



Firmware Release Note

ZyAIR G-1000

Release 3.50(HH.7)C0

Date:	May 22, 2006
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ZyXEL ZyAIR G-1000 Standard Version release 3.50(HH.7)C0 Release Note

Date: May 22, 2006

Supported Platforms:

ZyXEL ZyAIR G-1000

Versions:

ZyNOS F/W Version : V3.50(HH.7) | 05/15/2006 14:50:05

Bootbase Version: V1.02 | 01/19/2004 15:04:00

Notes:

1. ZyAIR G-1000 is a country dependent product. Please setup correct country code before shipping.
2. uAP code is version 2.12.16.0.
3. G-1000 since v3.50(HH.3) support ROM convert to setup some default value. Note that please do not turn off the power when you upgrade new firmware to G-1000.

CI Command List:

Features:

Modification in 3.50(HH.7)C0 | 5/22/2006

1. Convert to FCS version

Modification in 3.50(HH.7)b2 | 5/12/2006

1. [FEATURE CHANGED]
Symptom: Change WLAN channel usage of some countries.
Condition:
 ch1 ~ ch14: Japan
 ch1 ~ ch11: USA, Philippines, Taiwan, India, Brazil.
 ch1 ~ ch13: Others

Modification in 3.50(HH.7)b1 | 4/14/2006

1. [BUG FIXED]
Symptom: G405 can't connect to G1000 on WPA-PSK mode.

Modification in 3.50(HH.6)C0 | 12/15/2005

1. [FEATURE CHANGED]
Convert to FCS version.

Modification in 3.50(HH.6)b3 | 11/22/2005

1. [FEATURE CHANGED]
Help pages of WPA2 and WPA2-PSK are ready.
2. [FEATURE CHANGED]
Help pages of SMTP Authentication are ready.
3. [BUG FIXED]
Symptom: 802.1x authentication issue.
Condition: We setup "802.1x + no WEP" environment, and we also configure two accounts (one "test1" is in local database and the other "test2" is in remote RADIUS.)
(1). Wireless client use the "test1" to associate to AP via local database (we first make sure that wireless can associate to AP)--> Success.
(2). Wireless client use wrong username to associate to AP--> fail.
(3). Then wireless client use the correct username "test1" to associate to AP--> fail.
SPRID: 050804166
4. [BUG FIXED]
Symptom: WAP/WPA2 GUI issue.
Condition: We configure WPA/WPA2 environment via GUI first. If we try to change wireless port control from "Authentication required" to "No authentication required" or "No Access allowed", then the field "Authentication Databases" didn't disappear.
SPRID: 051025804, 051025806, 051025805, 051025807
5. [BUG FIXED]
Symptom: WPA GUI issue.
Condition: We setup the WPA test environment first and wireless client can associate to AP via WPA. If we change the authentication server correct shared secret to wrong one, then wireless client can still associate to AP via re-connection. If we change the authentication server IP address, then wireless client can still associate to AP via using old authentication server.
SPRID: 051025810

Modification in 3.50(HH.6)b2 | 10/19/2005

1. [FEATURE CHANGED]
Change Prism UMAC to version 2.12.16.0 to enhance satiability in stress test.

Modification in 3.50(HH.6)b1 | 10/11/2005

1. [FEATURE CHANGED]
Only 802.1X + no WEP still support those three types "RADIUS First, then Local", "Local First, then RADIUS" and "Local User Database Only" of authentication database.
SPRID: 040325009

2. [FEATURE ENHANCED]
Because Centrino will issue “Dis-association” packet to AP (G1000), G1000 will update the association table. But some wireless STA does not issue such dis-association packet while STA leave this ESS, so AP implements a timer to monitor this case.
SPRID: 050202060
3. [BUG FIXED]
Symptom: In SMT24.3, there is no item to set and view.
Condition: There is no action to do for G1000 in SMT24.3, so user can't set and view any item in SMT24.3.
SPRID: 050708425
4. [BUG FIXED]
Symptom: WPA-PSK mixed mode not work properly.
Condition: Only WPA-PSK STA can associate to G1000, but 802.1X + Dynamic WEP STA can't associate to G1000.
SPRID: 050708435
5. [BUG FIXED]
Symptom: Open system and shared key not work properly.
Condition: STA with open system can associate to G1000 using shared key, or STA with shared key can associate to G1000 using open system.
SPRID: 050711551
6. [BUG FIXED]
Symptom: Compatibility with G220.
Condition: Set WPA mixed mode in G1000, and two wireless STA G220 both using WPA-PSK. Two hosts can't ping to each other.
SPRID: 050804162
7. [BUG FIXED]
Symptom: There is no protection for static WEP in SMT.
Condition: Using static WEP in G1000 first, then change the authentication type from “No authentication required” to “Authentication required”, and save configuration. System should do some protect for this case, because user can not use static WEP and WPA-PSK/WPA/802.1X+dynamic WEP at the same time.
SPRID: 050804164
8. [BUG FIXED]
Symptom: Static WEP hint error in SMT.
Condition: In SMT3.5, selected 64 WEP and just fill in 3 ASCII characters, then system will show following hint. “Please type 5 characters or 5 hex bytes after ‘0x’”.
SPRID: 050804165
9. [BUG FIXED]

Symptom: 802.1x authentication problem.

Condition: configure wireless security as “802.1x + no WEP”, and configure two user’s account “test1” in local database and “test2” in backend RADIUS server.

(1) Wireless STA uses “test1” to associate AP using local database.

(2) Wireless STA use wrong username to associate AP.

(3) Wireless STA use “test1” to associate AP but failed.

SPRID: 050804166

10. [BUG FIXED]

Symptom: G1000 will reboot when suffered DoS attack.

Condition: There is a tool called ZyXELDOS can duplicate this problem.

(1) STA associate with G1000 via wireless.

(2) Run ZyXELDOS.exe in STA, and attack target is G1000’s management IP address.

(3) G1000 exception occurred immediately.

SPRID: 050815532

11. [BUG FIXED]

Symptom: Subnet mask checking mechanisms not work properly.

Condition: “255.255.248” is a legal subnet mask, and “255.255.255.254” “255.255.255.255” are illegal. In eWC-> IP, enter IP address 10.0.0.2, IP subnet mask 255.255.248.0, and then move cursor to gateway field. A warning message popped out “subnet mask error”. Or enter IP subnet mask 255.255.255.254, and then move cursor to gateway field. No warning message popped out.

SPRID: 050913530

12. [BUG FIXED]

Symptom: Sony PSP WLAN reconnect problem with G1000.

Condition: Configure PSP to connect to G1000 w/wo static WEP, then do network test. The result is success at the first time. If PSP do network test again, it will get failed result.

SPRID: 050923293

13. [BUG FIXED]

Symptom: WPA-PSK of G1000 can’t work properly.

Condition: (1) Two G162 STA connected to G1000 using WPA-PSK.

(2) G1000 connected to DHCP server to get dynamic IP for itself and wireless STA.

(3) Two G162s ping DHCP server, G1000, and each other.

(4) Performing network connection repair on one STA. when repair has completed, the STA can ping to DHCP server and G1000, but the other STA.

(5) Waiting up to several minutes, the STA finally succeed to ping each other.

SPRID: 050927434

14. [FEATURE CHANGED]

After the STA disconnected from G-1000, if The Wireless STA doesn’t report disassociation event correctly, the association list of G1000 will be updated period.

15. [FEATURE CHANGED]
Remove SMT24.6 “restore configuration” in G1000.
16. [FEATURE ENHANCED]
Add check for fragmentation threshold to see if it is an even number in 800~2432.
17. [FEATURE ENHANCED]
Support for WPA2 and WPA2-PSK.
18. [FEATURE ENHANCED]
Extend the length of share secretes of authentication and accounting server to 64 bits in order to fit the WPA2 specification.
19. [FEATURE ENHANCED]
Support for SMTP authentication in eWC->LOGS->Log Settings.
20. [FEATURE CHANGED]
Remove WPA mix mode, and support for WPA compatible.

Modification in 3.50(HH.5)C0 | 08/17/2005

1. [FEATURE CHANGED]
Convert to FCS version.

Modification in 3.50(HH.5)b2 | 08/01/2005

1. [BUG FIXED]
Symptom: Different width of maintenance tags.
Condition: The widths of tags in eWC Maintenance are not the same.
SPRID: 040329108
2. [BUG FIXED]
Symptom: No check time format for log.
Condition: eWC->Advance->logs->log setting, “Time for sending log” doesn’t check if user key in correct time value.
SPRID: 050708423
3. [BUG FIXED]
Symptom: The representation of maximum system domain name length is different.
Condition: In Wizard the length is 30 chars; in System->General Setup the length is 32 and in SMT1 the length is 38.
SPRID: 050708427

Modification in 3.50(HH.5)b1 | 06/30/2005

1. [BUG FIXED]
Symptom: Disable WLAN, FreeQ error messages pop up.
Condition: Enter menu 24.8 and “wlan active 0”, many error messages found in

console as following.

“Error: Management FreeQ not enough entries, fragments: 0x01”

“Error: Management FreeQ not enough entries, fragments: 0x01”

2. [BUG FIXED]

Symptom: G-1000 WLAN interface will be down after working around 2 hours in their production network.

Condition: There are nine G-1000s, the WLAN interface goes off in turns. We still can access the AP via its Ethernet interface. The WLAN clients cannot find those APs by passive AP scanning. The APs cannot be accessed via Wireless and Ethernet media.

3. [BUG FIXED]

Symptom: G-1000 DHCP function can't work normally.

Condition:

(1) DHCP server (windows server) --- wired network --- G-1000 --- PC.

(2) If we set the IP address of the G-1000 AP to be in the same range as the DHCP network (10.1.99.x) then the PC will not get IP address

(3) If we leave the IP address to default (192.168.1.2) and the DHCP network is still the same (10.1.99.x) then there is no problem, we get DHCP address on the PC in very short time.

Note: The problem only happened when we change the settings by WEB GUI, if I change the settings by SMT menu, it works normally.

4. [FEATURE CHANGE]

Change Wireless ESSID from “wireless” to “ZyXEL”.

5. [BUG FIXED]

Symptom: Fragmentation Threshold should start from 800 bytes.

Condition:

(1) In WEB GUI->wireless->wireless: the original boundary of fragmentation threshold is 256 ~ 2432, but the real boundary of wireless chip should be 800 ~ 2432.

(2) In SMT 3.5, the same situation happened.

6. [BUG FIXED]

Symptom: Wireless station can pass the authentication and access network when enable accounting server that didn't exist.

Condition:

(1) In WEB GUI->wireless->wireless: choose WPA or 802.1X for security.

(2) Choose external RADIUS server.

(3) Configure authentication server, and setting accounting server if need.

(4) If accounting active is checked, but either the IP address or shared secret of accounting server or both are wrong. The wireless station can still pass the authentication and access network.

Modification in 3.50(HH.4)C0 | 08/02/2004

- 1 [FEATURE CHANGE]
Modify to FCS version.

Modification in 3.50(HH.4)b4 | 07/29/2004

1. [BUG FIXED]
Symptom: Traffic freeze while connection is still up after idle timeout in WPA mode.
2. [BUG FIXED]
Symptom: Station cannot connect to G-1000 successfully in the first time after station disable and enable network card.
Condition:
 - (1) Station connects to G-1000 with WPA-PSK mode.
 - (2) Station disables the wireless card.
 - (3) Station enables wireless card again.
 - (4) Station can only connect to G-1000 successfully in the second time.
3. [BUG FIXED]
Symptom: Station cannot connect to G1000 after running for several days.
Condition:
 - (1) Station connects to G1000.
 - (2) After about 5 days, stations can site survey G-1000, but cannot associate successfully.
4. [BUG FIXED]
Symptom: Station with 802.1x+Dynamic key cannot connect to G1000 when the WPA mixed mode is enabled.

Modification in 3.50(HH.4)b3 | 06/04/2004

1. [BUG FIXED]
Symptom: Station cannot connect to G-1000 after roaming from other access point.
Condition:
 - (1) AP1 and AP2 connect to the same switch.
 - (2) Station first connects to AP1. AP1 than stop and station connects to AP2.
 - (3) AP1 is then started and AP2 is stopped, but the STA cannot connect with AP1 anymore.
2. [BUG FIXED]
Symptom: When more than two access points reboot at the same time, some access point will get the same IP address on WAN interface.

3. [BUG FIXED]

Symptom: 802.1x with dynamic WEP key cannot work when shared secret of accounting server is invalid.

Condition:

- (1) Enable smt23.2 authenticator server and accounting server.
- (2) 802.1x supplicant associate to AP with mode 802.1x dynamic wep key.
- (3) Modify smt23.2 accounting server shared secret with a wrong value.
- (4) 802.1x supplicant was prohibited by 802.1x module.

Modification in 3.50(HH.4)b2 | 05/11/2004

1. [BUG FIXED]

Symptom: In WPA mode, when changing setting of Block Intra-BSS Traffic from Yes to No, system will reboot and pop up "Error: Management FreeQ not enough entries, fragments: 0x01".

2. [BUG FIXED]

Symptom: In SMT23.4, when enable 'Dynamic WEP Key Exchange', user can change 'Authentication Database' to any mode in stead of fixing it at 'RADIUS Only'.

3. [BUG FIXED]

Symptom: SNMP trap function cannot work.

Modification in 3.50(HH.4)b1 | 04/15/2004

1. [FEATURE ENHANCED]

Support intra-BSS traffic control.

2. [FEATURE CHANGE]

AP firmware is changed to v1.0.4.3.

Modification in 3.50(HH.3)C0 | 03/31/2004

2 [FEATURE CHANGE]

Modify to FCS version.

Modification in 3.50(HH.3)b3 | 03/31/2004

1. [BUG FIXED]

Symptom: Upload firmware via eWC, then system stop working or reboot.

2. [BUG FIXED]

Symptom: The "Max. Frame Burst" option can't save the value 1800 in SMT menu.

Modification in 3.50(HH.3)b2 | 03/25/2004

1. [FEATURE ENHANCED]
Support WLAN quick bridge.
2. [BUG FIXED]
Symptom: System reset when user uses eWC to configure IP.
Condition:
(1) Enter eWC
(2) Go to IP page
(3) Setup IP address and apply the setting
(4) System reset
3. [BUG FIXED]
Symptom: Ping stress test failed after long time test.
Condition:
(1) Leave WDS or Ethernet port of AP unattached.
(2) Ping AP from STA
(3) The device cannot be reached any more after a period of time.
4. [BUG FIXED]
Symptom: eWC\WIRELESS: Preamble='Auto' should be 'Dynamic'.
5. [FEATURE ENHANCED]
eWC online help is updated.
6. [FEATURE CHANGE]
Add "sys wdog sw on" in autoexec.net

Modification in 3.50(HH.3)b1 | 03/02/2004

1. [FEATURE ENHANCED]
Support WPA, WPA-PSK.
2. [FEATURE ENHANCED]
Support preamble selection and Nitro mode max frame burst control.
3. [FEATURE CHANGED]
The default setting is changed to "WPA-PSK" after user enabled wireless port control.
4. [FEATURE CHANGED]
Default port of roaming is changed to 3517.

Modification in 3.50(HH.2)b2 | 12/19/2003

1. [BUG FIXED]
Symptom: AP can receive 64-bit WEP encrypted data after AP disabled the WEP function as long as the key match the previous setting of WEP keys.

Modification in 3.50(HH.2)b1 | 12/08/2003

3. [FEATURE ENHANCED]
Enhance bridge performance between Ethernet & WLAN when 802.1x is disabled.

Modification in 3.50(HH.1)c0 | 10/28/2003

1. [FEATURE CHANGED]
Enable system watchdog timer by default.

Modification in 3.50(HH.1)b2 | 09/24/2003

1. [BUG FIXED]
Symptom: Wireless not work after changing setting.
Condition: Using G100 to FTP , changing the setting of MAC Filter, then the Wireless does not work after applying .
2. [FEATURE ENHANCED]
Support Israel channel list
3. [FEATURE ENHANCED]
Support Romania channel list

Modification in 3.50(HH.0)b11 | 08/07/2003

1. [BUG FIXED]
Symptom: Display debug messages on console when supplicant is deleted.

Modification in 3.50(HH.0)b10 | 08/06/2003

1. [BUG FIXED]
Symptom: WLAN interface doesn't work after applying some of the setting in eWC.
Condition: Launch a FTP transmission, and then change the configuration of roaming with eWC. The WLAN interface doesn't work after applying the setting.
2. [BUG FIXED]
Symptom: After upload firmware with eWC, sometimes it generates error messages in console.
3. [FEATURE CHANGED]
The default preamble setting is changed to "long preamble".

Modification in 3.50(HH.0)b9 | 08/04/2003

1. [BUG FIXED]
Symptom: System reboot while access eWC.
Condition: Access MAC filter page of eWC while busy traffic is transferred, the system reboot.
2. [BUG FIXED]
Symptom: Country code of India is incorrect.

Modification in 3.50(HH.0)b8 | 07/28/2003

1. [BUG FIXED]
Symptom: User can try the password via telnet without any limitations.
Condition: When user key-in wrong password over 3 times, the system didn't reject the attempts for 3 minutes.

Modification in 3.50(HH.0)b7 | 07/18/2003

1. [BUG FIXED]
Symptom: System stops working when change channel during FTP transmission.
Condition: Upload file from STA with FTP client and change the channel during FTP transmission. The system will stop working.

Modification in 3.50(HH.0)b6 | 07/17/2003

1. [BUG FIXED]
Symptom: Upload firmware with eWC from WLAN STA will make WLAN interface down.
Condition: Upload firmware with eWC. The transmission will not complete and the WLAN interface will be shutdown.
2. [FEATURE ENHANCED]
Online help is updated.
3. [FEATURE CHANGED]
RTS/CTS and Fragmentation threshold checkboxes are removed in eWC.

Modification in 3.50(HH.0)b5 | 07/11/2003

1. [BUG FIXED]
Symptom: WLAN interface is shutdown unexpectedly when user access eWC with simultaneously FTP transmission.

2. [FEATURE CHANGED]
The default setting of DNS in System page is changed to “None”.

Modification in 3.50(HH.0)b3 | 06/26/2003

3. [FEATURE ENHANCED]
uAP is upgraded to version 1.0.2.0
4. [FEATURE ENHANCED]
Online help is updated.

Modification in 3.50(HH.0)b2 | 06/13/2003

1. First release for C3 firmware

Annex A 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				
	atmu			Show MultiBoot Client version
	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			
	trepacket			
	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		
	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				
	active		[on/off]	set on/off wlan
	association			display association list
	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
		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:

Known Issues:

1. Symptom: 802.11b STA can associate with DUT successfully when 802.11 mode sets to 802.11g only. (SPR ID: 060426043)
⇒ Conexant SoftMAC library issue
2. Symptom: DUT reboot or ethernet disconnect when changed Key management protocol. SPR ID: 060427235)
⇒ Decrease crash probability and make reboot process successful
3. Symptom: STA with 802.1X dynamic WEP key\WPA\WPA2 can work when shared secret of accounting server is invalid. (SPR ID: 060427236)
4. Throughput: The throughput did not pass PQA criteria. Including 64 WEP, 128 WEP, WPA-PSK and WPA2-PSK.

Frisbee									
No security		64 WEP		128 WEP		WPA-PSK		WPA2-PSK	
AP-->Client	Client-->AP	AP-->Client	Client-->AP	AP-->Client	Client-->AP	AP-->Client	Client-->AP	AP-->Client	Client-->AP
17.540	24.444	16.952	22.324	17.008	22.534	13.960	19.389	15.165	19.085

SPRID: 050708428 051027896

Features:

Modification in 3.50(HH.6)b3 | 11/22/2005

1. [BUG FIXED]
Symptom: WiFi WPA2 pretest failed.
Condition: Fail items:
Javelin --> 4.2.2.2 A2DT2, A2DT3.
4.5.2 PMK Caching test.
Frisbee --> 4.2.2.2 A2DT2 ,A2DT3.
4.2.2.5 A5DT3.
4.5.2 PMK Caching test.
SPRID: 051027893
2. [FEATURE ENHANCED]
Support for multi-boot version 2.3.

Modification in 3.50(HH.5)C0 | 08/17/2005

1. [BUG FIXED]
Assign wrong value to TEMP_CODE_START_ADDR cause multi-boot firmware re-download sometimes fail.

Modification in 3.50(HH.5)b1 | 06/30/2005

1. [FEATURE CHANGED]
Support ZyXEL long term MAC OUI.
2. [FEATURE CHANGED]
Support for multi-boot version 2.1.

3. [FEATURE ENHANCED]
Modify system ATSH information to meet the TE requirement.
4. [FEATURE ENHANCED]
Update copyright announcement to 1994 - 2005.

Modification in 3.50(HH.3)b1 | 03/02/2004

1. [FEATURE ENHANCED]
Sync with ZyNOS trunk on 2/15.
2. [FEATURE ENHANCED]
Support ST flash.

Modification in 3.50(HH.1)b1 | 09/01/2003

1. [FEATURE CHANGED]
Adopt the PCI fix purposed by Samsung and remove previous work around solutions.

Modification in 3.50(HH.0)b10 | 08/06/2003

1. [FEATURE CHANGED]
Hide CI commands including “wlan control”, “wlan mbuf”, “wlan pci”, and “wlan queue”.

Modification in 3.50(HH.0)b9 | 08/04/2003

1. [FEATURE ENHANCED]
Add CI command “wlan beacon [period]” to adjust the beacon interval.
2. [FEATURE ENHANCED]
Add CI command “wlan beacon [period]” to adjust the beacon interval.
3. [FEATURE ENHANCED]
Add CI command “wlan preamble [option]” to configure the preamble. Where option = 0 for long preamble, 1 for short preamble and 2 for dynamic. The default setting is 2 (dynamic).

Modification in 3.50(HH.0)b6 | 07/17/2003

1. [BUG FIXED]
Symptom: The power DIP problem.

Modification in 3.50(HH.0)b4 | 06/27/2003

1. [BUG FIXED]

Symptom: The UART internal loopback test in HTP is fail when baud rate is 115200.

Modification in 3.50(HH.0)b3 | 06/26/2003

1. [BUG FIXED]
Symptom: WLAN interface is down after using eWC to configure WLAN page.
2. [BUG FIXED]
Symptom: The delay time is less than 3 seconds when Debug Flag is turned off.
3. [BUG FIXED]
Symptom: The UART internal loopback test in HTP is fail when baud rate is 9600.
4. [FEATURE ENHANCED]
Add engineering CI command “wlan radio” to support test function required by H/W PQA.
Usage: wlan radio [mode] [ch] [rate] [preamble] [len] [mod] [antennaRx] [powerLoop] [cca] [autoResp]
where
mode: selects the mode of operation (TM_IDLE=0, TM_CONT_RX=3, TM_CONT_TX=4).
channel: selects the channel frequency in KHz (5280000=5,28GHz).
rate: selects the bitrate in units of 100 Kbps (540=54Mbps, 110=11Mbps) when modulation is enabled, else rate=6Mbps.
preamble: enable (1) selects short preamble when modulation is enabled and rate < 6Mbps.
len: data length of mpdu field for Cont TX or autorespond.
modulation: enable (1) or disable (0) modulation.
antennaRx: configures the rx antenna: antenna (0), (1) or diversity (2) (if available).
power_loop: enable (1) or disable (0) power control loop.
ccamode: configures ccamode, disabled (0), ED (1) or CS (2).
autorespond: configures auto respond mode. enabled (1) the card automatically responds to a frame with a correct.
5. [FEATURE ENHANCED]
Add hidden CI command “wlan profile [profile_id]” to change the profile of device.
The meanings of profile_id are:
0: 802.11b only
1: Mixed
2: Mixed (long range)
3: 802.11g only
4: test
5: 802.11b WI-FI
7: Mixed (short range)

6. [FEATURE ENHANCED]

Add hidden CI command “wlan burst [value]” to setup the max frame burst of device. Current default value is “650”, and there are 2 other values, “1000 and 1800” suggested by Intersil.

2. Manufactory Data in Bootbase

ZyNOS Version	: V3.50(HH.7) 05/15/2006 14:50:05
Bootbase Version	: V1.02 01/19/2004 15:04:00
Vendor Name	: ZyXEL
Product Model	: ZyAIR G-1000
ZyNOS Code Model	: RAS G1000
HTP Code Model	: HTP_G1000 V 0.1
ZyNOS ROM address	: 80008000
System Type	: 7
MAC Address	: 001349000001
Default Country Code	: FF
Boot Module Debug Flag	: 01
RomFile Version	: DD
RomFile Checksum	: f635
ZyNOS Checksum	: 0e75
Core Checksum	: 0ebc
SNMP MIB level & OID	: 060102030405060708091011121314151617181920
Main Feature Bits	: 84
Other Feature Bits	:
	9F F0 00 00 00 00 00 00 00-00 00 00 00 00 00 00
	00 00 00 00 00 00 00 00 00-00 41 13 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

```
Menu 1 - General Setup

System Name= G-1000
Domain Name=
First System DNS Server= None
  IP Address= N/A
Second System DNS Server= None
  IP Address= N/A
Third System DNS Server= None
  IP Address= N/A

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= ZyXEL
Hide ESSID= No
Channel ID= CH06 2437MHz
RTS Threshold= 2432
Frag. Threshold= 2432
WEP Encryption= Disable
  Default Key= N/A
  Key1= N/A
  Key2= N/A
  Key3= N/A
  Key4= N/A
  Authen. Method= N/A
Edit MAC Address Filter= No
Edit Roaming Configuration= No
Block Intra-BSS Traffic= No
Preamble= Long
802.11 Mode= Mixed
Max. Frame Burst= 650
Breathing LED= Yes

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
-----
1= 00:00:00:00:00:00 13= 00:00:00:00:00:00 25= 00:00:00:00:00:00
2= 00:00:00:00:00:00 14= 00:00:00:00:00:00 26= 00:00:00:00:00:00
3= 00:00:00:00:00:00 15= 00:00:00:00:00:00 27= 00:00:00:00:00:00
4= 00:00:00:00:00:00 16= 00:00:00:00:00:00 28= 00:00:00:00:00:00
5= 00:00:00:00:00:00 17= 00:00:00:00:00:00 29= 00:00:00:00:00:00
6= 00:00:00:00:00:00 18= 00:00:00:00:00:00 30= 00:00:00:00:00:00
7= 00:00:00:00:00:00 19= 00:00:00:00:00:00 31= 00:00:00:00:00:00
```

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8=	00:00:00:00:00:00	20=	00:00:00:00:00:00	32=	00:00:00:00:00:00
9=	00:00:00:00:00:00	21=	00:00:00:00:00:00		
10=	00:00:00:00:00:00	22=	00:00:00:00:00:00		
11=	00:00:00:00:00:00	23=	00:00:00:00:00:00		
12=	00:00:00:00:00:00	24=	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 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 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

<p>Menu 23.2 - System Security - RADIUS Server</p> <p>Authentication Server:</p> <p>Active= No</p> <p>Server Address= 0.0.0.0</p> <p>Port #= 1812</p> <p>Shared Secret= *****</p> <p>Accounting Server:</p> <p>Active= No</p> <p>Server Address= 0.0.0.0</p> <p>Port #= 1813</p> <p>Shared Secret= *****</p> <p>Press ENTER to Confirm or ESC to Cancel:</p>
--

Menu 23.4 – System Security – IEEE802.1X

<p>Menu 23.4 - System Security - IEEE802.1X</p> <p>Wireless Port Control= No Authentication Required</p> <p>ReAuthentication Timer (in second)= N/A</p> <p>Idle Timeout (in second)= N/A</p> <p>Key Management Protocol= N/A</p> <p>Dynamic WEP Key Exchange= N/A</p> <p>PSK = N/A</p> <p>WPA Compatible= N/A</p> <p>WPA Broadcast/Multicast Key Update Timer= N/A</p> <p>Authentication Databases= N/A</p> <p>Press ENTER to Confirm or ESC to Cancel:</p>

Menu 24.2.1 - System Maintenance – Information

<p>Menu 24.2.1 - System Maintenance - Information</p> <p>Name: G-1000</p> <p>Routing: BRIDGE</p> <p>ZyNOS F/W Version: V3.50(HH.7) 05/15/2006</p> <p>Country Code: 255</p> <p>LAN</p> <p>Ethernet Address: 00:13:49:00:00:01</p> <p>IP Address: 192.168.1.2</p> <p>IP Mask: 255.255.255.0</p> <p>DHCP: None</p> <p>Press ESC or RETURN to Exit:</p>

Menu 24.2.2 - System Maintenance - Change Console Port Speed

<p>Menu 24.2.2 - System Maintenance - Change Console Port Speed</p> <p>Console Port Speed: 9600</p>

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

Time Protocol= None
Time Server Address= N/A

Current Time: 00 : 04 : 38
New Time (hh:mm:ss): 00 : 04 : 21

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:

Menu 24.11 - System Maintenance –Remote Management Control

Menu 24.11 - Remote Management Control

TELNET Server: Port = 23 Access = ALL
Secure Client IP = 0.0.0.0

FTP Server: Port = 21 Access = ALL
Secure Client IP = 0.0.0.0

Web Server: Port = 80 Access = ALL
Secure Client IP = 0.0.0.0

SNMP Service: Port = 161 Access = ALL
Secure Client IP = 0.0.0.0

DNS Service: Port = 53 Access = ALL
Secure Client IP = 0.0.0.0

Press ENTER to Confirm or ESC to Cancel:

G-1000> 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

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```
ip tcp window 2
ip tcp ceiling 6000
ip icmp disc enif0 off
bridge mode 1
sys mbuf debug off
sys wdog sw on
```