:
Vigor3900@config-vpn-l2l# ipsecpolicy add <sectionName>
Vigor3900@config-vpn-l2l-<sectionName># connect
Vigor3900@config-vpn-l2l-<sectionName># get

example-edit:
Vigor3900@config-vpn-l2l# ipsecpolicy show
Vigor3900@config-vpn-l2l# ipsecpolicy <sectionName>
Vigor3900@config-vpn-l2l-<sectionName># get

```
Vigor3900@config-vpn-l2l-ipsecpolicy-smartc# get

status                  : Disable
auth                    : RSA
leftpem                 : rdialserver
psk                     : 1234
secret_type             : ESP
localhost               : wan1
localsubnet             : 192.168.3.188/24
localnext               : 0.0.0.0
remotehost              : 0.0.0.0
remotesubnet            : 0.0.0.0/32
more_remotesubnet       :
aggrmode                : Disable
localid                 :
remoteid                :
phase1keylifetime       : 28800
phase2keylifetime       : 3600
pfs                     : Disable
dpd                     : Enable
dpddelay                : 30
dpdtimeout              : 120
gre                     : Disable
localgreip              : 1.1.1.1
remotegreip             : 1.1.1.2
autogrekey              : Enable
grekeyin                :
grekeyout               :
ikephase1proposal       : DES_G1
ikephase1authproposal   : ALL
ikephase2proposal       : 3DES_with_auth
ikephase2authproposal   : ALL
acceptall               : acceptall
```

Vigor3900@config-vpn-l2l-<sectionName># set [status status] [auth auth] [leftpem leftpem] [psk psk] [secret_type secret_type] [localhost localhost] [localsubnet localsubnet] [localnext localnext] [remotehost remotehost] [remotesubnet remotesubnet] [more_remotesubnetmore_remotesubnet] [aggrmode aggrmode] [localid localid] [remoteid remoteid] [phase1keylifetime phase1keylifetime] [phase2keylifetime phase2keylifetime][pfs pfs] [dpd dpd][dpddelay dpddelay] [dpdtimeout dpdtimeout] [dhcpoveripsec dhcpoveripsec] [l2tpoveripsec l2tpoveripsec] [gre gre] [localgreip localgreip] [remotegreip remotegreip] [autogrekey autogrekey] [grekeyin grekeyin] [grekeyout grekeyout] [ikephase1proposal ikephase1proposal] [ikephase1authproposal ikephase1authproposal] [ikephase2proposal ikephase2proposal] [ikephase2authproposal ikephase2authproposal] [acceptall acceptall]

Command	Value	DESCRIPTION
status	status	admin status (Enable/Disable)
auth	auth	auth type (PSK/RSA)
leftpem	leftpem	leftpem
psk	psk	preshared key
secret_type	secret_type	Security protocol (ESP/AH)
localhost	localhost	local host
localsubnet	localsubnet	local subnet
localnext	localnext	local next hop
remotehost	remotehost	remote host
remotesubnet	remotesubnet	remote subnet
more_remotesubnet	more_remotesubnet	More remote subnet
aggrmode	aggrmode	Aggressive mode (Enable/Disable)
localid	localid	local peer id
remoteid	remoteid	remote peer id
phase1keylifetime	phase1keylifetime	IKE phase1 key life time
phase2keylifetime	phase2keylifetime	IKE phase2 key life time
pfs	pfs	perfect forward secrecy status (Enable/Disable)
dpd	dpd	dead peer detection status (Enable/Disable)
dpddelay	dpddelay	DPD delay
dpdtimeout	dpdtimeout	DPD timeout
dhcpoveripsec	dhcpoveripsec	DHCP Over IPSec (Enable/Disable)
l2tpoveripsec	l2tpoveripsec	L2TP Over IPSec (Enable/Disable)
gre	gre	GRE function (Enable/Disable)
localgreip	localgreip	local GRE IP
remotegreip	remotegreip	remote GRE IP
autogrekey	autogrekey	auto generate GRE key (Enable/ Disable)
grekeyin	grekeyin	GRE in key
grekeyout	grekeyout	GRE out key

ikephase1proposal	ikephase1proposal	IKE phase1 proposal (DES_G1/DES_G2/DES_G5/DES_G14/ 3DES_G1/3DES_G2/3DES_G5/3DES_G14/ AES128_G1/AES128_G2/AES128_G5/AES1 28_G14/ AES192_G1/AES192_G2/AES192_G5/AES1 92_G14/ AES256_G1/AES256_G2/AES256_G5/AES2 56_G14)
ikephase1authprop osal	ikephase1authpropo sal	IKE phase1 authentication (ALL/MD5/SHA1)
ikephase2proposal	ikephase2proposal	IKE phase2 proposal (DES_without_auth/DES_with_auth/ 3DES_without_auth/3DES_with_auth/ AES128_without_auth/AES128_with_auth/ AES192_without_auth/AES192_with_auth/ AES256_without_auth/AES256_with_auth)
ikephase2authprop osal	ikephase2authpropo sal	IKE phase2 authentication (ALL/MD5/SHA1)
acceptall	acceptall	accepted proposal for dial-in (acceptall/acceptabove)

 Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-edit:
  Vigor3900@config-vpn-l2l# ipsecpolicy delete<sectionName>

9.2.2 PPTP dail-out
   In **Vigor3900@config-vpn-l2l# ,** users could use [pptpdialout] command to configure PPTP dail-out to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly,

Command	DESCRIPTION
pptpdialout add <profileName>	Add PPTP dial-out tunnel
pptpdialout delete <profileName>	Delete PPTP dial-out tunnel
pptpdialout show	Show PPTP dial-out tunnel configuration
pptpdialout <profileName>	Modify the selected tunnel

   selected the profile, could choose the IPSec policy is initate or not, then use the [get] or [set] command to configure the IP Sec Policy details information.

 **[connect] initiate PPTP LAN-to-LAN policy
 **[disconnect] terminate LAN-to-LAN policy

 **[get] Get configuration on pptp dial-out tunnel
 **[set] Set configuration on pptp dial-out tunnel

example-add:

Vigor3900@config-vpn-l2l# pptpdialout add <sectionName>
Vigor3900@config-vpn-l2l-pptpdialout-<sectionName># connect

example-edit:
Vigor3900@config-vpn-l2l# pptpdialout show
Vigor3900@config-vpn-l2l# pptpdialout <sectionName>
Vigor3900@config-vpn-l2l-pptpdialout-<sectionName># get

```
status           : Disable
alwayson         : Disable
serverip         : 3.4.5.6
username         :
password         : 444
localsubnet      : 2.3.4.0/24
remotesubnet     : 1.2.3.0/24
```

Vigor3900@config-vpn-l2l-pptpdialout-<sectionName># set [status status] [alwayson alwayson] [serverip serverip] [username username] [password password] [localsubnet localsubnet] [remotesubnet remotesubnet]

Command	Value	DESCRIPTION
status	status	admin status (Enable/Disable)
alwayson	alwayson	enable always-on or not (Enable/Disable)
serverip	serverip	PPTP server IP address
username	username	username
password	password	password
localsubnet	localsubnet	local subnet
remotesubnet	remotesubnet	remote subnet

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-vpn-l2l# pptpdialout delete <profileName>

9.2.3 PPTP dail-in

In **Vigor3900@config-vpn-l2l# ,** users could use [pptpdial in] command to configure PPTP dail-in to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
pptpdial in add <profileName>	Add PPTP dial-in tunnel
pptpdial in delete <profileName>	Delete PPTP dial- in tunnel
pptpdial in show	Show PPTP dial- in tunnel configuration
pptpdial in <profileName>	Modify the selected tunnel

selected the profile, then use the [get] or [set] command to configure the PPTP dail-in details information, could also use the [disconnect] command to terminate the tunnel.

**[get]   Get configuration on pptp dial-in tunnel
**[set]   Set configuration on pptp dial-in tunnel
**[disconnect] terminate LAN-to-LAN policy

example-add:
  Vigor3900@config-vpn-l2l# pptpdial in add <sectionName>
  Vigor3900@config-vpn-l2l-pptpdialin-<sectionName># set [status status] [username username] [localsubnet localsubnet] [remotesubnet remotesubnet]

example-edit:
  Vigor3900@config-vpn-l2l# pptpdial in show
  Vigor3900@config-vpn-l2l# pptpdial in <sectionName>
  Vigor3900@config-vpn-l2l-pptpdialin-<sectionName># get

```
status                  : Disable
username                : testuser1
localsubnet             : 192.168.0.222/24
remotesubnet            : 255.111.222.222/24
```

     Vigor3900@config-vpn-l2l-pptpdialin-<sectionName># set [status status] [username username] [localsubnet localsubnet] [remotesubnet remotesubnet]

Command	DESCRIPTION
status	admin status (Enable/Disable)
username	username
localsubnet	local subnet
remotesubnet	remote subnet

  Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
  Vigor3900@config-vpn-l2l# pptpdial in delete <sectionName>

9.3 VPN TRUNK Manager

   In **Vigor3900@config-vpn# ,** users could use [trunk] command to configure VPN TRUNK Manager , then use [ipseclbpool][ipseclbrule] command to set the details.Refer to the following chapters for descriptions of commonly used commands.

  Vigor3900# configure vpn
  Vigor3900@config-vpn# trunk
  Vigor3900@config-vpn-trunk# [ipseclbpool][ipseclbrule]

9.3.1 Load Balance Rule

  In **Vigor3900@config-vpn-trunk#   ,** users could use [ipseclbrule] command to configure Load Balance Rule to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
Ipseclbrule add <sectionName>	Add load balancer rule
Ipseclbrule delete <sectionName>	Delete load balancer rule
Ipseclbrule show	Show load balancer rule
Ipseclbrule <sectionName>	Modify the selected rule

selected the profile, then use the [get] or [set] command to configure the load balancer rule information.

**[get] Get load balancer rule configuration
**[set] Set load balancer rule configuration

example-add:
Vigor3900@config-vpn-trunk# ipseclbrule add <sectionName>
Vigor3900@config-vpn-ipsec-trunk-lb-rule-<sectionName># set [status status] [proto protocol] [sip src_ip] [smask src_mask] [dip dest_ip] [dmask dest_mask] [dport dest_port] [dport_end dest_port_end] [pool lb_pool]

example-edit:
Vigor3900@config-vpn-trunk# ipseclbrule show
Vigor3900@config-vpn-trunk# ipseclbrule <sectionName>
Vigor3900@config-vpn-ipsec-trunk-lb-rule-<sectionName># get

```
status          : Enable
proto           : ALL
sip             :
smask           :
dip             :
dmask           :
dport           :
dport_end       :
pool            :
```

Vigor3900@config-vpn-ipsec-trunk-lb-rule-<sectionName># set [status status] [proto protocol] [sip src_ip] [smask src_mask] [dip dest_ip] [dmask dest_mask] [dport dest_port] [dport_end dest_port_end] [pool lb_pool]

Command		DESCRIPTION
status	status	status (Enable/Disable)
proto	protocol	protocol(ALL/TCP/UDP/TCP/UDP/ICMP/FTP /TFTP/HTTP/SMTP/POP3)
sip	src_ip	source IP address
smask	src_mask	source mask
dip	dest_ip	destination IP address
dmask	dest_mask	destination mask
dport	dest_port	destination port
dport_end	dest_port_end	destination port end

| pool | lb_pool | load balance pool |

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-vpn-trunk# ipseclbrule delete <sectionName>

9.3.2 Load Balance Pool

In **Vigor3900@config-vpn-trunk#** , users could use [ipseclbpool] command to configure Load Balance Pool to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
ipseclbpool add <sectionName>	Add load balancer pool
ipseclbpool delete <sectionName>	Delete load balancer pool
ipseclbpool show	Show load balancer pool
ipseclbpool <sectionName>	Modify the selected pool

selected the profile, then use the [get] or [set] command to configure the Load Balance Pool information or use the [add] or [remove] command to set the load balancer loadbalance interface.

**[get] get load balancer pool configuration
**[set] Set load balancer pool configuration

**[add] add load balancer loadbalance interface
**[remove] remove load balancer pool loadbalance interface

example-add:
Vigor3900@config-vpn-trunk# ipseclbpool add <sectionName>
Vigor3900@config-vpn-trunk-ipsec-lb-pool-<sectionName># set [lbif lb_iface]
Vigor3900@config-vpn-trunk-ipsec-lb-pool-<sectionName># add <lb_iface>

example-edit:
Vigor3900@config-vpn-trunk# ipseclbpool show
Vigor3900@config-vpn-trunk# ipseclbpool <sectionName>
Vigor3900@config-vpn-trunk-ipsec-lb-pool-<sectionName># get

```
Vigor3900@config-vpn-trunk-ipsec-lb-pool-pp2# get

lbif                 :
```

Vigor3900@config-vpn-trunk-ipsec-lb-pool-<sectionName># add <lb_iface>
Vigor3900@config-vpn-trunk-ipsec-lb-pool-<sectionName># set [lbif lb_iface]

**[lb_iface] load balance interface

example-delete:
Vigor3900@config-vpn-trunk# ipseclbpool delete <sectionName>

10. Bandwidth Manager

  Vigor3900 provides three functions in Bandwidth Manager – bandwidth limit , Quality of Service andsessions limit .Users could use the commands below to set up the details.

Command	DESCRIPTION
bandwidth_limit	Configure bandwidth limit profile
qos	Configure Wan QoS Service
sesslimit	Configure sessions limit profile

  Vigor3900# configure bandwidth
  Vigor3900@config-bandwidth# [bandwidth_limit][qos][sesslimit]

10.1 QoS

  In **Vigor3900@config-bandwidth# ,** users could use **[qos]** command to configure Quality of Service , then use **[incoming-class][incoming-filter][outgoing-class] [outgoing-filter]** command to set the details.Refer to the following chapters for descriptions of commonly used commands.

Command	DESCRIPTION
incoming-class	Config QoS incoming class
incoming-filter	Config QoS incoming filter
outgoing-class	Config QoS outgoing class
outgoing-filter	Config QoS outgoing filter

  Vigor3900@config-bandwidth# qos
  Vigor3900@config-bw-qos# [incoming-class][incoming-filter][outgoing-class][outgoing-filter]

10.1.1 Incoming Class
  In **Vigor3900@config-bw-qos#,** users could use [incoming-class] command to configure **I**ncoming class ,then could choose the [class_ratectrl] command to Configure incoming rate control for filter, use the [ttl_ratectrl] command to Configure Qos incoming total rate control.

Command	DESCRIPTION
class_ratectrl	Configure incoming rate control for filter
ttl_ratectrl	Configure Qos incoming total rate control

  Vigor3900@config-bw-qos# incoming-class
  Vigor3900@config-bw-qos-in-class# [class_ratectrl][ttl_ratectrl]

  selected the profile, then use the [get] or [set] command to configure the details information.

Vigor3900@config-bw-qos-in-class# class_ratectrl <SectionName>
Vigor3900@config-bw-qos-in-class-ratectrl-<SectionName># [get][set]

**[get] Show Queue Configuration
**[set] configure Queue weight

Vigor3900@config-bw-qos-in-class-ratectrl-<SectionName># get

```
Vigor3900@config-bw-qos-in-class-ratectrl-incoming_class0# get

mode              : Disable
rate              : 0
```

Vigor3900@config-bw-qos-in-class-ratectrl-<SectionName># set [mode enable] [rate rate]

**[mode enable]   QoS Shaper Administrative Configuration (Enable/Disable)
**[rate rate]   policer rate in bps

Note: [mode enable**] the former** mode **is command, and the latter is value.**

If you don't know the class ratectrl what filter have, you can use [show] to get incoming rate control for filter.

Vigor3900@config-bw-qos-in-class# class_ratectrl show

```
Vigor3900@config-bw-qos-in-class# class_ratectrl show
adm_policer         mode            rate
incoming_class0     disable         0
incoming_class1     disable         0
```

Vigor3900@config-bw-qos-in-class# ttl_ratectrl [get][set <command>]

**[get] Show Qos incoming total rate control configuration
**[set] configure incoming total rate control

Vigor3900@config-bw-qos-in-class# ttl_ratectrl get

```
Vigor3900@config-bw-qos-in-class# ttl_ratectrl get

mode              : Disable
rate              : 0
```

Vigor3900@config-bw-qos-in-class# ttl_ratectrl set [mode enable] [rate rate]

**[mode enable]   Ingress rate control Administrative Configuration (Enable/Disable)
**[rate rate]   Ingress rate in Kbps

Note: [mode enable**] the former** mode **is command, and the latter is value.**

10.1.2 Incoming Filter

In **Vigor3900@config-bw-qos#,** users could use [incoming-filter] command to configure Incoming Filter ,then use [ftrule] to Configure incoming filter rule.

Vigor3900@config-bw-qos# incoming-filter
Vigor3900@config-bw-qos-in-filter# ftrule <SectionName>

selected the profile, then use the [get] or [set] command to configure the details information.

Vigor3900@config-bw-qos-in-filter-<SectionName># [get][set]

**[get] Show filter rule related configuration
**[set] configure filter rule related parameter

example:
Vigor3900@config-bw-qos# incoming-filter
Vigor3900@config-bw-qos-in-filter# ftrule <SectionName>
Vigor3900@config-bw-qos-in-filter-<SectionName># get

```
policer              : no_rate_control
drop                 : Disable
reserved             : Disable
ipproto              : None
saddr                : 0.0.0.0
saddr_mask           : 0.0.0.0
sport_enable         : Disable
sport_min            : 0
sport_max            : 0
daddr                : 0.0.0.0
daddr_mask           : 0.0.0.0
dport_enable         : Disable
dport_min            : 0
dport_max            : 0
```

Vigor3900@config-bw-qos-in-filter-<SectionName># set [policer policer] [drop drop] [reserved reserved] [ipproto ipproto] [saddr saddr] [saddr_mask saddr_mask][sport_enable sport_enable] [sport_min sport_min][sport_max sport_max] [daddr daddr] [daddr_mask daddr_mask] [dport_enable dport_enable] [dport_min dport_min] [dport_max dport_max]

Command	Value	DESCRIPTION
policer	policer	select the associated adm policer (no_rate_control/incoming_class0/incoming_class1)
drop	drop	Drop received packeted (Enable/Disable)
reserved	reserved	Reserved received packeted (Enable/Disable)
ipproto	ipproto	IP proto (TCP/IGMP/ICMP/UDP/None)
saddr	saddr	source IP address
saddr_mask	saddr_mask	source IP address mask
sport_enable	sport_enable	source port administrative status (Enable/Disable)

sport_min	sport_min	min source port
sport_max	sport_max	Max source port
daddr	daddr	destination IP address
daddr_mask	daddr_mask	destination IP address mask
dport_enable	dport_enable	destination port administrative status (Enable/Disable)
dport_min	dport_min	min destination port
dport_max	dport_max	Max destination port

Note: [policer policer**] the former** policer **is command, and the latter is value. The value could reference the description below.**

If you don't know the current incoming filter rule configuration , you can use [show] to get this information.

Vigor3900@config-bw-qos-in-filter# ftrule l show

10.1.3 Outgoing Class
 In **Vigor3900@config-bw-qos#,** users could use [outcoming-class] command to configure outcoming class ,then could choose the [outgoing_ratectrl] [outgoing_ttlratectrl] [queue] to set the details information.

Command	DESCRIPTION
outgoing_ratectrl	Configure outgoing class rate control
outgoing_ttlratectrl	Configure outgoing total rate control
queue	Configure outgoing low queue weight

Vigor3900@config-bw-qos# outcoming-class
Vigor3900@config-bw-qos-out-class# [outgoing_ratectrl][outgoing_ttlratectrl][queue]

selected the profile, then use the [get] or [set] command to configure the details information.

example- *outgoing_ratectrl*
Vigor3900@config-bw-qos# outcoming-class
Vigor3900@config-bw-qos-out-class# outgoing_ratectrl <SectionName>

Vigor3900@config-bw-qos-out-class-<SectionName># [get][set]

**[get]   Show Queue Configuration
**[set]   configure Queue weight

Vigor3900@config-bw-qos-out-class-<SectionName># get

```
mode              : Disable
rate              : 0
desc              : Control queue 7(hightest)
```

Vigor3900@config-bw-qos-out-class-ratectrl-<SectionName># set [mode enable] [rate rate]

**[mode enable]   Egress rate control administrative status (Enable/Disable)
**[rate rate]   Egress rate in Kbps

Note: [mode enable] the former mode **is command, and the latter is value.**

If you don't know the class ratectrl what filter have, you can use [show] to get incoming
  rate control for filter.

Vigor3900@config-bw-qos-out-class# outgoing_ratectrl show

```
Vigor3900@config-bw-qos-out-class# outgoing_ratectrl show
sch_shaper          mode          rate          desc
outgoing_class0     disable       0             Control queue 7(hightest)
outgoing_class1     disable       0             Control queue 6(higher)
outgoing_class2     disable       0             Control queue 1-5(low)
```

example-ttl_ratectrl
 Vigor3900@config-bw-qos# outcoming-class
 Vigor3900@config-bw-qos-in-class# ttl_ratectrl [get][set <command>]

**[get]   Show Qos incoming total rate control configuration
**[set]   configure incoming total rate control

Vigor3900@config-bw-qos-in-class# ttl_ratectrl get

```
Vigor3900@config-bw-qos-in-class# ttl_ratectrl get

mode              : Disable
rate              : 0
```

Vigor3900@config-bw-qos-in-class# ttl_ratectrl set [mode enable] [rate rate]

**[mode enable]   Ingress rate control Administrative Configuration (Enable/Disable)
**[rate rate]   Ingress rate in Kbps

Note: [mode enable] the former mode **is command, and the latter is value.**

10.1.4 Outgoing Filter

In **Vigor3900@config-bw-qos#,** users could use [outcoming-filter] command to configure outcoming-filter , then use the [outcoming_filter] command to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
outgoing_filter add <profileName>	Add new packet marking profile
outgoing_filter delete <profileName>	Delete packet marking profile
outgoing_filter show	Show current packet marking configuration
outgoing_filter <profileName>	Modify the selected profile

selected the profile, then use the [get] or [set] command to configure the packet marking information.
    **[get]   Show packet marking rule
    **[set]   configure packet marking rule

example-add
Vigor3900@config-bw-qos# outcoming-filter
Vigor3900@config-bw-qos-out-filter# outgoing_filter add <SectionName>
Vigor3900@config-bw-qos-out-filter-<SectionName># set [status status] [srcip soruceip] [destip destip] [servicetype servicetype] [queue queue]

example-edit
Vigor3900@config-bw-qos# outcoming-filter
Vigor3900@config-bw-qos-out-filter# outgoing_filter <SectionName>
Vigor3900@config-bw-qos-out-filter-<SectionName># get

```
status            : disable
srcip             : 0.0.0.0/0
destip            : 0.0.0.0/0
servicetype       : Any
queue             : 0
```

Vigor3900@config-bw-qos-out-filter-<SectionName># set [status status] [srcip soruceip] [destip destip] [servicetype servicetype] [queue queue]

Command	Value	DESCRIPTION
status	status	Enable or disable outgoing filter (Enable/Disable)
srcip	srcip	source IP address or IP address with mask bit
destip	destip	destination IP address or IP address with mask bit
servicetype	servicetype	User Defined Service Type
queue	queue	queue number (0/1/2/3/4/5/6/7)

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-bw-qos-out-filter# outgoing_filter delete <SectionName>

10.2 Session Limit

In **Vigor3900@config-bandwidth#** , users could use [sesslimit] command to configure sessions limit to add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
sessions limit add <sectionName>	Add sessions limit profile
sessions limit delete <sectionName>	Delete sessions limit profile
sessions limit show	Show sessions limit profile configuration
sessions limit <sectionName>	Modify the selected profile configuration

selected the profile, then use the [get] or [set] command to configure the address mapping information.

**[get]   Show sesslimit profile
**[set]   configure sesslimit

example-add:
Vigor3900@config-bandwidth# sesslimit add <sectionName>
Vigor3900@config-bw-sesslimit-<profile># set [status status] [srcip srcip] [session session]

example-edit:
Vigor3900@config-bandwidth# sesslimit show
Vigor3900@config-bandwidth# sesslimit <sectionName>
Vigor3900@config-bw-sesslimit-<profile># get

```
status            : Disable
srcip             : 0.0.0.0/0
session           : 500
```

Vigor3900@config-bw-sesslimit-<profile># set [status status] [srcip srcip] [session session]

Command	Command	DESCRIPTION
status	status	Sessions limit profile admin status (Enable/Disable)
srcip	srcip	Soruce IP address with mask bit
session	session	Maximum Connection Sessions

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

example-delete:
Vigor3900@config-bandwidth# sesslimit delete <sectionName>

10.3 Bandwidth Limit

In **Vigor3900@config-bandwidth# ,** users could use [bandwidth_limit] command to configure bandwidth limitto add or delete the profile or use "show" to get the profile list in the directory. Enter the profile name to open it and modify the profile directly.

Command	DESCRIPTION
bandwidth_limit add <sectionName>	Add a bandiwdth limit profile
bandwidth_limit delete <sectionName>	Delete a bandiwdth limit profile
bandwidth_limit show	Show specific bandiwdth limit profile
bandwidth_limit <sectionName>	Modify the selected profile configuration

selected the profile, then use the [get] or [set] command to configure the bandwidth limit information.

 **[get]   bandwidth limit Configuration
 **[set]   bandwidth limit Configuration

 example-add:
 Vigor3900@config-bandwidth# bandwidth_limit add <sectionName>
 Vigor3900@config-bw-limit-<profile># set [start_ip start_ip] [end_ip end_ip] [tx tx] [rx rx]

 example-edit:
 Vigor3900@config-bandwidth# bandwidth_limit show
 Vigor3900@config-bandwidth# bandwidth_limit <sectionName>
 Vigor3900@config-bw-limit-<profile># get

```
start_ip              : 0.0.0.0
end_ip                : 0.0.0.0
tx                    : 0
rx                    : 0
```

 Vigor3900@config-bw-limit-<profile># set [start_ip start_ip] [end_ip end_ip] [tx tx] [rx rx]

Command	Value	DESCRIPTION
start_ip	start_ip	Source start IP address
end_ip	end_ip	Source end IP address
tx	tx	Transmit rate in Kbps
rx	rx	Receive rate in Kbps

 Note: [start_ip start_ip] the former start_ip is command, and the latter is value. The value could reference the description below.

 example-delete:
  Vigor3900@config-bandwidth# bandwidth_limit delete <sectionName>

11. System Management

 For the system setup, there are several items that you have to know the way of configuration,Vigor3900 provides many functions in system management .Users could use the commands below to set up the details.

Command	DESCRIPTION
acc_ctrl	Configure Access control
admin_passwd	Configure Administrator Password
cmm	Connect to Fast Forward Conntrack module monitor
config	Configuration Backup and Restore
firmware	manage firmware
mailalert	Configure Mail Alert
ntpclient	Configure NTP client
reboot	system reboot
snmpagent	Configure SNMP agent
syslogd	Configure Syslogd Server

Vigor3900# configure system
Vigor3900@config-sys# <command>

11.1 Administrator Password

 In **Vigor3900@config-sys#** , use the [admin_passwd] command to configure administrator password and type the old password, new password, confirm password.

 Vigor3900@config-sys# admin_passwd <oldpw> <newpw> <confpw>

 **[oldpw]   Old password
 **[newpw]   New password
 **[confpw]   Confirm password

11.2 Configuration Backup

 In **Vigor3900@config-sys#**   , users could use **[config]** command to configure Configuration Backup , then use the Below shows the menu items to set details information.

 Vigor3900@config-sys# config <command>

Command	DESCRIPTION
automatic	Automatic backup configuration
backup	Backup configuration to remote TFTP server
default_set	Customized default configuration
local	Create or delete configuration backup in local storage
restore	Restore configuration from remote TFTP server

 Vigor3900@config-sys# config automatic

 [get] Get automatic configuration
 [set] Set automatic configuration

 Vigor3900@config-sys# config automatic get

```
status              : Disable
interval            : weekly
date_time           : 06:52:00
date_day            : 1
date_weekday        : Sun
```

 Vigor3900@config-sys# config automatic set [status status] [interval interval]
[date_time date_time] [date_day date_day] [date_weekday date_weekday]

Command	Value	DESCRIPTION
status	status	group status (Enable/Disable)
interval	interval	automatic backup interval (daily/weekly/monthly)
date_time	date_time	backup time in a day
date_day	date_day	date_day
date_weekday	date_weekday	date_weekday (Mon/Tue/Wed/Thu/Fri/Sat/Sun)

 Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

 Vigor3900@config-sys# config backup [serverip] [filename]

 [serverip]   TFTP Server IP address [192.168.1.10]
 [filename]   Filename on server [cfg.tar.gz]

 Vigor3900@config-sys# config default_set [disable][enable][get]

 [disable] Disable customized default configuration
 [enable]   Enable customized default configuration
 [get]   Display current customized default status

 Vigor3900@config-sys# config local <command>

Command	DESCRIPTION
backup	Create configuration backup in local storage
delete	Delete configuration backups in local storage

download	Download configuration backup from local storage to TFTP server
list	List configuration backups in local storage
restore	Restore backup configuration from local storage
upload	Upload configuration backup file from TFTP server to local storage

example- *restore*

Vigor3900@config-sys# config restore [serverip] [filename]

  **[serverip]   TFTP Server IP address [192.168.1.10]
  **[filename]   Filename on server [cfg.tar.gz]

11.3 Syslog

  In **Vigor3900@config-sys#**   , use the [syslogd] command to configure syslog and type the [get] or [set] command to configure the the details information.

  Vigor3900@config-sys# syslogd [get][set]

**[get] Get Syslogd configuration
**[set] Set Syslogd Configuration

 example-
Vigor3900@config-sys# syslogd get

```
Vigor3900@config-sys# syslogd get

status           : Both
ip               : 172.17.5.166
port             : 514
routername       : Vigor
firewall         : Enable
vpn              : Enable
useraccess       : Enable
wan              : Enable
others           : Enable
```

   Vigor3900@config-sys# syslogd set [status status] [ip remotehost] [port remoteport] [routername routername] [firewall firewall] [vpn vpn] [useraccess useraccess] [wan wanlog] [others others]

Command	Value	DESCRIPTION
status	status	syslogd status(Disable/Remote/Local/Both)
ip	remotehost	Remote Syslog Server IP
port	remoteport	Remote Syslog Server Port
routername	routername	Router Name
firewall	firewall	Enable Firewall syslog message (Enable/Disable)

vpn	vpn	Enable VPN syslog message (Enable/Disable)
useraccess	useraccess	Enable User Access syslog message(Enable/Disable)
wan	wanlog	Enable WAN Log syslog message(Enable/Disable)
others	others	Enable all other log message (Enable/Disable)

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

11.4 Mail Alert

In **Vigor3900@config-sys#** , use the [mailalert] command to configure Mail Alert and type the [get],[set],[mailto] command to configure the the details information.

Vigor3900@config-sys# mailalert [get][set][mailto]

**[get]   Get Mail Alert Configuration
**[mailto] Configure option -mailto in Mail Alert
**[set]   Set Mail Alert Configuration

**example-
Vigor3900@config-sys#** mailalert get

```
Vigor3900@config-sys# mailalert get

status               : Disable
mailfrom             : vigor3900@draytek.com
mailto               :
smtpport             : 25
smtpserver           :
user_login           : Disable
user_name            :
```


Vigor3900@config-sys# mailalert mailto [add] [remove]<member Email>
 **[member] option - mailto

Vigor3900@config-sys# mailalert set [status status] [mailfrom mailfrom] [smtpport smtpport] [smtpserver smtpserver] [user_login user_login] [user_name user_name] [user_password user_password]

Command	Value	DESCRIPTION
status	status	Mail Alert status (Enable/Disable)
mailfrom	mailfrom	Mail From
smtpport	smtpport	SMTP Port
smtpserver	smtpserver	SMTP Server
user_login	user_login	SMTP Server is need login or not (Enable/Disable)
user_name	user_name	SMTP Server is need login username
user_password	user_password	SMTP Server is need login password

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

11.5 Time and Date

In **Vigor3900@config-sys#** , use the [ntpclient] command to configure time and date and type the [get],[set],[manual] command to configure the the details information.

Vigor3900@config-sys# ntpclient [get][manual][set]

**[get]   Get ntp client configuration
**[set]   Set ntp client configuration
**[manual] manual set current time and date

example-
Vigor3900@config-sys# ntpclient get

```
Vigor3900@config-sys# ntpclient get

status              : Browser
server              : pool.ntp.org
port                : 123
interval            : 600
zone                : Taipei
daylight            : Enable
```

Vigor3900@config-sys# ntpclient manual <date>
**<date>   MMDDhhmmYYYY

Vigor3900@config-sys# ntpclient set [status status] [server server] [port port] [interval interval] [zone zone] [daylight daylight]

Command	Value	DESCRIPTION
status	status	ntpclient status (NTP/Browser)
server	server	NTP server IP/host
port	port	NTP server port
interval	interval	request interval
zone	zone	time zone (Eniwetok/Samoa/Hawaii/Alaska/PacificTime/Tijuana/MountainTime/Arizona/CentralTime/Saskatchewan/MexicoCity/EasternTime/Indiana/Bogota/AtlanticTime/Caracas/Santiago/Newfoundland/Brasilia/Georgetown/Mid-Atlantic/Azores/Greenwich/London/Casablanca/Belgrade/Budapest/Sarajevo/Warsaw/Brussels/Madrid/Amsterdam/Rome/Bucharest/Cairo/Helsinki/Athens/Jerusalem/Harare/Moscow/Volgograd/Baghdad/Nairobi/Tehran/AbuDhabi/Baku/Kabul/Ekaterinburg/Islamabad/Bombay/Madras/Astana/Colombo/Bangkok/Beijing/HongKong/Singapore/Taipei/Perth/Seoul/Tokyo/Yakutsk/Darwin/Adelaide/Melbourne/Brisbane/Hobart/Vladivostok/Guam/Magadan/NewCaledonia/Fiji/Auckland)
daylight	daylight	Daylight status (Enable/Disable)

11.6 Access control

In **Vigor3900@config-sys# ,** use the [acc_ctrl] command to configure Access control and type the [get],[set] command to configure the the details information.

Vigor3900@config-sys# acc_ctrl [get][set]

**[get] Show access control configuration
**[set] configure access control

**example-
Vigor3900@config-sys#** acc_ctrl get

```
Vigor3900@config-sys# acc_ctrl get

web_allow          : Enable
web_port           : 80
telnet_allow       : Enable
telnet_port        : 23
ssh_allow          : Enable
ssh_port           : 22
https_allow        : Enable
https_port         : 443
user_define_ip     : Disable
allow_ip1          : 0.0.0.0/0
allow_ip2          : 0.0.0.0/0
allow_ip3          : 0.0.0.0/0
wan_ping_allow     : Enable
lan_ping_allow     : Disable
```

Vigor3900@config-sys# acc_ctrl set [web_allow web_allow] [web_port web_port] [telnet_allow telnet_allow] [telnet_port telnet_port] [ssh_allow ssh_allow] [ssh_port ssh_port] [https_allow https_allow] [https_port https_port] [user_define_ip user_define_ip] [allow_ip1 allow_ip1] [allow_ip2 allow_ip2] [allow_ip3 allow_ip3] [wan_ping_allow wan_ping_allow] [lan_ping_allow lan_ping_allow]

Command	Command	DESCRIPTION
web_allow	web_allow	Enable or disable block web access (Enable/Disable)
web_port	web_port	Config user define web service allow port
telnet_allow	telnet_allow	Enable or disable block telnet access (Enable/Disable)
telnet_port	telnet_port	Config user define telnet service allow port
ssh_allow	ssh_allow	Enable or disable block ssh access (Enable/Disable)
ssh_port	ssh_port	Config user define ssh service allow port
https_allow	https_allow	Enable or disable block HTTPS access (Enable/Disable)
https_port	https_port	Config user define HTTPS service allow port
user_define_ip	user_define_ip	Enable or disable user define allow IP address(Enable/Disable)

allow_ip1	allow_ip1	configure first allow IP for ex, 192.168.1.11/24
allow_ip2	allow_ip2	configure second allow IP for ex, 192.168.1.11/24
allow_ip3	allow_ip3	configure third allow IP for ex, 192.168.1.11/24
wan_ping_allow	wan_ping_allow	Allow ping from the WAN (Enable/Disable)
an_ping_allow	an_ping_allow	Allow ping from the LAN (Enable/Disable)

Note: [web_allow web_allow] the former web_allow is command, and the latter is value. The value could reference the description below.

11.7 SNMP Setup

In **Vigor3900@config-sys# ,** use the [snmpagent] command to configure SNMP and type the [get],[set] command to configure the the details information.

Vigor3900@config-sys# snmpagent [get][set]

[get] Get SNMP Agent configuration
[set] Set SNMP Agent configuration

example-
Vigor3900@config-sys# snmpagent get

```
Vigor3900@config-sys# snmpagent get

status              : Disable
getcommunity        : public
setcommunity        : private
mgnip               : default
```

Vigor3900@config-sys# snmpagent set [status status] [getcommunity getcommunity] [setcommunity setcommunity] [mgnip mgnip]

Command	Command	DESCRIPTION
status	status	snmpagent status (Enable/Disable)
getcommunity	getcommunity	Get Community
setcommunity	setcommunity	Set Community
mgnip	mgnip	IP Range to management

Note: [status   status] the former status is command, and the latter is value. The value could reference the description below.

11.8 Reboot system

In **Vigor3900@config-sys# ,** use the [**reboot**] command to configure SNMP and type the [default] command to reboot to factory by default .

Vigor3900@config-sys# reboot [default]
[default] reboot to factory default [ ]

11.9 Fireware Upgrade

In **Vigor3900@config-sys# ,** use the [firmware] command to configure firmware upgrade.

Vigor3900@config-sys# firmware [upgrade]

```
Vigor3900@config-sys# firmware upgrade
Firmware Update: Downloading image file from server.
Firmware Update: Download OK
Firmware Update: Firmware image not exist.
```

11.10 Connect to Fast Forward Conntrack

In **Vigor3900@config-sys# ,** use the [**cmm**] command to configure Connect to Fast Forward Conntrack , then the screen will Entering character mode.

Vigor3900@config-sys# cmm
cmm>