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# **ZyXEL**

**Firmware Release Note**

## **ZyAIR B-1000**

**Release 3.50(HA.0)c1**

**Date:** October 21, 2002  
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# ZyXEL ZyAIR B-1000 Standard Version release 3.50(HA.0)c1 Release Note

**Date:** Oct 21, 2002

## **Supported Platforms:**

ZyXEL ZyAIR B-1000

## **Versions:**

ZyNOS F/W Version : V3.50(HA.0) | 10/21/2002 09:54:39

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

## **Notes:**

1. If the roaming is active, the wireless STA will not be able to associate with B-1000 unless the Ethernet port is connected and the IP is gotten from DHCP server while the IP assignment is configured as “Dynamic”.

## **Known Issues:**

1. Symptom: Log display does not show right away.  
Condition: When using telnet and menu 24.3.1, the log doesn't show right away.  
You need to press a key to get it to list the log.
2. Symptom: The display is a mess with Linux telnet.  
Condition: The screen display for SMT is a mess with Linux telnet.

## **CI Command List:**

## **Features:**

### **Modification in 3.50(HA.0)c1 | 10/21/2002**

1. [FEATURE CHANGED] Add “sys mbuf debug off” to autoexec.net for FCS firmware.

### **Modification in 3.50(HA.0)b10 | 10/18/2002**

1. [BUG FIXED]

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Symptom: B1000 crashes under SMT24.10 setting.

Condition: B1000 crashes under "Time and Date Setting" from SMT24.10.

**Modification in 3.50(HA.0)b9 | 10/15/2002**

1. [BUG FIXED]

Symptom: B1000 crashes under SNMP scan from NetworkView.

Condition: B1000 crashes under SNMP scan from NetworkView.

**Modification in 3.50(HA.0)b8 | 10/4/2002**

2. [FEATURE CHANGED] In order to support some WLAN card, that doesn't support shared key authentication, B-1000 supports both open system and shared key authentication not matter WEP is enabled or not.

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 removes wireless card and plug it into station again, 802.1x authentication will not function properly.

**Modification in 3.50(HA.0)b7 | 9/27/2002**

1. [BUG FIXED]

Symptom: Wrong Window title for eWC.

Condition: The Web configurator still shows "ZyXEL Prestige" in the window title.

2. [BUG FIXED]

Symptom: Failed to enter WEP key

Condition: WIZARD SETUP Re-running the Wizard Setup stuck on the Wireless LAN Setup page when WEP Encryption enabled, complains "Please type 13 characters or 26 digit hexadecimal values into the key # entry field." - WIRELESS LAN, Wireless propagates the WEP fields with the same over complete keys when defined. This problem does not exist in the telnet console. All the fields (Key 1..4) are displayed in HEX, starting with a NUL (0x), followed by the correct key, and again followed by all the remaining keys in the complete list, delimited with a NUL (x0)

3. [FEATURE CHANGED] The default IP address is changed to "192.168.1.2".

4. [FEATURE CHANGED] Use shared key authentication while WEP enabled and open system while WEP disabled.

5. [FEATURE CHANGED] Record the time that a STA associated with AP and show it in with CI command "wlan association".

6. [FEATURE CHANGED] Change the term "Firmware upgrade" to "Firmware upload" in Web GUI.

7. [FEATURE CHANGED] The behavior of WLAN activity LED is changed.

8. [FEATURE ENHANCED] Implement CI command "wlan diagnose" to support WLAN card self-diagnostics.

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9. [FEATURE ENHANCED] Integrate updated Web help pages.

**Modification in 3.50(HA.0)b6 | 9/4/2002**

1. [BUG FIXED]  
Symptom: Help message in "sys server access ..." is not suitable for AP product.  
Condition: The definition of interface is not exactly as B-1000. Wish to change WAN to LAN, LAN to WLAN in AP product's help message.
2. [FEATURE CHANGED] The LED used to indicate the HTP result is changed to "signal level LED".
3. [FEATURE ENHANCED] Embedded Web Help is integrated.
4. [BUG FIXED]  
Symptom: WEP and 802.1x can not co-exist.  
Condition: Turn on both WEP encryption and 802.1x, the packets can not pass the B-1000.
5. [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.

**Modification in 3.50(HA.0)b5 | 8/13/2002**

1. [FEATURE CHANGED] The definition of signal strength LED is change to indicate the existence and correctness of WLAN card.

**Modification in 3.50(HA.0)b4 | 8/9/2002**

1. [BUG FIXED]  
Symptom: Configurations setup in Web Wizard sometimes will not be saved  
Condition: It occurs while user use IE 5.x and choice "Close Window" at finish.
2. [BUG FIXED]  
Symptom: Configure IEEE802.1x as AUTO will reset the system.
3. [BUG FIXED]  
Symptom: Configurations IP in Web GUI will block the wireless traffic  
Condition: While user use Web GUI to change the setting of IP or use Web wizard to configure B-1000. The wireless will be blocked after the changes are applied.
4. [FEATURE CHANGED] There is not suitable category in Unix syslog. So remove SMT 24.3.2.
5. [FEATURE CHANGED] There is no WAN interface in B-1000. Remove the function of Reset WAN in SMT 24.1.
6. [FEATURE CHANGED] The default value of RADIUS server port is changed to 1812 and 1813.

**Modification in 3.50(HA.0)b3 | 7/31/2002**

1. [FEATURE ENHANCED] Update Web GUI of RADIUS
2. [FEATURE CHANGED] Remove CI command "wlan debug"

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3. [FEATURE CHANGED] Remove CI command “wlan test”
4. [FEATURE ENHANCED] Update the information in SMT 24.2.1

**Modification in 3.50(HA.0)b2 | 7/30/2002**

1. [FEATURE ENHANCED] Update Web GUI
2. [FEATURE ENHANCED] Update SMT menu
3. [FEATURE CHANGED] Remote management setup (SMT 24.11) is removed
4. [FEATURE CHANGED] Call-Triggering Packet (SMT 24.3.4) is removed
5. [NEW FEATURE] Roaming (802.11f ADD operation) support is added
6. [FEATURE ENHANCED] New CI command “wlan iapp” to view the related data of IAPP(Roaming) function
7. [FEATURE ENHANCED] New CI command “wlan association” to view the associated STA

**Modification in 3.50(HA.0)b1 | 7/5/2002**

1. First release for C3 baseline firmware

**Annex A CI Command List**

Command Class List Table		
<a href="#">System Related Command</a>	<a href="#">Exit Command</a>	<a href="#">Ethernet Related Command</a>
<a href="#">Wireless LAN Related Command</a>	<a href="#">IP Related Command</a>	<a href="#">Bridge Related Command</a>
<a href="#">802.1x Related Command</a>		

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		

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	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		
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
diagnose			self-diagnostics
essid		[ess id]	set ESS ID
version			display WLAN version information

IP Related Command

[Home](#)

Command			Description
ip			
address		[addr]	display host ip address
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		
	stats		
httpd			
icmp			
	status		display icmp statistic counter

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		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 clinet command
	tftp			
	traceroute		<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

**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(HA.0)b9 | 10/15/2002

1. [FEATURE CHANGED] Leave unused port disabled.
2. [FEATURE ENHANCED] 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.

#### Modification in 3.50(HA.0)b7 | 9/27/2002

1. [BUG FIXED] Modify "sys mrd atsh" to show correct RomFile version.
2. [FEATURE ENHANCED] Make "sys mrd atsh" to show RomFile checksum.
3. [FEATURE ENHANCED] Implement CI command "wlan authen" to support change of WLAN authentication method.
4. [FEATURE ENHANCED] Make basic rate CI command to support multiple rate setting.
5. [FEATURE ENHANCED] Make tx rate CI command to support multiple rate setting.
6. [FEATURE CHANGED] Change the CI command "wlan datarate" to "wlan txrate".

### 2. Manufactory Data in Bootbase

ZyNOS Version	: V3.50(HA.0)   10/21/2002 09:54:39
Bootbase Version	: V2.10   03/22/2002 14:38:58
Vendor Name	: ZyXEL
Product Model	: ZyAIR B-1000
ZyNOS ROM address	: 06008000
System Type	: 5
MAC Address	: 00A0C5012345
Default Country Code	: FF
Boot Module Debug Flag	: 01
RomFile Version	: 03
RomFile Checksum	: e882
ZyNOS Checksum	: fe92
Core Checksum	: 08f5
SNMP MIB level & OID	: 060102030405060708091011121314151617181920
Main Feature Bits	: 84
Other Feature Bits	:
	9F FF 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

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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**

```
Menu 1 - General Setup

System Name= B-1000
Domain Name=

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

#### **Menu 3.2 - TCP/IP Setup**

```
Menu 3.2 - TCP/IP Setup

IP Address Assignment= Static
IP Address= 192.168.1.2
IP Subnet Mask= 255.255.255.0
Gateway IP Address= 0.0.0.0

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

#### **Menu 3.5 - Wireless LAN Setup**

```
Menu 3.5 - Wireless LAN Setup

ESSID= Wireless
Hide ESSID= No
Channel ID= CH01 2412MHz
RTS Threshold= 2432
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
```

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```
Address 11= 00:00:00:00:00:00
Address 12= 00:00:00:00:00:00

Enter here to CONFIRM or ESC to CANCEL:
```

**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:
```

**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 – External Server**

```
Menu 23.2 - System Security - RADIUS Server

Authentication Server:
Active= No
Server Address= ?
Port #= 1812
Shared Secret= ?

Accounting Server:
Active= No
Server Address= ?
Port #= 1813
Shared Secret= ?

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

**Menu 23.5 – 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:
```

**Menu 24.2.1 - System Maintenance – Information**

```
Menu 24.2.1 - System Maintenance - Information
```

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```
Name: B-1000
Routing: BRIDGE
ZyNOS F/W Version: V3.50(HA.0)b6 | 09/04/2002
Country Code: 255

LAN
Ethernet Address: 00:A0:C5:E3:35:0B
IP Address: 192.168.1.1
IP Mask: 255.255.255.0
DHCP: None

Press ESC or RETURN to Exit:
```

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

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

Console Port Speed: 9600

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

**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:
New Time (hh:mm:ss):                00 : 00 : 00

Current Date:
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:
```

```
B-1000> sys view autoexec.net
sys errctl 0
sys trcl level 5
sys trcl type 1180
sys trep 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 icmp disc enif0 off
bridge mode 1
```

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sys mbuf debug off