ZyXEL

Firmware Release Note

ZyXEL G-560

Release V1.00(ZE.3)C0

Date: **September 28, 2005**

ZyXEL G-560 Standard Version
release V1.00(ZE.3)C0
Release Note

File Name:

G560 1.00(ZE.3)C0.bin : Firmware Upgrate file using for web.
g560.img   : Normal code upgrate file using for TFTP.
Htmfile   : HTML upgrate file using for TFTP.

Supported Platforms:

ZyXEL G-560

Software Base Versions:

TI APDK 5.2.2.22

Notes:
1. This version adds firmware upgrade to TI AP-DK6.0-based firmware (ex: V1.00(ZE.4)…) feature
2. Factory default:
    A. SSID: ZyXEL G-560, Security: None
    B. Static-IP: 192.168.1.2 / 255.255.255.0 / 0.0.0.0
    C. Password: 1234

Known Issues:
1. The device would reboot after applying user's modification.
2. The device would reboot 2 times during executing O.T.I.S.T. for applying OTIST specific setting and for restoring user's setting.
3. The device name on Web UI may not be updated instantly in IE 5.0 (it really has been applied into G-560).
4. The device only supports TKIP in WPA and WPA-PSK security mode.

CI Command List:
Main Features:

1. Multi-Language support (ex: Traditional Chinese, English, French, Italian, Spanish, Germany and Russian)

2. WPA and IEEE 802.1x security (EAP-TLS, *EAP-TTLS, LEAP,. EAP-PEAP and Win XP PEAP included)

3. Support 64/128/256-bits WEP

4. Support 802.1x dynamic WEP key exchange (default interval is 60 minutes)

5. Support MAC address filtering through WLAN (support up to 32 users)

6. Support block/un-block Intra-BSS Traffic

7. Support 4 levels' Tx output power control (ex: full, 50%, 25%, 12.5%)

8. Support DHCP client on LAN

9. Support WEB/TFTP firmware upgrade, configuration backup and restore

10. Support Telnet Server for CLI
11. Hardware Restore Factory Defaults button support
12. LED definition:

    PWR/SYS:

        ON: (Green) Power ON (Successful reboot)

        OFF: System failure or is not receiving power

        Blinking: Device is not ready or system booting

    ETHN

        OFF   : Has no Ethernet connection

        Green ON : 10M connection

        Green Blinking: sending/receiving data

        Amber ON : 100M connection

        Amber Blinking : sending/receiving data

    OTIST

        OFF: Factory default, modification or reboot manually after OTIST

        ON: (Green) OTIST handshaks successfully, and no more modification on device

        Blinking: OTIST is processing

    WLAN

        Blinking: Data TX/RX through wireless access point

        OFF : PWR OFF or wireless module disconnected

        ON : PWR ON or module in-active

13. Keep 128 records of Syslog on web page

Release History:

V1.00(ZE.3)C0:

Convert version string from "1.00(ZE.3)B1 | 2005/09/09" to "V1.00(ZE.3)C0"

V1.00(ZE.3)B1|2005/09/09:

1. [feature changed]
   It allows user to upgrade firmware version to TI AP-DK6.0-based firmware (ex: V1.00(ZE.4)xxx, include WPA2, WDS-enabled, QoS… features) from Web UI.

V1.00(ZE.2)C0:

Convert version string from "1.00(ZE.2)B1 | 2005/02/18" to "V1.00(ZE.2)C0"

V1.00(ZE.2)B1|2005/02/18:

1. [bug fixed]
   Sympton: DHCP (client) packets: Option 12 field (host name) of DHCP Discovery/Request packets is not G-560's "Device Name".
   Condition: 1) Settings->System->System Settings or Setup Wizard->Step1(IP address assignment). Change G-560's IP setting to DHCP and then press "Apply" button.
   2) Use Sniffer/Ethereal tools to capture LAN packets (BOOTP/DHCP protocol), extract packet and see option-12's content.
2. [bug fixed]

Sympton: G-560 cannot save DHCP setting after modifying and pressing "Apply" button on Web UI, but static-IP can.

Condition: 1) Settings->System->System Settings or Setup Wizard->Step1 (IP address assignment).

2) Change G-560's IP setting to Static-IP, assign IP/NetMask/Gateway and then press "Apply" button.

3) Change G-560's IP setting to DHCP and then press "Apply" button.

4) After Web page refreshed, G-560's IP setting doesn't change (It still shows Static-IP setting.)

3. [bug fixed]

Sympton: G-560 cannot change WLAN intra-BSS traffic setting after modifying and pressing "Apply" button on Web UI.

Condition: 1) Settings->Wireless. Check G-560's WLAN intra-BSS traffic setting and then press "Apply" button.

2) Uncheck G-560's WLAN intra-BSS traffic setting and then press "Apply" button.

3) After Web page refreshed, G-560's WLAN intra-BSS traffic setting still checked (It doesn't change.)

4. [bug fixed]

Sympton: G-560 cannot change WLAN max client limitation setting after modifying and pressing "Apply" button on Web UI.

Conditon: 1) Setting->Wireless. Check G-560's WLAN max client limitation setting and then press "Apply" button.

2) Uncheck G-560's WLAN max client limitation setting and then press "Apply" button.

3) After Web page refreshed, G-560's WLAN max client limitation setting still checked (it doesn't change)

V1.00(ZE.1)C0:

Convert version string from "1.00(ZE.1)B4 | 2004/12/14" to "V1.00(ZE.1)C0"

1.00(ZE.1)B4|2004/12/14:

1. [bug fixed]

Sympton: IP/Netmask/Gateway textboxes cannot use dot/Tab key to jump to next field quickly and correctly.

Condition: 1). Settings->System->System Settings. Click one of these textbox fields, input values and press dot/Tab key, it may not jump to next textbox field correctly.

2. [bug fixed]

Sympton: Passphrase function always generates the forth WEP key of 64/128/256-bit WEP to "0000... 0"

Condition: 1). Settings->Wireless->Security. Set wireless security to WEP (64/128/256-bit).

2). Enter printable string in passphrase textbox, click passphrase button to generate 4 keys.

3). Click apply button (wait for AP reboot), and then use CLI to see its setting: MAIN->privacy->showdefault.

3. [bug fixed]

Sympton: OTIST LED cannot light ON after finishing OTIST handshaking.

Condition: 1) Invoke OTIST function via RESET button (h/w) or Web (s/w).

2). After finishing OTIST handshaking, OTIST LED in front panel won't light ON.

1.00(ZE.1)B3|2004/12/06:

2. [feature changed]

128-bit WEP Passphrase function would generate 1 key and set it to all 4 keys (compatible with other ZyXEL wireless products)

3. [feature changed]
Association list page should includes associated date/time.

4. [feature changed]
Add Russian language Web UI into G-560.

5. [feature changed]
Add ZyXEL specific O.T.I.S.T. (one-touch intelligent security technology) multi-language help Web pages into G-560.

6. [bug fixed]
Sympton: While O.T.I.S.T. is in progress, DUT's Web UI can also apply new settings.
Condition:

7. [bug fixed]
Sympton: After enabling dynamic-IP (DHCP client) in Setup Wizard page, DUT neither reply any page nor switch to other Web page.
Condition:

8. [bug fixed]
Sympton: DUT displays message: "HREF without Appldata is found...Change HREF" while clicking "Start" button in O.T.I.S.T. page sometimes.
Condition:

9. [bug fixed]
Sympton: After finishing O.T.I.S.T. handshaking, O.T.I.S.T. LED cannot light ON correctly.
Condition: 1). Settings->Wireless->OTIST. Click "Start" button and wait for OTIST handshaking finished (about 180 seconds).
2). See O.T.I.S.T. LED on G-560 front panel

10. [bug fixed]
Sympton: After upgrading firmware from non-OTIST to OTIST version, several fields in O.T.I.S.T. page would display "undefined".
Conditon: 1). Upgrade firmware from non-OTIST version to OTIST version.
2). Open Settings->Wireless->OTIST page.

1.00(ZE.1)B1|2004/11/15:

1. [feature changed]
Add ZyXEL specific O.T.I.S.T. (one-touch intelligent security technology) function in Web UI and H/W button (press RESET button for 1~3 seconds and then release).

2. [feature changed]
Add "Hide SSID" function and use disable as its default value;
Add auto option into "Preamble Type" field.

3. [feature changed]
Use "*******" as WEP key1~4, WPA-PSK pre-shared key, WPA and 802.1X shared-key on Web UI.

4. [feature changed]
Add "(Web) system timeout management" CLI command:
MAIN->mgmt->showWebTimeout & setWebTimeout <min>

5. [feature changed]
Unless reset-to-default value, "Password Change" page won't display again once applied new password.

6. [feature changed]
Allow Web browser to be closed without log out, and then log in again without waiting for 5

minutes (only for the same IP).

7. [bug fixed]
    <u>Sympton</u>: ZyXEL's Web site hyperlink in Copyright.htm is http://www.zyxel.com.tw
    <u>Condition</u>:

8. [bug fixed]
    <u>Sympton</u>: After changing device name in System page and apply, it won't be updated immediately on IE 5.0
    <u>Condition</u>: 1). Settings->System->System Settings. Change device name and click "Apply" button.

1.00(ZE.0)B6|2004/10/20, 1.00(ZE.0)C0:

1. [feature changed]
    Remove ZyXEL specific O.T.I.S.T. function from CLI command

2. [bug fixed]
    <u>Sympton</u>: Press RESET button over 6 seconds, DUT won't reset-2-default and reboot.
    <u>Condition</u>:

1.00(ZE.0)B5|2004/10/15:

1. [bug fixed]
    <u>Sympton</u>: Once logging out Web UI, then it cannot log in again on IE 5.0 (javascript error)
    <u>Condition</u>:

2. [bug fixed]
    <u>Sympton</u>: After modifying time setting in Time Settings and apply, DUT would log out unexpectly.
    <u>Conditon</u>:

1.00(ZE.0)B4|2004/10/11:

1. [feature changed]
    Telnet and Web interface cannot be logged in at the same time, and telnet's priority is higher than Web.

2. [feature changed]
    Add 256-bit WEP Passphrase function.

3. [feature changed]
    Add Web multi-language help files (except O.T.I.S.T. and Russian language)

4. [bug fixed]
    <u>Sympton</u>: After applying new settings, Status page doesn't display save or not information.
    <u>Conditon</u>:

5. [bug fixed]
    <u>Sympton</u>: Several Web UI functions are different with Help files information, ex: Wireless Settings.
    <u>Condition</u>:

6. [bug fixed]
    <u>Sympton</u>: Multi-language messages cannot be displayed correctly on IE 5.0
    <u>Condition</u>:

7. [bug fixed]
    <u>Sympton</u>: SSID and Device name fields doesn't have
    <u>Conditon</u>:

1.00(ZE.0)B3|2004/09/16:

1. [feature changed]

   Disable max. clients, RTS/CTS and Fragmentation threshold fields as G-560 default settings;

   Enable Intra-BSS traffic fields as G-560 default setting;

   Set Preamble type: Long as G-560 default setting.

2. [feature changed]

   Only 1 client (through LAN or WLAN) can log in DUT's Web UI at the same time;

   DUT's Web UI should log out automatically after user idle over 5 minutes.

3. [feature changed]

   Expand max. length of SSID field to 32 characters.

4. [bug fixed]

   Sympton: When entering illegal value (ex: "aaa") in max. clients, RTS/CTS or Fragmentation threshold fields and apply, DUT will reboot.

   Condition:

5. [bug fixed]

   Sympton: DUT cannot apply Gateway IP address in System Settings page.

   Condition: 1). Settings->System->System Settings. Change Gateway IP address and click "Apply" button.

6. [bug fixed]

   Sympton: Multi-language Web UI (ex: French, Italian, Spanish and Germany) cannot display correctly.

   Conditon: 1). In Login page, press one of six language icons.

1.03(ZE.0)B2|2004/09/01:

1. [feature changed]

   Change Tx output power control options to full, 50%, 25% and 12.5%.

2. [bug fixed]

   Sympton: In Setup Wizard page, the WEP keys aren't correct as in Security page.

   Conditon: 1). Settings->Wireless->Security (Encryption Method: WEP). Input specific WEP keys and click "Apply" button.

   2). Setup Wizard->Step.3 Security Settings. Key1 isn't the same as we set in above step.

3. [bug fixed]

   Sympton: 128-bit WEP passphrase function of G-560 isn't compatible with G-162 utility.

   Condition: 1). Settings->Wireless->Security (Encryption Method: WEP, 128-bit). Input characters into passphrase textbox field and click "Generate" button.

   2). Input characters into passphrase field of G-162 utility and select key index. They are different except key1.

4. [bug fixed]

   Sympton: If new password is set to 30 characters, then DUT cannot use new password.

   Condition: 1). Settings->Management ->Password. Input 30 characters New and Confirm passwords, then click "Apply" button.

   2). Logout G-560, and then login again... failed.

5. [bug fixed]

Sympton: After applying new wireless settings, G-560's throughput will drop down half.

Condition: 1). Settings->Wireless->Wireless Settings. Click "Apply" button and use NetIQ chariot to measure its throughput.

6. [bug fixed]

Sympton: If Max. clients, RTS/CTS and Fragmentation threshold is set to max. value, then they'll be disabled in Web UI.

Condition: 1). Settings->Wireless->Wireless Settings. Change Max. clients, RTS/CTS or Fragmentation threshold to max. value, then click "Apply" button.

2). Re-open Settings->Wireless->Wireless Settings page, they'll be disabled.

7. [bug fixed]

Sympton: Web UI displays wrong wording "!§Backup!" in Configuration File page.

Condition: 1). Open Settings->Management ->Configuration File page.

8. [bug fixed]

Sympton: "device name" field would not be updated immediately on Web.

Condition: 1). Open Setup Wizard->Step.1 or Settings->System->System Settings page. Change device name and then click "Apply" button.

9. [bug fixed]

Sympton: If wireless mode change from B-only/B+ to G+, then G-162 cannot connect to it using G+ mode.

Condition: 1). Settings->Wireless->Wireless Settings. Set wireless mode to B-only or B+ mode, then apply it.

2). In the same page, change wireless mode to G+ mode, then apply it.

3). Open G-162 client utility, set data rate to 125Mbps (G+) and connect to G-560.

10. [bug fixed]

Sympton: It always shows "confirm password error" message while once changing password with different New and Confirm passwords input.

Condition: 1). Login G-560 and input New and Confirm passwords to change old one.

2). Input different passwords into New and Confirm fields, click "Apply" button.

3). In error message page, click hyperlink: "Return" to go back to step.2

1.02(ZE.0)B1|2004/08/20:

1. [feature changed]

It should displays all "0" on Web UI if DUT's WEP keys is empty.

2. [feature changed]

Expand max length of passphrase textbox field to 32 characters.

3. [feature changed]

Change DUT's default date/time from 1970/01/01 to 2004/01/01.

4. [feature changed]

Change DUT's default SSID to "ZyXEL G-560"

5. [feature changed]

Add warning Web page while upgrading firmware or config. Data in progress.

6. [bug fixed]

Sympton: Initial wrong VLINQ clock rate (62.5MHz->125MHz)

Condition:

7.   [bug fixed]

Sympton: DUT displays message: "HREF without Appldata is found...Change HREF" on Web UI.

Condition: 1). Modify DUT's setting and click "Apply" button on Web UI, ex:

Settings->Wireless->Wireless Settings... etc.

8.   [bug fixed]

Sympton: After applying different IP address to DUT, it'll neither reply Web page nor display warning information.

Condition: 1). Settings->System->System Settings. Check "Use Fixed IP Address" in IP address assignment part.

2). Change IP address to other values, ex: 192.168.1.2 to 192.168.1.3, and apply.

9.   [bug fixed]

Sympton: Gateway IP address cannot set to "0.0.0.0"

Condition: 1). Settings->System->System Settings. Change Gateway IP address to "0.0.0.0", then click "Apply" button.

10.   [bug fixed]

Sympton: WEP Passphrase function only accepts 0...9 and a...f/A...F keys, or it'd display error message.

Condition: 1). Settings->Wireless->Security (Encryption Method: WEP).

2). Input characters except 0...9, a...f or A...F into passphrase textbox, and click "Generate" button.

11.   [bug fixed]

Sympton: DUT's Web pages cannot display correctly on Netscapt/Mozilla.

Condition: 1). Settings->Wireless->Wireless Settings. Select "B+" in wireless mode field, it'd display empty string in this field.

1.01(ZE.0)B1|2004/08/10:
First Firmware Release

Telnet and CLI Command:

Command Class List Table		
BIT	privacy	4x
mgmt	serv	hal
wpa	show	production

Command			Description
MAIN	replevel		Update [set | reset] Report level: repl [- | +]<level_id>.
	reboot		reboot the AP.
	version		Display version information (TI APDK).
	!		Execute the last command.
	help		Display help message.
	exit		Quit the CLI console.
	BIT		G-560 Built In Tests (BIT) sub menu.
		fcc	fcc - interactive selection of band,

				channel, rate and mode.
		telec		telec - interactive selection of channel per current band.
		perTxCfg	<dstMAC>	perTxCfg <dstMAC>. Other parameters are intercative.
		perRxCfg		perRxCfg. Interactive command.
		perClrStat		Clears PER statistics.
		perTxStop		Stops Tx in PER test.
		perRxStat		Shows Rx statistics.
		perTxStat		Shows Tx statistics.
		Stop		Stops test mode, and reboot (must).
		manufac_test		Display G-560 information, ex: version, MAC, SSID, channel, regulator...
		help		Display this help message.
		exit		Quit this sub-menu.
	mgmt			
		accessPrint		Print Access List
		accessSetMAC		Add MAC address to access list <mac>
		accessRemMAC		Remove MAC address from access list <index>
		accessEnable		Enable access list <type(1-black, 0-white)>
		accessDisable		Disable access list
		deauthmng		Send a DeAuthentication message to a station <mac> <reason>
		disassocmng		Send a DisAssociation message to a station <mac> <reason>
		staTable		Print the station table
		hashTable		Print the hash table
		ratesTable		Print the station rates table
		counters		Print the mgmt counters
		log		Enable/Disable Mgmt log <mode(1-On, 0-Off)>
		aging		Enable/Disable Mgmt aging mechanism <mode(1-On, 0-Off)>
		show		Show parameters
		setWebtimeout		setWebTimeout <mins>
		showWebtimeout		Show web time out (mins)
		help		Display this help message
		exit		Quit this sub-menu
		test-mgmt		
			ratesTable	Print the station rates table
			null	Send a null mgmt frame <FC> <SA> <DA> <BSSID>
			a1	Send an authentication#1 frame <SA> <AlgoNum>
			a3	Send an authentication#3 frame <SA> <AlgoNum> <challenge>
			assoc	Send an association frame <SA> <PBCC (1-On, 0-Off)> <privacy (1-On, 0-Off)> <four x (1-On, 0-Off)>
			reassoc	Send a ReAssociation frame <SA>

					<PBCC (1-On, 0-Off)> <privacy (1-On, 0-Off)> <four x (1-On, 0-Off)>
				deauth	Send a DeAuthentication frame <SA> <reason>
				disassoc	Send a DisAssociation frame <SA> <reason>
				class3	Send class3 message to Mgmt task <SA> <index>
				challenge	Show the challenge text that was sent to a station <index>
				staTable	Print the station table
				hashTable	Print the hash table
				findSta	Find a station index <mac>
				insertSta	Find and insert a station index <mac>
				removeSta	Remove a station index <index>
				log	Enable/Disable Mgmt log <mode>
				reset	Reset Mgmt table
				showc	Show parameters.
				shows	Print the WLAN configuration params
				reboot	reboot the AP
				help	Display this help message
				exit	Quit this sub-menu
	wpa				
		show			Show WPA configuration
		staTable			Print the station table
		mode			Set allowed station types, 1 - On, 0 - Off <Legacy Stations> <EAP-TLS Stations> <WPA Stations>
		pass			Set the pass phrase mode (0 - None, 1 - HEX, 2 - ASCII)
		hex			Set PSK in HEX format, enter 8 numbers of 32 bits
		pwd			Set PSK in ASCII format, maximum 63 characters
		cipher			Set default cipher, used only when EAP-TLS stations are allowed and Legacy stations are not allowed, (1 - WEP 40, 2 - WEP 104, 3 - WEP 232)
		gtk			Set Group key update interval, in seconds
		secret			Set Radius Secret, maximum 63 characters
		port			Set Radius Port <port>
		addr			Set Radius IP Address <addr 1> <addr 2> <addr 3> <addr 4>
		gateway			Set Default Gateway <addr 1> <addr 2> <addr 3> <addr 4>
		reboot			reboot the AP
		help			Display this help message
		exit			Quit this sub-menu
		test-wpa			
				staTable	Print the station table

				rsnTable	Print the station's RSN IE
				insertSta	Find and insert a station index <mac>
				a1	Send an authentication#1 frame <SA> <AlgoNum>
				assocStation	Send assoc from station <SA> <RNS IE (0, 1)> <RNS Ie Len> <RSN Ie Value>
				reAssocStation	Send reAssoc from station <SA> <RNS IE (0, 1)> <RNS Ie Len> <RSN Ie Value>
				auth	Authorize a station <mac>
				deauth	De Authorize a station <mac>
				show	Show WPA configuration
				mac	Is mac authorized in TX direction
				suite	Set station suite <MAC> <0 - NONE, 1 - WEP, 2 - TKIP>
				bcast	Set broadcast suite <0 - NONE, 1 - WEP, 2 - TKIP>
				vector	Run MICHAEL test vectors
				setRxKey	Set Rx Mic key, <MAC> <key[1]> ....<key[8]>
				setTxKey	Set Tx Mic key, <MAC> <key[1]> ....<key[8]>
				micReportRx	Set Mic Failure report in the RX path, <1 - report, 0 - do not report>
				micReportStation	Set Mic Failure report from station, <1 - report, 0 - do not report>
				genTxMicFailure	Generate a TX Mic failure for a station <mac>
				reboot	reboot the AP
				help	Display this help message
				exit	Quit this sub-menu
	privacy				
		showconfig			Print privacy configuration parameters.
		shownotify			Show privacy notification information.
		showdefault			Show WEP default keys.
		counters			Print the WLAN privacy counters.
		authalgo			Set authentication algorithm <index(0,1)> <algorithm(1-Open system, 2-Shared key)> <mode(1-Enable, 0-Disable)>.
		timeout			Set authentication response timeout <1..4294967295>.
		option			Set privacy option <1-On,0-Off>.
		invoke			Set privacy invoked <1-On,0-Off>.
		id			Set WEP default key ID <id (0..3)>.
		exclude			Set exclude unencrypted <1-On,0-Off>.
		def5			Set default key <index (0..3)> <key[1]> ..... <key[5]>.
		def13			Set default key <index (0..3)> <key[1]> ..... <key[13]>.
		def29			Set default key <index (0..3)> <key[1]> ..... <key[29]>.
		map5			Set WEP mapping key <index (0..9)>

				<mac addr> <1-On,0-Off> <key [1]> ...... <key[5]>.
		map13		Set WEP mapping key <index (0..9)> <mac addr> <1-On,0-Off> <key [1]> ...... <key[13]>.
		map29		Set WEP mapping key <index (0..9)> <mac addr> <1-On,0-Off> <key [1]> ...... <key[29]>.
		bit		Set privacy bit flag, when on, if the AP has privacy and the st ation does not have, don't associate the station. <1-On,0-Off>.
		reboot		reboot the AP
		help		Display this message
		exit		Quit this sub-menu
	serv			
		vhcf		Set vHCF parameters.
		Enable		Service Enable.
		Disable		Service Disable.
		dualAP		Set Dual Ap status < 0= regular, Other = Dual>.
		woneIndex		Set the Wone configuration Index.
		macaddr		Set the WLAN port MAC address <mac>.
		rates		Set the 802.11b AP rates, <Max basic rate> <Max supported rate>. The max supported rate must be higher or equal to the max basic rate. The available rates are: 1, 2, 5 (for 5.5), 11 & 22.
		grates		Set the 802.11g AP rates used in Extended IE. For each rate enter : 'Y'=Supported, 'B'=Basic Supported, 'N'=Not supported, 'Enter'=unchanged.
		addrates		Set the additional 802.11g AP rates used in Legacy IE. For each rate enter : 'Y'=Supported, 'B'=Basic Supported, 'N'=Not supported, 'Enter'=unchanged.
		respratemode		Set the (re)Associate Response supported rates IE mode : 0=All AP rates in D6.1 format, 1=Only AP rates supported by STA in STA format.
		channel		Set the channel.
		beacon		Set the WLAN beacon period <1..65535>.
		ssid		Set SSID.
		dtim		Set the WLAN DTIM period <1..255>
		rts		Set RTS threhsold <0..2347>
		short		Set the short retry limit <1..255>
		long		Set the long retry limit <1..255>
		fallback		Set rate fallback value
		adapt		Set rate adaptation <0-Disable,

				1-Enable>
		frag		Set the fragmentation threshold <256..2346>
		transmit		Set the Max Transmit MSDU Lifetime <1..4294967295>
		receive		Set the Max Receive Lifetime <1..4294967295>
		show		Print the WLAN configuration params
		printrates		Print the Rates configuration params
		counters		Print the WLAN counters
		defaults		WARNING: FOR DEBUG USE ONLY!!! Restore nvram defaults.
		reboot		reboot the AP.
		agile		Set agile attribute <1-On,0-Off>
		preamblemode		Set preamble mode: <0-Always Long, 1-Always Short, 2-Local STAs>
		dynalgotimeout		Set Enhanced Dynamic Algorithms Timeout in [ms]
		pbccalgo		Set PBCC algorithm Mode: <0-Always off, 1-Always on, 2-Local STAs, 3-Dynamic, 4-Enhanced Dynamic>
		slotmode		Set Short Slot Time mode: <0-Always off, 1-Always on, 2-Local STAs, 3-Enhanced Dynamic>
		slotthreshold		Set Short Slot Time threshold (# of B rate packets)
		protmode		Set Protection Mode: <0-Always off, 1-Always on, 2-Local STAs, 3-Dynamic, 4-Enhanced Dynamic>
		prottype		Set Protection Type <0-RTS/CTS, 1-CTS To Self, 2-TI proprietary>
		dot11mode		Set 802.11 Mode <0-Mixed mode, 1-802.11b only, 2-802.11b+, 3-802.11g only, 4-802.11a >
		CwMinMode		Set CwMin mode: <0-(CwMin=31), 1-(CwMin=15), 2-(CwMin dot11mode dependent)>. Note that CwMin=15 in any mode when 4x is enabled.
		caloption		Set the radio calibration option
		calinterval		Set the radio calibration interval in [sec], 0-Disable
		usageTimeMode		Set the band Usage Time type: 0 = short 1 = long
		setUsageTime		Set the band Usage Time
		radioParams		Edit Radio parameter table
		help		Display this message
		exit		Quit this sub-menu
		SsidLib		SSID Library Features set-up
			show	Print the SSID params.
			ssid	Set SSID.
			hiddenssid	Enable / Disable Hidden SSID mode.
			multiplessid	Enable / Disable Multiple SSID mode.

			addssid	Add Multiple SSID element.
			removessid	Remove Multiple SSID element from a list.
			reboot	reboot the AP.
			help	Display this help message.
			exit	Quit this sub-menu
		features		Advanced features (e.g. 802.11d) configuration
			show	Show 802.11 d & h config params.
			printreg	Show Regulatory Domain information.
			channel	Set the channel
			multidomain	Enable - 1 and Disable - 0 multidomain capability (802.11d)
			powerconst	Set power constraint (default = 0 dBm)
			SetRegDomain	Set Regulatory Domain from a list (default = FCC)
			txpowerlevel	Set Max Tx Power Level <1..5>
			setpowerlevels	Set the 5 Tx power levels (dBm) per band (1st param, 0-G, 1-A)
			countrystring	Set dot11CountryString (2 bytes)
			reboot	reboot the AP
			help	Display this help message
			exit	Quit this sub-menu
	show			
		bssbridge		Bss Bridge Statistics
		powersave		Power Save Status
		txstat		Print Tx Statistics
		mibwlan		Print WLAN MIB2 counters
		lanstat		Print EMAC MIB2 counters
		lanpool		Print EMAC buffer pool
		memmngrstat		Print Memory Manager statistics
		rateadapt		Print Rate Adaptation status
		help		Display this help message
		exit		Quit this sub-menu
	4x			
		show		Show the 4x params.
		concatsize		Set the max concatenation size (1522-4095)
		set		Enable/Disable 4x Feature, <4x Enable(1-On, 0-Off)> <Concatenation(1,0)> <Ack Emulation(1,0)>
		mixmode		Enable/Disable 4x with cck
		bursting		Enable/Disable Packet bursting <mode(1-On, 0-Off)>
		dbg		Enable/Disable concat debug <mode(1-On, 0-Off)>
		table		Displays four X table
		featureset		4x FeatureSet (0/1)
		burstLimit		Set Packet burst time limit in MicroSec.
		reboot		reboot the AP
		help		Display this help message

		exit		Quit this sub-menu
	hal			
		fwVersion		Print the firmware version
		acxParams		Print Acx100 nvram parameters
		txinfo		Print Tx Info <Qid=0,1 EnableQprint = 0-FALSE/1-TRUE> (queues and buffers)
		rxinfo		Print Rx Info (queues and buffers)
		txqueue		Print Tx queue <Qid=0,1> status
		txIndicator		Print Tx queue <Qid=0,1> status
		rxqueue		Print Rx queue <Qid=0> status
		txbufs		Print Tx buffers status
		intr		Print Interrupt object status
		mbox		Print mailbox object status
		acxstat		Print Acx100 statistics
		restartstat		Print restart statistics
		restartenable		Enable FW Watchdog WA <1-enable 0-disable>
		waoptions		Set WA options: Rx Free Mem (0-disable,1-enable) Beacon not sent (0-disable, N-trigger time[sec]) Tx Acx free (0-disable, N-trigger time[sec]) Rx Cons FCS (0-disable, N-trigger time[sec])
		energydetectEn		Enable Energy Detect <1-enable 0-disable>
		energydetectSh		Displays energy detect status
		vlynqerrorscnt		Dispalys number of vlynq errors occurred
		help		Display this help message
		exit		Quit this sub-menu
		Diag		Hal diagnostic parameters.
			eed	Serial EEPROM dump
			eer	Serial EEPROM read <addr>
			eew	Serial EEPROM write <addr> <value>
			SetTxCompleteTrsh	Set Tx Complete Threshold (Val)
			SetPsMode	SetPsMode(Val) - Set Ps mode (0, 1)
			PrintRegs	Print low level registers
			PhyRegWrite	PhyRegWrite(Addr, Val) - Write Phy register
			PhyRegRead	PhyRegRead(Addr) - Read Phy register
			MacRegWrite	MacRegWrite(Addr, Val) - Write Mac register
			MacRegRead	MacRegRead(Addr) - Read Mac register
			SetRxPromiscuous	SetRxPromiscuous(Val) - Set Promiscuous mode (0, 1)
			ModeSniffer	ModeSniffer(Val) - Set Mode Sniffer (0,1)
			PrintFwVersions	Print Fw versions
			SelectFwNumber	SelectFwNumber(Val) - 0 or 1 (local), 2 (remote)

				SetQueueSizeType	SetQueueSizeType(Val) - Type = 0(more queues) or 1
				PrintRadioVer	Print Radio versions
				SelectRadioNum	SelectRadioNumber(Val) - 0 or 1 (local), 2 (remote)
				SetNvByte	SetNvByte(Addr, Val) - Set hal nvram byte
				TraceEnable	TraceEnable(Val) - Enable tracer (0, 1)
				TracePrint	TracePrint(Num, From) - Print trace info.
				TraceRxStat	Print the tracer Rx statistics
				help	Display this message
				exit	Quit this sub-menu
	production				
		reboot			reboot the AP
		dir			dir - List available modem software versions
		erase			erase <sec #> - Erase sector <sec#> from Flash
		dl			dl <sec#> <srvIP> <name> - Downld <name> from <srvIP> to <sec>
		setdef			setdef <sec#> - Set <sec#> as default modem software
		prodshow			prodshow - Show production params.
		prodset			prodset - Set production params.
		proddef			proddef - Set production default params
		password			password <pwrd>- Set production menu password
		help			Display this help message
		exit			Quit this sub-menu