



Firmware Release Note

NWA-3100

Release 3.60(AAI.2)C0

Date:	February 2, 2007
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ZyXEL NWA-3100 Standard Version release 3.60(AAI.2)C0 Release Note

Date: February 2, 2007

Supported Platforms:

ZyXEL NWA-3100.

Versions:

ZyNOS F/W Version : V3.60(AAI.2) | 02/02/2007 14:32:50

Bootbase Version: V1.03 | 01/12/2007 13:37:13

Notes:

1. Online help in eWC is not ready.
2. Wireless MIBs are not ready.
3. In Bridge/Repeater modes, wireless scan and rogue AP detection are not supported.
4. In MBSSID mode, if there is no BSSID enabled, wireless scan and rogue AP detection are not supported.
5. In AP+Bridge mode, auto traffic classification (ATC) is not supported.
6. Rogue AP detection will affect the quality of VoIP service and may cause stations disconnected.
7. SMTP authentication only allows the account owner as the mail receiver.
8. Enable "L2 isolation" will cause "IntraBSS blocking" be enabled.
9. 802.11h is supported only in AP mode.
 - 5.25~5.7 GHz is supported only in AP mode.
 - No complete TPC support since no TPC report and related IEs in Beacon/Probe response.
 - COT (Channel Observation Time) is 60~65 secs.
10. In AP+Bridge mode, WMM voice is not enabled for VoIP SSID profile, because it will affect the performance of WDS links.
11. Use a recovery mechanism to handle wlan calibration fail issue. Message "WLAN calibration failed to complete, recover..." will show up on console while it happens.
12. NWA-3100 is a country dependent product. Please setup correct country code before shipping.

Known Issues:

1. In 802.11b+g mode, CTS-to-self is used to replace RTS/CTS.
2. Fragmentation threshold shall be an even number.

CI Command List:

Features:

Modification in 3.60(AAI.2)C0 | 2/2/2007

1. [FEATURE CHANGE]
Convert to FCS version.

Modification in 3.60(AAI.2)b2 | 1/24/2007

1. [BUG FIXED]
Symptom: Rom convert issue caused WLAN client can't associate with DUT successfully.
Condition:
 - (1). Saving configuration file in V3.60(AAI.1), and please see the attached file for detail.
 - (2). In V3.60(AAI.2)b1, restore the configuration from step1.
 - (3). You can find that WLAN client can't associate with DUT successfully any more.
2. [BUG FIXED]
Symptom: after over night, device exception at 11a mode.
3. [BUG FIXED]
Symptom: Centralized admin account can't work.
4. [BUG FIXED]
Symptom: Share secret of accounting can't be saved successfully.
Condition: Share secret of accounting can't be saved successfully.
 - (1). Type share secret = 1234 and press "apply".
 - (2). Change share secret = 1111 and press "apply"
 - (3). Change share secret = 1234 and press "apply". "Nothing changed: no need to perform save" message appears.

Modification in 3.60(AAI.2)b1 | 1/12/2007

1. [BUG FIXED]
Symptom: Throughput test issue, b3 version lower than b2,in super mode 11a RX, at high band(ch:149).
2. [BUG FIXED]
Symptom: This version(b3),still have the wlan calibration issue.
3. [FEATURE ENHANCED]
Upgrade Time Settings to new style including more time zones and new daylight savings.
4. [FEATURE ENHANCED]
Add selection of server certificate for SSH.
5. [FEATURE ENHANCED]
Change the file name extension of friendly AP list.
6. [FEATURE ENHANCED]
Support ethernet flow control.
7. [FEATURE ENHANCED]

- Enhance ATC to share one common queue for WLAN interface.
- 8. [FEATURE ENHANCED]
Support centralized admin account.
- 9. [FEATURE ENHANCED]
Support L2 isolation and MAC filter profile.
- 10. [FEATURE ENHANCED]
Enhance Web GUI menu layout.
- 11. [FEATURE ENHANCED]
Support control of accounting update.
- 12. [FEATURE ENHANCED]
Support 802.11h and DFS channel in AP mode.

Modification in 3.60(AAI.1)C0 | 12/18/2006

- 2. [FEATURE CHANGE]
Convert to FCS version.

Modification in 3.60(AAI.1)b1 | 12/14/2006

- 1. [BUG FIXED]
Modify HTP led display to meet TE requirement and fix HTP test fail issue.

Modification in 3.60(AAI.0)C0 | 10/27/2006

- 1. [FEATURE CHANGE]
Convert to FCS version.

Modification in 3.60(AAI.0)b4 | 10/20/2006

- 1. [FEATURE CHANGE]
DFS Channel is not supported.

Modification in 3.60(AAI.0)b3 | 09/05/2006

- 1. [BUG FIXED]
Symptom: WDS function with loop issue.
Condition: Config 6 DUT with mesh, it can't work well.
- 2. [BUG FIXED]
Symptom: Refresh rogue AP list and channel usage can't work when AP mode is set to 802.11a.
- 3. [BUG FIXED]
Symptom: GUI issue with channel usage.
Condition: When run the channel usage function, it show error.
- 4. [BUG FIXED]
Symptom: The Signal level not correct
Condition: The Signal Level at association list page, it show not correct, station utility show 100%, but our show 4%
- 5. [BUG FIXED]
Symptom: The fragthreshold function in VoIP SSID profile doesn't work well

Condition: Config frag=500, then select VoIP SSID profile, from the station, ping to ethernet PC (ping 192.168.1.199 -t -l 1000) it can't work well.

6. [BUG FIXED]

Symptom: From the Web, config Remote MGNT\Telnet\SSH Server Port, it need to restart.

Condition: From the Web, config Remote MGNT\Telnet\SSH Server Port, it need to restart. (can't real time change)

7. [BUG FIXED]

Symptom: Please add non fully support 802.11h+d in release note.

8. [FEATURE ENHANCED]

Logs\View Log: garbage info appear in the notes field.

9. [FEATURE ENHANCED]

Channel ID should be kept after changed 802.11 mode.

10. [FEATURE ENHANCED]

View Log\Please separate from WPA-PSK \ WPA2-PSK log message and delete 'unknown' wording in Notes field.

Modification in 3.60(AAI.0)b2 | 08/18/2006

1. [BUG FIXED]

Symptom: 16 stations stress test fail.

Condition: Run the stress testing over night, all station disconnect in 11b/g AP mode.

2. [BUG FIXED]

Symptom: beacon stop when we change the QoS mode.

Condition: when we config the QoS mode under the SSID profile, sometimes the Beacon will stop.

3. [BUG FIXED]

Symptom: WDS stress test fail.

Condition: Prepare 6 DUT, config with all AP+bridge mode, run the stress test over night, ftp fail.

4. [BUG FIXED]

Symptom: Device stop the beacon when setting the reauthentication times, idle timeout, Groupkey update timer.

Condition: when we config the device, change the security profile for WPA,WPA-PSK... , config those timer, device stop the beacon, reboot DUT is OK.

5. [BUG FIXED]

Symptom: Device stop the beacon when we change the SSID profile.

Condition: Config SSID profile, from the WPA mode profile to other mode profile, or come back to WPA mode SSID profile, the beacon stop.

6. [BUG FIXED]

Symptom: In AP+Bridge mode, change the SSID profile to the SSID with 802.1X only mode or Non security mode, DUT stop the beacon

Condition:

- (1). Config the option mode with AP+Bridge,
- (2). Select one SSID profile with security enable,
- (3). enable the WDS security,

- (4). Active a "Remote Bridge MAC address,
- (5). change the SSID profile to other SSID profile with Non security or 02.1x only mode,
- (6). Check the packet from Airopeek, It without the beacon(WDS&AP) both.
7. [BUG FIXED]
Symptom: DUT stop the beacon, when run the MBSSID mode over night
Condition:
 - (1). config operating mode=MBSSID mode, channel is CH7, active two SSID profiles, one security is WPA2-mixed mode, another is WPA2-PSK,
 - (2). Two stations connect to WPA2-mixed and one station connect to WPA2-PSK,
 - (3). Three stations only run the ping command (ping to Ethernet PC),
 - (4). Over night, all station disconnect. From the console no any message, Check the packet from the Airopeek, no any beacon.
8. [BUG FIXED]
Symptom: WPA2\WPA2-PSK: STA can't access network after changed Intra-BSS traffic blocking setting.
9. [BUG FIXED]
Symptom: WLAN STA can't ping and access DUT successfully after changed operating mode.
10. [BUG FIXED]
Symptom: please make sure the limit of "Friendly AP".
Condition: We can config more than 512 Friendly AP in the GUI.
11. [BUG FIXED]
Symptom: When Friendly AP more than 512. the Rogue AP function will show error
Condition: When Friendly AP more than 512. the Rogue AP function will show error
12. [BUG FIXED]
Symptom: Device exception when Friendly AP more than 512
Condition:
 - (1). Config 510 of "friendly AP ",
 - (2). From the "Rogue AP"page, select "3" Rouge AP from the list and add to "friendly AP list",
 - (3). DUT exception.
13. [BUG FIXED]
Symptom: Station can connect to DUT, but can't ping to DUT
Condition: 11a mode, In WPA-PSK, sometimes, station can connect to DUT but can't ping to DUT,
 - (1). this issue maybe happen in other WPA,WPA2 or WPA2-PSK mode,
 - (2). Intel 2915 with driver 9.0.4.17 and Odyssey client when press the "reconnect" button, easy to find out this bug.
14. [BUG FIXED]
Symptom: MBSSID\Enable VIRTUAL LAN: Intra-BSS traffic is always blocking.
15. [BUG FIXED]
Symptom: When finish the wireless setting, Check the VLAN page, the SSID show error.
Condition: When finish the wireless setting, Check the VLAN page, the SSID show error.

16. [BUG FIXED]
Symptom: the default SSID profile "VoIP" without WMM enable, please check.
17. [BUG FIXED]
Symptom: The content of warning message isn't correct when type invalid value in RTS/CTS Threshold and Fragmentation Threshold.
18. [BUG FIXED]
Symptom: In AP+Bridge mode and MBSSID mode, the Rouge AP function scan few of AP.
Condition: In AP+Bridge mode, Actually, we have more than 30 AP in our PQA, but, it only scan few of AP.
19. [BUG FIXED]
Symptom: WDS setting can't keep after change the operating mode. (GUI issue)
Condition:
 - (1). Config operating mode=AP+Bridge,
 - (2). Setting the "WDS security enable", "active", "MAC" and "PSK",
 - (3). change the operating mode to other mode,
 - (4). Come back to "AP+Bridge" mode, we can find that all config are clear.
20. [BUG FIXED]
Symptom: MBSSID setting can't keep after change the operating mode. (GUI issue)
Condition:
 - (1). Config operating mode=MBSSID,
 - (2). Config some SSID prfile to active,
 - (3). change the operating mode to other mode,
 - (4). Come back to "MBSSID" mode, we can find that all config are clear.
21. [BUG FIXED]
Symptom: In AP+Bridge mode and MBSSID mode, the "Channel Usage" function scan few of AP.
Condition: In AP+Bridge mode and MBSSID mode, Actually, we have more than 30 AP in our PQA, but, it only scan few of AP.
22. [BUG FIXED]
Symptom: RADIUS\Profile name should be checked to avoid the duplicate policy name.
23. [BUG FIXED]
Symptom: Please add management VLAN ID in SMT menu or CLI command.
24. [FEATURE ENHANCED]
Please gray the RTS&Frag threshold, when Super mode enable.
25. [FEATURE ENHANCED]
Please add operating channel information on wireless page when user chose 802.11a.
26. [FEATURE ENHANCED]
Please add WPA-PSK\WPA2-PSK WLAN STA association information on log field.

Modification in 3.60(AAI.0)b1 | 07/31/2006

1. First release for C3 firmware

Appendix 1: 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
Bandwidth Management Related Command	Certificates Related Command	RADIUS Related Command
802.1x Related Command	Wireless LAN Profile Configuration Related Command	Rogue AP Related Command

System Related Command

[Home](#)

Command				Description
sys				
	atsh			show firmware and system information
	callhist			
		display		display call history
		remove	<index>	remove entry from call history
	countrycode		[countrycode]	show/set country code
	datetime			
		date	[year] [month] [day]	show/set current date
		time	[hour] [minute] [second]	show/set current time
		period	[day]	show/set resync period
		sync		resync datetime with time server
	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
	logs			
		category		
			[8021x access error icmp mten packetfilter ppp cdr pki tls remote tcpreset wireless] [0 1 2 3] [0 1]	set various category log type setting
			display	display current logs setting
		clear		clear log
		disp		display log
		errlog		
			clear	clear error log
			disp	display error log
			online [on/off]	turn on/off error log online display
		load		load log
		mail		
			alertAddr <mail address>	alert mail target address
			clearLog <no/yes>	set clear log after sending mail
			display	display current mail setting

			logAddr	log mail target address
			schedule	
			display	display current schedule setting
			hour <0-23>	set hourly schedule
			minute <0-59>	set minute
			policy <0-5>	set schedule policy
			week <0-6>	set weekly schedule
			server <domain IP>	set mail server
			subject <subject>	set mail subject
		save		save log
		syslog		
			active <no yes>	set syslog active
			display	display current syslog setting
			facility <1-7>	set log facility
			server <domain IP>	set syslog server
		dupcheck	<0 1> [seconds]	set log duplicate check setting
		updateSvrIP	<minutes>	set minutes to update log server IP address
	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
	time		[hour [min [sec]]]	display/set system time
	trcdisp	parse, brief, disp		monitor packets
	trclog			
	trcpacket			
	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
	pwderrtm		[minutes]	set password error timeout value
	debug			
	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
	chid	<channel id>		set channel
	essid	<ess id>		set ESS ID, only for the first ssid profile
	fraThreshold			set wlan fragmentation threshold
	iapp			display iapp statistics information
	led	<on/off>		set wlan breath led
	opmode	<0-3>		set wlan operation mode (0=AP, 1=AP+Bridge, 2=Bridge only, 3=MESSID)
	outputpower	<0-4>		set wlanoutput power level (0=100%, 1=50%, 2=25%, 3=12.5%, 4=min)
	radio	<1-4>		set wlan radio mode (1: B Only, 2 G Only, 3: B+G, 4:A Only)
	rtsThreshold			set wlan RTS threshold
	removeSTA	<MAC>		remove the specified station
	reset			reset wlan interface
	scan			scan wireless channels
	ssidprofile			
		set	<profile name 1> [profile name 2] ...	select active SSID profiles
		show		display current selected SSID profiles
	version			display WLAN version information
	wds			display WDS information
	vlan			
		config	<ssid profile index> <vlan id> <2nd rx vlan id >	set VLAN ID for SSID profile
		nativeVLAN	<native vlan id >	set management VLAN ID
		status		display VLAN settings

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
	stroute			
	dropIcmp		<0:no 1:yes>	set drop fragment ICMP packets

Bridge Related Command[Home](#)

Bridge		Command		Description
	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
	rstp			
		bridge		
		enable		enable RSTP
		disable		disable RSTP
		priority	<priority>	set RSTP priority value
		maxAge	<max age>	set RSTP max age value
		helloTime	<hello time>	set RSTP hello time value
		forwardDelay	<delay>	set RSTP forwarding delay value

			version		display RSTP version
		port			
			enable	<port no.>	enable RSTP port
			disable	<port no.>	disable RSTP port
			pathCost	<port no.> <Cost 0:Auto>	set port pathCost, 0 = auto value
			priority	<port no.> <priority>	set port priority
			edgePort	<port no.> <0 1>	set port is edgeport or not
			p2pLink	<port no.> <0 1 2>	set p2pLink, 2 = auto, 1 = true, 0 = false
			mcheck	<port no.>	set port mcheck
		disp			show current RSTP detaied information
		trace	<debug level>		set RSTP debug flag
		state			show current RSTP brief status

Bandwidth Management Related Command[Home](#)

Command				Description
bm				
	monitor		<interface>	monitor bandwidth management status
	threshold	high/low	<value>	set auto traffic classification threshold

Certificates Related Command[Home](#)

Command				Description
certificates				
	my_cert	create		Create Self-Signed Certificate
		import		Import Self-Signed Certificate
		export	<name>	Export Self-Signed Certificate
		view		Display Self-Signed Certificate
		delete	<name>	Delete Self-Signed Certificate
		list		List Self-Signed Certificate
	ca_trusted	create		Create Trusted Certificate

RADIUS Related Command[Home](#)

Command				Description
radius				
	show			display radius settings

802.1x Related Command[Home](#)

Command				Description
8021x				
	debug	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
		pmkcache	show [channel]	show pmk cache of the specified channel.
		flush	[channel]	flush pmk cache of the specified channel.

Wireless LAN Profile Configuration Related Command[Home](#)

Command						Description
wcfg						

	ssid					
		<1/2/3/.../16 >				
			name		<profile name>	set name of the SSID profile
			ssid		<ssid>	set SSID
			hidenssid		<enable disable>	enable/disable hidden ssid
			intrabss		<enable disable>	enable/disable intrabss blocking
			security		<security profile name>	set selected security profile index
			radius		<radius profile name>	set selected radius profile index
			l2isolation		<enable disable> <profile name>	enable/disable L2 isolation profile
			macfilter		<enable disable> <profile name>	enable/disable macfilter profile
			qos		<0-6>	set qos mode of the SSID profile (0:NONE, 1:WMM, 2:WMM_VO, 3:WMM_VI, 4:WMM_BE, 5:WMM_BK, 6:ATC, 7:ATC_WMM)
			clear			clear profile setting to default
			save			save current profile to flash
			show			display current profile information
		display				display a brief list of all SSID profiles
		saveall				save all changed profiles into flash
	security					
		<1/2/3/.../16 >				
			name		<profile name>	set name of the security profile
			mode		<security mode>	security system mode selection.
			wpa2		<pmkcache: 0:off 1:on> <preauth: 0:off 1:on>	enable/disable pmk cache and pre-authentication for WPA2
			wep			
				keysize	<64 128> <ascii hex>	set WEP keysize (64-bits / 128-bits) and WEP key encoding
				auth	<open shared auto>	set WEP authentication method
				key1		set WEP key string 1
				key2		set WEP key string 2
				key3		set WEP key string 3
				key4		set WEP key string 4
				keyindex		key index (1~4)
			reauthtime		<seconds>	time for re-authentication
			idletime		<seconds>	idle time before force de-association
			groupkeytime		<seconds>	time for group key update
			passphrase		<key string>	passphrase for WPA-PSK and WPA2-PSK
			clear			clear profile setting to default
			save			save current profile to flash
			show			display current profile information
			acct		<0:off 1:on> <interval>	set on/off accounting update and interval
		display				display a brief list of all security

						profiles
		saveall				save all changed profiles into flash
	radius					
		<1/2/3/4>				
			name		<profile name>	set name of the radius profile
			primaryauth		<host> <port> <shared secret> <enable disable>	set primary radius authentication server setting
			primaryacct		<host> <port> <shared secret> <enable disable>	set primary radius accounting server setting
			backupauth		<host> <port> <shared secret> <enable disable>	set backup radius authentication server setting
			backupacct		<host> <port> <shared secret> <enable disable>	set backup radius accounting server setting
			clear			clear profile setting to default
			save			save current profile to flash
			show			display current profile information
		display				display a brief list of all radius profiles
		saveall				save all changed profiles into flash
	autocfg					
		server			<IP> <filename>	setup auto configuration TFTP server IP and filename, only works when static IP is used
		dhcp			[enable disable]	control auto configuration through DHCP setting
	macfilter					
		<1/2/3/.../16>				
			name		<profile name>	set name of the macfilter profile
			action		<deny allow>	set action of the macfilter profile
			macaddr		<entry ID> <MAC address>	set mac address of the macfilter profile entry
			description		<entry ID> <description string>	set description of the l2isolation profile entry
			clear			clear profile setting to default
			save			save current profile to flash
			show			display current profile information
		display				display a brief list of all macfilter profiles
		saveall				save all changed profiles into flash
	l2isolation					
		<1/2/3/.../16>				
			name		<profile name>	set name of the l2isolation profile
			macaddr		<entry ID> <MAC address>	set mac address of the l2isolation profile entry
			description		<entry ID> <description string>	set description of the l2isolation profile entry
			clear			clear profile setting to default
			save			save current profile to flash
			show			display current profile information
		display				display a brief list of all

						l2isolation profiles
		saveall				save all changed profiles into flash

Rogue AP Related Command

[Home](#)

Command				Description
rogueAP				
	config		[0:off 1:on] [interval]	set on/off rogue ap detection and interval
	editlist		[0:del 1:add] [MAC] [Description]	add/delete entry of friendly AP list
	clear			clear friendly AP list
	refresh			refresh friendly AP list
	rogueAPlist			display rogue AP list
	friendlyAPlist			display friendly AP list