



**Firmware Release Note**

## **ZyAIR G-3000H**

**Release 3.50(AAC.0)C0**

**Date:** July 13, 2005  
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## **ZyXEL ZyAIR G-3000H Standard Version release 3.50(AAC.0)C0 Release Note**

Date: July 13, 2005

**Supported Platforms:**  
ZyXEL ZyAIR G-3000H

### **Versions:**

ZyNOS Version : V3.50(AAC.0) | 07/13/2005 11:36:53  
Bootbase Version : V1.03 | 05/25/2005 16:49:07

## **Notes:**

1. ZyAIR G-3000H is a country dependent product. Please setup correct country code before shipping.
2. uAP code version is 1.2.8.0

## **Known Issues:**

1. WinXP supplicant doesn't work when it configures as 802.1x authentication with static WEP key.
2. WPA interoperability issue : When centrino station configure as WPA (or WPA-PSK) mode and data encryption field set as WEP, it can not work with G-3000H under WPA (or WPA-PSK) mode and using WEP as group key. In this case, user must configure the data encryption field as TKIP then stations will automatic switch the group key cipher as WEP after it received the WPA information element from G-3000H.
3. Online help in eWC is not ready.
4. WDS links will be broken temporarily with heavy traffics.

## **CI Command List:**

### **Features:**

#### **Modification in 3.50(AAC.0)C0 | 13/07/2005**

1. [FEATURE CHANGE]  
Modify to FCS version.

#### **Modification in 3.50(AAC.0)b1 | 25/05/2005**

1. First release for C3 firmware

## Appendix 1 : 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>	<a href="#">Vantage Related Command</a>	

### System Related Command

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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		
	cpu			
		display		display CPU utilization

#### Exit Command

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Command				Description
exit				exit smt menu

#### Ethernet Related Command

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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

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Command				Description
Wlan				
	active		[on/off]	set on/off wlan
	association			display association list
	chid		[channel id]	set channel
	diagnose			self-diagnostics
	essid		[ess id]	set ESS ID
	scan			scan wireless channels
	version			display WLAN version information

#### IP Related Command

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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 client 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

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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

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Command				Description
radius				
	showRunInfo			Show server running information.
	auth	show		show current radius authentication server configuration
		addAuthServer		Add an authentication server.
		delAuthServer		Delete an authentication server.
	acct	show		show current radius accounting server configuration
		addAcctServer		Add an accounting server.
		delAcctServer		Delete an accounting server.
8021x	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

# Vantage Related Command

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Command			Description
cnm	active	[0/1]	Display or set the CNM features to enable or disable . 0: disable 1: enable CNM features and communicate through WAN interface.
	sgid		Display sgid which is the unique ID of the device in Vantage.
	managerIP	[addr]	Display or set the IP of Vantage server/COMServer which manage this device. [addr] specifies the IP of the Vantage serve/COMServer.
	debug	[0/1]	Display or set the way of outputting CNM debug messages. 0: disable debug messages. 1: output the debug messages to console and can accept SGMP inquire message only after the device is registered to Vantage server.
	reset		Reset the state machine of SGMP and return to the state of SGMP_STATE_UNKNOWN. Device will re-register to Vantage server if CNM is active.
	encrykey	[string]	Display or set encryption key. [string] specifies the encryption key. to be set. Key length can not less than 8 alphanumeric characters long, if ecrymode is DES. Key length can not less than 24 alphanumeric characters long, if ecrymode is 3DES.
	encrymode	[0/1/2]	Display or set the encryption mode for SGMP messages. [0:NONE /1:DES/2:3DES] specifies the encryption mode to be set.
	keepalive		Display the time(second) to report agent keepalive 0: disable. Set the time(second) to report agent keepalive; the valid range : 10 ~ 2147483647
	version		Display the Vantage agent version.

## Appendix 2: Backup RADIUS Server

ZyAIR devices support at most 5/2 (eWC/CI command) backup radius servers and accounting servers setting. ZyAIR devices use the first radius server setting as the default configuration. Figure shows the backup radius server concept. There are two radius servers can be reached by ZyAIR device. If supplicant issue an authentication request to ZyAIR device and trying to authenticate with radius server, ZyAIR device will keep trying forward this request to radius server 1. If ZyAIR device keep trying for 3 times and radius server still doesn't response the request then ZyAIR device will auto switch the authentication request packet to radius server 2. The trying time interval is depending on the supplicant re-try interval.

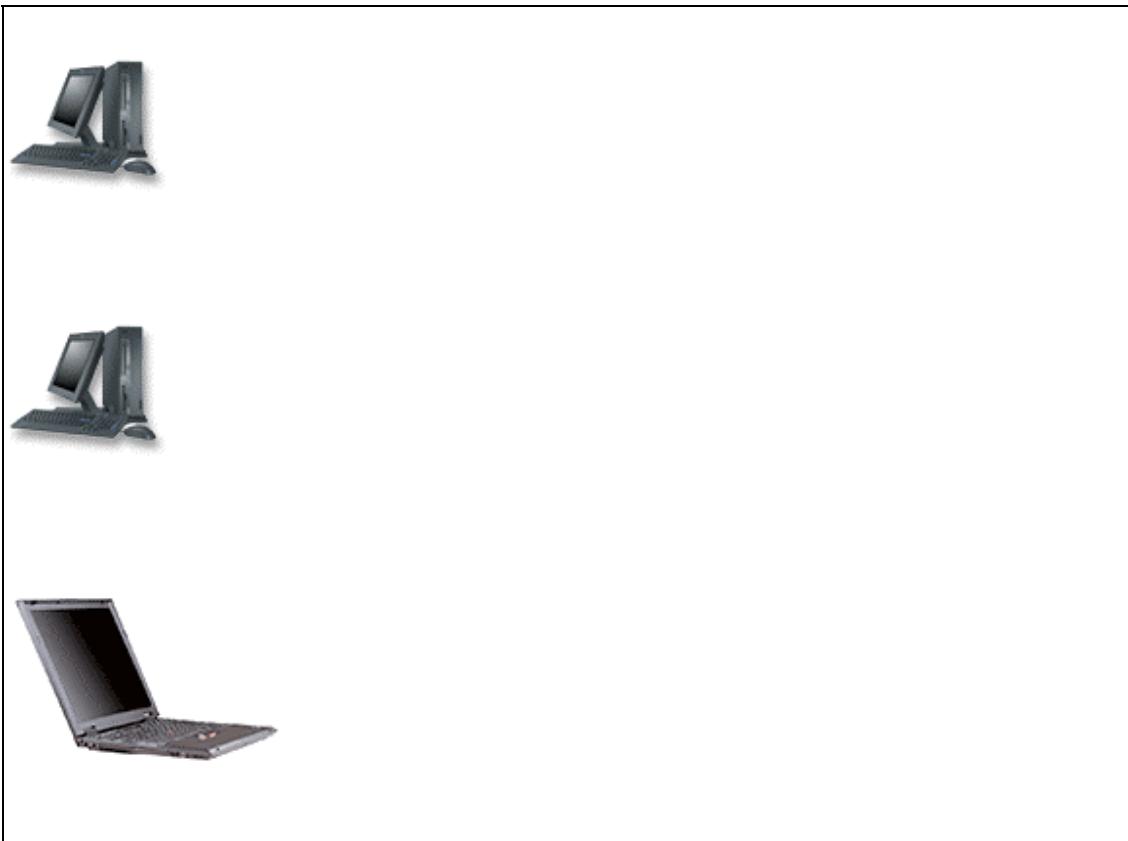
Supplicant

X

Radius server 1

Radius server 2

ZyAIR device





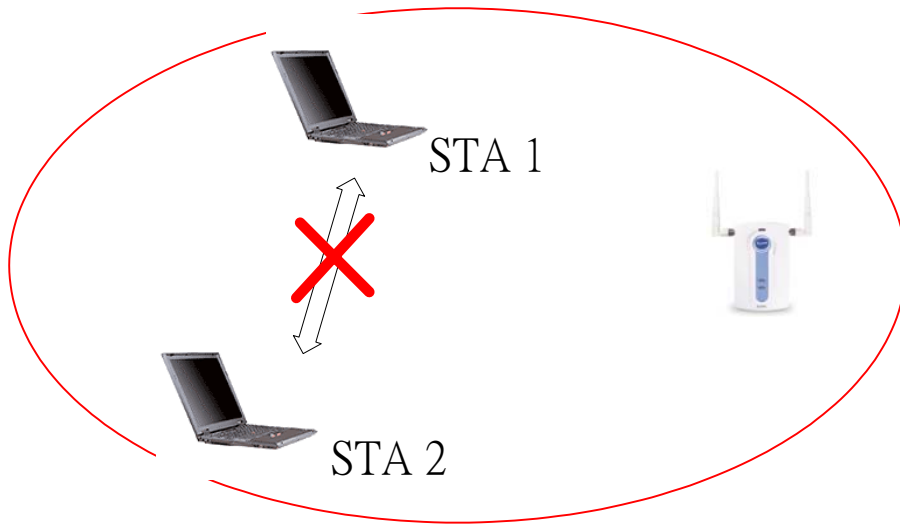






### Appendix 3: Blocking Intra-BSS traffic

For performance and security issues, G-1000P supports Blocking Intra-BSS Traffic feature. In public access WLAN, the users are not necessary to receive others' traffic. Therefore, Blocking Intra-BSS Traffic feature make AP not to forward STAs' traffic in a BSS area. This feature raises the security and performance obviously.



#### Appendix 4: Configurable Output Power

G-1000P provides configurable power to adjust AP's output power dynamically. This feature makes operator could limit AP's signal range and reduce the signal interference. On the other hand, it also strengthens the network security because the wireless signal will not leak out the undesired place.

