



Firmware Release Note

ZyAIR B-2000

Release 3.50(HB.0)c1

Date:	October 21, 2002
Author:	Postel Chen

ZyXEL ZyAIR B-2000 Standard Version release 3.50(HB.0)c1 Release Note

Date: October 21, 2002

Supported Platforms:

ZyXEL ZyAIR B-2000

Versions:

ZyNOS F/W Version : V3.50(HB.0) | 10/21/2002 15:53:08

BootBase : V2.10 | 03/22/2002 14:38:58

Notes:

1. When Authentication Server (SMT Menu 23.2) is active, the ZyAIR will authenticate wireless users through external authentication server. Otherwise the ZyAIR authenticate wireless users through user profile (SMT Menu 14).
2. If Authentication Control (SMT Menu 24.4) value is "Auto", ZyAIR will enable user authentication method, a wireless user must use 802.1x client software to login the ZyAIR before accessing network service. If Authentication Control value is "Force Authorized", ZyAIR will allow all wireless users to access network service. If Authentication Control value is "Force Unauthorized", ZyAIR will not allow wireless user to access network service.

Known Issues:

1. When WAN is disable, DHCP still sends DHCP broadcast packets. This issue needs more time to debug and test. It is not fixed at this released version.
2. WEB configuration for SUA/NAT default server IP (DMZ) will not function well. Please configure DMZ through SMT15.2.

CI Command List

Features:

Modifications in V3.50(HB.0)b6 | 10/04/2002

1. [FEATURE CHANGED] In order to support some WLAN card, that doesn't support shared key authentication, B-2000 supports both open system and shared key authentication no matter WEP is enabled or not.
2. [BUG FIXED]

Symptom: Windows XP shows UPnP data rate only 1M.

Condition: This symptom is observed when B-2000 UPnP is enable, the data rate is only 1M.

3. [BUG FIXED]

Symptom: Windows XP deassociates from AP and associates to AP again. 802.1x authentication will not function well.

Condition: This symptom is observed when authenticated XP user remove wireless card and plug it into station again, 802.1x authentication will not function properly.

Modifications in V3.50(HB.0)b5 | 09/30/2002

1. [FEATURE CHANGED] Enable MANY_ONE_TO_ONE.
2. [FEATURE CHANGED] Change SMT 24-11 Access policy from ALL to LAN only for all server configuration.
3. [FEATURE CHANGED] The behavior of WLAN activity LED is changed.
4. [FEATURE CHANGED] Change the term "Firmware upgrade" to "Firmware upload" in Web GUI.
5. [FEATURE CHANGED] Change string "Write to EEPROM Success" to "Verify EEPROM OK" when EEPROM is verified OK.
6. [FEATURE EHHANCED] Add log message for 802.1x.
7. [FEATURE EHHANCED] Add EAP-TLS and EAP-TTLS passthrough.
8. [FEATURE EHHANCED] Update sptgen.c to support ftp download and upload RomFile for 802.1x and IAPP RomFile configuration.
9. [FEATURE ENHANCED] Implement CI command "wlan diagnose" to support WLAN card self-diagnostics.
10. [BUG FIXED]
Symptom: Memory alloc error.
Condition: Too many MAC addresses recorded in the bridge table will cause memory alloc error.
11. [BUG FIXED]
Symptom: The RomFile version will be increased by one after reboot.
Condition: This symptom is observed when user reboot the device.
12. [BUG FIXED]
Symptom: sys mrd atsh shows wrong RomFile version.
Condition: This symptom is observed when user types sys mrd atsh at CI command mode.
13. [BUG FIXED]
Symptom: HTP loopback test fail during manufacture with empty EERPOM.
Condition: This symptom is observed when EEPROM is empty and run HTP loopback test.
14. [BUG FIXED]
Symptom: ether driver status enet0 and ether driver status enet1 commands show wrong MAC address.
Condition: This symptom is observed when user types the above two CI commands.
15. [FEATURE EHHANCED] Revise 802.1x timer function interface in order to support multi-platform.

Modifications in V3.50(HB.0)b4 | 09/05/2002

1. [BUG FIXED]
Symptom: Windows XP UPnP will display "P314 Plus" as model name.
Condition: This symptom is observed when user use Windows XP and the ZyAIR B-2000 UPnP is turn on.
2. [BUG FIXED]
Symptom: Change settings in Advance|WAN|IP and save it, the web message shows wrong warning

message.

Condition: This symptom is observed when user changes WAN IP through WEB.

3. [BUG FIXED]

Symptom: After LAN IP changed, reserved SUA server for Roadrunner does not take effect until reboot system.

Condition: This symptom is observed when user configure LAN IP through SMT3.2 or WEB, reserved SUA server does not changed.

4. [BUG FIXED]

Symptom: UPnP NAT traversal does not work.

Condition: This symptom is observed when user runs Windows XP MSN Messenger.

5. [FEATURE ENHANCED] Add embedded web help menu for 802.1x, RADIUS and Roaming.

6. [FEATURE CHANGED] Support WLAN external loopback test in HTP. In order to support this loopback test, a Wireless AP with ESS ID = "loopback" as a fixture is required.

7. [BUG FIXED]

Symptom: Turn on WEP on AP and station, supplicant can not be authenticated and authorized.

Condition: This symptom is observed when we turn on WEP on both AP and station, supplicant can not be authenticated and authorized.

8. [BUG FIXED]

Symptom: Default DNS will not function probably.

Condition: This symptom is observed when the default DNS server has been changed but the ZyAIR default DNS server does not change to new DNS server. Add CI command for user to configure DNS IP.

Modification in 3.50(HB.0)b3 | 8/12/2002

1. [NEW FEATURE] Support 802.11f.

2. [FEATURE CHANGED] Change SMT Menu 23.2 field label string "Key" to "Shared Secret"

3. [FEATURE CHANGED] The default value of RADIUS authentication server and accounting server ports are changed to 1812 and 1813 respectively

4. [BUG FIXED]

Symptom: Revise 802.1x SPT related data structure in order to follow SPT specification

5. [BUG FIXED]

Symptom: 802.1x drop unauthenticated user packets, the system will reboot (data abort)

Condition: If an unauthenticated user access ZyAIR, 802.1x will drop all packets come from the user except 802.1x packets. Then 802.1x will access string from the table in which the string is not defined

Modification in 3.50(HB.0)b2 | 7/25/2002

1. [FEATURE CHANGED] Change SMT Menu 23.4 Authentication Control default value to Force Authorized (The original default value is Auto)

2. [FEATURE ENHANCED] Delete supplicant's data if supplicant logoff

3. [FEATURE ENHANCED] Send Radius Accounting Stop message to Radius accounting server when SMT 23.4 Authentication Control value has been changed from Auto to other value

Modification in 3.50(HB.0)b1 | 7/23/2002

1. First release for C3 baseline firmware

CI Command List

Command Class List Table		
System Related Command	Exit Command	Ethernet Related Command
Wireless LAN Related Command	IP Related Command	Bridge Related Command
802.1x Related Command		

System Related Command

[Home](#)

Command				Description
sys				
	Adjtime			retrive date and time from Internet
	Callhist			
		display		display call history
		remove	<index>	remove entry from call history
	countrycode		[countrycode]	set country code
	date		[year month date]	set/display date
	domainname			display domain name
	Edit		<filename>	edit a text file
	extraphnum			maintain extra phone numbers for outcalls
		add	<set 1-3> <1st phone num> [2nd phone num]	add extra phone numbers
		display		display extra phone numbers
		node	<num>	set all extend phone number to remote node <num>
		remove	<set 1-3>	remove extra phone numbers
		reset		reset flag and mask
	Feature			display feature bit
	hostname		[hostname]	display system hostname
	Log			
		clear		clear log error
		disp		display log error
		online	[on/off]	turn on/off error log online display
	Rn			
		load	<entry no.>	load remote node information
		disp	<entry no.>(0:working buffer)	display remote node information
		nat	<none/sua/full _feature>	config remote node nat
		nailup	<no/yes>	config remote node nailup
		save	[entry no.]	save remote node information
	Stdio		[second]	change terminal timeout value
	systemname		[system name]	Change system name
	time		[hour [min [sec]]]	display/set system time
	Trcdisp	parse, brief, disp		monitor packets
	Trclog			
	trcpacket			
	Syslog			
		server	[destIP]	set syslog server IP address
		facility	<FacilityNo>	set syslog facility
		type	[type]	set/display syslog type flag
		mode	[on/off]	set syslog mode
	Version			display RAS code and driver version
	View		<filename>	view a text file
	Wdog			
		switch	[on/off]	set on/off wdog
		cnt	[value]	display watchdog counts value: 0-34463
	romreset			restore default romfile

	Socket			display system socket information
	Filter			
		netbios		
	roadrunner			
		debug	<level>	enable/disable roadrunner service 0: disable <default> 1: enable
		display	<iface name>	display roadrunner information iface-name: enif0, wanif0
		restart	<iface name>	restart roadrunner
	Ddns			
		debug	<level>	enable/disable ddns service
		display	<iface name>	display ddns information
		restart	<iface name>	restart ddns
		logout	<iface name>	logout ddns
	Cpu			
		display		display CPU utilization

Exit Command

[Home](#)

Command				Description
exit				exit smt menu

Ethernet Related Command

[Home](#)

Command				Description
ether				
	Config			display LAN configuration information
	Driver			
		cnt		
			disp <name>	display ether driver counters
		ioctl	<ch_name>	Useless in this stage.
		status	<ch_name>	see LAN status
	version			see ethernet device type
	edit			
		load	<ether no.>	load ether data from spt
		save		save ether data to spt

Wireless LAN Related Command

[Home](#)

Command				Description
wlan				
	association			display association list
	chid		[channel id]	set channel
	essid		[ess id]	set ESS ID
	version			display WLAN version information
	diagnose			check wireless card

IP Related Command

[Home](#)

Command				Description
ip				
	address		[addr]	display host ip address
	alias		<iface>	alias iface
	aliasdis		<0 1>	disable alias
	arp			
		status	<iface>	display ip arp status
	dhcp		<iface>	

		client		
			release	release DHCP client IP
			renew	renew DHCP client IP
		status	[option]	show dhcp status
	dns			
		query		
		server	<primary> [secondary] [third]	set dns server
		stats		
		default		set default DNS server
	httpd			
	icmp			
		status		display icmp statistic counter
		discovery	<iface> [on/off]	set icmp router discovery flag
	ifconfig		[iface] [ipaddr] [broadcast <addr> mtu <value> dynamic]	configure network interface
	ping		<hostid>	ping remote host
	route			
		status	[if]	display routing table
		add	<dest_addr default>[/<bits>] <gateway> [<metric>]	add route
		addiface	<dest_addr default>[/<bits>] <gateway> [<metric>]	add an entry to the routing table to iface
		addprivate	<dest_addr default>[/<bits>] <gateway> [<metric>]	add private route
		drop	<host addr> [/<bits>]	drop a route
	status			display ip statistic counters
	udp			
		status		display udp status
	rip			
	tcp			
		status	[tcb] [<interval>	display TCP statistic counters
	telnet		<host> [port]	execute telnet client command
	tftp			
	tracert		<host> [ttl] [wait] [queries]	send probes to trace route of a remote host
	xparent			
		join	<iface1> [<iface2>]	join iface2 to iface1 group
		break	<iface>	break iface to leave ipxparent group
	igmp			
		debug	[level]	set igmp debug level
		forwardall	[on/off]	turn on/off igmp forward to all interfaces flag
		querier	[on/off]	turn on/off igmp stop query flag
		iface		
			<iface> group <tm> <timeout>	set igmp group timeout
			<iface> interval <interval>	set igmp query interval
			<iface> join <group>	join a group on iface
			<iface> leave <group>	leave a group on iface
			<iface> query	send query on iface
			<iface> rsptime [time]	set igmp response time
			<iface> start	turn on of igmp on iface
			<iface> stop	turn off of igmp on iface
			<iface> ttl <threshold>	set ttl threshold
			<iface> v1compat [on/off]	turn on/off v1compat on iface
		robustness	<num>	set igmp robustness variable
		status		dump igmp status

Bridge Related Command

[Home](#)

Command				Description
Bridge				
	cnt			related to bridge routing statistic table
		Disp		display bridge route counter
		Clear		clear bridge route counter
	stat			related to bridge packet statistic table
		Disp		display bridge route packet counter
		Clear		clear bridge route packet counter

802.1x Related Command

[Home](#)

Command				Description
8021x				
	radius	authentication	Show	show current radius authentication server configuration
		accounting	Show	show current radius accounting server configuration
	debug	Reauth	<0:off 1:on>	set IEEE802.1x reauthentication method
		Level	[debug level]	set ieee802.1x debug message level
		Trace		show all supplications in the supplication table
		User	[username]	show the specified user status in the supplicant table

Internal Information:

1. Modification

Modification in 3.50(HB.0)c1 | 10/21/2002

1. [FEATURE CHANGED]
Add sys mbuf debug off to autoexec.net.

Modification in 3.50(HB.0)b8 | 10/18/2002

2. [BUG FIXED]
Symptom: B2000 crashes under SMT24.10 setting.
Condition: B2000 crashes under “Time and Date Setting” from SMT24.10.

Modification in 3.50(HB.0)b7 | 10/15/2002

3. [FEATURE EHHANCED]
Revise 802.1x to delete supplicant data structure if the following two conditions match: 1. Supplicant is in Authorized state. 2. Supplicant associates with AP.
4. [BUG FIXED]
Symptom: B2000 crashes under SNMP scan.
Condition: B2000 crashes under SNMP scan from NetworkView.
5. [FEATURE CHANGED]
The unused port (WDS port) is left unused.

Modification in 3.50(HB.0)b5 | 09/30/2002

1. [FEATURE EHHANCED]
Revise 802.1x timer function interface in order to support multi-platform.

Modification in 3.50(HB.0)b4 | 09/05/2002

1. [FEATURE EHHANCED]
The CI command series “sys mrd” is added, but it is hidden.

2. Manufactory Data in Bootbase

ZyNOS Version	: V3.50(HB.0) 10/21/2002 15:53:08
Bootbase Version	: V2.10 03/22/2002 14:38:58
Vendor Name	: ZyXEL Communications Corp.
Product Model	: ZyAIR B-2000
ZyNOS ROM address	: 06008000
System Type	: 5
MAC Address	: 00A0C5012345
Default Country Code	: FF
Boot Module Debug Flag	: 01
RomFile Version	: E5
RomFile Checksum	: 2cd4
ZyNOS Checksum	: 670c
Core Checksum	: 0cd9
SNMP MIB level & OID	: 060102030405060708091011121314151617181920
Main Feature Bits	: C0
Other Feature Bits	:
	9F FE 00 00 00 00 00 00-00 00 00 00 00 00 00 00
	00 00 00 00 00 00 00 00-00 41 33 00 00 00

Notes:

- Debug Flag should be 0 after production. In our default release will be 1. Because in the manufacture process will need it to set the MAC address.
- Country code value will be change by production process. It will depend on the shipping country.
- MAC address will be change by production process. Only the fist 3 octets will be correct. The last 3 octets will depend on the production process.

3. Default ROM File Value Setting

- Menu 1 – General Setup

<p>Menu 1 - General Setup</p> <p>System Name= ? Domain Name= Edit Dynamic DNS= No</p> <p>Press ENTER to Confirm or ESC to Cancel:</p>

- Menu 1.1 – Configure Dynamic DNS

<p>Menu 1.1 - Configure Dynamic DNS</p> <p>Service Provider= WWW.DynDNS.ORG Active= Yes DDNSType= DynamicDNS Host= EMAIL= USER= Password= ***** Enable Wildcard= No Offline= N/A</p> <p>Press ENTER to Confirm or ESC to Cancel:</p> <p>Press Space Bar to Toggle.</p>
--

- Menu 2 – WAN Setup

<p>Menu 2 - WAN Setup</p> <p>MAC Address: Assigned By= Factory default IP Address= N/A</p> <p>Press ENTER to Confirm or ESC to Cancel:</p> <p>Press Space Bar to Toggle.</p>
--

- Menu 3.1 – LAN Port Filter Setup

<p>Menu 3.1 - LAN Port Filter Setup</p> <p>Input Filter Sets: protocol filters= device filters= Output Filter Sets: protocol filters= device filters=</p> <p>Press ENTER to Confirm or ESC to Cancel:</p>

- Menu 3.2 – TCP/IP and DHCP Ethernet Setup

<p>Menu 3.2 - TCP/IP and DHCP Ethernet Setup</p> <p>DHCP= Server</p>
--

```
Configuration:
Client IP Pool Starting Address= 192.168.1.33
Size of Client IP Pool= 32
Primary DNS Server= 0.0.0.0
Secondary DNS Server= 0.0.0.0
DHCP Server Address= N/A
```

```
TCP/IP Setup:
IP Address= 192.168.1.1
IP Subnet Mask= 255.255.255.0
RIP Direction= Both
Version= RIP-1
Multicast= None
Edit IP Alias= No
```

Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.

- **Menu 3.2.1 – IP Alias Setup**

Menu 3.2.1 - IP Alias Setup

```
IP Alias 1= No
IP Address= N/A
IP Subnet Mask= N/A
RIP Direction= N/A
Version= N/A
Incoming protocol filters= N/A
Outgoing protocol filters= N/A
IP Alias 2= No
IP Address= N/A
IP Subnet Mask= N/A
RIP Direction= N/A
Version= N/A
Incoming protocol filters= N/A
Outgoing protocol filters= N/A
```

Enter here to CONFIRM or ESC to CANCEL:
Press Space Bar to Toggle.

- **Menu 3.5 – Wireless LAN Setup**

Menu 3.5 - Wireless LAN Setup

```
ESSID= AOL
Hide ESSID= No
Channel ID= CH06 2437MHz
RTS Threshold= 0
Frag. Threshold= 2432
WEP= Disable
Default Key= N/A
Key1= N/A
Key2= N/A
Key3= N/A
Key4= N/A
Edit MAC Address Filter= No
Edit Roaming Configuration= No
```

Press ENTER to Confirm or ESC to Cancel:

- Menu 3.5.1 – WLAN MAC Address Filter

```
Menu 3.5.1 - WLAN MAC Address Filter

Active= No
Filter Action= Allowed Association
MAC Address Filter
Address 1= 00:00:00:00:00:00
Address 2= 00:00:00:00:00:00
Address 3= 00:00:00:00:00:00
Address 4= 00:00:00:00:00:00
Address 5= 00:00:00:00:00:00
Address 6= 00:00:00:00:00:00
Address 7= 00:00:00:00:00:00
Address 8= 00:00:00:00:00:00
Address 9= 00:00:00:00:00:00
Address 10= 00:00:00:00:00:00
Address 11= 00:00:00:00:00:00
Address 12= 00:00:00:00:00:00

Enter here to CONFIRM or ESC to CANCEL:

Press Space Bar to Toggle.
```

- Menu 3.5.2 – Roaming Configuration

```
Menu 3.5.2 - Roaming Configuration

Active= No
Port #= N/A

Press ENTER to Confirm or ESC to Cancel:

Press Space Bar to Toggle.
```

- Menu 4 - Internet Access Setup

```
Menu 4 - Internet Access Setup

ISP's Name= ChangeMe
Encapsulation= Ethernet
Service Type= Standard
My Login= N/A
My Password= N/A
Login Server= N/A

IP Address Assignment= Dynamic
IP Address= N/A
IP Subnet Mask= N/A
Gateway IP Address= N/A
Network Address Translation= SUA Only

Press ENTER to Confirm or ESC to Cancel:
```

- Menu 11.1 - Remote Node Profile

```
Menu 11.1 - Remote Node Profile

Rem Node Name= ChangeMe      Route= IP
Active= Yes
```

```
Encapsulation= Ethernet          Edit IP= No
Service Type= Standard          Session Options:
Service Name= N/A              Edit Filter Sets= No
Outgoing:
  My Login= N/A
  My Password= N/A
  Server= N/A
```

Press ENTER to Confirm or ESC to Cancel:

Press ENTER to Confirm or ESC to Cancel:

- **Menu 11.3 – Remote Node Network Layer Options**

Menu 11.3 - Remote Node Network Layer Options

```
IP Address Assignment= Dynamic
IP Address= N/A
IP Subnet Mask= N/A
Gateway IP Addr= N/A
```

```
Network Address Translation= SUA Only
Metric= 1
Private= N/A
RIP Direction= None
  Version= N/A
Multicast= None
```

Enter here to CONFIRM or ESC to CANCEL:

Press Space Bar to Toggle.

- **Menu 11.5 – Remote Node Filter**

Menu 11.5 - Remote Node Filter

```
Input Filter Sets:
  protocol filters=
  device filters=
Output Filter Sets:
  protocol filters=
  device filters=
```

Enter here to CONFIRM or ESC to CANCEL:

- **Menu 12 – IP Static Route Setup**

Menu 12 - IP Static Route Setup

```
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
```

Enter selection number:

- Menu 12.1 – Edit IP Static Route

```
Menu 12.1 - Edit IP Static Route

Route #: 1
Route Name= ?
Active= No
Destination IP Address= ?
IP Subnet Mask= ?
Gateway IP Address= ?
Metric= 2
Private= No

Press ENTER to Confirm or ESC to Cancel:
```

- Menu 14 – Dial-in User Setup

```
Menu 14 - Dial-in User Setup

1. _____ 9. _____ 17. _____ 25. _____
2. _____ 10. _____ 18. _____ 26. _____
3. _____ 11. _____ 19. _____ 27. _____
4. _____ 12. _____ 20. _____ 28. _____
5. _____ 13. _____ 21. _____ 29. _____
6. _____ 14. _____ 22. _____ 30. _____
7. _____ 15. _____ 23. _____ 31. _____
8. _____ 16. _____ 24. _____ 32. _____

Enter Menu Selection Number:
```

- Menu 14.1 – Edit Dial-in User

```
Menu 14.1 - Edit Dial-in User

User Name= ?
Active= No
Password= ?

Press ENTER to Confirm or ESC to Cancel:
```

- Menu 15.1.1 – Address Mapping Rules

```
Menu 15.1.1 - Address Mapping Rules

Set Name= ?

Idx Local Start IP Local End IP Global Start IP Global End IP Type
---
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Action= None Select Rule= N/A
```

Press ENTER to Confirm or ESC to Cancel:

- Menu 15.2 – NAT Server Setup

Menu 15.2 - NAT Server Setup

Rule	Start Port No.	End Port No.	IP Address
1.	Default	Default	0.0.0.0
2.	0	0	0.0.0.0
3.	0	0	0.0.0.0
4.	0	0	0.0.0.0
5.	0	0	0.0.0.0
6.	0	0	0.0.0.0
7.	0	0	0.0.0.0
8.	0	0	0.0.0.0
9.	0	0	0.0.0.0
10.	0	0	0.0.0.0
11.	0	0	0.0.0.0
12.	0	0	0.0.0.0

Press ENTER to Confirm or ESC to Cancel:

- Menu 21 – Filter Set Configuration

Menu 21 - Filter Set Configuration

Filter Set #	Comments	Filter Set #	Comments
1	NetBIOS_WAN	7	
2	NetBIOS_LAN	8	
3	TEL_FTP_WEB_WAN	9	
4		10	
5		11	
6		12	

Enter Filter Set Number to Configure= 0

Edit Comments= N/A

Press ENTER to Confirm or ESC to Cancel:

- Menu 21.1 – Filter Rules Summary (for NetBIOS WAN)

Menu 21.1 - Filter Rules Summary

#	A	Type	Filter Rules	M	m	n
1	Y	IP	Pr=6, SA=0.0.0.0, DA=0.0.0.0, DP=137	N	D	N
2	Y	IP	Pr=6, SA=0.0.0.0, DA=0.0.0.0, DP=138	N	D	N
3	Y	IP	Pr=6, SA=0.0.0.0, DA=0.0.0.0, DP=139	N	D	N
4	Y	IP	Pr=17, SA=0.0.0.0, DA=0.0.0.0, DP=137	N	D	N
5	Y	IP	Pr=17, SA=0.0.0.0, DA=0.0.0.0, DP=138	N	D	N
6	Y	IP	Pr=17, SA=0.0.0.0, DA=0.0.0.0, DP=139	N	D	F

Enter Filter Rule Number (1-6) to Configure:

- Menu 21.1.1 – TCP/IP Filter Rule (for NetBIOS WAN)

```
Menu 21.1.1 - TCP/IP Filter Rule

Filter #: 1,1
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 6      IP Source Route= No
Destination: IP Addr= 0.0.0.0
                IP Mask= 0.0.0.0
                Port #= 137
                Port # Comp= Equal
Source: IP Addr= 0.0.0.0
        IP Mask= 0.0.0.0
        Port #=
        Port # Comp= None
TCP Estab= No
More= No      Log= None
Action Matched= Drop
Action Not Matched= Check Next Rule

Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.
```

- Menu 21.1.1 – TCP/IP Filter Rule (for NetBIOS WAN)

```
Menu 21.1.2 - TCP/IP Filter Rule

Filter #: 1,2
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 6      IP Source Route= No
Destination: IP Addr= 0.0.0.0
                IP Mask= 0.0.0.0
                Port #= 138
                Port # Comp= Equal
Source: IP Addr= 0.0.0.0
        IP Mask= 0.0.0.0
        Port #=
        Port # Comp= None
TCP Estab= No
More= No      Log= None
Action Matched= Drop
Action Not Matched= Check Next Rule

Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.
```

- Menu 21.1.1 – TCP/IP Filter Rule (for NetBIOS WAN)

```
Menu 21.1.3 - TCP/IP Filter Rule

Filter #: 1,3
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 6      IP Source Route= No
Destination: IP Addr= 0.0.0.0
                IP Mask= 0.0.0.0
                Port #= 139
                Port # Comp= Equal
Source: IP Addr= 0.0.0.0
```

```

                                IP Mask= 0.0.0.0
                                Port #=
                                Port # Comp= None
TCP Estab= No
More= No           Log= None
Action Matched= Drop
Action Not Matched= Check Next Rule

    Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.
```

- **Menu 21.1.1 – TCP/IP Filter Rule (for NetBIOS WAN)**

```

                                Menu 21.1.4 - TCP/IP Filter Rule

Filter #: 1,4
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 17      IP Source Route= No
Destination: IP Addr= 0.0.0.0
                    IP Mask= 0.0.0.0
                    Port #= 137
                    Port # Comp= Equal
Source: IP Addr= 0.0.0.0
        IP Mask= 0.0.0.0
        Port #=
        Port # Comp= None
TCP Estab= N/A
More= No           Log= None
Action Matched= Drop
Action Not Matched= Check Next Rule

    Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.
```

- **Menu 21.1.1 – TCP/IP Filter Rule (for NetBIOS WAN)**

```

                                Menu 21.1.5 - TCP/IP Filter Rule

Filter #: 1,5
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 17      IP Source Route= No
Destination: IP Addr= 0.0.0.0
                    IP Mask= 0.0.0.0
                    Port #= 138
                    Port # Comp= Equal
Source: IP Addr= 0.0.0.0
        IP Mask= 0.0.0.0
        Port #=
        Port # Comp= None
TCP Estab= N/A
More= No           Log= None
Action Matched= Drop
Action Not Matched= Check Next Rule

    Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.
```

- Menu 21.1.1 – TCP/IP Filter Rule (for NetBIOS WAN)

```
Menu 21.1.6 - TCP/IP Filter Rule

Filter #: 1,6
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 17      IP Source Route= No
Destination: IP Addr= 0.0.0.0
                IP Mask= 0.0.0.0
                Port #= 139
                Port # Comp= Equal
Source: IP Addr= 0.0.0.0
        IP Mask= 0.0.0.0
        Port #=
        Port # Comp= None
TCP Estab= N/A
More= No           Log= None
Action Matched= Drop
Action Not Matched= Forward

Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.
```

- Menu 21.2 – Filter Rules Summary (for NetBIOS LAN)

```
Menu 21.2 - Filter Rules Summary

# A Type                Filter Rules                M m n
- - - - -
1 Y IP   Pr=17, SA=0.0.0.0, SP=137, DA=0.0.0.0, DP=53      N D F
2 N
3 N
4 N
5 N
6 N

Enter Filter Rule Number (1-6) to Configure:
```

- Menu 21.2 – Filter Rules Summary (for NetBIOS LAN)

```
Menu 21.2.1 - TCP/IP Filter Rule

Filter #: 2,1
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 17      IP Source Route= No
Destination: IP Addr= 0.0.0.0
                IP Mask= 0.0.0.0
                Port #= 53
                Port # Comp= Equal
Source: IP Addr= 0.0.0.0
        IP Mask= 0.0.0.0
        Port #= 137
        Port # Comp= Equal
TCP Estab= N/A
More= No           Log= None
Action Matched= Drop
Action Not Matched= Forward

Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.
```

- Menu 21.3 – Filter Rules Summary (for TEL FTP WEB WAN)

Menu 21.3 - Filter Rules Summary						
#	A	Type	Filter Rules			M m n
1	Y	IP	Pr=6, SA=0.0.0.0, DA=0.0.0.0, DP=23			N D N
2	Y	IP	Pr=6, SA=0.0.0.0, DA=0.0.0.0, DP=21			N D N
3	Y	IP	Pr=6, SA=0.0.0.0, DA=0.0.0.0, DP=80			N D F
4	N					
5	N					
6	N					

Enter Filter Rule Number (1-6) to Configure:

- Menu 21.3 – Filter Rules Summary (for TEL FTP WEB WAN)

Menu 21.3.1 - TCP/IP Filter Rule

Filter #: 3,1
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 6 IP Source Route= No
Destination: IP Addr= 0.0.0.0
 IP Mask= 0.0.0.0
 Port #= 23
 Port # Comp= Equal
Source: IP Addr= 0.0.0.0
 IP Mask= 0.0.0.0
 Port #=
 Port # Comp= None
TCP Estab= No
More= No Log= None
Action Matched= Drop
Action Not Matched= Check Next Rule

Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.

- Menu 21.3 – Filter Rules Summary (for TEL FTP WEB WAN)

Menu 21.3.2 - TCP/IP Filter Rule

Filter #: 3,2
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 6 IP Source Route= No
Destination: IP Addr= 0.0.0.0
 IP Mask= 0.0.0.0
 Port #= 21
 Port # Comp= Equal
Source: IP Addr= 0.0.0.0
 IP Mask= 0.0.0.0
 Port #=
 Port # Comp= None
TCP Estab= No
More= No Log= None
Action Matched= Drop
Action Not Matched= Check Next Rule

Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.

- **Menu 21.3 – Filter Rules Summary (for TEL FTP WEB WAN)**

Menu 21.3.3 - TCP/IP Filter Rule

Filter #: 3,3
Filter Type= TCP/IP Filter Rule
Active= Yes
IP Protocol= 6 IP Source Route= No
Destination: IP Addr= 0.0.0.0
 IP Mask= 0.0.0.0
 Port #= 80
 Port # Comp= Equal
Source: IP Addr= 0.0.0.0
 IP Mask= 0.0.0.0
 Port #=
 Port # Comp= None
TCP Estab= No
More= No Log= None
Action Matched= Drop
Action Not Matched= Forward

Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.

- **Menu 22 – SNMP Configuration**

Menu 22 - SNMP Configuration

SNMP:
Get Community= public
Set Community= public
Trusted Host= 0.0.0.0
Trap:
Community= public
Destination= 0.0.0.0

Press ENTER to Confirm or ESC to Cancel:

- **Menu 23.1 – System Security – Change Password**

Menu 23.1 - System Security - Change Password

Old Password= ?
New Password= ?
Retype to confirm= ?

Enter here to CONFIRM or ESC to CANCEL:

- **Menu 23.2 – System Security – RADIUS Server**

Menu 23.2 - System Security - RADIUS Server

```
Authentication Server:
Active= No
Server Address= ?
Port #= 1812
Key= ?

Accounting Server:
Active= No
Server Address= ?
Port #= 1813
Key= ?
```

Press ENTER to Confirm or ESC to Cancel:

Press Space Bar to Toggle.

- **Menu 23.4 – System Security – IEEE802.1X**

```
Menu 23.4 - System Security - IEEE802.1X
```

```
Authentication Control= Force Authorized
ReAuthentication Timer (in second)= N/A
```

Press ENTER to Confirm or ESC to Cancel:

Press Space Bar to Toggle.

- **Menu 24.2.2 – System Maintenance - Setup**

```
Menu 24.2.2 - System Maintenance - Change Console Port Speed
```

```
Console Port Speed: 9600
```

Press ENTER to Confirm or ESC to Cancel:

Press Space Bar to Toggle.

- **Menu 24.3.2 – System Maintenance – UNIX Syslog**

```
Menu 24.3.2 - System Maintenance - UNIX Syslog
```

```
Syslog:
Active= No
Syslog IP Address= ?
Log Facility= Local 1
```

```
Types:
CDR= No
Packet triggered= No
Filter log= No
PPP log= No
```

Press ENTER to Confirm or ESC to Cancel:

Press Space Bar to Toggle.

- **Menu 24.10 – System Maintenance – Time and Date Setting**

```
Menu 24.10 - System Maintenance - Time and Date Setting

Use Time Server when Bootup= None
Time Server Address= N/A

Current Time:                02 : 43 : 54
New Time (hh:mm:ss):        02 : 43 : 09

Current Date:                2000 - 01 - 01
New Date (yyyy-mm-dd):      2000 - 01 - 01

Time Zone= GMT

Daylight Saving= No
Start Date (mm-dd):          01 - 01
End Date (mm-dd):            01 - 01

Press ENTER to Confirm or ESC to Cancel:

Press Space Bar to Toggle.
```

- **Menu 24.11 – Remote Management Control**

```
Menu 24.11 - Remote Management Control

TELNET Server:  Port = 23      Access = LAN only
                  Secured Client IP = 0.0.0.0

FTP Server:     Port = 21      Access = LAN only
                  Secured Client IP = 0.0.0.0

Web Server:     Port = 80      Access = LAN only
                  Secured Client IP = 0.0.0.0

SNMP Service:   Port = 161     Access = LAN only
                  Secured Client IP = 0.0.0.0

DNS Service:    Port = 53      Access = LAN only
                  Secured Client IP = 0.0.0.0

Press ENTER to Confirm or ESC to Cancel:
```

- **Menu 26 – Schedule Setup**

```
Menu 26 - Schedule Setup

Schedule Set #      Name      Schedule Set #      Name
-----
1      _____      7      _____
2      _____      8      _____
3      _____      9      _____
4      _____     10      _____
5      _____     11      _____
6      _____     12      _____
```

Enter Schedule Set Number to Configure= 0

Edit Name= N/A

Press ENTER to Confirm or ESC to Cancel:

- ras> sys view autoexec.net
sys errctl 0
sys trcl level 5
sys trcl type 1180
sys trcp cr 64 96
sys trcl sw on
ip tcp mss 512
ip tcp limit 2
ip tcp irtt 65000
ip tcp window 2
ip tcp ceiling 6000
ip rip activate
ip rip merge on
ppp ipcp com off
ip icmp disc enif0 off
bridge mode 1
sys mbuf debug off