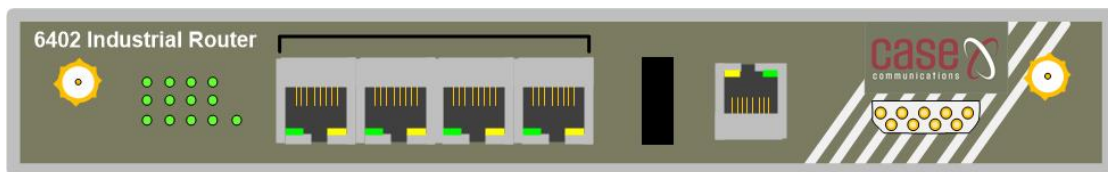


# Case Communications

**6402**



## Command Line Interface manual

## Telnet with CLI Command List

### HISTORY

<b>Version</b>	<b>Editor</b>	<b>Date</b>	<b>Changes</b>
V0.1	Roger	2015-05-05	Draft.
V0.2	Chris	2015-05-20	Change some Description
V0.3	Madan	2015-05-26	add/delete some command.
V0.4	Chris	2015-06-25	add 3G/4G status and reset command
V0.5	Bill	2015-09-08	add SMS command
V0.6	Steve	2016-04-15	update status and basic network add advanced network

## 6402 CLI MANUAL CONTENTS

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## Introduction

The CLI Command formation is in following, but there are a few exceptions.

Entity	Instance	Parameter	Values	Description
--------	----------	-----------	--------	-------------

And some commands need extra command “apply” to take effect

The List is;

```
lan_ip
wan_interne
routing
phy_type
wps
wifi_conf
nb_conf
vs
vc
nb_alg
ap
nb_dmz
nb_dr
dn
ddns
fix_map
```

And you also use instruction help mechanism, Just enter command will show the supported parameters.

ex:

```
# ppp
usage:ppp instance parameter values
support parameters:
  username
  password
  ipaddr
  mask
  gateway
  ppp_server_ip_name
  conn_id
  username
```

# 1 Status

## 1.1 Dashboard

### Device Dashboard

Entity	Instance	Parameter	Values	Description
status	0	db_sysinfo	?	device uptime, CPU, Memory, Connection Sessions
status	0	db_network_if	?	
status	0	db_poe_status	?	

## 1.2 Network Status

### WAN Interface IPv4 Network Status

Entity	Instance	Parameter	Values	Description
status	0	wiface_ipv4	?	

### WAN Interface IPv6 Network Status

Entity	Instance	Parameter	Values	Description
status	0	wiface_ipv6	?	

### LAN Interface Status

Entity	Instance	Parameter	Values	Description
status	0	liface	?	

### 3G/4G Modem Status

Entity	Instance	Parameter	Values	Description
status	0	3g	?	
status	n	3g_modem	?	n: 3g index 1~16
status	n	3g_sim	?	n: 3g index 1~16
status	n	3g_service	?	n: 3g index 1~16

### Internet Traffic Statistics

Entity	Instance	Parameter	Values	Description
status	0	internet_traffic	?	

### 1.3 Wi-Fi Status

#### Wi-Fi Virtual AP List

Entity	Instance	Parameter	Values	Description
status	0	wifi_vap	?	

#### Wi-Fi Traffic Statistics

Entity	Instance	Parameter	Values	Description
status	0	wifi_traffic	?	

#### Wi-Fi IDS Statistics

Entity	Instance	Parameter	Values	Description
status	0	wifi_ids	?	

### 1.4 LAN Client List

Entity	Instance	Parameter	Values	Description
status	0	lan_client	?	

### 1.5 Firewall Status

Entity	Instance	Parameter	Values	Description
status	0	packet_filter	?	
		url_blocking	?	
		web_content_filter	?	
		mac_ctl	?	
		app_filter	?	
		firewall_ips		
		firewall_options		

### 1.6 VPN Status

Entity	Instance	Parameter	Values	Description
status	0	ipsec	?	
		pptp_server		
		pptp_client		
		l2tp_server		
		l2tp_client		

### 1.7 System Mgmt. Status

Entity	Instance	Parameter	Values	Description
status	0	snmp_linking	?	
		snmp_trap		
		tr069		
		upnp		

## 1.8 Reset

Entity	Instance	Parameter	Values	Description
reset				

## 1.9 VoIP Status

Entity	Instance	Parameter	Values	Description
status	0	voip_status	?	

## 1.10 Vo3G Status

Entity	Instance	Parameter	Values	Description
status	0	vo3g_status	?	

## 1.11 DDNS Status

Entity	Instance	Parameter	Values	Description
status	0	ddns_list	?	

## 1.12 UPnP Port Status

Entity	Instance	Parameter	Values	Description
status	0	upnp_port_summary	?	

## 1.13 USB Storage Status

Entity	Instance	Parameter	Values	Description
status	0	usb_storage	?	

## 1.14 Statistic & Reports

### Internet Surfing List

Entity	Instance	Parameter	Values	Description
status	0	internet_surfing_list	?	

### Device Manager Login Statistics

Entity	Instance	Parameter	Values	Description
status	0	device_manager_login	?	

### Captive Portal User Login Statistics

Entity	Instance	Parameter	Values	Description
status	0	captiveportal_user_login	?	

## 2 Basic Network

### 2.1 WAN

#### Physical interface

Entity	Instance	Parameter	Values	Description
eth	n	phy_iface	0/1/2	0: ethernet 1: 3g/4g 1 2: 3g/4g 2 3: ethernet2
eth	n	op_mode	0/1/2	0: disable 1: always 2: failover
eth	n	failover	m	n: wan interface (failover wan) m: wan interface (main wan)
eth	n	dis_failover	m	disable failover n : wan interface (failover wan) m: wan interface (main wan)
eth	n	seamless	on/off	need failover on
eth	n	line_speed_up	value	Kbps
eth	n	line_speed_dl	value	Kbps
eth	n	vlan_tag	on/off	
eth	n	vid	vlan_id	1~4095
apply	phy_type	n		apply the physical interface alter

#### internet setup

Entity	Instance	Parameter	Values	Description
eth	n	wan_type	0/1/2/3/4	0: static ip 1: dynamic ip 2: pppoe 3: pptp 4: l2tp
eth	n	conn_ctl	0/1/2	0: on demand 1: auto



				2: manual in dynamic ip, pppoe, l2tp, pptp wan type can set Ethernet/3g
eth	n	max_idle_time		can set Ethernet/3g
eth	n	mtu	value	0: auto 0~1500
eth	n	do_nat	on/off	

#### wan\_type: static ip

Entity	Instance	Parameter	Values	Description
eth	n	ipaddr	valid ip address	
eth	n	mask	valid subnet mask	
eth	n	gateway	ip address	

#### wan\_type: static ip/pppoe common

Entity	Instance	Parameter	Values	Description
eth	n	dnsserver	ip address	
eth	n	secdns	ip address	

#### wan\_type: dynamic ip

Entity	Instance	Parameter	Values	Description
eth	n	hostname	name	
eth	n	isp_reg_mac	mac	

#### wan\_type: pppoe

Entity	Instance	Parameter	Values	Description
eth	n	ipv6_dual_stack	on/off	only for ethernet
eth	n	service_name	name	
eth	n	assigned_ip	ip	

#### wan\_type: pptp/l2tp

Entity	Instance	Parameter	Values	Description
ppp	n	ip_mode	0/1	0: dynamic ip address 1: static ip address
ppp	n	server_ip_name	str_ip_name	
ppp	n	conn_id	conn_id	only for pptp

#### pptp/l2tp static ip address

Entity	Instance	Parameter	Values	Description
ppp	n	ipaddr	ip	
ppp	n	mask	mask	
ppp	n	gateway	ip	

**wan\_type: pppoe/ pptp/ l2tp common**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
ppp	n	username	str_username	
ppp	n	password	str_pwd	

**network monitoring**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
eth	n	nm	on/off	
eth	n	nm_mode	0/1	0: dns query: 1: icmp checking
eth	n	loading_check	on/off	
eth	n	check_interval	value	second
eth	n	check_timeout	value	second
eth	n	latency_threshold		ms
eth	n	fail_threshold		times
eth	n	target1	1/2/3/4	1: dns1 2: dns2 3: gateway 4: other host
eth	n	target2	0/1/2/3/4	0: none 1: dns1 2: dns2 3: gateway 4: other host
eth	n	other_host1	ip	
eth	n	other_host2	ip	
eth	n	igmp	0/1	0: disable 1: auto
eth	n	igmp_proxy	on/off	
eth	n	wan_ip_alias	on/off	
eth	n	wan_ip_alias_ip	ip	

**wan type : 3g/4g**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
sim	n	preferred_sim	1/2/3/4	1: sim a first 2: sim b first 3: sim a only 4: sim b only
sim	n	fallback	on/off	
sim	n	fallback_counter		5~1440 minutes

**connection**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
sim	n	ntype_a	0/1/2/3/4/5	0: Auto 1: 2G Only 2: 3G Only 3: 2G Prefer 4: 3G Prefer 5: LTE Only
sim	n	band_slc_a	0/1	0: Auto 1: Manual
sim	n	profile_a	0/1	0: auto-detection 1: Manual-configuration 2: APN profile list
sim	n	pin_code_a	pin_code	
sim	n	auth_a	0/1/2	0: auto 1: pap 2: chap
sim	n	ip_mode_a	0/1	0: Dynamic IP 1: Static IP
sim	n	ip_a	ip	
sim	n	mask_a	ip	
sim	n	gateway_a	ip	
sim	n	dns1_a	ip	
sim	n	dns2_a	ip	
sim	n	roaming_a	on/off	
sim	n	country_a	0-N	0-N maps to support country
sim	n	provider_a	0-N	0-N map to support Service Provider

**table 1 sim A**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
sim	n	ntype_b	0/1/2/3/4/5	0: Auto 1: 2G Only 2: 3G Only 3: 2G Prefer 4: 3G Prefer 5: LTE Only

sim	n	band_slc_b	0/1	0: Auto 1: Manual
sim	n	profile_b	0/1/2	0: auto-detection 1: Manual-configuration 2: APN profile list
sim	n	pin_code_b	pin_code	
sim	n	auth_b	0/1/2	0: auto 1: pap 2: chap
sim	n	ip_mode_b	0/1	0: Dynamic IP 1: Static IP
sim	n	ip_b	ip	
sim	n	mask_b	ip	
sim	n	gateway_b	ip	
sim	n	dns1_b	ip	
sim	n	dns2_b	ip	
sim	n	roaming_b	on/off	
sim	n	country_b	0--N	0--N maps to support-country
sim	n	provider_b	0--N	0--N map to support-Service Provider

**table 2 sim B**

**Manual-configuration**

Entity	Instance	Parameter	Values	Description
sim	n	apn_a	str_apn	
sim	n	dial_num_a	dial_num	
sim	n	account_a	account	3g/4g
sim	n	password_a	passwd	3g/4g

**table 3 sim A**

Entity	Instance	Parameter	Values	Description
sim	n	apn_b	str_apn	
sim	n	dial_num_b	dial_num	
sim	n	account_b	account	3g/4g
sim	n	password_b	passwd	3g/4g

**table 4 sim B - common**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
sim	n	connection_control	0/1/2	0: auto-reconnect 1: connect on demand 2: connect manual
sim	n	max_idle_time	value	second
sim	n	schedule	value	

**APN Profile List**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
sim	n	pl_list_a	?	
sim	n	pl_name_a	rule_index/Profile Name	add new rule should start on Profile Name
sim	n	pl_mcc_a	rule_index/MCC	
sim	n	pl_mnc_a	rule_index/MNC	
sim	n	pl_apn_a	rule_index/APN	
sim	n	pl_dialnum_a	rule_index/Dial Number	
sim	n	pl_account_a	rule_index/Account	
sim	n	pl_password_a	rule_index/Password	
sim	n	pl_priority_a	rule_index/Priority	1~16
sim	n	pl_enable_a	rule_index/on/off	
sim	n	pl_del_a	rule_index	

**table 5 sim A**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
sim	n	pl_list_b	?	
sim	n	pl_name_b	rule_index/Profile Name	add new rule should start on Profile Name
sim	n	pl_mcc_b	rule_index/MCC	
sim	n	pl_mnc_b	rule_index/MNC	
sim	n	pl_apn_b	rule_index/APN	
sim	n	pl_dialnum_b	rule_index/Dial Number	
sim	n	pl_account_b	rule_index/Account	
sim	n	pl_password_b	rule_index/Password	
sim	n	pl_priority_b	rule_index/Priority	1~16
sim	n	pl_enable_b	rule_index/on/off	
sim	n	pl_del_b	rule_index	

**table 6 sim B**

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
apply	wan_internet	n		apply wan internet setup alter
<b>load balancing</b>				
<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
lb	0	lb_op	0/1/2/3	0: disable 1: by smart weight 2: by specific weight 3: by user policy
<b>lb</b>	<b>n</b>	<b>priority</b>	<b>value</b>	
lb	n	sip	0/1/2/3	0: any 1: subnet 2: ip range 3: single ip
lb	n	dip	0/1/2/3/4	0: any 1: subnet 2: ip range 3: single ip 4: domain name
lb	n	src_subnet	subnet	
lb	n	src_ip_begin	ip	for ip range
lb	n	src_ip_end	ip	for ip range
lb	n	src_ip	ip	
lb	n	dst_subnet	ip	
lb	n	dst_ip_begin	ip	for ip range
lb	n	dst_ip_end	ip	for ip range
lb	n	dst_ip	ip	
lb	n	dst_dn	domain_name	
lb	n	dport	0/1/2/3	0: all 1: port range 2: single port
lb	n	dst_port_begin	port	for port range
lb	n	dst_port_end	port	for port range
lb	n	dst_port	port	
lb	n	protocol	1/2/3	1: tcp 2: udp 3: both

lb	n	wan_if	1/2	1: wan-1 2: wan-2
lb	n	policy	on/off	
lb	0	pl_del	n	
lb	0	policy_list	?	
apply	lb			

## 2.2 LAN & VLAN

### Ethernet LAN

Entity	Instance	Parameter	Values	Description
eth	n	ipaddr	valid ip address	lan n=21
eth	n	mask	valid subnet mask	lan n=21
apply	lan_ip			apply LAN IP alter

### VLAN

Entity	Instance	Parameter	Values	Description
eth	n	vlan_type	0/1	0: port-based 1: tag-based

### port-based - Port-based VLAN List

#### Port-based VLAN Configuration

Entity	Instance	Parameter	Values	Description
vlanp	n	dhep_server	n	n: from dhep add
vlanp	n	name	rule_name	add new rule should start on name
vlanp	n	en	on/off	enable the rule, the command should be after port/vap command. It will check the port/vap members is valid or not.
		vid		
vlanp	n	tag	on/off	
vlanp	n	type	0/1	0: nat 1: bridge
		port		port member
		vap		vap member
vlanp	n	wan	n	
vlanp	n	wan_vid		for bridge mode
vlanp	n	lan_ip	ip	

	n	mask	valid subnet mask
vlanp	0	vl_list	?
	0	vl_del	n

#### DHCP Server Configuration

Entity	Instance	Parameter	Values	Description
vlanp	n	dhcp_server_op	0/1/2	0: relay 1: server 2: disable
vlanp	n	dhcp_relay_server	ip	dhcp relay server ip
	n	dhcp_server_name	name	
	n	dhcp_server_ip_start	ip	
	n	dhcp_server_ip_end	ip	
	n	dhcp_server_lease	num	300~604800
	n	dhcp_server_dname	domain_name	
	n	dhcp_server_dns1	ip	
	n	dhcp_server_dns2	ip	
	n	dhcp_server_wins1	ip	
	n	dhcp_server_wins2	ip	
	n	dhcp_server_gateway	ip	

#### Mapping Rule List

Entity	Instance	Parameter	Values	Description
vlanp	n	fm_mac	rule_index/mac	
vlanp	n	fm_ip	rule_index/ip	
		fm_en	rule_index/(on/off)	
vlanp	n	fm_list	?	
vlanp	n	fm_del	rule_index	

#### VLAN Group Routing

##### VLAN Group Internet Access Definition

Entity	Instance	Parameter	Values	Description
vlanp	0	ia_allow	n	
vlanp	0	ia_list	?	

##### Inter VLAN Group Routing

Entity	Instance	Parameter	Values	Description
vlanp	n	gr_member	n	
vlanp	0	gr_list	?	



## VLAN-based

### Tag-based VLAN List

Entity	Instance	Parameter	Values	Description
vlant	n	vid		6~4094
		ia	on/off	
		port	n	
		vap	n	
		dhcp_server	n	
		vl_list	?	
	0	del	n	
apply	vlant_add			
apply	vlant_del			
apply	vlan			

## 2.3 Wi-Fi

### Configuration

#### Basic Configuration

Entity	Instance	Parameter	Values	Description
wifi	0	wps	on/off	
wifi	0	conf_status	0/1	0: set 1: release
wifi	0	conf_mode	0/1	0: registrar 1: enrollee
wifi	0	generate_pin_code	on	
wifi	0	allow_sta_pin_code		
wifi	0	wps_trigger	on	
wifi	0	wps_status	?	
apply	wps			

#### 2.4G Wi-Fi Configuration

Entity	Instance	Parameter	Values	Description
wifi	0	enable	on/off	
wifi	0	op_mode	0/1/2	0: ap router 1: wds only 2: wds hybrid
wifi	0	lazy_mode	on/off	
wifi	0	green_ap	on/off	
wifi	n	ap_enable	on/off	n: 1 ~ 8 1: VAP 1

				2: VAP 2
				...
				8: VAP 8
wifi	n	ap_max_enable	on/off	
wifi	n	ap_max	num	1 ~ 16
wifi	0	schedule	index	
wifi	n	ssid		
wifi	n	ssid_broadcast	on/off	
wifi	n	wlan_partition	on/off	
wifi	0	channel	0 ~ 11	0: auto 1: channel 1 ... 11: channel 11
wifi	0	wifi_system	0 ~ 5	0: 802.11b 1: 802.11g 2: 802.11n 3: 802.11 b/g 4: 802.11 g/n 5: 802.11 b/g/n
wifi	n	auth	0~8	0: open 1: shared 2: auto 3: wpa-psk 4: wpa 5: wpa2-psk 6: wpa2 7: wpa-psk/ wpa2-psk 8: wpa/wpa2
wifi	n	en_8021x	on/off	only Authentication is: open auto
wifi	n	encrypt	0 ~ 4	0: none 1: WEP 2: TKIP 3: AES 4: TKIP/AES
wifi	n	wepkey_type	0/1	0: HEX 1: ASCII

wifi	n	default_wepkey	key_id
wifi	n	wepkey	HEX: 10 or 26 ASCII: 5 or 13
wifi	n	wepkey2	HEX: 10 or 26 ASCII: 5 or 13
wifi	n	wepkey3	HEX: 10 or 26 ASCII: 5 or 13
wifi	n	wepkey4	HEX: 10 or 26 ASCII: 5 or 13
wifi	n	pskey	length: 8 ~ 63
wifi	n	radisu_server_ip	
wifi	n	radisu_server_port	1 ~ 65535
wifi	n	radisu_server_key	
wifi	n	remote_ap_mac	mac n: 1 ~ 4
apply	wifi_conf		
wifi	0	scan	?

### Wireless Client List

Entity	Instance	Parameter	Values	Description
wifi	0	wc_list	0 ~ 8	list wireless clients 0: all 1: vap1 ... 8: vap8

### Advanced Configuration

Entity	Instance	Parameter	Values	Description
wifi	0	op_band	0	0: 2.4g
wifi	0	beacon_interval		1 ~ 1000 msec
wifi	0	dtim_interval		1~255
wifi	0	rts_threshold		1 ~ 2347
wifi	0	frag		256 ~ 2346
wifi	0	wmm	on/off	
wifi	0	short_gi	0/1	0: 800 ns 1: 400 ns
wifi	0	tx_rate	0	0: best
wifi	0	rf_bandwidth	0/1/2	0: ht20 1: ht40 2: auto

wifi	0	transmit_power	0/1/2/3	0: 100% 1: 50% 2: 25% 3: 12%
apply	wifi_conf			

## 2.4 IPV6

Current ipv6 has no alter command, after enter ipv6 command, need reboot.

### Configuration

Entity	Instance	Parameter	Values	Description
ipv6	0	enable	on/off	
ipv6	0	wan_conn_type	0/1/2/3/4/5	0: static ipv6 1: dhcpv6 2: pppoev6 3: 6to4 4: 6in4

### static ipv6

Entity	Instance	Parameter	Values	Description
ipv6	0	ipaddr		
ipv6	0	prefix_len		
ipv6	0	gateway		
ipv6	0	dnsserver		
ipv6	0	secdns		
ipv6	0	mld_snooping	on/off	
ipv6	0	ds_lite	on/off	
ipv6	0	ds_lite_opt	0/1	0: dynamic 1: static
ipv6	0	ds_lite_sip	ip_addr	ds_lite_opt: static
ipv6	0	g_addr		
ipv6	0	auto_conf_en	on/off	
ipv6	0	auto_conf_type	0/1	0: stateless 1: stateful
ipv6	0	ar_start	str	
ipv6	0	ar_end	str	
ipv6	0	ad_lifetime		seconds (stateless)
ipv6	0	addr_lifetime		seconds (stateful)

### dhcpv6

Entity	Instance	Parameter	Values	Description
ipv6	0	dnsfrom	0/1	0: from server 1: specific dns
ipv6	0	dhcp_dns1		
ipv6	0	dhcp_dns2		

### pppoev6

Entity	Instance	Parameter	Values	Description
ipv6	0	username		
ipv6	0	password		
ipv6	0	service_name		
ipv6	0	mtu		

### 6to4

Entity	Instance	Parameter	Values	Description
ipv6	0	6to4dns1		
ipv6	0	6to4dns2		
ipv6	0	6to4_g_addr		

### 6in4

Entity	Instance	Parameter	Values	Description
ipv6	0	r_ipv4_addr		
ipv6	0	l_ipv6_addr		
ipv6	0	6in4_dns1		
ipv6	0	6in4_dns2		
apply	ipv6			

## 2.5 NAT/Bridging

### Configuration

Entity	Instance	Parameter	Values	Description
nb	0	loop_back	on/off	
apply	nb_conf			

### Virtual server & Virtual Computer

#### Configuration

Entity	Instance	Parameter	Values	Description
nb	0	conf_vs_enable	on/off	
nb	0	conf_vc_enable	on/off	

### Virtual Server List

Entity	Instance	Parameter	Values	Description
nb	0	vs_list	?	
nb	n	vs_wan_if		0:ALL 1:WAN-1 2:WAN-2 4:WAN-3 8:WAN-4 bit-mapped Ex: 3:WAN-1, WAN-2 14: WAN-2, WAN-3, WAN-4
nb	n	vs_public_port		port range: x-x
nb	n	vs_server_ip		
nb	n	vs_private_port		port range: x-x
nb	n	vs_protocol	0/1/2/3	0: TCP(6) & UDP(17) 1: TCP 2: UDP 3: Other
nb	n	vs_protocol_other		only for vs_protocol selected on 3: Other 1: ICMPv4(1) 47: GRE(47) 50: ESP(50) 132: SCTP(132) x:User-defined
nb	n	vs_schedule	index	
nb	n	vs_enable	on/off	
nb	0	vs_del	n	
apply	vs			

### Virtual Computer

Entity	Instance	Parameter	Values	Description
nb	0	vc_list	?	
nb	n	vc_global_ip		
nb	n	vc_local_ip		
nb	n	vc_enable	on/off	
nb	0	vc_del	n	
apply	vc			

## Special AP & ALG

### Configuration

Entity	Instance	Parameter	Values	Description
nb	0	sp_ap_enable	on/off	
nb	0	alg_enable	on/off	
apply	nb_alg			

### Special AP Rule Configuration

Entity	Instance	Parameter	Values	Description
nb	0	ap_list	?	
nb	n	ap_wan_if	0:ALL 1:WAN-1 2:WAN-2 4:WAN-3 8:WAN-4 bit-mapped Ex: 3:WAN-1, WAN-2 14: WAN-2, WAN-3, WAN-4	
nb	n	ap_trigger_port		
nb	n	ap_income_port		
nb	n	ap_schedule	index	
nb	n	ap_enable	on/off	
nb	0	ap_del	n	
apply	ap			

### DMZ

Entity	Instance	Parameter	Values	Description
nb	0	dmz_enable	on/off	
nb	0	dmz_if	0:ALL 1:WAN-1 2:WAN-2 4:WAN-3 8:WAN-4 bit-mapped Ex: 3:WAN-1, WAN-2 14: WAN-2, WAN-3, WAN-4	
nb	0	dmz_ptenable_ipsec	on/off	dmz pass through ipsec
nb	0	dmz_ptenable_pptp	on/off	dmz pass through pptp
nb	0	dmz_ptenable_l2tp	on/off	dmz pass through l2tp

nb	0	dmz_ip		
apply	nb_dmz			
dhep-relay				
<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
nb	0	dr_enable	on/off	
nb	0	dr_server_ip		
apply	nb_dr			

## 2.6 Routing

### Static Routing

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
routing	0	static_route	on/off	
routing	n	dip		
routing	n	mask		
routing	n	gw		
routing	n	iface	0 ~ 7	0: auto 1: wan-1 2: wan-2 3: wan-3 4: lan 5: vlan-1 6: vlan-2 7: vlan-3
routing	n	metric		
routing	n	rule_en	on/off	
routing	0	sr_del	n	
routing	0	sr_list	?	list static routing rules
apply	routing			apply rule list

### Dynamic Routing

#### Configuration

<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
routing	0	dynamic_route	on/off	
<b>rip</b>				
<b>Entity</b>	<b>Instance</b>	<b>Parameter</b>	<b>Values</b>	<b>Description</b>
routing	0	rip_op	0/1/2	0: disable 1: rip v1 2: rip v2



### ospf

Entity	Instance	Parameter	Values	Description
routing	0	ospf_en	on/off	
routing	0	ospf_route_id	ip	
routing	0	ospf_auth	0/1/2	0: None 1: Text 2: MD5
routing	0	ospf_id		1 ~255
routing	0	ospf_key		
routing	0	ospf_backbone_subnet		
routing	n	ospf_area_subnet		
routing	n	ospf_area_id		
routing	n	ospf_area_en	on/off	
routing	0	ospf_del	n	
routing	0	ospf_list	?	list ospf rules

### bgp

Entity	Instance	Parameter	Values	Description
routing	0	bgp_en	on/off	
routing	0	bgp_self_id		ASN
routing	0	bgp_route_id	ip	
routing	n	bgp_nw_subnet	ip/subnet	ip/subnet
routing	n	bgp_nw_en	on/off	
routing	0	bgp_nw_del	n	
routing	0	bgp_nw_list	?	list bgp network rules
routing	n	bgp_nb_ip		
routing	n	bgp_nb_id		ASN
routing	n	bgp_nb_en	on/off	
routing	0	bgp_del	n	
routing	0	bgp_list	?	list bgp rules
apply	routing			apply routing alter

### Routing Information

Entity	Instance	Parameter	Values	Description
routing	0	routing_table	?	
routing	0	routing_info	?	
apply	routing			apply routing alter

## 2.7 Client Server Proxy

### Dynamic DNS

#### Pre-defined Domain Name List

Entity	Instance	Parameter	Values	Description
dydns	0	dn_list	?	
dydns	n	dn		
dydns	n	dn_ip		
dydns	n	dn_en	on/off	
dydns	0	del	n	
apply	dn			

#### Dynamic DNS

Entity	Instance	Parameter	Values	Description
dydns	0	enable	on/off	
dydns	0	wan_if	1/2/3/4	1:WAN-1 2:WAN-2 3:WAN-3 4:WAN-4
dydns	0	provider	0/1/2/3/4	0: DynDNS.org (Dynamic) 1: DynDNS.org (Custom) 2: No-IP.com 3: TZO.com 4: dhs.org
dydns	0	hostname		
dydns	0	username		
dydns	0	password		
apply	ddns			

#### DHCP Server

Entity	Instance	Parameter	Values	Description
dhcp	0	list	?	
dhcp	n	server_name		add new rule should start on server name
dhcp	n	lan_ip		
dhcp	n	mask		
dhcp	n	ip_start		
dhcp	n	ip_end		
dhcp	n	lease_time	300 ~ 604800 seconds	
dhcp	n	domain_name		

dhcp	n	dns1		
dhcp	n	dns2		
dhcp	n	wins1		
dhcp	n	wins2		
dhcp	n	gw		
dhcp	n	enable	on/off	
dhcp	0	del	2/3/4	
apply	dhcp_server			
dhcp	n	fix_map_list	?	
dhcp	n	fix_map_mac	rule_index/m ac	add new rule should start on mapping mac address
dhcp	n	fix_map_ip	rule_index/ip	
dhcp	n	fix_map_en	rule_index/(o n/off)	
dhcp	n	fix_map_del	rule_index	
apply	fix_map			

### 3 Advanced Network

#### 3.1 Firewall

##### Configuration

Entity	Instance	Parameter	Values	Description
firewall	0	conf_fw_enable	on/off	
apply	firewall			

##### Packet Filters - Configuration

Entity	Instance	Parameter	Values	Description
firewall	0	pf_enable	on/off	
firewall	0	pf_bw_list	0/1	0: Deny those match the following rules. 1: Allow those match the following rules.
firewall	0	pf_log	on/off	

##### Packet Filter List

Entity	Instance	Parameter	Values	Description
firewall	0	pf_list	?	
firewall	n	pf_name		add new rule should start on rule name
firewall	n	pf_from_if	(0/1/2)/(1/2/3/4)	(0:Any

				1:LAN 2:WAN)/(index) 0/0:Any 1/1:LAN 2/1:WAN-1 2/2:WAN-2 x/? : query
firewall	n	pf_to_if	(0/1/2)/(1/2/3/4)	(0:Any 1:LAN 2:WAN)/(index) 0/0:Any 1/1:LAN 2/1:WAN-1 2/2:WAN-2 x/? : query
firewall	n	pf_sip	0/1/2/3	0: Any 1: Specific IP Address 2: IP Range 3: IP Address-based Group
firewall	n	pf_src_ip		Any : 0.0.0.0
firewall	n	pf_sip_range		ip range: ip-ip
firewall	n	pf_sip_group		
firewall	n	pf_dip	0/1/2/3	0: Any 1: Specific IP Address 2: IP Range 3: IP Address-based Group
firewall	n	pf_dst_ip		Any : 0.0.0.0
firewall	n	pf_dip_range		ip range: ip-ip
firewall	n	pf_dip_group		
firewall	n	pf_smac	0/1/2	0: Any 1: Specific MAC Address 2: MAC Address-based Group
firewall	n	pf_src_mac		Any : 00:00:00:00:00:00
firewall	n	pf_smac_group		
firewall	n	pf_protocol	0/1/2/4/5/7/8/99	0: Any 4: ICMPv4 1: TCP

				2: UDP
				5: GRE
				7: ESP
				8: SCTP
				99: Userdefined
firewall	n	pf_proto_num		
firewall	n	pf_dst_port		port range: x-x
firewall	n	pf_schedule	index	
firewall	n	pf_rule_en	on/off	
firewall	0	pf_del	n	
apply	firewall_pf			

### 3.2 Options

#### Firewall Options

Entity	Instance	Parameter	Values	Description
firewall	0	opt_stealth_mode	on/off	
firewall	0	opt_spi	on/off	
firewall	0	opt_pingfromwan	on/off	
firewall	0	opt_remote_adm	0/1/2	0:off 1: on with HTTP 2: on with HTTPS
firewall	0	opt_remote_type	0/1	1: Any 2: Specific IP
firewall	0	opt_remote_ip		
firewall	0	opt_remote_mask	8~32	8:255.0.0.0 9:255.128.0.0 10:255.192.0.0 11:255.224.0.0 12:255.240.0.0 13:255.248.0.0 14:255.252.0.0 15:255.254.0.0 16:255.255.0.0 17:255.255.128.0 18:255.255.192.0 19:255.255.224.0 20:255.255.240.0 21:255.255.248.0

			22:255.255.252.0
			23:255.255.254.0
			24:255.255.255.0
			25:255.255.255.128
			26:255.255.255.192
			27:255.255.255.224
			28:255.255.255.240
			29:255.255.255.248
			30:255.255.255.252
			31:255.255.255.254
			32:255.255.255.255
firewall	0	opt_remote_port	80: HTTP 443: HTTPS
apply	firewall_opt		

## 4 Application

### 4.1 Mobile Application

#### Set SMS Receiver Phone Number

Entity	Instance	Parameter	Values	Description
sms	n	setphone	m	n: 3g index 1~16 m:receiver phone number

#### Set SMS Context

Entity	Instance	Parameter	Values	Description
sms	n	setcontext	m	n: 3g index 1~16 m: sms context

#### Send SMS

Entity	Instance	Parameter	Values	Description
sms	n	send		n: 3g index 1~16

#### Read SMS

Entity	Instance	Parameter	Values	Description
sms	n	read		n: 3g index 1~16

#### Delete SMS

Entity	Instance	Parameter	Values	Description
sms	n	delete	m	n: 3g index 1~16 m: sms index