

2.4GHz 11b/g PicoStation AP

User Manual & Configuration Guide

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By

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1 Document History

Revision	Date	Remarks	Authors
1.18	1 April 2009	Release for initial draft – α release	L.H.S

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2 Overview

The purpose of this document is to describe the detail features of 2.4GHz 11B/G PicoStation AP, and also the procedure and methodology of configuring and the use of 2.4GHz 11B/G PicoStation AP.

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3 SRGW Web-based Interface

Web-based configuration interface is accessible with computer with TCP/IP capability and web browser (e.g. Mozilla or IE). To access web-based configuration interface, enter

http://<Device IP>/.

In the browser URL/Location field.

You will see an authentication page display as shown in Figure 3.1.1.



Figure 3.1.1: Windows authentication page

Type “**admin**” in User Name and Password field, then click **OK** button.

*Obtain default IP address for Dorado SRGW for different Interfaces:

Interface	Default IP	Notes
WAN	DHCP	Administrator needs to check their DHCP server lease to obtain device IP address
VLAN/LAN/AP	192.168.0.1	Connect a DHCP client computer/laptop to Dorado SRGW AP's wireless interface.

Main Website page has six main menus: Status, Wireless, Network, Advance, Management and Tools. Each main menu also will have its submenu. Home and Reset button on top right side to show Website home page and reboot the system, respectively.

<i>Status</i>	
<i>Main</i>	<i>System status</i>
<i>Client List</i>	<i>Wireless client info (****)</i>
<i>Access Point</i>	<i>Access point list (*)</i>
<i>System Log</i>	<i>System logging</i>
<i>Wireless</i>	
<i>Wireless Setting</i>	<i>Wireless settings</i>
<i>WDS</i>	<i>WDS settings (**)</i>
<i>MAC Filtering</i>	<i>Filter MAC address (**)</i>
<i>Network</i>	
<i>Bridge</i>	<i>VLAN settings</i>
<i>Router</i>	<i>WLAN network settings (***)</i>
<i>Advance</i>	
<i>Wireless Setting</i>	<i>Advance wireless settings</i>
<i>Bandwidth</i>	<i>Bandwidth control settings (*****)</i>
<i>Qos</i>	<i>802.11e QoS (WMM) Settings</i>
<i>Management</i>	
<i>Web</i>	<i>HTTP and Logo settings</i>

<i>SNMP</i>	<i>SNMP settings</i>
<i>Management VLAN</i>	<i>Management VLAN settings</i>
<i>Firmware Upgrade</i>	<i>Firmware upgrade settings</i>
<i>Backup/Restore</i>	<i>Backup and restore</i>
<i>Time</i>	<i>Local time settings</i>
<i>Log</i>	<i>Log notification</i>
<i>Tools</i>	
<i>Ping</i>	<i>Ping</i>
<i>Ifconfig</i>	<i>Ifconfig</i>
<i>Route</i>	<i>Route</i>
<i>TFTP</i>	<i>TFTP</i>

(*) – Only show on Repeater, Client Bridge and Client Router mode

(**) – Only show on Access Point and Access Point Router mode

(***) – Only show on Access Point Router and Client Router mode

(****) – Only show on Access Point, Access Point Router and Repeater mode

(*****) – Only show on Access Point Router mode

4 Status

4.1 Status > Main

Status page will display current system status of 2.4GHz 11B/G PicoStation AP.

Figure 4.1.1 illustrates the system status page.

System Status	
System Information	
Device Name:	AccessPoint
Ethernet MAC:	00:40:c7:01:01:00
WLAN MAC:	00:40:c7:01:01:01
System Uptime:	0 days, 0 hrs, 1 minutes
System Available Memory:	6952 KB
System Temperature:	N/A
Firmware Version:	ap51-srgw-em-1.0.12
Management VLAN ID:	vlan0 (vid:0)
Current IP Setting	
IP Address:	192.168.1.114
Default Gateway:	192.168.1.2
DHCP Server:	Enabled
DHCP Client:	Enabled
Current Wireless Setting	
Operation Mode:	Wireless AP Router
SSID:	GenericAP51
Wireless Mode:	802.11g
Frequency:	2.412
Channel:	1
Signal Strength:	Excellent
TxRate/RxRate:	auto
Security:	Open System/No Encryption

Figure 4.1.1: System Information Configuration page

System Information Configuration page contains the following parameters:

System Information

- **Device Name** – Name of the device.
- **Ethernet MAC** – Ethernet MAC address.
- **WLAN MAC** – WLAN MAC address.
- **System Uptime** – System uptime in format: day, hours, minute. For example, “Uptime 0 days, 0 hrs, 40 minutes”.
- **System Available Memory** – Current available memory for device system.
- **System Temperature** – Current temperature for device.

- **Firmware Version** – Device firmware version.
- **Management VLAN ID** – Display Management VLAN ID.

Current IP Setting

- **IP Address** – Device IP address.
- **Subnet Mask** – Device netmask.
- **Default Gateway** – Device default gateway address.
- **DHCP Client** – Status of device DHCP client. Enable or disable.
- **DHCP Server** – Status of device DHCP server. Enable or disable.

Current Wireless Setting

- **Operation Mode** – Device operation mode. Access Point, Access Point Router, Repeater, Client Bridge or Client Router.
- **SSID** – Wireless SSID.
- **Wireless Mode** – Wireless 802.11 mode.
- **Frequency** – Wireless frequency.
- **Channel** – Wireless channel.
- **Signal Strength** – Wireless signal strength.
- **TxRate/RxRate** – Wireless transmit/receive rate.
- **Security** – Wireless security.

4.2 Status > Client List

Client list page will display the wireless client's details that are associated to access point. Figure 4.2.1 illustrates the client list page.

Wireless Client List

View the wireless clients that are connected to your wireless AP

GenericAP

MAC Address	IP Address	Mode	Rate	Signal (%)
00:13:02:e0:45:58	192.168.0.188	802.11g	36	49
00:13:02:b0:4a:8f	192.168.0.123	802.11g	54	48

Figure 4.2.1: Wireless Client List page

Wireless client list page contains the following parameters:

- **MAC Address** – Wireless client MAC address.
- **IP Address** – Wireless client IP address.
- **Mode** – Wireless client wireless mode.
- **Rate** – Wireless client bit-rate.
- **Signal** – Wireless signal in percentage.

4.3 Status > Access Point

Access point page will display all available access point that scan by 2.4GHz 11B/G PicoStation AP. Figure 4.3.1 illustrates the access point page.

Access Point List

Associated

ESSID	Mac	Type	Channel	Rate	Signal	Security
DoradoAP RADIUS	00:0b:6b:2b:ee:76	Infrastructure	1	48M	Excellent	Open

Available

ESSID	Mac	Type	Channel	Rate	Signal	Security	Configure
DoradoAP RADIUS	00:0b:6b:2b:ee:76	Infrastructure	1	54M	Excellent	Open	<input type="button" value="Select"/>
wifly	00:14:6c:1c:12:64	Infrastructure	11	54M	Excellent	WPA	<input type="button" value="Select"/>
DoradoAPDual	00:0b:6b:37:4e:11	Infrastructure	2	54M	Excellent	Open	<input type="button" value="Select"/>
DoradoAP	00:0b:6b:09:be:3b	Infrastructure	2	54M	Bad	Open	<input type="button" value="Select"/>
dorado_net	00:60:b3:58:ff:48	Infrastructure	4	54M	Bad	Open	<input type="button" value="Select"/>
jei1405	00:12:0e:7f:fd:2d	Infrastructure	5	54M	Excellent	WEP	<input type="button" value="Select"/>
GlobalMesh	06:40:c7:fd:01:97	Infrastructure	1	54M	Bad	Open	<input type="button" value="Select"/>
Jln. Othman Block A	02:18:de:00:02:a7	Ad-Hoc	11	54M	Bad	Open	<input type="button" value="Select"/>
axis	00:19:e0:a0:fa:96	Infrastructure	6	54M	Bad	WPA/WPA2	<input type="button" value="Select"/>
aztech	00:12:0e:84:50:34	Infrastructure	6	54M	Bad	WEP	<input type="button" value="Select"/>
	0a:40:c7:fd:01:97	Infrastructure	1	54M	Bad	WPA/WPA2	<input type="button" value="Select"/>

Figure 4.3.1: Access Point page

Access point page contains the following parameters:

Associated

- **ESSID** – Access point SSID that AP associated.
- **Mac** – Access point MAC address that AP associated.
- **Type** – Access point operating mode that AP associated. Infrastructure or Ad-Hoc.
- **Channel** – Access point channel/frequency that AP associated.
- **Rate** – Access point data rate that AP associated.
- **Signal** – Access point signal that AP associated.
- **Security** – Access point wireless security that AP associated.

Available

- **ESSID** – Available access point SSID.
- **Mac** – Available access point MAC address.

- **Type** – Available access point operating mode. Infrastructure or Ad-Hoc.
- **Channel** – Available access point channel/frequency.
- **Rate** – Available access point data rate.
- **Signal** – Available access point signal.
- **Security** – Access point wireless security.

Click on “**Select**” button to configure SOC wireless settings as shown in Figure 5.1.3.

Click on “**Refresh**” button to reload/refresh access point list.

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4.4 Status > System Log

System log page will display all system log message. Figure 4.4.1 illustrates the system log page.

Event Log

Show Log Type			
Type			Message
user.info	08:00:56		wifi0: Atheros 2315 WiSoC: mem=0xb0000000, irq=3
user.info	08:00:56		wlan: mac acl policy registered
user.info	08:00:56		device ath1 entered promiscuous mode
user.info	08:00:56		device ath2 entered promiscuous mode
user.info	May 18 08:00:56		device eth0 entered promiscuous mode
user.info	May 18 08:00:56		vlan0: port 3(eth0) entering learning state
user.info	May 18 08:00:56		vlan0: port 1(ath1) entering learning state
user.info	May 18 08:00:56		vlan0: port 2(ath2) entering learning state
user.info	May 18 08:00:59		vlan0: topology change detected, propagating
user.info	May 18 08:00:59		vlan0: port 3(eth0) entering forwarding state
user.info	May 18 08:00:59		vlan0: topology change detected, propagating
user.info	May 18 08:00:59		vlan0: port 1(ath1) entering forwarding state
local0.info	May 18 08:00:59		started, version 2.22 cachesize 150
local0.info	May 18 08:00:59		read /etc/hosts - 8 addresses
local0.info	May 18 08:00:59		read /ram/etc/nodehostname - 0 addresses
local0.info	May 18 08:00:59		reading /etc/resolv.conf
user.info	May 18 08:01:02		vlan0: topology change detected, propagating
user.info	May 18 08:01:02		vlan0: port 2(ath2) entering forwarding state
daemon.info	May 18 08:01:14		utelnetsd (port: 23, ifname: any, login: /bin/login) startup succeeded
auth.info	May 18 08:02:28		root login on `console'

Figure 4.4.1: System Log page

System log page contains the following parameters:

- **Type** – Type of system log message.
- **Time** – Time of system log message generate.
- **Message** – Description of system log message.

Click on “**Show Log Type**” drop down menu to filter different type of log message – “**alert**”, “**critical**”, “**debug**”, “**emergency**”, “**error**”, “**info**”, “**notice**”, “**warning**”, or “**all**”.

5 Wireless

5.1 Wireless > Wireless Setting

Figure 5.1.1 illustrates the AP configuration page for 2.4GHz 11B/G PicoStation AP. Configure “**Operation Mode**” to change different type of operating mode. Configure “**Wireless Setting**” to change SSID profile setting and general wireless setting.

Operation Mode

Device Name: AccessPoint

Operating Mode: Access Point Router

Save

Wireless Setting

SSID Profile Setting

SSID	Security	VID	Enable	Edit
GenericAP	Open System/No Encryption	0	<input checked="" type="checkbox"/>	Edit
GenericAP1	Open System/No Encryption	0	<input type="checkbox"/>	Edit
GenericAP2	Open System/No Encryption	0	<input type="checkbox"/>	Edit
GenericAP3	Open System/No Encryption	0	<input type="checkbox"/>	Edit

General Setting

Channel Bandwidth: 20Mhz

802.11 Mode: 802.11g

Channel: 1: 2.412 GHz

Output Power: 16 dBm

Data Rate: auto Mbps

Save

Figure 5.1.1: AP configuration page

Wireless AP contains the following parameters:

- **Device Name** – Enter device name for 2.4GHz 11B/G PicoStation AP.
- **Operating Mode** – Click on “**Operating Mode**” drop down menu to select different type of operating mode – “**Access Point**”, “**Access Point Router**”, “**Repeater**”, “**Client Bridge**” or “**Client Router**”.
- “**Save**” button (on top save button) to save any changes made on operating mode. A confirmation page will display as shown in Figure 5.1.2.

Note: Previous configuration for Wireless Repeater is found
Changing operating mode will restore previous Wireless Repeater configuration

Confirm Cancel

Figure 5.1.2: A Confirmation Page of Operating Mode

- Click on “**Confirm**” button to confirm save operating mode.
- Click on “**Cancel**” button to cancel change operating mode.
- Tick on SSID Profile Setting “**Enable**” box to active selected SSID profile.
- Click on SSID Profile Setting “**Edit**” button to edit select SSID profile as shown in Figure 5.1.3 (for Access Point and Access Point Router) and Figure 5.1.4 (for Repeater, Client Bridge and Client Router).

SSID Profile

Wireless Setting

SSID:	GenericAP (1 to 32 characters)
VLAN ID:	vlan0 Configure Vlan
Suppressed SSID:	<input type="checkbox"/>
Station Separation:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Wireless Security

Security Mode:	Disabled
----------------	----------

Save

Figure 5.1.3: SSID Profile Edit Page (Access Point and Access Point Router)

SSID Profile

Wireless Setting

SSID:	GenericAP (1 to 32 characters) Select
VLAN ID:	vlan0 Configure Vlan
Suppressed SSID:	<input type="checkbox"/>
Station Separation:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Wireless Security

Security Mode:	Disabled
----------------	----------

Save

Figure 5.1.4: SSID Profile Edit Page (Repeater, Client Bridge, and Client Router)

- **SSID** - Enter profile SSID.
- **Select** - Click on “**Select**” button to select access point to associate, as shown in Figure 5.1.5.

Access Point List

Associated

ESSID	Mac	Type	Channel	Rate	Signal	Security
Not associated						

Available

ESSID	Mac	Type	Channel	Rate	Signal	Security	Configure
DoradoAP	00:0b:6b:2b:ee:76	Infrastructure	8	11M	Bad	Open	Select
DoradoAPL2MESH	00:02:6f:49:45:44	Infrastructure	1	54M	Poor	Open	Select

Figure 5.1.5: Access Point List Page

- **ESSID – Associated/Available access point SSID.**
- **Mac –Associated/Available access point MAC address.**
- **Type –Associated/Available access point operating mode. Infrastructure or Ad-Hoc.**
- **Channel – Associated/Available access point channel/frequency.**
- **Rate – Associated/Available access point data rate.**
- **Signal – Associated/Available access point signal.**
- **Security - Associated/Available access point security type**
- **Click on “Select” button to configure AP wireless settings as shown in Figure 5.1.4. Click on “Refresh” button to reload/refresh access point list.**
- **VLAN ID – Click on “VLAN ID” drop down menu to select VLAN. Click on “Configure Vlan” text button to configure VLAN setting as shown in Figure 6.1.1.**
- **Suppressed SSID – Tick on “Suppressed SSID” box to enable SSID suppression.**
- **Station Separation – Choose “Enable” or “Disable” radio buttons to enable or disable station separation.**
- **Security Mode - Click on “Security Mode” drop down menu to select “Disable”, “WEP”, “WPA/WPA2-Personal” or “WPA/WPA2-Enterprise” wireless security type. Select “WEP” will display “Auth Type”, “Input Type”, “Key Length”, “Default Key” drop down menu and “Key 1”, “Key 2”, “Key 3”, “Key 4” field as shown in**

Figure 5.1.6.

SSID Profile

Wireless Setting

SSID:	GenericAP (1 to 32 characters)
VLAN ID:	vlan0 Configure Vlan
Suppressed SSID:	<input type="checkbox"/>
Station Separation:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Wireless Security

Security Mode:	WEP
Auth Type:	Open Key
Input Type:	HEX
Key Length:	40/64-bit (10 hex digits or 5 ASCII char)
Default Key:	1
Key 1:	
Key 2:	
Key 3:	
Key 4:	

Save

Figure 5.1.6: SSID Profile with Wireless Security “WEP” Edit Page

- **Auth Type** – Click on “Auth Type” drop down menu to select “Open Key” or “Shared Key”.
- **Input Type** – Click on “Input Type” drop down menu to select “HEX” or “ASCII”.
- **Key Length** – Click on “Key Length” drop down menu to select “40/64-bit (10 hex digits or 5 ASCII char)” or “108/128-bit (26 hex digits or 13 ASCII char)”.
- **Default Key** – Click on “Default Key” drop down menu to select “1”, “2”, “3” or “4”.
- **Key 1, Key 2, Key 3, Key 4** – Enter security key into “Key 1”, “Key 2”, “Key 3” or “Key 4” field.
- **Save** - Click on “Save” button to save any changes made.

Select “WPA/WPA2-Personal” will display “Encryption” drop down menu, “Passphrase” and “Group Key Update Interval” field as shown in Figure 5.1.7.

SSID Profile

Wireless Setting

SSID:	GenericAP (1 to 32 characters)
VLAN ID:	vlan0 Configure Vlan
Suppressed SSID:	<input type="checkbox"/>
Station Separation:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Wireless Security

Security Mode:	WPA/WPA2-Personal
Encryption:	TKIP
Passphrase:	
Group Key Update Interval:	0 seconds (0: disabled)

[Save](#)

Figure 5.1.7: SSID Profile with Wireless Security “WPA/WPA2-Personal” Edit Page

- **Encryption** – Click on “**Encryption**” drop down menu to select “**Auto**”, “**TKIP**” or “**AES (CCMP)**”.
- **Passphrase** – Enter security key into “**Passphrase**” field.
- **Group Key Update Interval** – Enter interval time into “**Group Key Update Interval**” field.
- **Save** - Click on “**Save**” button to save any changes made.

Select “**WPA/WPA2-Enterprise**” will display “**Encryption**” drop down menu, “**Radius Server**”, “**Radius Port**”, “**Radius Secret**” and “**Group Key Update Interval**” field as shown in Figure 5.1.8.

SSID Profile

Wireless Setting

SSID:	GenericAP (1 to 32 characters)
VLAN ID:	vlan0 Configure Vlan
Suppressed SSID:	<input type="checkbox"/>
Station Separation:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Wireless Security

Security Mode:	WPA/WPA2-Enterprise
Encryption:	TKIP
Radius Server:	. . .
Radius Port:	
Radius Secret:	
Group Key Update Interval:	0 seconds (0: disabled)

Save

Figure 5.1.8: SSID Profile with Wireless Security “WPA/WPA2-Enterprise” Edit

Page

- **Encryption** – Click on “**Encryption**” drop down menu to select “**Auto**”, “**TKIP**” or “**AES (CCMP)**”.
- **Radius Server** – Enter radius server IP address into “**Radius Server**” IP field.
- **Radius Port** – Enter radius server port into “**Radius Port**” field.
- **Radius Secret** – Enter radius server secret key into “**Radius Secret**” field.
- **Group Key Update Interval** – Enter interval time into “**Group Key Update Interval**” field.
- **Save** - Click on “**Save**” button to save any changes made.
- **Channel Bandwidth** – Click on “**Channel Bandwidth**” to select channel bandwidth.
- **802.11 Mode** – Click on “**802.11 Mode**” drop down menu to select different band.
- **Channel** – Click on “**Channel**” drop down menu to select different operating frequency of the wireless network in GHz.
- **Output Power** – Enter or adjust device output power.
- **Data Rate** – Click on “**Data Rate**” drop down menu to select different data

rate.

- **“Save”** button to save any changes made.

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5.2 Wireless > WDS

Figure 5.2.1 illustrates the WDS AP configuration page for 2.4GHz 11B/G PicoStation AP. WDS expanded wireless network by connected to multiple access point.

WDS AP Setting

MAC	Security	Vid	Enable	Edit
00:00:00:00:00:00	Open System/No Encryption	0	<input type="checkbox"/>	Edit
00:00:00:00:00:00	Open System/No Encryption	0	<input type="checkbox"/>	Edit
00:00:00:00:00:00	Open System/No Encryption	0	<input type="checkbox"/>	Edit
00:00:00:00:00:00	Open System/No Encryption	0	<input type="checkbox"/>	Edit
00:00:00:00:00:00	Open System/No Encryption	0	<input type="checkbox"/>	Edit
00:00:00:00:00:00	Open System/No Encryption	0	<input type="checkbox"/>	Edit
00:00:00:00:00:00	Open System/No Encryption	0	<input type="checkbox"/>	Edit
00:00:00:00:00:00	Open System/No Encryption	0	<input type="checkbox"/>	Edit

Figure 5.2.1: WDS AP configuration page

WDS AP contains the following parameters:

- **MAC** – Display peer MAC address.
- **Security** – Display WDS security type “**Open System/No Encryption**”, “**WEP**” or “**AES**”.
- **VID** – Display VLAN ID for WDS AP.
- Tick on “**Enable**” box to enable WDS AP.
- Click on “**Edit**” button to configure WDS AP setting as shown in Figure 5.2.2

WDS Setting

MAC Setting

Peer MAC:	00 : 00 : 00 : 00 : 00 : 00
VLAN ID:	vlan0 Configure Vlan

WDS Security

Security Mode:	Disabled
----------------	----------

[Save](#)

Figure 5.2.2: WDS Setting configuration page

- **Peer MAC** – Enter peer MAC address.
- **VLAN ID** – Click on “**VLAN ID**” drop down menu to select VLAN. Click on “**Configure Vlan**” text button to configure VLAN setting as

shown in Figure 6.1.1.

- **Security Mode** - Click on “**Security Mode**” drop down menu to select “**Disable**”, “**WEP**” or “**AES (128 bit)**” wireless security type. Select “**WEP**” or “**AES (128 bit)**” will display “**Auth Type**”, “**Input Type**”, “**Key Length**”, “**Default Key**” drop down menu and “**Key 1**”, “**Key 2**”, “**Key 3**”, “**Key 4**” field as shown in Figure 5.2.3 and Figure 5.2.4, respectively.

WDS Setting

MAC Setting

Peer MAC:	00 : 00 : 00 : 00 : 00 : 00
VLAN ID:	vlan0 Configure Vlan

WDS Security

Security Mode:	WEP
Auth Type:	Open Key
Input Type:	HEX
Key Length:	40/64-bit (10 hex digits or 5 ASCII char)
Default Key:	1
Key 1:	
Key 2:	
Key 3:	
Key 4:	

Save

Figure 5.2.3: WDS Setting with wireless security “WEP” configuration page

WDS Setting

MAC Setting

Peer MAC:	00 : 00 : 00 : 00 : 00 : 00
VLAN ID:	vlan0 Configure Vlan

WDS Security

Security Mode:	AES (128 bit)
Auth Type:	Open Key
Input Type:	HEX
Key Length:	128-bit (32 hex digits or 16 ASCII char)
Default Key:	1
Key 1:	
Key 2:	
Key 3:	
Key 4:	

Save

Figure 5.2.4: WDS Setting with wireless security “AES” configuration page

- **Auth Type** – Click on “Auth Type” drop down menu to select “Open Key” or “Shared Key”.
- **Input Type** – Click on “Input Type” drop down menu to select “HEX” or “ASCII”.
- **Key Length (WEP)** – Click on “Key Length” drop down menu to select “40/64-bit (10 hex digits or 5 ASCII char)” or “108/128-bit (26 hex digits or 13 ASCII char)”.
- **Key Length (AES)** – Click on “Key Length” drop down menu to select “128-bit (32 hex digits or 16 ASCII char)”.
- **Default Key** – Click on “Default Key” drop down menu to select “1”, “2”, “3” or “4”.
- **Key 1, Key 2, Key 3, Key 4** – Enter security key into “Key 1”, “Key 2”, “Key 3” or “Key 4” field.
- **“Save”** - Click on “Save” button to save any changes made.

5.3 Wireless > MAC Filtering

Figure 5.3.1 illustrates the MAC Address Filtering configuration page for 2.4GHz 11B/G PicoStation AP. MAC control selected MAC address to access network.

MAC Address Filtering

ACL Mode

Figure 5.3.1: MAC Address Filtering configuration page

MAC Address Filtering contains the following parameters:

- **ACL Mode** – Click on “ACL Mode” drop down menu to select “Disabled”, “Allow” or “Block” MAC address. Select “Allow” or “Block” will display MAC address filtering table as shown in Figure 5.3.2.

MAC Address Filtering

ACL Mode

: : : : :

#	MAC Address	Enable	Edit
---	-------------	--------	------

Figure 5.3.2: MAC Address Filtering “Allow” or “Block” configuration page

- Enter MAC address and click on “Add” button to add MAC address into MAC address filtering table, as shown in Figure 5.3.3.

MAC Address Filtering

ACL Mode

: : : : :

#	MAC Address	Enable	Edit
1	00:12:b1:a1:4a:8d	<input checked="" type="checkbox"/>	<input type="button" value="Delete"/>

Figure 5.3.3: MAC Address Filtering table configuration page

- **MAC Address** – Display filtered MAC address.
- **Enable** – Tick on “Enable” box to enable MAC filtering.
- **Edit** – Click on “Delete” button to delete MAC address.

6 Network

6.1 Network > Bridge

Figure 6.1.1 illustrates the VLAN configuration page for 2.4GHz 11B/G PicoStation AP. VLAN configuration page allow editing or disabling selected VLAN.

Vlan Setting

Name	IP	Netmask	VID	Enable	Edit
vlan0	192.168.0.1	255.255.255.0	0	<input checked="" type="checkbox"/>	Edit

Figure 6.1.1: VLAN configuration page

VLAN Setting contains the following parameters:

- **Name** – Display name of VLAN.
- **IP** – Display IP address of VLAN.
- **Netmask** – Display netmask of VLAN.
- **VID** – Display VLAN ID for VLAN.
- **Enable** – Tick on “**Enable**” box to enable or disable selected VLAN.
- **.Edit** – Click on “**Edit**” button to edit selected VLAN, as shown in Figure 6.1.2.

Vlan Setting

Mode:	<input checked="" type="radio"/> DHCP <input type="radio"/> Static
VLAN ID:	<input type="text" value="0"/>
<input type="button" value="Save"/>	

Figure 6.1.2: VLAN Edit page

- **Mode** – Select “**Mode**” radio buttons to choose VLAN get IP via DHCP or static. Select on “**Static**” mode will display some parameter as shown in Figure 6.1.3.

Vlan Setting

Mode:	<input type="radio"/> DHCP <input checked="" type="radio"/> Static
VLAN ID:	0
IP Address	192 . 168 . 0 . 1
Subnet Mask	255 . 255 . 255 . 0
<input type="button" value="Save"/>	

DHCP Server Setting

Enable:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Subnet:	192 . 168 . 0 . 0
Subnet Mask:	255 . 255 . 255 . 0
Start IP:	192 . 168 . 0 . 2
End IP:	192 . 168 . 0 . 254
Default Gateway:	192 . 168 . 0 . 1
DNS Server:	192 . 168 . 0 . 1
<input type="button" value="Save"/>	

Figure 6.1.3: VLAN Edit page with Static Mode

- **VLAN ID** – Enter VLAN ID.
- **IP Address** – Enter VLAN IP address.
- **Subnet Mask** – Enter VLAN subnet mask.
- **Enable** – Select “**Enable**” radio buttons to enable or disable client get IP via DHCP server.
- **Subnet** – Enter subnet for DHCP server.
- **Subnet Mask** – Enter subnet mask for DHCP server.
- **Start IP and End IP** – Enter range of IP will DHCP server assign.
- **Default Gateway** – Enter default gateway IP for DHCP server.
- **DNS Server** – Enter DNS server IP for DHCP server.
- **Save** – Click on “**Save**” button to save any changes made.

6.2 Network > Router

Figure 6.2.1 illustrates the WLAN Network Setting configuration page for 2.4GHz 11B/G PicoStation AP.

WLAN Network Setting

Mode:	<input checked="" type="radio"/> DHCP <input type="radio"/> PPPoE <input type="radio"/> Static
Enable DMZ:	<input type="checkbox"/>
DMZ IP:	0 . 0 . 0 . 0
<input type="button" value="Save"/>	

Figure 6.2.1: WLAN Network Setting configuration page with DHCP mode

WLAN Network Setting contains the following parameters:

- **Mode** – Select “**Mode**” radio buttons to choose “**DHCP**”, “**PPPoE**” or “**Static**”.
- **Enable DMZ** – Tick on “**Enable DMZ**” button to enable DMZ function.
- **DMZ IP** – Enter IP address of DMZ.
- Select “**PPPoE**” mode will display some parameters as shown in Figure 6.2.2.

WLAN Network Setting

Mode:	<input type="radio"/> DHCP <input checked="" type="radio"/> PPPoE <input type="radio"/> Static
Enable DMZ:	<input type="checkbox"/>
DMZ IP:	0 . 0 . 0 . 0
PPPoE Username	<input type="text"/>
PPPoE Password	<input type="text"/>
<input type="button" value="Save"/>	

Figure 6.2.2: WLAN Network Setting configuration page with PPPoE mode

- **PPPoE Username** – Enter PPPoE username.
- **PPPoE Password** – Enter PPPoE password.
- Select “**Static**” mode will display some parameters as shown in Figure 6.2.3.

WLAN Network Setting

Mode:	<input type="radio"/> DHCP <input type="radio"/> PPPoE <input checked="" type="radio"/> Static
Enable DMZ:	<input type="checkbox"/>
DMZ IP:	0 . 0 . 0 . 0
IP Address:	0 . 0 . 0 . 0
Subnet Mask:	255 . 255 . 255 . 255
Gateway IP:	0 . 0 . 0 . 0
Primary DNS:	0 . 0 . 0 . 0
Secondary DNS:	0 . 0 . 0 . 0

Figure 6.2.3: WLAN Network Setting configuration page with Static mode

- **IP Address** – Enter static IP address.
- **Subnet Mask** – Enter subnet mask for static IP.
- **Gateway IP** – Enter gateway IP for static IP.
- **Primary DNS** – Enter primary DNS for static IP.
- **Secondary DNS** – Enter secondary DNS for static IP.
- **Save** – Click on “Save” button to save any changes made.

7 Advance

7.1 Advance > Wireless Setting

Figure 7.1.1 illustrates the Advance Wireless Setting configuration page for 2.4GHz 11B/G PicoStation AP.

Advance Wireless Setting

Antenna Setting:	<input checked="" type="checkbox"/> R-SMA <input type="checkbox"/> I-PEX
Beacon Interval:	100 (20~1000ms)
RTS Threshold:	2346 (256~2346ms)
Fragmentation Threshold:	2346 (1500~2346ms)
Distance:	1000 meters
ACK Timeout:	30
IGMP Data:	<input checked="" type="checkbox"/> Allow
Super Mode:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
VPN Pass-Through:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Operating Country:	United States

Figure 7.1.1: Advance Wireless Setting configuration page

Advance Wireless Setting contains the following parameters:

- **Antenna Setting** – Tick on “**R-SMA**” or “**I-PEX**” connector type for connecting with antenna.
Note: the **R-SMA CON.** be connected with Dipole Antenna and the **I-PEX CON.** be connected with Patch Antenna.
- **Beacon Interval** – Enter beacon interval value.
- **RTS Threshold** – Enter rts threshold value.
- **Fragmentation Threshold** – Enter fragmentation threshold value.
- **Distance** – Enter or adjust distance in meters.
- **ACK Timeout** – Display ACK timeout.
- **IGMP Data** – Tick on “**Allow**” box to allow multicasting.
- **Super Mode** – Select “**Enable**” or “**Disable**” radio buttons to enable or disable super mode.
- **VPN Pass-Through** – Select “**Enable**” or “**Disable**” radio buttons to enable or disable VPN pass-through.
- **VPN Pass-Through** – Select “**Enable**” or “**Disable**” radio buttons to enable

or disable VPN pass-through.

- **Operating Country** – Click on “**Operating Country**” drop down menu to select different operating country.
- **Save** – Click on “**Save**” button to save any changes made.

Warning

For product available in USA market, only channel 1~11 can be operated. Selection of other channels is not possible.

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7.2 Advance > Bandwidth

Figure 7.2.1 illustrates the Bandwidth Control configuration page for 2.4GHz 11B/G PicoStation AP. Bandwidth control limits all incoming/outgoing network traffic.

Bandwidth Control

General

Traffic Shaping:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
LAN Uplink Speed:	100	Mbps (10~100)
LAN Downlink Speed:	100	Mbps (10~100)
User Uplink Speed:	256	kbps (32- 65535)
User Downlink Speed:	256	kbps (32- 65535)

Save

Shaping List

#	Protocol	Port	Packet Range (Bytes)	Priority	Enable	Delete
1	tcp	21	1000 - 2000	Background	<input checked="" type="checkbox"/>	Delete

Add

Figure 7.2.1: Bandwidth Control configuration page

Bandwidth Control contains the following parameters:

- **Traffic Shaping** – Select “**Enable**” or “**Disable**” radio buttons to enable or disable network traffic control.
- **LAN Uplink Speed** – Enter LAN uplink speed.
- **LAN Downlink Speed** – Enter LAN downlink speed.
- **User Uplink Speed** – Enter user uplink speed.
- **User Downlink Speed** – Enter user downlink speed.
- **Save** – Click on “**Save**” button to save any changes made.
- **Protocol** – Display shaping rule protocol.
- **Port** – Display shaping rule port.
- **Packet Range (Bytes)** – Display shaping rule packet range.
- **Priority** – Display shaping rule priority.
- **Enable** – Tick on “**Enable**” box to enable or disable shaping rule.
- **Delete** – Click on “**Delete**” button to delete shaping rule.
- **Add** – Click on “**Add**” button to add shaping rule as shown in Figure 7.2.2.

Shaping Rule

Protocol:	tcp	
Port:	<input type="text"/>	(1~65535, 0: any port)
Min Size:	<input type="text"/>	(1~65535, 0: any size)
Max Size:	<input type="text"/>	(1~65535, 0: any size)
Priority:	Background	

Figure 7.2.2: Shaping Rule configuration page

- **Protocol** – Click on “**Protocol**” drop down menu to select “**tcp**” or “**udp**” protocol.
- **Port** – Enter port number for shaping rule.
- **Min Size** – Enter minimum size for shaping packet.
- **Max Size** – Enter maximum size for shaping packet.
- **Priority** – Click on “**Priority**” drop down menu to choose packet priority “**Background**”, “**Video**”, “**Voice**”, or “**Best Effort**”.
- **Save** – Click on “**Save**” button to confirm save shaping rule.

7.3 Advance > QoS

Figure 7.3.1 illustrates the 802.11e QoS (WMM) Setting configuration page for 2.4GHz 11B/G PicoStation AP. QoS will set priority for network traffic pass through the network.

802.11e QoS (WMM) Setting



Figure 7.3.1: 802.11e QoS (WMM) Setting configuration page

Bandwidth Control contains the following parameters:

- **QoS (WMM) Level** – Click on **QoS (WMM) Level** to select priority “**No QoS**”, “**Auto Priority**”, “**Video Priority**” or “**Voice Priority**”.

8 Management

8.1 Management > Web

Figure 8.1.1 illustrates the Web configuration page for 2.4GHz 11B/G PicoStation AP. Web configuration page used to change AP configuration web username and password, and also change page logo.

HTTP

Active	Enable <input type="button" value="v"/>
Port	80 (1 ~ 65535)
Username	admin
Password	admin

Logo

Update web logo :

Format: .gif Height: 120px Width: 180px

Figure 8.1.1: Web configuration page

HTTP contains the following parameters:

- **Active** – Click on “**Active**” drop down button to enable or disable HTTP.
- **Port** – Enter port number for HTTP.
- **Username** – Enter username for login to AP configuration page.
- **Password** – Enter password for login to AP configuration page.
- **Save** - Click on “**Save**” button to save any changes made.

Logo contains the following parameters:

- **Browse** – Click on “**Browse**” button to browse image to upload.
- **Upload** – Click on “**Upload**” button to upload image.
- **Save** - Click on “**Save**” button to save any changes made..

8.2 Management > SNMP

Figure 8.2.1 illustrates the SNMP configuration page for 2.4GHz 11B/G PicoStation AP. Simple Network Management Protocol (SNMP) used to monitor devices for conditions that warrant administrative attention.

SNMP

Device Name:	AccessPoint
Active	Enable
Version	v1 or v2c
Port	161 (1 ~ 65535)
v2 Read Community	public
v2 Read-write Community	private
Access Control	Disable

Access Control List					
Device	Subnet	Netmask	Comments	Active	Configure
VLAN0	-	-	VLAN	Enabled	<input type="button" value="Modify"/> <input type="button" value="Remove"/>

Configure Access Control Entry	
Device	VLAN0
Using	Device
Comments	
Active	Enable

Figure 8.2.1: SNMP configuration page with Version v1/v2c or V3

SNMP contains the following parameters:

- **Device Name** – Display device name.
- **Active** – Click on “Active” drop down menu to enable or disable SNMP.
- **Version** – Click on “Version” drop down menu to select “v1 or v2c”, “v3” or “all” version. “v3” and “all” will display parameters as shown in Figure 8.2.2 and Figure 8.2.3, respectively.

SNMP

Device Name:	AccessPoint
Active	Enable <input type="button" value="v"/>
Version	v3 <input type="button" value="v"/>
Port	161 (1 ~ 65535)
v3 Read Username	snmpv3rouser
v3 Read-write Username	snmpv3rwuser
v3 Password	snmpv3password
v3 Passphrase	snmpv3passphrase

Figure 8.2.2: SNMP configuration page with Version v3

SNMP

Device Name:	AccessPoint
Active	Enable <input type="button" value="v"/>
Version	all <input type="button" value="v"/>
Port	161 (1 ~ 65535)
v2 Read Community	public
v2 Read-write Community	private
v3 Read Username	snmpv3rouser
v3 Read-write Username	snmpv3rwuser
v3 Password	snmpv3password
v3 Passphrase	snmpv3passphrase

Figure 8.2.3: SNMP configuration page with Version all

- **Port** – Enter SNMP port.
- **v2 Read Community** – Enter v2 read community.
- **v2 Read-write Community** – Enter v2 read-write community.
- **v3 Read Username** – Enter v3 read username.
- **v3 Read-write Username** – Enter v3 read-write username.
- **v3 Password** – Enter v3 password.
- **v3 Passphrase** – Enter v3 passphrase.
- **Save** - Click on “**Save**” button to save any changes made.

Access Control List contains the following parameters:

- **Device** – Display access control interface name.
- **Subnet** – Display access subnet.
- **Netmask** – Display access netmask.
- **Comments** – Display access comments.

- **Active** – Display access status.
- **Configure** – Click on “**Remove**” to remove selected interface/network.

Configure Access Control Entry contains the following parameters:

- **Device** – Click on “**Device**” drop down menu to select interface.
- **Using** – Click on “Using” drop down menu to select “Device” or “Network”.
- **Subnet** – Enter access control subnet.
- **Netmask** – Enter access control netmask.
- **Comments** – Enter access control comments.
- **Active** – Click on “**Active**” drop down menu to choose active or inactive access control
- **New Entry** - Click on “**New Entry**” button to save any changes made.

8.3 Management > Management VLAN

Figure 8.3.1 illustrates the Management VLAN Setting page for 2.4GHz 11B/G PicoStation AP. Management VLAN allows specific VLAN to configure 2.4GHz 11B/G PicoStation AP configuration page.

Management VLAN Setting

Caution: If you reconfigure the Management VLAN ID, you may lose connectivity to the access point. Verify that the switch and DHCP server can support the reconfigured VLAN ID, and then re-connect to the new IP address.

Management VLAN ID:	Specified VLAN Device	vlan0 (vlan vid 0) ▼
	(must be in the range 1 ~ 4096)	
	<input type="button" value="Save"/>	

Figure 8.3.1: Management VLAN Setting page

Management VLAN contains the following parameters:

- **Specific VLAN Device** – Click on “**Specified VLAN Device**” drop down menu to choose management VLAN device.
- **Save** – Click on “**Save**” button to save any changes made.

8.4 Management > Firmware Upgrade

Figure 8.4.1 illustrates the Firmware Upgrade Setting page for 2.4GHz 11B/G PicoStation AP. Firmware upgrade setting allows upgrading latest firmware.

Firmware Upgrade Setting



Current Firmware version:

Locate And Select The Upgrade File From Your Hard Disk:

Figure 8.4.1: Firmware Upgrade Setting page

Firmware upgrade contains the following parameters:

- **Browse** – Click on “**Browse...**” button to choose firmware image to upgrade.
- **Upgrade** – Click on “**Upgrade**” button to upgrade selected firmware.

8.5 Management > Backup and Restore

Figure 8.5.1 illustrates the Backup and Restore page for 2.4GHz 11B/G PicoStation AP. Backup to save a copy of current settings. Restore to restore saved settings from backup file. Factory default to revert to factory default settings.

Backup and Restore

Save A Copy Of Current Settings:	<input type="button" value="Backup"/>
Restore Saved Settings From A File:	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Restore"/>
Revert To Factory Default Settings:	<input type="button" value="Factory Default"/>

Figure 8.5.1: Backup and Restore page

Backup and Restore contains the following parameters:

- **Backup** – Click on “**Backup**” button to save a copy of current settings.
- **Browse** – Click on “**Browse...**” button to search backup file to restore.
- **Restore** – Click on “**Restore**” button to restore saved settings from a file.
- **Factory Default** – Click on “**Factory Default**” to revert device to factory default settings.

8.6 Management > Time

Figure 8.6.1 illustrates the Local Time Setting page for 2.4GHz 11B/G PicoStation AP.

Local time can manually or automatically set date and time for device.

Local Time Setting

Time

Manually Set Date and Time
2008 / 06 / 11 16 : 32 (yyyy/mm/dd hh:mm)

Automatically Get Date and Time
Time Zone: TW-Asia/Taipei
 User defined NTP Server: 0.asia.pool.ntp.org

Save

Figure 8.6.1: Local Time Setting page

Local Time Setting contains the following parameters:

- **Time** – Select “**Time**” radio button to set time manually or automatically.
- **Manually Set Date and Time** – Enter date and time in format (yyyy/mm/dd hh:mm).
- **Time Zone** – Click on “**Time Zone**” drop down menu to select different time zone.
- **User defined NTP Server** – Click on “**User defined NTP Server**” to enable synchronizing the system clocks via defined NTP server. Enter NTP server IP address into “**User defined NTP Server**” field.
- **Save** – Click on “**Save**” button to save any changes made.

8.7 Management > Log

Figure 8.7.1 illustrates the Log Notification page for 2.4GHz 11B/G PicoStation AP.

Log notification can log message locally and remotely.

Log Notification

Syslog

Syslog:

Log Server IP Address: . . .

Local log

Local Log:

Figure 8.7.1: Log Notification page

Log notification contains the following parameters:

- **Syslog** – Click on “**Syslog**” drop down menu to enable or disable syslog.
- **Log Server IP Address** – Enter syslog server IP address.
- **Local Log** – Click on “**Local Log**” drop down menu to enable or disable local log message.
- **Save** – Click on “**Save**” button to save any changes made.

8.8 Management > NMS Address

Figure 8.8.1 illustrates the NMS Address page for 2.4GHz 11B/G PicoStation AP. NMS address is used for the system to report back to Network Management System located outside of the network.

NMS Addresses

Address	Port	Enable	Edit	
192.168.0.2	8188	<input checked="" type="checkbox"/>	Edit	Delete
<input type="button" value="add"/>				

Figure 8.8.1: NMS Addresses page

NMS Address contains the following parameters:

- **Address** – Display NMS address.
- **Port** – Display NMS port.
- **Enable** – Click on “**Enable**” box to active selected NMS.
- **Add** – Click on “**Add**” button to add new NMS settings as shown in Figure 8.7.2.
- **Edit** – Click on “**Edit**” button to edit NMS settings as shown in Figure 8.7.2.

NMS Address

NMS Address:	<input type="text" value="192.168.0.2"/>
NMS Port:	<input type="text" value="8188"/>
NMS Interval:	<input type="text" value="60"/>
<input type="button" value="Save"/>	

Figure 8.8.2: NMS Addresses add/edit page

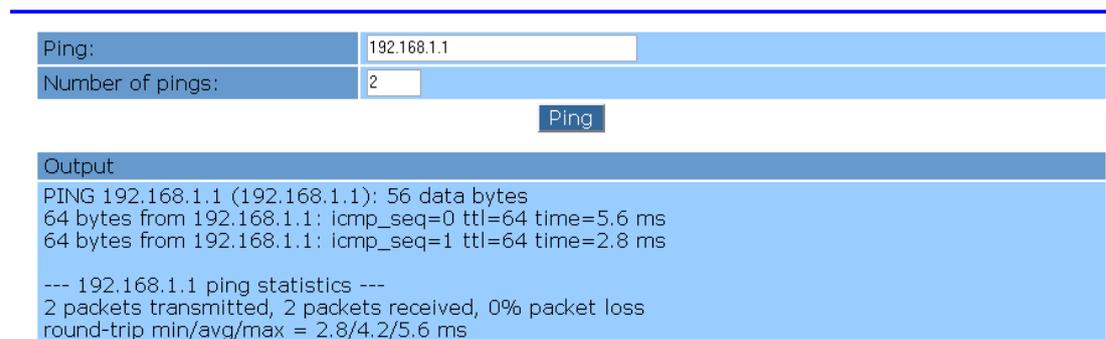
- **NMS Address** – Enter NMS address.
- **NMS Port** – Enter NMS port.
- **NMS Interval** – Enter NMS interval
- **Save** - Click on “**Save**” button to save any new changes/changes made.
- **Delete** – Click on “**Delete**” button to remove NMS address.

9 Tools

9.1 Tools > Ping

Figure 9.1.1 illustrates the ping page for 2.4GHz 11B/G PicoStation AP.

Ping



Ping:	<input type="text" value="192.168.1.1"/>
Number of pings:	<input type="text" value="2"/>

Output

```
PING 192.168.1.1 (192.168.1.1): 56 data bytes
64 bytes from 192.168.1.1: icmp_seq=0 ttl=64 time=5.6 ms
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=2.8 ms

--- 192.168.1.1 ping statistics ---
2 packets transmitted, 2 packets received, 0% packet loss
round-trip min/avg/max = 2.8/4.2/5.6 ms
```

Figure 9.1.1: Ping page

Ping contains the following parameters:

- **Ping** – Enter the IP address to ping.
- **Number of pings** – Enter the number of pings to send.
- **Ping** – Click on “**Ping**” button to ping and display output of ping command.
- **Output** – Display result of the ping command.

9.2 Tools > Ifconfig

Figure 9.2.1 illustrates the Ifconfig page for 2.4GHz 11B/G PicoStation AP. Ifconfig page is used to collect verbose information about device network interfaces.

Ifconfig

Output	
Interface	Info
ath1	Link encap:Ethernet HWaddr 00:40:C7:01:01:01 UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:69931 errors:0 dropped:0 overruns:0 frame:0 TX packets:16131 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:0 RX bytes:2620052 (2.4 MiB) TX bytes:4712848 (4.4 MiB)
eth0	Link encap:Ethernet HWaddr 00:40:C7:01:01:00 inet addr:192.168.1.128 Bcast:192.168.1.255 Mask:255.255.255.0 UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:31561 errors:2 dropped:2 overruns:0 frame:2 TX packets:19542 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:5615043 (5.3 MiB) TX bytes:2039836 (1.9 MiB) Interrupt:4 Base address:0x1000
lo	Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0 UP LOOPBACK RUNNING MTU:16436 Metric:1 RX packets:31 errors:0 dropped:0 overruns:0 frame:0 TX packets:31 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:0 RX bytes:2845 (2.7 KiB) TX bytes:2845 (2.7 KiB)
	Link encap:Ethernet HWaddr 00:40:C7:01:01:01 inet addr:192.168.0.1 Bcast:192.168.0.255 Mask:255.255.255.0 UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1

Figure 9.2.1: Ifconfig page

Ifconfig contains the following parameters:

- **Ifconfig** – Click on “**Ifconfig**” to call ifconfig command.
- **Output** – Display result of the ifconfig command.

9.3 Tools > Route

Figure 9.3.1 illustrates the Route page for 2.4GHz 11B/G PicoStation AP. Route page is used to collect information about device's routing table.

Route

Route							
Output							
Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
192.168.1.0	0.0.0.0	255.255.255.0	U	0	0	0	eth0
192.168.0.0	0.0.0.0	255.255.255.0	U	0	0	0	vlan0
127.0.0.0	0.0.0.0	255.0.0.0	U	0	0	0	lo
224.0.0.0	0.0.0.0	240.0.0.0	U	0	0	0	eth0
0.0.0.0	192.168.1.2	0.0.0.0	UG	0	0	0	eth0
0.0.0.0	192.168.0.254	0.0.0.0	UG	0	0	0	vlan0

Figure 9.3.1: Route page

Route contains the following parameters:

- **Route** – Click on “**Route**” to call route command.
- **Output** – Display result of the route command.

9.4 Tools > TFTP

Figure 9.4.1 illustrates the TFTP page for 2.4GHz 11B/G PicoStation AP. TFTP page is used to get or put file to a remote TFTP server.

TFTP

Use TFTP to get or put file to a remote TFTP server Getting of firmware will result in firmware upgrade follow by system reboot. Getting of config will result in configuration upgrade. Putting of config will result in configuration backup to remote server.				
TFTP to	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Operation	put ▼			
File Name	<input type="text"/>			
Type of File	config ▼			
<input type="button" value="Execute"/>				

Figure 9.4.1: TFTP page

TFTP contains the following parameters:

- **TFTP to** – Enter the destination IP address of remote TFTP server.
- **Operation** – Click on “**Operation**” drop down menu to select “**put**”, “**get**” or “**get and reboot**” file to remote TFTP server.
- **File Name** – Enter the file name to put or get.
- **Type of File** – Click on “**Type of File**” to select “**config**” or “**firmware**” file.
- **Execute** – Click on “**Execute**” button to perform directed action.

10 Technical Support

For Technical Support and other related feedback and information request, kindly please send your request to the following email:

Email: sales@emitech.com.tw

In your email, please provide the following detail information:

Device Model No : _____

Distributor : _____

Date of Purchase : _____

Device MAC Address : _____

Brief Description of your Problem or Request : _____

Capture of Sys Log Info : _____

Contact Info

Name : _____

Position : _____

Company : _____

Address : _____

Office Tel : _____

Mobile Number : _____

Email : _____

11 Warning

FCC statement in User's Manual(for class B)

"Federal Communications Commission (FCC) Statement

This Equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not install and in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.