



# P-870H/HW-51a V2

## OBM Version

### Firmware Release Note

1.01(AWZ.4)C0

Date: Jan 3, 2011

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## Revision History

Date	Release	Author	Description
2009/9/30	1.0	KuanJung Tung	FW release for 1.01(AWZ.6)b1
2009/10/21	1.1	KuanJung Tung	FW release for 1.01(AWZ.6)b2
2009/10/29	1.2	KuanJung Tung	FW release for 1.01(AWZ.6)b3
2009/11/23	1.3	KuanJung Tung	FW release for 1.01(AWZ.6)b4
2009/11/25	1.4	KuanJung Tung	FW release for 1.01(AWZ.6)C0
2009/12/24	1.5	KuanJung Tung	FW release for 1.01(AWZ.6)C0
2009/12/28	1.6	Wespe Lee	FW release for 1.01(AWZ.0)D0
2010/02/09	1.7	Wespe Lee	FW release for 1.01(AWZ.1)b1
2010/02/10	1.8	Wespe Lee	FW release for 1.01(AWZ.1)C0
2010/02/10	1.9	Wespe Lee	FW release for 1.01(AWZ.1)D0
2010/03/01	1.10	Wespe Lee	FW release for 1.01(AWZ.2)b1
2010/03/08	1.11	Wespe Lee	FW release for 1.01(AWZ.2)b2
2010/03/18	1.12	Wespe Lee	FW release for 1.01(AWZ.2)b3
2010/03/31	1.13	Wespe Lee	FW release for 1.01(AWZ.2)b4
2010/04/12	1.14	Wespe Lee	FW release for 1.01(AWZ.2)C0
2010/04/16	1.15	Wespe Lee	FW release for 1.01(AWZ.2)D0

2010/06/02	1.16	Wespe Lee	FW release for 1.01(AWZ.3)b1
2010/06/29	1.17	Wespe Lee	FW release for 1.01(AWZ.3)b2
2010/07/09	1.18	Wespe Lee	FW release for 1.01(AWZ.3)b3
2010/07/19	1.19	Wespe Lee	FW release for 1.01(AWZ.3)b4
2010/07/30	1.20	Wespe Lee	FW release for 1.01(AWZ.3)b5
2010/08/09	1.21	Wespe Lee	FW release for 1.01(AWZ.3)C0
2010/10/08	1.22	FuChia Huang	FW release for 1.01(AWZ.4)b1
2010/11/04	1.23	FuChia Huang	FW release for 1.01(AWZ.4)b2
2010/12/21	1.24	FuChia Huang	FW release for 1.01(AWZ.4)b3
2011/01/03	1.25	FuChia Huang	FW release for 1.01(AWZ.4)C0



# ZyXEL P-870H/HW-51a V2 OBM

## 1.01(AWZ.4)C0

### Release Note

Date: Jan 03, 2011

## Supported Platforms:

ZyXEL P-870H/HW-51a V2

## Versions:

Bootbase version: V1.13 | 06/29/2010

Firmware version: 1.01(AWZ.4)C0

Kernel version: 2.6.21.5

DSL code version: A2pv6bC012d.d21k5

WLAN code version: 5.10.85.0.cpe4.402.8

## Notes:

- 1 When upgrading fw from 100AWZ3C0 or early fw to 100AWZ4C0 or later, the setting is reset to the default setting in new firmware.
- 2 WDS can't work while enabling WPS

## Features list:

### Modification in 1.01(AWZ.4)C0| 01/03/2011

1. Changes to FCS version.

### Modification in 1.01(AWZ.4)b3| 12/21/2010

2. [BUG FIXED]
  - (SPRID: 101117187) Wireless button issues.
    - i. Wireless On/Off: press button for 1 second.
    - ii. Wireless WPS enabled: press button for 5 seconds.
  - (SPRID: 101122662) [TR-069] CPE GetParameterValues:  
"InternetGatewayDevice.LANDevice.{i}.LANHostConfigManagement.MaxAddress" is incorrect.
    - i. Correct the support list of TR069 of P-870H/HW-51a V2.

- (SPRID: 101124949) Number of wireless stations allowed 123 values in WLAN--> Advance.
    - i. According to PS, limit the maximum number of wireless stations to 64.
  - (SPRID: 101124874) [QoS] Upstream & Downstream Bandwidth doesn't follow DSL link rate.
    - i. Limit the management rate of downstream and upstream to 1000Mbits.
  - (SPRID: 101125111) [QoS] If add Queues up to 4 and their priority and weight are same, after delete these Queues, we can't add any new Queue.
3. [FEATURE ENHANCEMENT]
- Support static DHCP client.
  - Support following parameters can be configured via DHCP option 43 with specific sub-option.
    - i. ACS URL(sup-option 1)

## **Modification in 1.01(AWZ.4)b2| 11/04/2010**

4. [BUG FIXED]
- (ITS #54320) [USA] Cross traffic between port groups.
  - (ITS #55605) DHCP Option 60 Wildcard Implementation Request. Customer can create an interface group by DHCP option 60 with enabling wildcard prefix feature.
  - (ITS #54506) [USA] Device breaks after loading rom-d on latest FW.
  - (SPRID: 100720929) [PL]P-870HW-51a v2 WLAN Channel autoselection
  - (SPRID: 100720930) [Customer] P-870HW-51a v2 WLAN ON/OFF button.

When wireless is disabled by ISP and configuration page is hidden, end user can still enable wireless feature by pressing WPS/WLAN ON/OFF button. This is security hole in 2-layer login implementation.
  - (ITS #) [Romtelecom] TR-069 supports FTP download method
  - (SPRID: 091224820) [Multimedia Poland]VDSL disaster!
    - i. Add one item "Quick Setup" in WEB GUI, for this Quick Setup, User only could configure PPPoE username/password for wan.3) If we block access to WAN setup for standard user. It should be possible use "Quick Start" for set ppoe username/password, but other options like: WAN IP, VLAN, WLAN configuration should be unavailable in "Quick Start".
    - ii. keep 2-tire login proposal and add "Quick Setup" as one item of 2-tire login.
    - iii. Customer hopes it will be possible change default port for management

access, for example, we can change the standard port (21/22/23/80) into the non-standard port.

- (ITS #54295) [Customer] TR069 feature request. WAN interface used by TR069 must can be changed to the active PPPoE interface.
- (ITS #50724) [Customer] P870 VPN limitation issue. Customer reported they only can connect one VPN session successfully with P870.

## **Modification in 1.01(AWZ.4)b1| 10/08/2010**

### 5. [BUG FIXED]

- (ITS #53859)[PL] P-870HW-51a v2 cannot get DNS server automatically.

## **Modification in 1.01(AWZ.3)C0| 08/09/2010**

### 1. Changes to FCS version.

## **Modification in 1.01(AWZ.3)b5| 07/30/2010**

### 2. [FEATURE MODIFICATION]

- When both admin and user accounts do not have wireless authority in Login Privileges, the wireless hardware button would lose its function.
- ### 3. [BUG FIXED]
- (SPRID: 100720052) QoS - Regulated Classes Member Setting issue (only in Google browser).
  - (SPRID: 100720053) QoS - When the queue is not set >> add new class rule >> Will be two Ether Type.
  - (SPRID: 100720037) Only supervisor account can push connect/disconnect button on GUI status page when the connection type is PPPoE

## **Modification in 1.01(AWZ.3)b4| 07/19/2010**

### 1. [BUG FIXED]

- (SPRID: 100714617) QoS Class - Add the new class to a LAN/WLAN or WAN Queue, the "From Interface" item don't chosen and Enable Ether Type >> Apply >> browser will show "無法顯示此網頁"
- (SPRID: 100714618) QoS Class - Add or edit the class rule to a LAN/WLAN or WAN Queue, Disable "From Interface" and "Ether Type" >> Apply >> GUI can't be show error message "QoS Classification Config Error", but if next step to add

or edit the class rule, GUI will show error message "QoS Classification Config Error".

- (SPRID: 100714624) QoS Class - Down - Add the class rule to a LAN/WLAN Queue, Basic Enable Ether Type=802.1Q / Other Enabe 802.1p=5, VLAN ID=123 >> Apply >> Edit the class rule >> GUI will show Basic Enable Ether Type=IP / Other Disable 802.1p=5, VLAN ID=123 >> Setup rule and Edit rule are different.
- (SPRID: 100714620) Tr069 doesn't respond "fault code 9006".

## **Modification in 1.01(AWZ.3)b3| 07/09/2010**

### 1. [BUG FIXED]

- (SPRID: 100607453) Firmware V1.01(AWZ.3)b1 in P-870H-51a has Wireless Function.
- (SPRID: 100701118) Trigger Port - Set Trigger Port rule, protocol only show 1 or 2 or 3. (1=TCP, 2=UDP, 3=TCP/UDP)
- (SPRID: 100702236) Wireless WPA, WPA-PAK, WPA2, WPA2-PSK - "Group Key Update Timer" and "Network Re-auth Interval" can be set "number + word" (example: 10zy) in General, More AP pages.
- QoS tagging for second interface will fail when first interface is in routing mode and second is in bridged mode.

### 2. [FEATURE ENHANCEMENT]

- DUT service (ftp/http/ssh/telnet/tftp) ports could change by GUI or telnet.

## **Modification in 1.01(AWZ.3)b2| 06/29/2010**

### 1. [BUG FIXED]

- (SPRID: 100603268) Time Setting - Get from Time Server "(GMT+02:00) Cairo" can't work.
- (SPRID: 100603269) Time Setting - Get from Time Server "(GMT+12:00) Fiji, Kamchatka, Marshall Is." can't apply.
- (SPRID: 100603270) Add Access Time Restriction - The First rule of user name enter more than 40bit, username will show " " (empty) and can't remove the rule.
- (SPRID: 100603271) Add Access Time Restriction - The first rule of user name enter equal to 40-bit, username will show "The fill in the user name + 1439".
- (SPRID: 100603272) Enter WAN service Description enter max chars (32bit) >

Complete WAN setting > Modify the WAN rule > (Problem1) Enter WAN service Description will be loss last bit.

- (SPRID:100604419) WAN Service Configuration - MTU [68-1500]. MTU [68-1500] enter "1500" bytes of PPPoE Mode. Error Message adds "for PPPoE Mode".
- (SPRID:100604422) WAN Service Configuration - In PPPoE Mode, "static IP" can set the IP does not meet the format. (example: 1000.2000.3000.4000)
- (SPRID:100604424) DHCP Setup - pool size enter "number+word" (example: 40a) > Apply > Pool Size will show 40.
- (SPRID:100604425) Interface Group - can't be config "Criteria". Enabled any Criteria items > Apply > Web show "401 Unauthorized Authorization required"
- (SPRID:100604428) General Password - can't be modified login DUT password.
- (SPRID: 100607453) Firmware V1.01(AWZ.3)b1 in P-870H-51a has Wireless Function.
- (SPRID: 100607517) QoS - Downstream class setup failure conditions with MSC mode.
- (SPRID:100607521) Please add the notes about Priority level in the QoS Queue Configuration page, "1" is the highest or lower.
- (SPRID:100607522) Regulated Classes Member Setting in QoS Policer setup page only the upstream class, not downstream class.
- (SPRID: 100608617) QoS - [Class Setup]. Set Ether Type=802.1Q (8x8100), Enable 802.1P=4CL and VLAN ID=1000 > Apply > Edit > Not the original setting.
- (SPRID: 100608619) QoS - [Downstream - Class Setup] should not be set "Forward To Interface".
- (SPRID: 100609710) Login Privileges - (1) Only modify account-Administrator need to enter User Password. (2) Only modify account-User need to enter Administrator Password.
- (SPRID: 100609711) QoS - Class Setup. When two class rule (order1 and order2), Modify one rule of "Classification Order" for the "last", The rule of Order will show "3", but only set two class rule.
- (SPRID: 100609714) QoS - [Downstream - Class Setup]. Don't Enable "From Interface=ptm0.0", all criteria configuration can't work.
- (SPRID: 100610787) QoS - [Policer Setup]. Policer Setup web framework can be down.
- (SPRID: 100610791) QoS - [Policer Setup]. Should not be set "Conforming

Action=Drop" and Non-Conforming Action=Pass with all Meter Type.

- (SPRID: 100610762) Use admin account (or User account) by default to login GUI, some of wireless functions will display "401 Unauthorized".
- (SPRID: 100610763) If set all accounts with the same name (different password), only administrator account's authentication can display.
- (SPRID: 100610764) Use admin account(or User account) by default to login GUI, when modifying Static route functions will display "401 Unauthorized"
- (SPRID: 100610786) System Configuration - Back to Factory Default. When use account "Supervisor" and "user" login GUI, Back to Factory Default still show "Password will be 1234" with System Configuration pages.

## 2. [FEATURE MODIFICATION]

- Prevent Security holes of Login Privileges
  - i. When DUT registers to ACS server, if Login Privileges setting in Scratch pad is empty, save the Login Privileges setting into Scratch pad. The order of the data to be saved into Scratch pad is: ROM-D configuration first, default configuration second.
  - ii. When system reboots, it will check Login Privileges setting. The order of the data to be used to overwrite the current Login Privileges setting is: Scratch pad first, ROM-D second.
  - iii. If Login Privileges setting is configured by ACS server, the setting will be saved into Scratch pad directly.
- Configurable TR-069 inform with DUT serial number or MAC address.
- Wireless setting in Quick Start follows Login Privileges setting.

## 3. Change all accounts passwords to 1234 for consistency.

## **Modification in 1.01(AWZ.3)b1 | 06/02/2010**

### 1. [FEATURE ENHANCED]

- QoS V2: Auto mapping, Ingress Policer, RED, Downstream QoS
- Login privileges and Quick Start
- Four types of cone NAT
- Wireless Scheduling
- ZyXEL diagnostic and ZyXEL auto execution features

### 2. [BUG FIXED]

- Only one VPN session can be setup successfully through CPE.

**Modification in 1.01(AWZ.2)D0 | 04/16/2010**

1. Change the version from 1.01(AWZ.2)C0 to 1.01(AWZ.2)D0.
2. TR069 default setting is modified as below:
  - ACS URL: <http://acs.fpt.net/cpe/>
  - Inform: Enabled
  - Inform interval: 86400
  - ACS username / password: acstr69 / acstr69
  - Connection request username / password: cpetr69 / cpetr69
  - WAN Internet used by TR-069 client: ppp0\_1
3. WAN interface ppp0\_1 default setting is modified as below:
  - Description: Internet / Type: PPPoE / ConnId: 1
  - IGMP Disabled / NAT Enabled / Firewall Enabled
  - No VLAN settings
4. WAN interface ptm0\_2 setting is added as below:
  - Description: IPTV / Type: Bridge / ConnId: 2
  - NAT Disabled / Firewall Disabled
  - No VLAN settings

**Modification in 1.01(AWZ.2)C0 | 04/12/2010**

1. Change to FCS version.

**Modification in 1.01(AWZ.2)b4 | 03/31/2010**

1. [BUG FIXED]
  - (SPRID: 100326561) Don't add one class and "exclude" Destination Port Range rule. Only add one no "exclude" Destination Port Range rule.
  - (SPRID: 100322985) Add new "Queue Setup" and "Class Setup" rule after edit this new rule, setting value is empty.
  - (SPRID: 100329669) TR069 Inform Interval can be set below 30 seconds.

**Modification in 1.01(AWZ.2)b3 | 03/18/2010**

1. [BUG FIXED]
  - (SPRID: 100310794) Windows UPnP icon speed rate show mistake.
  - (SPRID: 100309640) Web > Network > Wireless Lan > Scheduling is not supported.

- (SPRID: 100310795) Cone NAT is not supported in this release.
- (SPRID: 100311954) WAN PPPoE connection setting lacks the firewall option.

## **Modification in 1.01(AWZ.2)b2 | 03/08/2010**

1. [BUG FIXED]
  - GUI does not response after booting for about 5~10 minutes.
  - After booting for 5mins, the internet LED is always light, not blinking, when internet has traffic.

## **Modifications in 1.01(AWZ.2)b1 | 03/01/2010**

1. [FEATURE ENHANCED]
  - Based on FPT requirement, add VDSL statistic page to show SNR margin.
  - WAN NAT needs to be able to enable or disable through GUI under PPPOE mode.
  - LAN client can choose to set WAN interface DNS server.
2. [BUG FIXED]
  - BRCM's patch (CSP240488): IGMP proxy enhancement into trunk which solves Microsoft Mediарoom problem.
  - SetParameterValues in which one parameter fails, then however, the CPE changes the value for other ones.
  - GUI packet statistic stops at max 2147483647.
  - In Telefonica field trial, video distortions occurs when WLAN running P2P applications.
  - Remove unnecessary GUI page for P870 to save flash.

## **Modifications in 1.01(AWZ.1)D0 | 02/10/2010**

1. Change the version from 1.01(AWZ.1)C0 to 1.01(AWZ.1)D0.
2. TR069 default setting is modified as below:
  - a. ACS URL: <http://acs.ftp.net/cpe/>
  - b. Inform: Enabled
  - c. Inform interval: 86400
  - d. ACS username / password: acstr69 / acstr69
  - e. Connection request username / password: cpetr69 / cpetr69
3. WAN interface ppp0\_1 default setting is modified as below:
  - a. Description: Internet / Type: PPPoE / ConnId: 1
  - b. IGMP Disabled / NAT Enabled / Firewall Enabled

- c. No VLAN settings
- 4. WAN interface ptm0\_2 setting is added as below:
  - a. Description: IPTV / Type: Bridge / ConnId: 2
  - b. NAT Disabled / Firewall Disabled
  - c. No VLAN settings

## **Modifications in 1.01(AWZ.1)C0 | 02/10/2010**

- 1. Change to FCS version.

## **Modifications in 1.01(AWZ.1)b1 | 02/09/2010**

- 1. Update bootbase version from V1.10 to V1.12.
  - Add option to ATCS. ATCS can count bootloader checksum.
  - Fix using multiboot upload .bin F/W, the default config sector is not flashed in.
  - Fix bootbase version does not sync in cfe mode and kernel mode.

## **Modifications in 1.01(AWZ.0)D0 | 12/28/2009**

- 1. Change the version from 1.01(AWZ.0)C0 to 1.01(AWZ.0)D0.
- 2. TR069 default setting is modified as below:
  - ACS URL: <http://acs.fpt.net/cpe/>
  - Inform: Enabled
  - Inform interval: 86400
  - ACS username / password: acstr69 / acstr69
  - Connection request username / password: cptr69 / cptr69
- 3. WAN interface ppp0\_1 default setting is modified as below:
  - Description: Internet / Type: PPPoE / ConnId: 1
  - IGMP Disabled / NAT Enabled / Firewall Enabled
  - No VLAN settings
- 4. WAN interface ptm0\_2 setting is added as below:
  - Description: IPTV / Type: Bridge / ConnId: 2
  - NAT Disabled / Firewall Disabled
  - No VLAN settings

**Modifications in 101AWZ0C0 | 12/24/2009**

1. Change the version from 101AWZ6C0 to 101AWZ0C0

**Modifications in 101AWZ6C0 | 11/25/2009**

1. Change to FCS version

**Modifications in 101AWZ6b4 | 11/23/2009**

1. [BUG FIXED] When the CPE has the MAC address like 404a03xxxxxx and has a bridge interface in MSC mode, the LAN host learn incorrect CPE's MAC address

**Modifications in 101AWZ6b3 | 10/29/2009**

1. [FEATURE ENHANCED]
  -
2. [FEATURE MODIFIED]
  -
3. [BUG FIXED]
  - (SPRID: 091014957) Cannot http to DUT after CLI: "wlan config --security primary wep --key1 313131313-", and DUT enter sh mode after reboot
  - (SPRID: 091022417) TR064, wireless AssociatedDeviceAuthenticationState =1 when client used wrong key, it should be =0
  - (SPRID: 091022425) TR069, Set "InternetGatewayDevice.Layer3Forwarding.Forwarding.4.Interface" as LAN host, GUI field of interface display empty.
  - (SPRID: 091023489) TR064, by default TR064 is disable, but actually function is enable
  - (SPRID: 091023490) TR069, "~.WiBaseCfg.WiMode" cannot SetValue as "wds" when WPA-PSK and WPA2-PSK
  - (SPRID: 091023491) TR069, SetValue ".WiBaseCfg.WiPreambleType"=short response 9001 Request denied
  - (SPRID: 091023493) TR069, ACS SetValue wireless Output Power should be set as only [20/40/60/80/100] or response FaultCode 9007 or 9001
  - (SPRID: 091023494) TR069, AddObject

- "InternetGatewayDevice.QueueManagement.Classification.", after SetValue "ClassName" and "To Queue", check GUI new rule will find lack "VLAN ID Tag" column, and click modify button will show error page
- (SPRID: 091023495) WEP-64 key2~4 should only accept 5 ASCII or 10 Hexadecimal characters
  - (SPRID: 091023496) WEP-128 key2~4 should only accept 13 ASCII or 26 Hexadecimal characters
  - (SPRID: 091022425) TR069, Set "InternetGatewayDevice.Layer3Forwarding.Forwarding.4.Interface" as LAN host, GUI field of interface display empty.  
Note: duplicated issue 091022425
  - (SPRID: 091026569) TR069, GUI display error when press modify queue rule
  - Remove wireless auto channel configuration from GUI, CLI, TR069, and TR064.

## **Modifications in 101AWZ6b2 | 10/21/2009**

4. [FEATURE ENHANCED]
  -
5. [FEATURE MODIFIED]
  - DSL PhyR is disabled by default. CLI command “adsl configure –phyReXmt [on|off]” is used to set phyR. Then typing ‘save’ to write the setting to the flash
6. [BUG FIXED]
  - (SPRID: 091005122) TR064, utility cannot find DUT after change Lan IP
  - (SPRID: 091002060) TR064,  
WanDevice.2#urn:dslforum-org:service:WANIPConnection:1#AddPortMapping  
#DeletePortMapping #GetSpecificPortMappingEntry cannot accept  
NewProtocol=TCP or UDP, Response errorCode= 402 errorDescription= Invalid  
Args
  - (SPRID: 091002080) TR064,  
WanDevice.2#urn:dslforum-org:service:WANPPPConnection:1#AddPortMapping  
#DeletePortMapping #GetSpecificPortMappingEntry cannot accept  
NewProtocol=TCP or UDP, Response errorCode= 402 errorDescription= Invalid  
Args
  - (SPRID: 091002092) TR064,  
WanDevice.2#urn:dslforum-org:service:WANDSLConnectionManagement:1#Delete  
ConnectionService issue

- (SPRID: 091005147) TR064, wireless by default, urn:dslforum-org:service:WLANConfiguration:1, some action response 501 Action Failed
- (SPRID: 091006251) TR069, SetValue NTPServer1=<empty> success, but GUI NTPServer1 will become clock(fmt.he.net)
- (SPRID: 091006254) TR069, enable DHCPRelayServer then disable, DUT offer without Gateway ip
- (SPRID: 091002061) TR064, WANDevice.2, urn:dslforum-org:service:WANDSLLinkConfig:1 actions issue
- (SPRID: 091013883) TR069, AddObject "InternetGatewayDevice.QueueManagement.Classification.", check GUI new rule will find lack "To Queue" column, and click modify button will show error page
- (SPRID: 091013901) TR069, AddObject "~.QueueManagement.Queue." should be restricted
- (SPRID: 091013902) TR069, GUI QoS class rule "802.1P Mark" column doesn't have "Auto" to select, but it can SetValue= -2 by ACS
- (SPRID: 091014997) Policy Forwarding setting source mac test failed.
- (SPRID: 091014998) Test QoS others configuration rules for lan client. ---- test failed.
- (SPRID: 091002054) TR064, WanDevice.2#urn:dslforum-org:service:WANIPConnection:1#GetInfo, NewConnectionTrigger= empty, and no action SetConnectionTrigger to setup
- (SPRID: 091002090) TR064, WanDevice.2#urn:dslforum-org:service:WANPPPConnection:1#SetConnectionTrigger=Manual cannot saved
- (SPRID: 091005146) TR064, urn:dslforum-org:service:WLANConfiguration:1#SetRadioMode=0 success, but GetRadioMode still =1
- (SPRID: 091005148) TR064, urn:dslforum-org:service:WLANConfiguration:1#GetWPABeaconSecurityProperties, NewWPAEncryptionModes= WEPandTKIPEncryption when wireless security mode = WEP
- (SPRID: 091005160) WLAN Auto Generate Key should support WEP 64 & 128bit
- (SPRID: 091005161) WEP SSID should coincide with WPA-PSK SSID when enable Auto Generate Key
- (SPRID: 091006250) TR069, in inform message the current time's time zone always

+00:00

- (SPRID: 091006252) TR069,  
InternetGatewayDevice.LANDevice.1.LANEthernetInterfaceNumberOfEntries=5
- (SPRID: 091014001) Should P-870-HW-51A V2 support CLI: wlan config  
--bandwidth 20MHZ/40MHZ ? It can use but cannot check result by GUI or CLI
- (SPRID: 091014956) Wireless CLI, enable More AP will success when Wireless is  
disable, check CLI More AP status is enable, and GUI More AP detail is active
- (SPRID: 091014996) TR069, SetValue  
"InternetGatewayDevice.LANDevice.1.WLANConfiguration.1.X\_BROADCOM\_C  
OM\_WlanAdapter.WIBaseCfg.xxx" , response FaultCode 9007 Invalid parameter  
value
- (SPRID: 091016091) TR064, WANDevice2,  
urn:dslforum-org:service:WANCommonInterfaceConfig:1#SetEnabledForInternet  
and #GetEnabledForInternet not work, please fix or remove these actions
- 

## Modifications in 101AWZ6b1

7. [FEATURE ENHANCED]
  - Support NAT loopback in Port Forwarding
8. [FEATURE MODIFIED]
  - Upgrade WLAN driver to 5.10.85.0.cpe4.402.8
  - Support WAN, WLAN, and IGMP snooping CLI commands
  - Support ppp connect and disconnect button in home page
  - Support changing default configuration without modify the kernel and rootfile's  
checksum
9. [BUG FIXED]
  - The CPE will crash when trying to play/stream internet video using Real Player  
10/11
  - The service control can't work for the separated interface groups
  - (SPRID: 090819490) System reboot with enable fullcone NAT when run Thunder  
BT.
  - (SPRID: 090820846)Add one firewall rule with one specific interface fail under  
multi-wan connection
  - (SPRID: 090727865) if ACS has been ConnectionRequest CPE , the EventCode

- will always include [6 CONNECTION REQUEST] in CPE next periodic inform
- (SPRID: 090727867) TR069 "InternetGatewayDevice.QueueManagement.Classification.1.ClassInterface" issue
  - (SPRID: 090727868) TR064, Some service ServiceID issue
  - (SPRID: 090727870) TR064 LocalTimeZone value is empty when Time zone is Casablanca or Greenwich
  - (SPRID: 090727871) TR064 LocalTimeZone format issue , it should be +hh:mm or -hh:mm
  - (SPRID: 090727872) TR064, GetInfo TimeZone issue about CurrentLocalTime and DaylightSavingsStart and DaylightSavingsEnd. TimeZone always = +00:00 , it should be changed with LocalTimeZone
  - (SPRID: 090727873) TR064, GetInfo , the variable name "NewManufacturer" is wrong , it should be "NewManufacturerName"
  - (SPRID: 090727875) TR064, GetInfo , the variable name "NewDaylightSavingStart" and "NewDaylightSavingEnd" are wrong , they should be "NewDaylightSavingsStart" and "NewDaylightSavingsEnd"
  - (SPRID: 090727877) TR064, access to any password-protected action must require HTTP digest authentication. And CPE doesn't have LANConfigSecurity service
  - [Bug](SPRID: 090727876) TR064, urn:dslforum-org:service:QueueManagement:1 , AddClassificationEntry always response "UPnPInvokeException: System.Int16 excepted, not System.String". Notice: QueueManagement is removed
  - (SPRID: 090729091)[ H Model]After adding 32 static routes in Web, the user cannot inactive any one static route. "Apply" button will disappear in Web after creating max static routes in Web.
  - (SPRID: 090728967)[ H Model] Set "IP Alias" IP address/Subnet Mask to 192.168.100.255/255.255.255.0. PC (192.168.100.100) cannot use <http://192.168.100.255/> to access Web GUI. DUT should not accept 192.168.100.255/255.255.255.0 setting in Web GUI.

## **Modifications in 100AWZ5C0**

1. Change to FCS version

## **Modifications in 100AWZ5b2**

1. Add wlan cli command for TE

2. [Bug Fixed] Can't use multiboot to upload config file
3. [Bug Fixed] (SPRID: 090812821)  
WAN connection settings will allow the use of two identical VLAN ID. But device vlan mode, only support one MAC for device WAN port.
4. [Bug Fixed] (SPRID: 090812820)  
Interface Group start will cause other wan connection service failure.
  1. In "Network > WAN > Internet Connection" create wan1=PPPoE(vlan mode / firewall off / pqa subnet 192.168.17.xx),  
wan2=iPoE(vlan mode / firewall off / office subnet 172.23.32.xx)
  2. Remote host ping device wan1 ~2 ---- ok.
  3. Setting WAN2 Interface used in the grouping for LAN 2 client. Assign ip 192.168.2.xx to LAN 2 pc.
  4. This time wan2 remote pc can not ping device wan2 ip.  
And also can not use device www, ftp, and telnet service.
5. [Bug Fixed] (SPRID: 090811694)  
In "Security > Firewall > Incoming" add firewall rule, will see br:0,br:1,br:2..... LAN Interface.
6. [Bug Fixed] (SPRID: 090811692)  
Symptom: In "Network > NAT > Trigger Port" add 7 default rules, then we can not create any user define rule. The browser show wrong message "Error!The many trigger ports or open ports are set."  
Note: correct the error message, and Delta Force is removed.
7. [Bug Fixed] (SPRID: 090811690)  
Symptom: In "Network > NAT > Port Forwarding" add 20 nat port forwarding rules, click "Apply" will cause IE browser show "無法顯示網頁"
8. [Bug Fixed] (SPRID: 090811688)  
Symptom: Release note 27 page, "IP Pool Starting Address=192.168.1.2" show address is wrong.  
Condition:
  1. Device default rom-file, LAN IP pool starting address=192.168.1.33. So release note information is wrong.
  2. The setting in page 30 and 31 of release note is different from device default setting.
9. [Bug Fixed] The packets from one bridge group to another bridge group are forwarded to WAN side.  
Note: When the WAN interface in second interface group is not up, the packets leave the CPE according to the routing table.

10. In H model, the MAC number in atsh is changed to 6
11. Before entering kernel, the bootloader wait 3 seconds instead of 1 second

## **Modification in 1.00(AWZ.5)b1 | 08/10/2009**

1. [Bug Fixed] Upgrading firmware from 100AWZ3C0 to 100AWZ4C0, Rom-d can't work
2. [Bug Fixed] Correct the wording of classification order in Qos page
3. Detect restore default button in boot loader

## **Modification in 1.00(AWZ.4)C0 | 08/03/2009**

1. Change to FCS version

## **Modification in 1.00(AWZ.4)b4 | 08/03/2009**

1. TR064 is disabled by default
2. Modify the welcome message in the CLI command

## **Modification in 1.00(AWZ.4)b3 | 07/17/2009**

1. SIP ALG is disabled by default
2. CMF is disabled by default
3. Modify the ATSH format and hide SYS commands by debug flag
4. IGMPv3 is disabled
5. [Bug Fixed] (SPRID: 090622384)Maintenance>Logs>View Log:Please re-define all of display severities.
6. [Bug Fixed] (SPRID: 090617096)GUI upgrade firmware, will cause GUI connection interrupted.
7. [Bug Fixed] (SPRID: 090707468)TR069, "InternetGatewayDevice.Layer3Forwarding.Forwarding.2.Interface" value format issue
8. [Bug Fixed] (SPRID: 090707470)TR069, GetValue "InternetGatewayDevice.WANDeviceNumberOfEntries" "=1", but CPE has "InternetGatewayDevice.WANDevice.1." and "InternetGatewayDevice.WANDevice.2."
9. [Bug Fixed] (SPRID: 090708574)More NAT trigger port of rules, Can not create user-defined rule.
10. [Bug Fixed] (SPRID: 90708569)Interface group can't work properly when create more

than 2 group rules.

11. [Bug Fixed] (SPRID: 90708570) WLAN Beacon stop while active multiple ESSID
12. [Bug Fixed] (SPRID: 090708573) R069, disable periodic inform , the next inform has EventCode [0 BOOTSTRAP] and [2 PERIODIC] after modify ACS URL
13. [Bug Fixed] (SPRID: 090709612) Wrong WAN interface used in the interface group.
14. [Bug Fixed] (SPRID: 090709626) TR064, urn:dslforum-org:service:DeviceInfo:1, "UpTime" value type is String
15. [Bug Fixed] (SPRID: 090709627) TR064, urn:dslforum-org:service:DeviceInfo:1, "Description" value is empty
16. [Bug Fixed] (SPRID: 090709629) TR064, urn:dslforum-org:service:Layer3Forwarding:1 , "GetGenericForwardingEntry" the Interface column issue
17. [Bug Fixed] (SPRID: 090709630) TR064, urn:dslforum-org:service:Layer2Bridging:1 , GetGenericBridgeEntry=1 , BridgeEnable=1 , but BridgeStatus=Disable
18. [Bug Fixed] (SPRID: 090709659) TR064, urn:dslforum-org:service:WANDSLConnectionManagement:1 , function AddConnectionDeviceAndService always response Error Code 501 Action Failed, but check GUI WAN > Internet Connection page increase null interface
19. [Bug Fixed] (SPRID: 090710686) TR069, SetValue "InternetGatewayDevice.LANDevice.1.WLANConfiguration.1.X\_BROADCOM\_COM\_WlanAdapter.WlBaseCfg.xxx" , response FaultCode 9007 Invalid parameter value
20. [Bug Fixed] (SPRID: 090710693) TR069, issue about wireless object path "WI VirtIntfCfg.{i}." and "VirtIntf.{i}."
21. [Bug Fixed] (SPRID: 090710718) RIP operation can't active properly when use Multiple WAN interface.
22. [Bug Fixed] (SPRID: 090618218) Use PIN method via wired external registrar ,the client can't link
23. [Bug Fixed] (SPRID: 090619319) Xbox360 NAT test failed
24. [Bug Fixed] (SPRID: 090708590) [H model]Interface group can't work properly when create more than 2 group rules.
25. [Bug Fixed] (SPRID: 090709676) [H model]When Wan is Bridge(Wan1) + Routing(Wan2), Web's System Status shows "System Mode: Routing" in Web main page.
26. [Bug Fixed] (SPRID: 090709677) [H model]For Lan port's naming issue, there are different naming in Interface Status(Lan 1, Lan 2, Lan 3, Lan4), LAN Statistics(eth0, eth1, eth2, eth3, (null)), Interface Group(ETH1, ETH2, ETH3, ETH4), Qos Classification Criteria From interface(ETH1, ETH2, ETH3, ETH4)
27. [Bug Fixed] (SPRID: 090709678) [H model]Set "IP Alias" IP address/Subnet Mask to

192.168.100.0/255.255.255.0. PC (192.168.100.100) cannot use http://192.168.100.0/ to access Web GUI. DUT should not accept 192.168.100.0/255.255.255.0 setting in Web GUI.

28. [Bug Fixed] (SPRID: 090709679) [H model]Wrong WAN interface used in the interface group.
29. [Bug Fixed] (SPRID: 090710737) [H model]RIP operation can't active properly when use Multiple WAN interface.
30. [Bug Fixed] (SPRID: 090710743) [H model]More NAT trigger port of rules, Can not create user-defined rule.
31. [Bug Fixed] (SPRID: 090710782) [H model]Allowed Classification criteria "IP Packet Length" range is incorrect in Web. DUT's IP packet lenght range can accept 64~7, and cannot accept 64 ~ 1518 or 0 ~100 ....
32. [Bug Fixed] (SPRID: 090713857) [H model]When setting DUT to be "Bridge" mode only, Web GUI's RIP settings still can be configured by the user. DUT still send RIPv2 Request. When changing RIP version from v2 to v1 each time, DUT always send RIP v2 Request again.
33. [Bug Fixed] (SPRID: 090630110)[H model]TR069, CPE has many parameters about wireless, they can GetName/GetValue/SetValue/attribute  
Note: When ACS try to set WLAN parameter value, CPE will return 9001 error.  
Currently, only check for SetParameterValue method. (Other RPC method still can get/set WLAN parameters)

## **Modification in 1.00(AWZ.4)b1 | 06/15/2009**

1. Change the code base from BCM4.02.L1 to BCM4.02.L3
2. [Feature Enhanced]  
Support Address Mapping
3. [Feature Enhanced]  
Support DHCP option 240 ~ 245 in the DHCP server
4. [Feature Enhanced]  
Support DHCP option 60, 61, 125 in the DHCP client
5. [Feature Enhanced]  
Support IP policy routing
6. [Feature Enhanced]  
Support IGMP v3
7. [Feature Enhanced]

- Support 4 SSID, WDS, and WMM in WLAN
- 8. [Feature Enhanced]
  - Support Qos classification by SSID
- 9. [Feature Enhanced]
  - Support web site URL filter
- 10. [Feature Enhanced]
  - VLAN is able to be tagging in the LAN side
- 11. [Feature Enhanced]
  - Support WRR and PQ-WFQ in Qos
- 12. [Feature Enhanced]
  - Support VLAN tagging process in Qos
- 13. [Feature Enhanced]
  - Support filters including IP packet length, TCP ACK, DHCP option in Qos
- 14. [Feature Enhanced]
  - Support interface grouping
- 15. [Feature Enhanced]
  - Support WAN side packet monitor via dedicate LAN port
- 16. [Feature Enhanced]
  - Support manual time setting
- 17. [Feature Enhanced]
  - Support Customer's default setting(ROM-D)

**Modification in 1.00(AWZ.3)C0 | 05/15/2009**

- 1. Change to FCS version

**Modification in 1.00(AWZ.3)b1 | 05/15/2009**

- 1. atsh in Cli command shows wrong info

**Modification in 1.00(AWZ.2)C0 | 05/07/2009**

- 1. Change to FCS version

**Modification in 1.00(AWZ.2)b1 | 04/29/2009**

1. Change the bootbase from zyboot 128K to CFE 64K
2. Change the product name in MRD to P-870H/HW-51A V2

**Modification in 1.00(AWZ.1)C0 | 03/24/2009**

1. Change to FCS version

**Modification in 1.00(AWZ.1)b1 | 03/20/2009**

1. [Feature Modification]  
Change the Wireless calibration values to pass TE test

**Modification in 1.00(AWZ.0)C0 | 01/14/2009**

1. Change to FCS version

**Modification in 1.00(AWZ.0)b8 | 01/14/2009**

1. [Feature Enhanced]  
Remove Diagnostic Web GUI
2. [Feature Enhanced]  
Remove "Note" in IP Address of Access Control
3. [Bug Fixed] (SPRID: 090112653)  
Symptom: For current date, DUT shows ""Current Data"" in Web\ Maintenance > System > Time Setting. It shall be ""Current Date"".  
Condition:
  - (1). Open Web and go to Web\ Maintenance > System > Time Setting
  - (2). Check the word "Date" for Current Date

**Modification in 1.00(AWZ.0)b7 | 01/07/2009**

2. [Bug Fixed] (SPRID: 081106273)  
Symptom: Service Control page SNMP feature failed.  
Condition:

device by default and IP Filter enable, in Advanced > Remote MGNT > ServiceControl:

LAN side, enable (web, telnet, ftp, ssh, tftp, snmp), wan side enable all service.

lan side and wan side, Can't use SNMP access device.

3. [Bug Fixed] (SPRID: 081226655)

Symptom: "UPnP" feature will automatically start.

Condition:

device by default , in GUI Network > WAN > Internet Connection wan1 change to PPPoE mode, Additional wan connections(PPPoE or iPoE) and after delete it, device will automatically UPnP feature.

4. [Bug Fixed] (SPRID: 081226656)

Symptom: GUI "IP Static Route" page, ip subnet mask prompt error.

Condition:

In GUI "IP Static Route" page, add subnet 10.10.0.1, Cursor moved to the subnet mask field, you will see the error prompt.(255.255.0.255)

5. [Bug Fixed] (SPRID: 081226650)

Symptom: WPS function with External Registrar config success then add a wireless STA using internal registrar fail

Condition:

(1).Factory Default DUT

(2).Enable WPS function

(4). From the Vista PC , run the external registrar function config with no security mode

(5).One wireless STA like Atheros run the jumpstart,enter the PIN for the Atheros at Atheros STA at the internal registrar of DUT

(6). Atheros STA can't connect..

6. [Bug Fixed] (SPRID: 081229762)

Symptom: WAN VLAN connection settings to allow only one change, and not allowed to change again.

Condition:

(1). In GUI "Network > WAN > Internet Connection" page, iPoE mode setting VLAN ID=4000, Priority=3 (CO must be set right), check status wan interface get IP.

(2). Change iPoE mode to PPPoE mode, check status wan interface get IP. WAN at this time can not be converted back to iPoE mode.

7. [Bug Fixed] (SPRID: 081226652)

Symptom: APUT cannot generate random key support WPA/WPA2-PSK mixed mode after Atheros STA connect to APUT with PIN method.

Condition:Based on Wi-FI WPS test plan item 4.2.4

- (1).Factory Default DUT
  - (2).Enable WPS function
  - (3).One wireless STA like Atheros run the jumpstart,enter the PIN for the Atheros at Atheros STA at the internal registrar of DUT
  - (4). it must support that generate random key in WPA2-PSK mixed mode, but our DUT not, please refernce "NBG-460N"
8. [Bug Fixed] (SPRID: 081106264)
- Symptom:Test dhcp option 128,134,135,240 ~ 245.
- Condition:
- (1). Configure P870HW-51 v2, dhcp option
    - dhcpdopt config 128 192.168.14.21 69
    - dhcpdopt config 134 5
    - dhcpdopt config 135 60
    - dhcpdopt config 240 11111111
    - dhcpdopt config 241 22222222
    - dhcpdopt config 242 33333333
    - dhcpdopt config 243 44444444
    - dhcpdopt config 244 55555555
    - dhcpdopt config 245 66666666

## **Modification in 1.00(AWZ.0)b6 | 12/23/2008**

1. [Bug Fixed] (SPRID: 081106273)
  - Symptom:
  - SPEC no need the Auto Generate Key function in wireless WEP security mode
  - Condition: please remove the default key when wireless security change to WEP mode
2. [Bug Fixed] (SPRID: 081106272)
  - Symptom: H/W button function failed with wireless on/ off
  - Condition: Press for 1 second: Wireless on/off function failed
3. [Bug Fixed] (SPRID: 081106267)
  - by default one wan interface, configure wan 1 to PPPoE, device can't get IP. Must device reboot can get IP
4. [Bug Fixed] (SPRID: 081110415)
  - WAN side disable VLAN ID would not be able to connect to PPPoE server, must restart device.

5. [Bug Fixed] (SPRID:081222216)
  - Symptom: DUT only allowed 64 wireless stations to connected, not 123 wireless stations
  - Condition:
    - (1). PS defined Number of Wireless Stations Allowed =64
    - (2). Config GUI/Wireless/Advance Setup/Number of Wireless Stations Allowed =200, then apply, DUT display only support 1~123 STAs"
6. [Bug Fixed] (SPRID:081222228)
  - Symptom: Wireless channel can't change when security mode as Static WEP
  - Condition:
    - (1). Default rom file
    - (2). configure WLAN SSID as pqa-3237-test, Channel as 3, Security mode as No Security, Apply
    - (3). Change Security mode as 64/128bit static WEP, Channel as 9, Apply
    - (4). GUI Channel still display 3; and check command ""wlan show channel"", it show channel ='3'"
7. [Bug Fixed](SPRID:081106260)
  - Symptom: Support at least 2048 NAT sessions ---- test fail.
  - Condition: According to ""P870HW-51 V2 PS"" Description:
  - NAT: SUA NAT (support Full-Cone NAT), at least 2048 NAT sessions.
  - In client pc run ""ip scan"" , scanning wan subnet range (2048 Host), device console would show error message.
  - In about 1985 sessions, device will cutting sessions.
    - i. nf\_conntrack: table full, dropping packet.
    - nf\_conntrack: table full, dropping packet.
      - i. cat /proc/net/ip\_conntrack | wc -l
      - ii. 1985
8. [Bug Fixed](SPRID:081106266)
  - Symptom: IGMP command prompted an error message.
  - Condition:
    - (1). IGMP Usage prompt:
      - i. igmp config wan <interfacename> <enabled|disabled>
      - ii. igmp show

- iii. igmp --help
- (2).> igmp show
  - i. network serviceId interfacename status
  - ii. wan 2 IMAGENIO ptm0\_2 disabled
  - iii. wan 1 INTERNET ppp0\_1 disabled
- (3).igmp config wan IMAGENIO enabled
  - i. igmp: set igmp operation successfully on 'IMAGENIO'
  - ii. Actual usage is ""serviceid
- 9. [Bug Fixed](SPRID:081106269)
  - Symptom:About IP filter -- Incoming page issue
  - Condition:
    - i. (1).Add new incoming rule, page show ""Network>Wireless LAN>Incoming
- 10. [Bug Fixed](SPRID:081106269)
  - Symptom:About IP filter -- Incoming page issue
  - Condition:
    - (1).Add new incoming rule, page show ""Network>Wireless LAN>Incoming
- 11. [Bug Fixed](SPRID: 081107334)
  - Symptom: MAC issue with OBM version
  - Condition: Please make sure that wireless MAC is different with Lan MAC, or them must be the same
- 12. [Bug Fixed] (SPRID:81107330)
  - Symptom:SPEC define the wireless MAC filter only support 32 MACs,it without limits
- 13. [Bug Fixed] (SPRID: 81107331)
  - Symptom:Wireless MAC filter function with duplicates
  - Condition:please make the filter with duplicate MAC address
- 14. [Bug Fixed] (SPRID: 081107333)
  - Symptom: Wireless crash when config device in GUI ,
  - Condition:
    - (1).factory default first
    - (2).config wireless SSID=PQA-3214, channel 13, security=WPA , then apply
    - (3).one wireless client(00:60:b3:1b:fe:72) connect to DUT
      - i. change the page to MAC filter, add entries for 16 MACs not include (00:60:b3:1b:fe:72)
    - (4).after 20 mins, select all MACs to delete ,wireless interface will crash
    - (5). device reboot , wireless still fail, the only way is factory default

15. [Bug Fixed] (SPRID:081107346)
  - Adding many "more connections (> 3)", Device MAC address will be unrestricted increase.
16. [Bug Fixed] (SPRID:081110412)
  - Symptom: NAT port forwarding test fail.
  - Condition:
    - i. Setting wan1 to PPPoE connection, add nat port forwarding rule :
    - ii. test\_wan1 ppp0\_1 TCP or UDP 10000:11000 20000:21000 192.168.1.33
    - iii. UDP can not transfer .
17. [Bug Fixed] (SPRID:081110414)
  - WAN-1 is PPPoE mode and WAN-2 is iPoE; In GUI->Network-> NAT -> Port Forwarding page, user adds some profiles for wan-2; only one profile can change to WAN-1 interface, others profiles can't change and save.
18. [Bug Fixed] (SPRID: 081110399)
  - Symptom: The Wireless only allowed 123 wireless stations to connected not 128 wireless stations
  - Condition:
    - (1). Config GUI/Wireless/Advance Setup/Number of Wireless Stations Allowed =128 then apply
    - (2). Check the maximum client capacity script with Veriwave, it only allowed 123 wireless to connected with DUT
19. [Bug Fixed] (SPRID: 081110400)
  - Symptom: SPEC define that wireless in WEP security will not support WPS function, (GUI issue)
  - Condition:
    - (1).Factory default first
    - (2).Config DUT in WEP security mode, change the config page to WPS ,
    - (3).please be gray the ""Enable WPS"" check box, the same with WPA and WPA2
20. [Bug Fixed] (SPRID: 081110401)
  - Symptom: The 802.11b wireless client can connect to DUT when DUT config with 54g performance mode
  - Condition:
    - (1).Factory default first
    - (2). From GUI/Network/Wireless/Advance Setup/54g? Mode=54g Performance
    - (3). One Wireless Client(Intel 2200bg config in 802.11b mode only) try to connect

with DUT

- (4). check the connection established
  - (5).Check the beacon from omnipeek,it only 1,2,5.5,11 Mbps in basic rate"
21. [Bug Fixed] (SPRID:081110402)
- Symptom: When 54g Mode =802.11b Only, the 54g Protection function should be gray
22. [Bug Fixed] (SPRID: 081111495)
- Symptom: There are many web gui characters display an error
  - Condition:
  - (1). wan (PPPoE mode) vlan set the lack of prompt ""VLAN ID=[0-4095], Priority=[0-7]"".
    - i. Because iPoE mode has set the prompt.
  - (2).Queue setup Precedence = 1 ~ 4, but class show Queue key show 3 ~ 6 (mistake)
    - i. Will can't distinguish priority.
23. [Bug Fixed] (SPRID: 081111482)
- Symptom: In WPS Function,When DUT in Unconfig mode, it limit the time to 120 secs, that is wrong
24. [Bug Fixed] (SPRID: 081112579)
- Symptom: Setting QoS class rule for ""Filter Configuration"" issues
  - Condition:
  - (1). In GUI configure ""QoS Queue Setup"" queue 1 ~ 4, and ""active"" 1 ~ 2.
    - i. However, ""QoS class setup"" will be able to see 3 ~ 4 Classification Queue option field.
  - (2). In GUI configure ""QoS Class Setup - Filter Configuration""
    - i. DSCP and DHCP (option 60,77) can not be saved.
  - (3). Why support QoS class IPv6 ? Because the device LAN only support IPv4.
25. [Bug Fixed] (SPRID: 081113655)
- Symptom: QOS testing the issue of overnight.
  - Condition:
  - (1). WAN=PPPoE mode, In GUI add any ""QoS Class Rule"" . Not a night to do anything.
    - i. The next morning client pc will be to stop all services.
  - (includes: ping device, browse GUI and ping remote host, But client pc can renew IP.)
26. [Bug Fixed] (SPRID: 081107334)

- Symptom: MAC issue with OBM version
  - Condition: Please make sure that wireless MAC is different with Lan MAC, or them must be the same
27. [Bug Fixed] (SPRID: 081106262)
- Symptom:Client List, Add entries push apply will show error message
  - Condition:
  - (1).In GUI ""Network > LAN > Client List"", Add entries push apply will show error message: [address ""0.0.0.0"" is invalid IP address.]. ""apply"" button is a redundant.
  - (2). Add have joined client pc MAC ""Client List"" will be repeated show pc mac.

i.	#	IP Address	MAC Address	Remove
ii.	0	192.168.1.100	00:1b:24:82:5b:e5	
iii.	1	192.168.1.33	00:1b:24:82:5b:e5	
  - (3). restart device, ""Client List"" show null entry :

i.	#	IP Address	MAC Address	Remove
ii.	0	192.168.1.100	00:1b:24:82:5b:e5	
iii.	1	(null)	(null)"	
28. [Bug Fixed] (SPRID: 081106263)
- Symptom:DHCP option 60 feature test fail.
  - Condition:
  - (1). Setting dhcp option 60 = pqa-test,
  - dhcpcdopt config 60 default pqa-test
    - i. dhcpcdopt: set dhcpcdopt operation successfully on 'pqa-test'
    - ii. Must restart will be effective.
  - (2). Setting dhcpcdsv2 ip range 192.168.100.33 ~ 100 gateway 192.168.100.1 , LAN client device, (STB or 中華電信P870HA) configuration wan interface ,enable DHCP option 60=pqa-test , Check can get correct IP = 192.168.100.33 --- test pass.
  - (3). Lan client disable dhcp option 60, restart lan side device, But can still be 192.168.100.33.
  - (4). change P870HW-51 v2 change to DHCP option 60 = 012345
  - dhcpcdopt config 60 pqa-test 012345
  - consoled:error:398.203:mdm\_getNextObjectInSubTree:3415:bad instance depth, got 1
  - 27 expected 1
  - Hit <enter> to continue
  - Can't change dhcp option 60. (In .pcap file , keyin filter command -- bootp)

29. [Bug Fixed] (SPRID: 081107330)
  - Symptom:SPEC define the wireless MAC filter only support 32 MACs,it without limits
30. [Bug Fixed] (SPRID: 081107331)
  - Symptom:Wireless MAC filter function with duplicates
  - Condition:please make the filter with duplicate MAC address
31. [Bug Fixed] (SPRID: 081107333)
  - Symptom: Wireless crash when config device in GUI ,
  - Condition:
  - (1).factory default first
  - (2).config wireless SSID=PQA-3214, channel 13, security=WPA , then apply
  - (3).one wireless client(00:60:b3:1b:fe:72) connect to DUT
  - (3).change the page to MAC filter, add entries for 16 MACs not include (00:60:b3:1b:fe:72)
  - (4).after 20 mins, select all MACs to delete ,wireless interface will crash
  - (5). device reboot , wireless still fail, the only way is factory default

## **Modification in 1.00(AWZ.0)b5 | 12/21/2008**

1. [Feature Enhanced]  
Add “Service Control” and “IP Address” Web page for Remote MGNT
2. [Feature Enhanced]  
Add retry method for pppoe
3. [Bug Fixed](SPRID:081106260)  
Symptom: Support at least 2048 NAT sessions ---- test fail.  
Condition: According to ""P870HW-51 V2 PS"" Description:  
NAT: SUA NAT (support Full-Cone NAT), at least 2048 NAT sessions.  
In client pc run ""ip scan"" , scanning wan subnet range (2048 Host), device console would show error message.  
In about 1985 sessions, device will cutting sessions.
  - i. nf\_conntrack: table full, dropping packet.  
nf\_conntrack: table full, dropping packet.
  - ii. cat /proc/net/ip\_conntrack | wc -l

iii. 1985

4. [Bug Fixed](SPRID:081106266)

Symptom: IGMP command prompted an error message.

Condition:

(1). IGMP Usage prompt:

- i. igmp config wan <interfacename> <enabled|disabled>
- ii. igmp show
- iii. igmp --help

(2).> igmp show

- iv. network serviceId interfacename status
- v. wan 2 IMAGENIO ptm0\_2 disabled
- vi. wan 1 INTERNET ppp0\_1 disabled

(3).igmp config wan IMAGENIO enabled

- vii. igmp: set igmp operation successfully on 'IMAGENIO'
- viii. Actual usage is ""serviceid

5. [Bug Fixed](SPRID:081106269)

Symptom:About IP filter -- Incoming page issue

Condition:

- i. (1).Add new incoming rule, page show ""Network>Wireless LAN>Incoming

6. [Bug Fixed](SPRID:081106269)

Symptom:About IP filter -- Incoming page issue

Condition:

(1).Add new incoming rule, page show ""Network>Wireless LAN>Incoming

7. [Bug Fixed](SPRID: 081107334)

Symptom: MAC issue with OBM version

Condition: Please make sure that wireless MAC is different with Lan MAC, or them must be the same

8. [Bug Fixed] (SPRID:81107330)

Symptom:SPEC define the wireless MAC filter only support 32 MACs,it without limits

9. [Bug Fixed] (SPRID: 81107331)

Symptom:Wireless MAC filter function with duplicates

Condition:please make the filter with duplicate MAC address

10. [Bug Fixed] (SPRID: 081107333)

Symptom: Wireless crash when config device in GUI ,

Condition:

- (1).factory default first
- (2).config wireless SSID=PQA-3214, channel 13, security=WPA , then apply
- (3).one wireless client(00:60:b3:1b:fe:72) connect to DUT  
change the page to MAC filter, add entries for 16 MACs not include (00:60:b3:1b:fe:72)
- (4).after 20 mins, select all MACs to delete ,wireless interface will crash
- (5). device reboot , wireless still fail, the only way is factory default

11. [Bug Fixed] (SPRID:081107346)

Adding many "more connections ( > 3 )", Device MAC address will be unrestricted increase.

12. [Bug Fixed] (SPRID:081110412)

Symptom: NAT port forwarding test fail.

Condition:

- i. Setting wan1 to PPPoE connection, add nat port forwarding rule :
- ii. test\_wan1 ppp0\_1 TCP or UDP 10000:11000 20000:21000 192.168.1.33
- iii. UDP can not transfer .

13. [Bug Fixed] (SPRID:081110414)

WAN-1 is PPPoE mode and WAN-2 is iPoE; In GUI->Network-> NAT -> Port Forwarding page, user adds some profiles for wan-2; only one profile can change to WAN-1 interface, others profiles can't change and save.

14. [Bug Fixed] (SPRID: 081110399)

Symptom: The Wireless only allowed 123 wireless stations to connected not 128 wireless stations

Condition:

- (1). Config GUI/Wireless/Advance Setup/Number of Wireless Stations Allowed =128 then apply
- (2). Check the maximum client capacity script with Veriwave, it only allowed 123 wireless to connected with DUT

15. [Bug Fixed] (SPRID: 081110400)

Symptom: SPEC define that wireless in WEP security will not support WPS function, (GUI issue)

Condition:

- (1).Factory default first
- (2).Config DUT in WEP security mode, change the config page to WPS ,
- (3).please be gray the ""Enable WPS"" check box, the same with WPA and WPA2

16. [Bug Fixed] (SPRID: 081110401)

Symptom: The 802.11b wireless client can connect to DUT when DUT config with 54g

performance mode

Condition:

- (1).Factory default first
- (2). From GUI/Network/Wireless/Advance Setup/54g? Mode=54g Performance
- (3). One Wireless Client(Intel 2200bg config in 802.11b mode only) try to connect with DUT
- (4). check the connection established
- (5).Check the beacon from omnipeek,it only 1,2,5.5,11 Mbps in basic rate"

17. [Bug Fixed] (SPRID:081110402)

Symptom: When 54g Mode =802.11b Only, the 54g Protection function should be gray

18. [Bug Fixed] (SPRID: 081111495)

Symptom: There are many web gui characters display an error

Condition:

- (1). wan (PPPoE mode) vlan set the lack of prompt ""VLAN ID=[0-4095], Priority=[0-7]"".

i. Because iPoE mode has set the prompt.

- (2).Queue setup Precedence = 1 ~ 4, but class show Queue key show 3 ~ 6 (mistake)

ii. Will can't distinguish priority.

19. [Bug Fixed] (SPRID: 081111482)

Symptom: In WPS Function,When DUT in Unconfig mode, it limit the time to 120 secs, that is wrong

20. [Bug Fixed] (SPRID: 081112579)

Symptom: Setting QoS class rule for ""Filter Configuration"" issues

Condition:

- (1). In GUI configure ""QoS Queue Setup"" queue 1 ~ 4, and ""active"" 1 ~ 2.
  - i. However, ""QoS class setup"" will be able to see 3 ~ 4 Classification Queue option field.
- (2). In GUI configure ""QoS Class Setup - Filter Configuration""
  - ii. DSCP and DHCP (option 60,77) can not be saved.
- (3). Why support QoS class IPv6 ? Because the device LAN only support IPv4.

21. [Bug Fixed] (SPRID: 081113655)

Symptom: QOS testing the issue of overnight.

Condition:

- (1). WAN=PPPoE mode, In GUI add any ""QoS Class Rule"" . Not a night to do anything.

- i. The next morning client pc will be to stop all services.  
(includes: ping device, browse GUI and ping remote host, But client pc can renew IP.)
22. [Bug Fixed] (SPRID: 081107334)
- Symptom: MAC issue with OBM version  
Condition: Please make sure that wireless MAC is different with Lan MAC, or them must be the same
23. [Bug Fixed] (SPRID: 081106262)
- Symptom: Client List, Add entries push apply will show error message  
Condition:
- (1). In GUI ""Network > LAN > Client List"", Add entries push apply will show error message: [address ""0.0.0.0"" is invalid IP address.]. ""apply"" button is a redundant.
  - (2). Add have joined client pc MAC ""Client List"" will be repeated show pc mac.
- | # | IP Address    | MAC Address       | Remove |
|---|---------------|-------------------|--------|
| 0 | 192.168.1.100 | 00:1b:24:82:5b:e5 |        |
| 1 | 192.168.1.33  | 00:1b:24:82:5b:e5 |        |
- (3). restart device, ""Client List"" show null entry :
- | # | IP Address    | MAC Address       | Remove |
|---|---------------|-------------------|--------|
| 0 | 192.168.1.100 | 00:1b:24:82:5b:e5 |        |
| 1 | (null)        | (null)"           |        |
24. [Bug Fixed] (SPRID: 081106263)
- Symptom: DHCP option 60 feature test fail.  
Condition:
- (1). Setting dhcp option 60 = pqa-test,  

```
> dhcpcdopt config 60 default pqa-test
dhcpcdopt: set dhcpcdopt operation successfully on 'pqa-test'
```

Must restart will be effective.
  - (2). Setting dhcpsrv2 ip range 192.168.100.33 ~ 100 gateway 192.168.100.1 , LAN client device, (STB or 中華電信 P870HA) configuration wan interface ,enable DHCP option 60=pqa-test , Check can get correct IP = 192.168.100.33 --- test pass.
  - (3). Lan client disable dhcp option 60, restart lan side device, But can still be 192.168.100.33.
  - (4). change P870HW-51 v2 change to DHCP option 60 = 012345  

```
> dhcpcdopt config 60 pqa-test 012345
console: error:398.203:mdm_getNextObjectInSubTree:3415:bad instance depth, got 1
27 expected 1
```

Hit <enter> to continue

- Can't change dhcp option 60. (In .pcap file , keyin filter command -- bootp)
25. [Bug Fixed] (SPRID: 081107330)  
Symptom:SPEC define the wireless MAC filter only support 32 MACs,it without limits
26. [Bug Fixed] (SPRID: 081107331)  
Symptom:Wireless MAC filter function with duplicates  
Condition:please make the filter with duplicate MAC address
27. [Bug Fixed] (SPRID: 081107333)  
Symptom: Wireless crash when config device in GUI ,  
Condition:  
(1).factory default first  
(2).config wireless SSID=PQA-3214, channel 13, security=WPA , then apply  
(3).one wireless client(00:60:b3:1b:fe:72) connect to DUT  
(3).change the page to MAC filter, add entries for 16 MACs not include (00:60:b3:1b:fe:72)  
(4).after 20 mins, select all MACs to delete ,wireless interface will crash  
(5). device reboot , wireless still fail, the only way is factory default

## **Modification in 1.00(AWZ.0)b4 | 11/06/2008**

1. [Feature Enhanced]
  - (1) button
  - (2) Press for 1 second: Wireless on/off
  - (3) Press for 5 seconds: enable WPS
  - (4) Press for 10 seconds: Restore Factory default settings
2. [Feature Enhanced]
  - (1) Autogen key feature only in WPA-PSK security mode
  - (2) Auto Generate Key check box: disable
  - (3) Auto Generate Key format: use MD5 to generate 20-digits length"

## **Modification in 1.00(AWZ.0)b3 | 10/15/2008**

Create this project from Telefonica firmware 1.00(BKA.0)b5.

## **Default Settings in 101AWZ6b3**

Please refer to 101AWZ6b3.rom for more detail. It can be viewed by text editor. Recommend

**ZyXEL**

to use XML parser to get well organization result.

## Public Domain Software Announcements

The following public domain software are used in this firmware release:

- MIPS Linux kernel, version 2.6.21.5  
<http://www.linux-mips.org> or <http://kernel.org>
- Bridge-Utils  
<http://bridge.sourceforge.net>
- BusyBox 1.0.0 toolset  
<http://www.busybox.net/>
- Dproxy: dproxy-nexgen  
<http://dproxy.sourceforge.net>
- ebtables 2.0.6  
<http://ebtables.sourceforge.net>
- bftpd 1.0.24  
<http://www.bftpd.org/>
- iproute2 iproute2-2.4.7-now-ss020116-try.tar.gz  
<http://www.linuxgrill.com/anonymous/iproute2>
- iptables-1.3.8  
<http://www.netfilter.org>
- udhcp 0.9.6  
<http://udhcp.busybox.net/>
- zebra 0.93a  
<http://www.zebra.org/>
- ppp 2.4.1  
<http://www.roaringpenguin.com/pppoe>
- Ssh server: dropbear v0.46  
<http://matt.ucc.asn.au/dropbear/dropbear.html>
- openssl: openSSL library v0.9.7f  
<http://www.openssl.org>