MWS Series

SIMULTANEOUS DUAL BAND WIRELESS ACCESS POINT

AT-MWS600AP
AT-MWS1750AP
AT-MWS2533AP

Management Software User's Guide

the **solution :** the **network**

613-002445 Rev.B

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Contents

Preface

This guide explains how to use the web browser windows in the AT-MWS600AP, AT-MWS1750AP, and AT-MWS2533AP Wireless Access Points to configure and manage the features of the units.

This preface contains the following sections:

Safety Symbols Used in this Document

This document uses the following conventions.

Note
Notes provide additional information.

⚠ **Caution**
Cautions inform you that performing or omitting a specific action may result in equipment damage or loss of data.

⚡ **Warning**
Warnings inform you that performing or omitting a specific action may result in bodily injury.

✺ **Warning**
Laser warnings inform you that an eye or skin hazard exists due to the presence of a Class 1 laser device.

Contacting Allied Telesis

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Chapter 1
Getting Started

This chapter explains how to start a web browser management session. It contains the following sections:

Starting the Initial Management Session

You can manage and configure the access point using the Web Management Interface. Review the guidelines before starting the initial management session.

Guidelines

Here are guidelines for accessing the access point for management:

- ❒ Use Windows Internet Explorer Version 9 or later
- ❒ By default, DHCP is enabled. You must access the access point using the default IP address 192.168.1.230 on a network without a DHCP server.

Starting the Initial Management Session

To start the initial management session on the access point, perform the following procedure:

1. Connect one end of a network cable to a PoE+ LAN port on the access point and the other end to a PoE+ switch.

   Note
   To build a redundant power supply system with the power supplied from the DC jack, you must purchase the AT-MWS0091 AC adapter kit separately.

2. Connect your management PC to the PoE+ switch.

   Note
   Ensure that the PoE+ switch port connected to the access point and the PoE+ switch port connected to your management PC belong to the same VLAN, if your network is divided into virtual VLANs.

3. Change the IP address on your management PC to 192.168.1.*n*, where *n* is a number from 1 to 254, but not 230.

   The default IP address of the access point is 192.168.1.230.

4. Set the subnet mask on your computer to 255.255.255.0.

5. Start the Internet Explorer on your computer.

   Note
   Allied Telesis support the Internet Explorer version 9 of later.

6. Enter the IP address 192.168.1.230 in the URL field of the browser and press the Enter key.

   The login page appears as shown in Figure 1 on page 9.

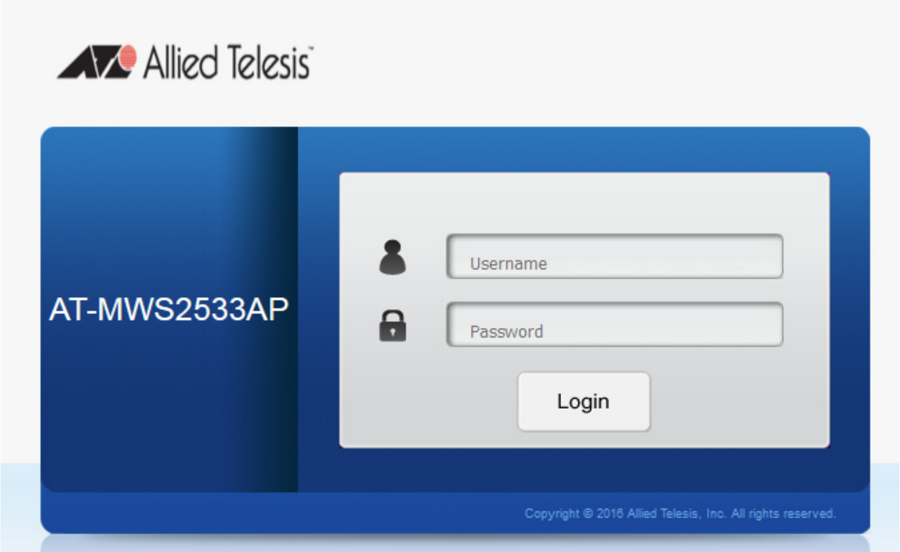


Figure 1. Login Window

7. Go to “Starting a Management Session on the Access Point” on page 10.

Starting a Management Session on the Access Point

This section explains how to start a management session on the access point from your management workstation.

To start a management session on the access point, perform the following procedure:

1. Open the web browser on your management workstation.

2. Enter the IP address of the access point in the URL field of the web browser.

   The Login page appears as shown in Figure 1 on page 9.

3. Enter the username and password.

   The default values are as follow:

   - The username: manager
   - The password: friend

4. Click the Login button.

Saving and Applying Your Changes

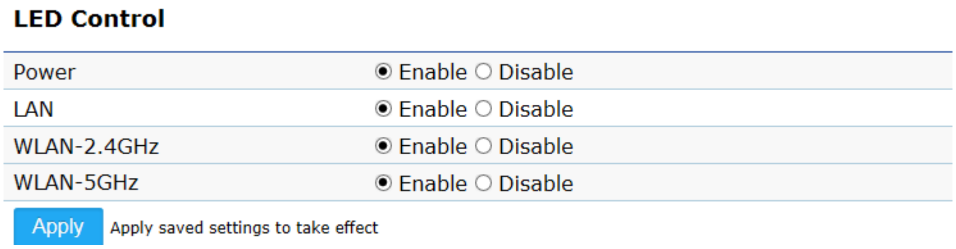
The MWS series access point keeps running configuration and startup configuration in one file. When you click the Apply button, your changes are saved into the running/startup configuration file and take effect immediately.

In addition, the access point keeps a temporary configuration file. When you click the Save button, your changes are saved into the temporary configuration file. For your changes to take effect, you must save them to the running/startup configuration file by clicking Change: *n* button on the top banner and the Apply button.

Applying Your Changes and Saving Them Permanently

To apply your changes immediately and save them into the running/startup configuration files, see the following as an example:

1. Make changes on settings.See Figure 2 as an example.



LED Control

Power	● Enable ○ Disable
LAN	● Enable ○ Disable
WLAN-2.4GHz	● Enable ○ Disable
WLAN-5GHz	● Enable ○ Disable

Figure 2. Applying Your Change

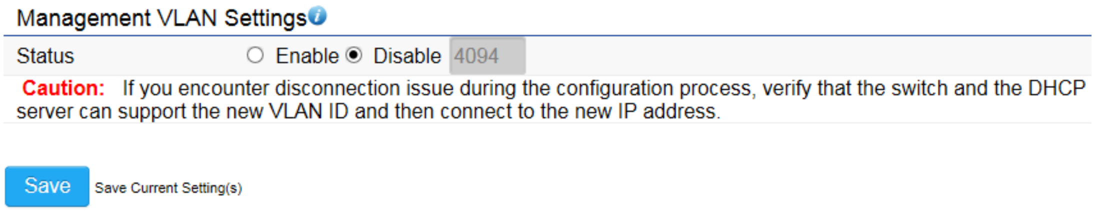
2. Click the Apply button.

   Your changes take effect immediately and are saved to the running/startup configuration file.

Saving Your Changes into a Temporary File

Some pages only offer you the Save button. By clicking the Save button, your changes are saved to the temporary file and not effective. See the following procedure as an example:

1. Make changes on settings. See Figure 3 as an example.



Management VLAN Settings

Status	○ Enable ● Disable 4094

Caution: If you encounter disconnection issue during the configuration process, verify that the switch and the DHCP server can support the new VLAN ID and then connect to the new IP address.

Figure 3. Saving Your Change

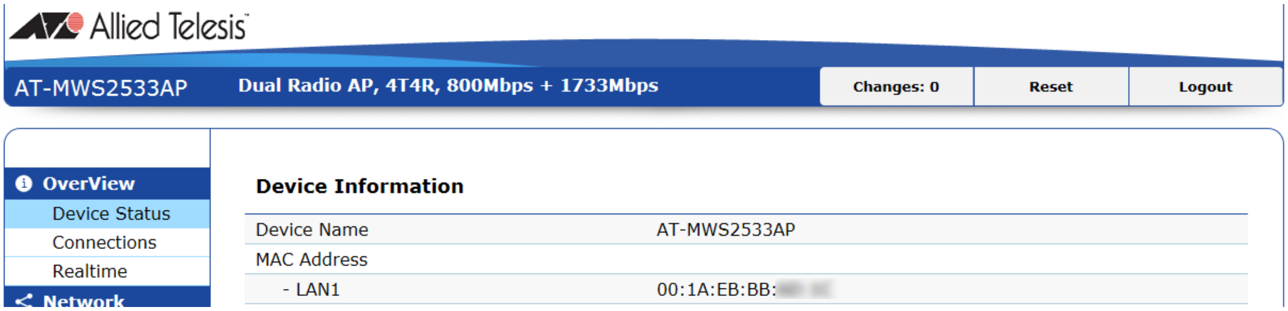
2. Click the Save button.

   Your changes are saved to the temporary configuration file.

Making Your Changes in the Temporary File Take Effect

To make your changes saved in the temporary file take effect, you must save your changes into the running/startup configuration file. To save the changes into the running/startup configuration file, do the following:

1. Open any management Web interface.See Figure 4 as an example.



Device Information

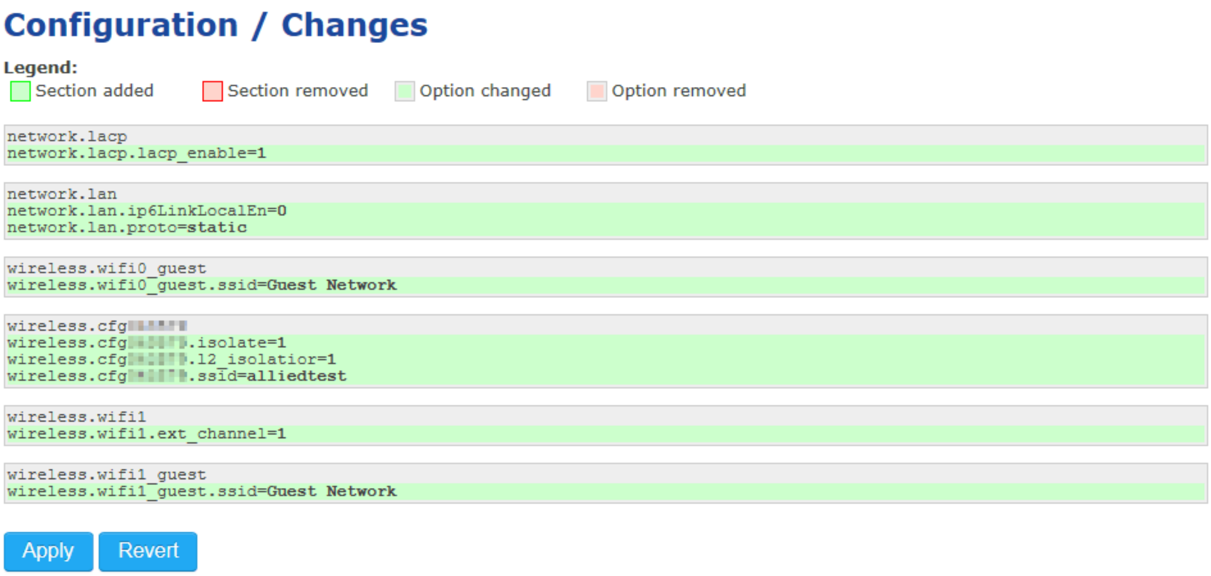
Device Name	AT-MWS2533AP
MAC Address	
- LAN1	00:1A:EB:BB:[redacted]

Figure 4. Opening a Web Management Page

2. Click the Change: *n* button on the top banner.

   The Configuration / Change page appears as shown in Figure 5.

> **Note**
> The *n* indicates the number of changes that are saved in the temporary configuration file.



Configuration / Changes

Legend:
🟩 Section added 🟥 Section removed 🟩 Option changed 🟥 Option removed

```
network.lacp
network.lacp.lacp_enable=1

network.lan
network.lan.ip6LinkLocalEn=0
network.lan.proto=static

wireless.wifi0_guest
wireless.wifi0_guest.ssid=Guest Network

wireless.cfg[redacted]
wireless.cfg[redacted].isolate=1
wireless.cfg[redacted].l2_isolatior=1
wireless.cfg[redacted].ssid=alliedtest

wireless.wifi1
wireless.wifi1.ext_channel=1

wireless.wifi1_guest
wireless.wifi1_guest.ssid=Guest Network
```

Figure 5. Displaying the Configuration / Change Page

3. Click the Apply button.

   Your changes take effect and are saved to the running/startup configuration file.

4. Or, click the Revert button.

   Your changes are discarded.

Chapter 2

Overview Section

This chapter describes the information in the Overview section. The chapter contains the following sections:

- ❐ “Displaying the Device Status” on page 16
- ❐ “Displaying Lists of Connected Clients” on page 24
- ❐ “Displaying CPU Loading, Traffic, and the Number of Packets” on page 25

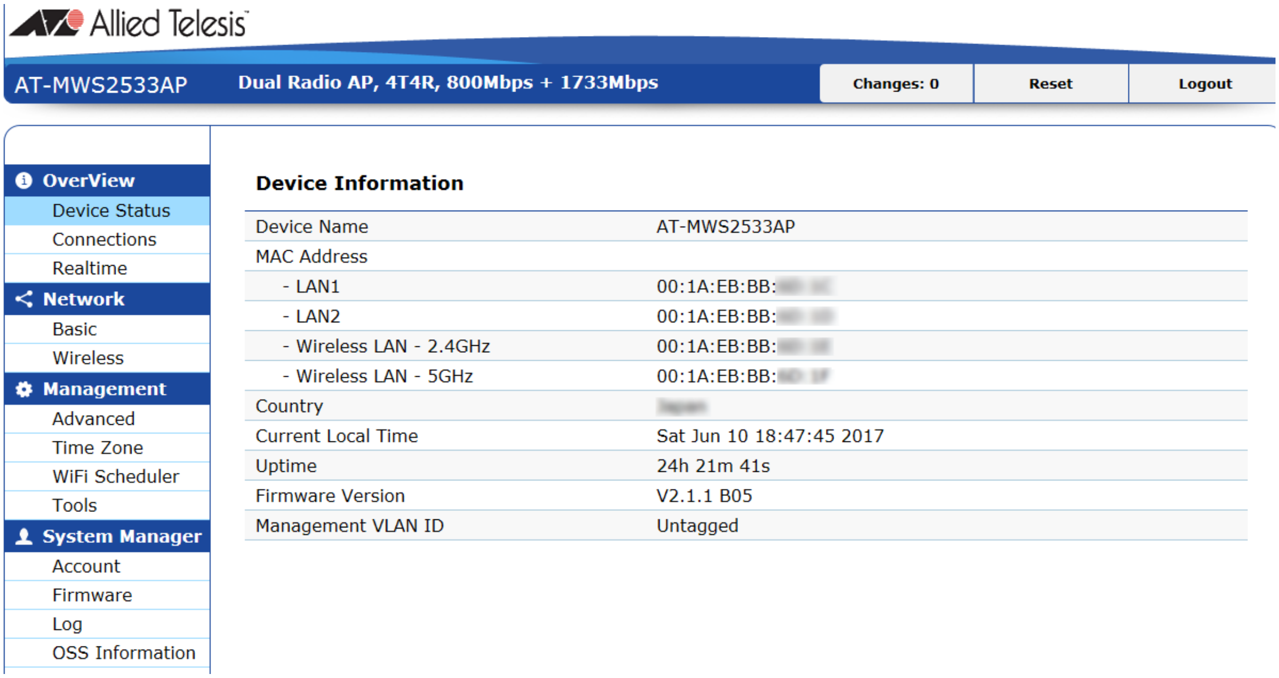
Displaying the Device Status

To display the Device Status, select Overview > Device Status from the side bar. the Device Status page includes the following sections:

- Device Information
- Memory Information
- LAN Information - IPv4
- LAN Information - IPv6
- Spanning Tree Protocol (STP) Information
- Link Aggregation Control Protocol (LACP) Information
- Wireless LAN information - 2.4GHz
- Wireless LAN information - 5GHz
- Statistics

Device Information

The Device Information section displays information as shown in Figure 6. The fields are defined in Table 1.



Device Information

Device Name	AT-MWS2533AP
MAC Address	
- LAN1	00:1A:EB:BB:[redacted]
- LAN2	00:1A:EB:BB:[redacted]
- Wireless LAN - 2.4GHz	00:1A:EB:BB:[redacted]
- Wireless LAN - 5GHz	00:1A:EB:BB:[redacted]
Country	[redacted]
Current Local Time	Sat Jun 10 18:47:45 2017
Uptime	24h 21m 41s
Firmware Version	V2.1.1 B05
Management VLAN ID	Untagged

Figure 6. Device Information Section

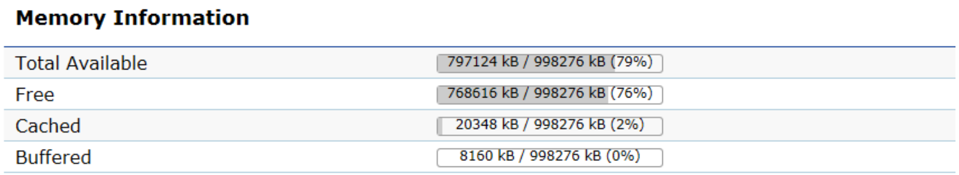
Table 1. Device Information

Field	Description
Device Name	Displays the model name of the device.
MAC Address	Displays the MAC addresses of the interfaces.
Country	Displays the country code set to the device.
Current Local Time	Displays the current time.
Uptime (AT-MWS2533AP model only)	Displays the amount of time since the device was powered on.
Firmware Version	Displays the version of the firmware that is installed on the device.
Management VLAN ID	Displays the management VLAN ID. When it is not specified, it shows “Untagged.”

Memory Information

The Memory Information section is only available for the AT-MWS2533AP model.

This section displays information as shown in Figure 7. The fields are defined in Table 2.



Memory Information

Total Available	797124 kB / 998276 kB (79%)
Free	768616 kB / 998276 kB (76%)
Cached	20348 kB / 998276 kB (2%)
Buffered	8160 kB / 998276 kB (0%)

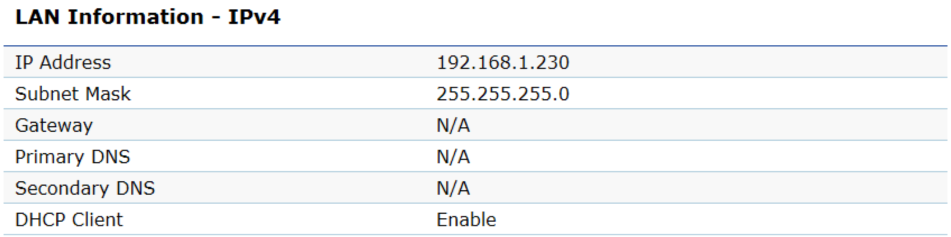
Figure 7. Memory Information Section

Table 2. Memory Information

Field	Description
Total Available	Displays the available RAM.
Free	Displays the free memory.
Cached	Displays the memory used for the cache.
Buffered	Displays the memory used for the buffer.

LAN Information - IPv4

The LAN Information - IPv4 section displays information as shown in Figure 8. The fields are defined in Table 3.



LAN Information - IPv4

IP Address	192.168.1.230
Subnet Mask	255.255.255.0
Gateway	N/A
Primary DNS	N/A
Secondary DNS	N/A
DHCP Client	Enable

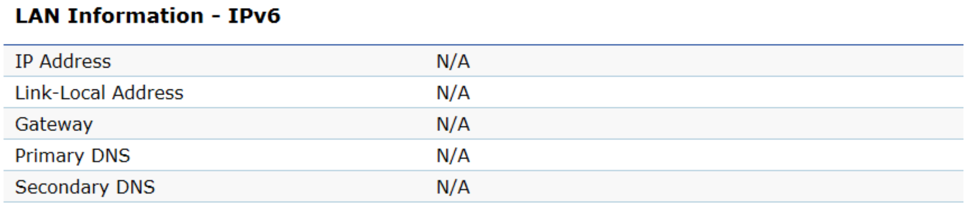
Figure 8. LAN Information - IPv4 Section

Table 3. LAN Information - IPv4

Field	Description
IP Address	Displays the IPv4 address of the device.
Subnet mask	Displays the subnet mask of the device.
Gateway	Displays the gateway of the device.
Primary DNS	Displays the IPv4 address of the primary DNS server.
Secondary DNS	Displays the IPv4 address of the secondary DNS server.
DHCP Client	Displays whether the DHCP client is enabled or disabled.

LAN Information - IPv6

The LAN Information -IPv6 section displays information as shown in Figure 9. The fields are defined in Table 4 on page 19.



LAN Information - IPv6

IP Address	N/A
Link-Local Address	N/A
Gateway	N/A
Primary DNS	N/A
Secondary DNS	N/A

Figure 9. LAN Information - IPv6 Section

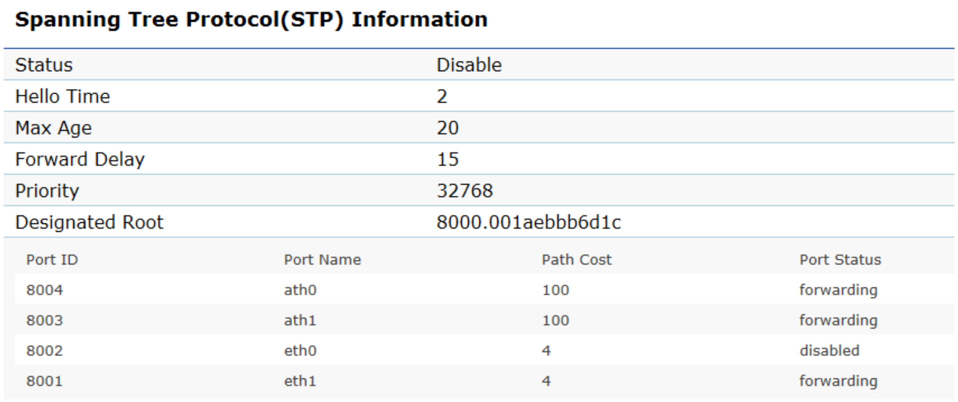
Table 4. LAN Information - IPv6

Field	Description
IP Address	Displays the IPv6 address of the device.
Link-Local Address	Displays the Link-Local IPv6 address of the device.
Gateway	Displays the IPv6 gateway of the device.
Primary DNS	Displays the IPv6 address of the primary DNS server.
Secondary DNS	Displays the IPv6 address of the secondary DNS server.

Spanning Tree Protocols (STP) Information

The STP Information section is only available for the AT-MWS2533AP model.

This section displays information as shown in Figure 10. The fields are defined in Table 5.



Spanning Tree Protocol(STP) Information

Status	Disable
Hello Time	2
Max Age	20
Forward Delay	15
Priority	32768
Designated Root	8000.001aebbb6d1c

Port ID	Port Name	Path Cost	Port Status
8004	ath0	100	forwarding
8003	ath1	100	forwarding
8002	eth0	4	disabled
8001	eth1	4	forwarding

Figure 10. Spanning Tree Protocol (STP) Information Section

Table 5. Spanning Tree Protocol (STP) Information

Field	Description
Status	Displays whether STP is enabled or disabled.
Hello Time	Displays hello time in seconds. The hello time is the interval between Bridge Protocol Data Units (BPDUs) that the root bridge sends out.

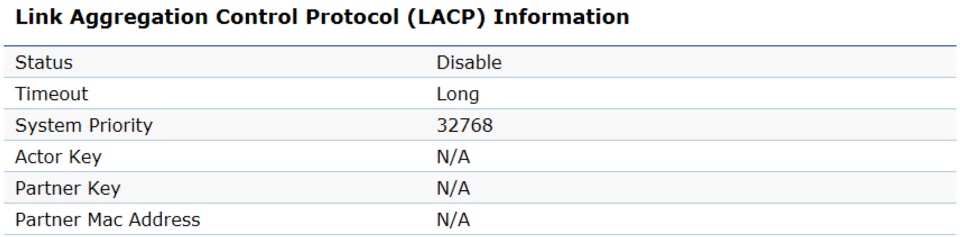
Table 5. Spanning Tree Protocol (STP) Information (Continued)

Field		Description
Max Age		Displays the maximum age time in seconds. The Max Age is the maximum length of time that a bridge port does not receive a BPDU from the root bridge.When the Max Age time is reached, STP starts re-electing a root bridge.
Forward Delay		Displays the forward delay time in seconds. The forward delay time is the time that the root bridge port changes its state from the listening state to the learning state and to the forwarding state.
Priority		Displays the bridge priority of the device.
Designated Root		Displays the bride ID of the device. The bridge ID consists of the bridge priority and MAC address.
Port Info	Port ID	Displays the port ID used in the device.
	Port Name	Displays the interface name used in the device. ❒ ath0 - 2.4GHz interface ❒ ath1 - 5GHz ❒ eth0 - LAN1 ❒ eth1 - LAN 2
	Path Cost	Displays the path cost.
	Port Status	Displays the port status.

Link Aggregation Control Protocol (LACP) Information

The LACP Information section is only available for the AT-MWS2533AP model.

This section displays information as shown in Figure 11. The fields are defined in Table 6 on page 21.



Link Aggregation Control Protocol (LACP) Information

Status	Disable
Timeout	Long
System Priority	32768
Actor Key	N/A
Partner Key	N/A
Partner Mac Address	N/A

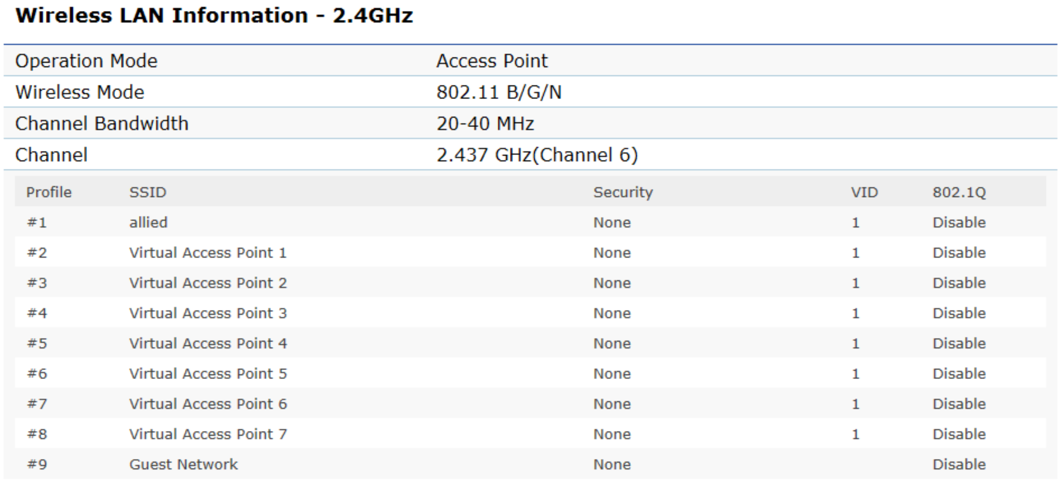
Figure 11. Link Aggregation Control Protocol (LACP) Information Section

Table 6. Link Aggregation Control Protocol (LACP) Information

Field	Description
Status	Displays whether LACP is enabled or disabled.
Timeout	Displays the LACP timeout. ❒ Long - The interval of sending LACP packets is set to 30 seconds; the LACP session is set to be 90 seconds. ❒ Short - The interval of sending LACP packets is set to 1 second; the LACP session is set to be 3 seconds.
System Priority	Displays the LACP system priority.
Actor Key	Displays the aggregation key of the device.
Partner Key	Displays the aggregation key of the partner device.
Partner Mac Address	Displays the MAC address of the partner device.

Wireless LAN Information - 2.4GHz

The Wireless LAN Information - 2.4GHz section displays information as shown in Figure 12. The fields are defined in Table 7 on page 22.



Wireless LAN Information - 2.4GHz

Operation Mode	Access Point
Wireless Mode	802.11 B/G/N
Channel Bandwidth	20-40 MHz
Channel	2.437 GHz(Channel 6)

Profile	SSID	Security	VID	802.1Q
#1	allied	None	1	Disable
#2	Virtual Access Point 1	None	1	Disable
#3	Virtual Access Point 2	None	1	Disable
#4	Virtual Access Point 3	None	1	Disable
#5	Virtual Access Point 4	None	1	Disable
#6	Virtual Access Point 5	None	1	Disable
#7	Virtual Access Point 6	None	1	Disable
#8	Virtual Access Point 7	None	1	Disable
#9	Guest Network	None		Disable

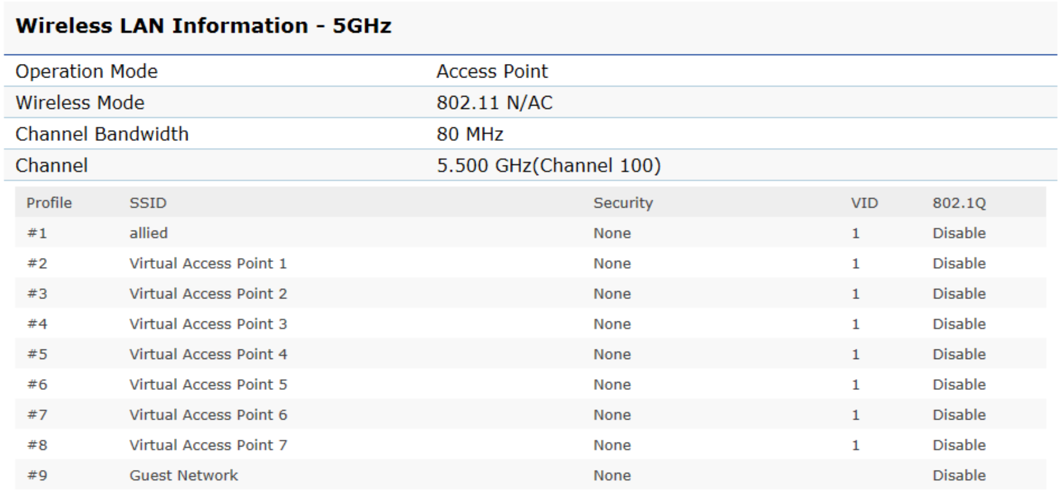
Figure 12. Wireless LAN Information - 2.4GHz Section

Table 7. Wireless LAN Information - 2.4GHz and 5GHz

Field		Description
Operation Mode		Displays the operation mode of the device.
Wireless Mode		Displays the wireless mode.
Channel Bandwidth		Displays the channel bandwidth.
Channel		Displays the frequency and channel number.
VAP	Profile	Displays VAP’s profile number.
	SSID	Displays VAP’s SSID number.
	Security	Displays VAP’s security method.
	VID	Dsiplays VAP’s VLAN ID.
	802.1Q	Displays whether IEEE802.1q tagging is enabled or disabled.

Wireless LAN Information - 5GHz

The Wireless LAN Information - 5GHz section displays information as shown in Figure 13. The fields are defined in Table 7 on page 22.



Wireless LAN Information - 5GHz

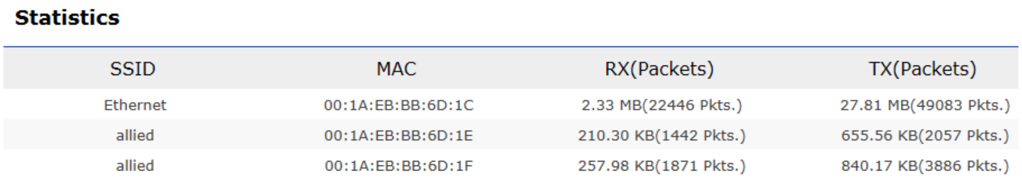
Operation Mode	Access Point
Wireless Mode	802.11 N/AC
Channel Bandwidth	80 MHz
Channel	5.500 GHz(Channel 100)

Profile	SSID	Security	VID	802.1Q
#1	allied	None	1	Disable
#2	Virtual Access Point 1	None	1	Disable
#3	Virtual Access Point 2	None	1	Disable
#4	Virtual Access Point 3	None	1	Disable
#5	Virtual Access Point 4	None	1	Disable
#6	Virtual Access Point 5	None	1	Disable
#7	Virtual Access Point 6	None	1	Disable
#8	Virtual Access Point 7	None	1	Disable
#9	Guest Network	None		Disable

Figure 13. Wireless LAN Information - 5GHz Section

Statistics

The Statistics section displays information as shown in Figure 14. The fields are defined in Table 8.



Statistics

SSID	MAC	RX(Packets)	TX(Packets)
Ethernet	00:1A:EB:BB:6D:1C	2.33 MB(22446 Pkts.)	27.81 MB(49083 Pkts.)
allied	00:1A:EB:BB:6D:1E	210.30 KB(1442 Pkts.)	655.56 KB(2057 Pkts.)
allied	00:1A:EB:BB:6D:1F	257.98 KB(1871 Pkts.)	840.17 KB(3886 Pkts.)

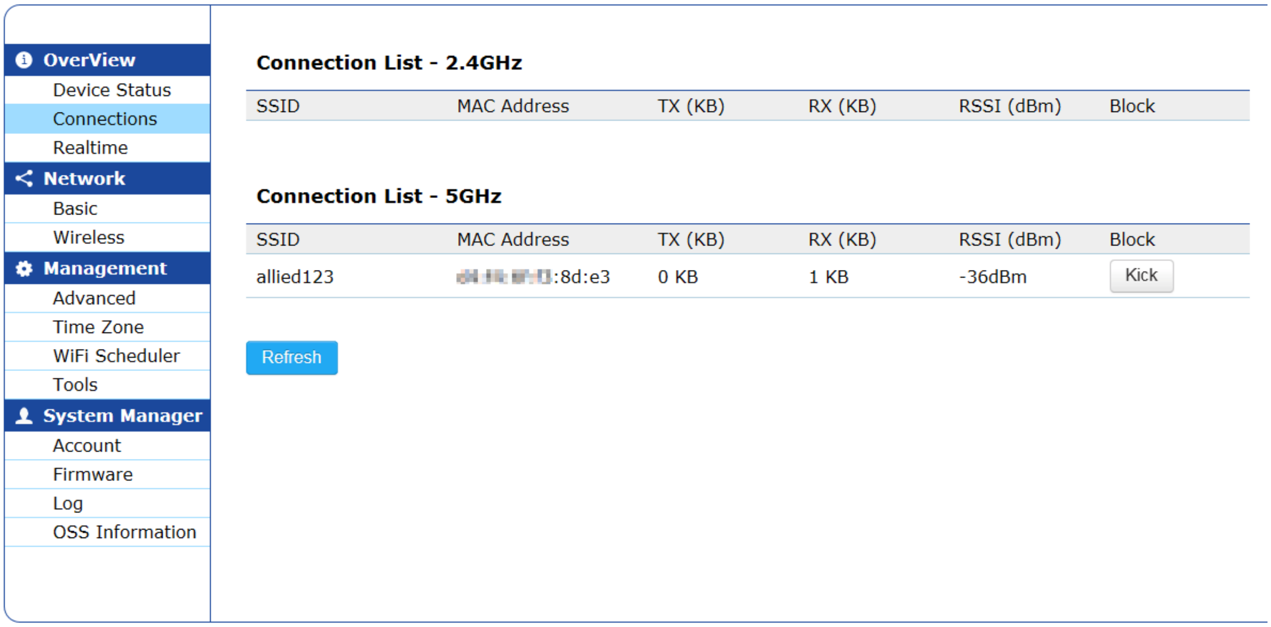
Figure 14. Statistics Section

Table 8. Statistics

Field	Description
SSID	Displays the interface name or VAP’s SSID.
MAC	Displays the MAC address of the interface.
RX(Packets)	Displays the total number of the packets that the interface received and total bytes of the packets.
TX(Packets)	Displays the total number of the packets that the interface transmitted and total bytes of the packets.

Displaying Lists of Connected Clients

To display the connected clients, select Overview > Connections from the side bar. the Connections page displays as shown in Figure 15. The fields are defined in Table 9.



Connection List - 2.4GHz

SSID	MAC Address	TX (KB)	RX (KB)	RSSI (dBm)	Block

Connection List - 5GHz

SSID	MAC Address	TX (KB)	RX (KB)	RSSI (dBm)	Block
allied123	[redacted]:8d:e3	0 KB	1 KB	-36dBm	Kick

Figure 15. Connections

Table 9. Connections

Field	Description
SSID	Displays the SSID that the client is connected.
MAC Address	Displays the MAC address of the client.
TX (KB)	Displays the data size in bytes that the device sent to the client.
RX (KB)	Displays the data size in bytes that the device received from the client.
RSSI (dBm)	Displays the Received Signal Strength Indication (RSSI) of the signal from the client.
Block	Click the Kick button, it disconnects the client.

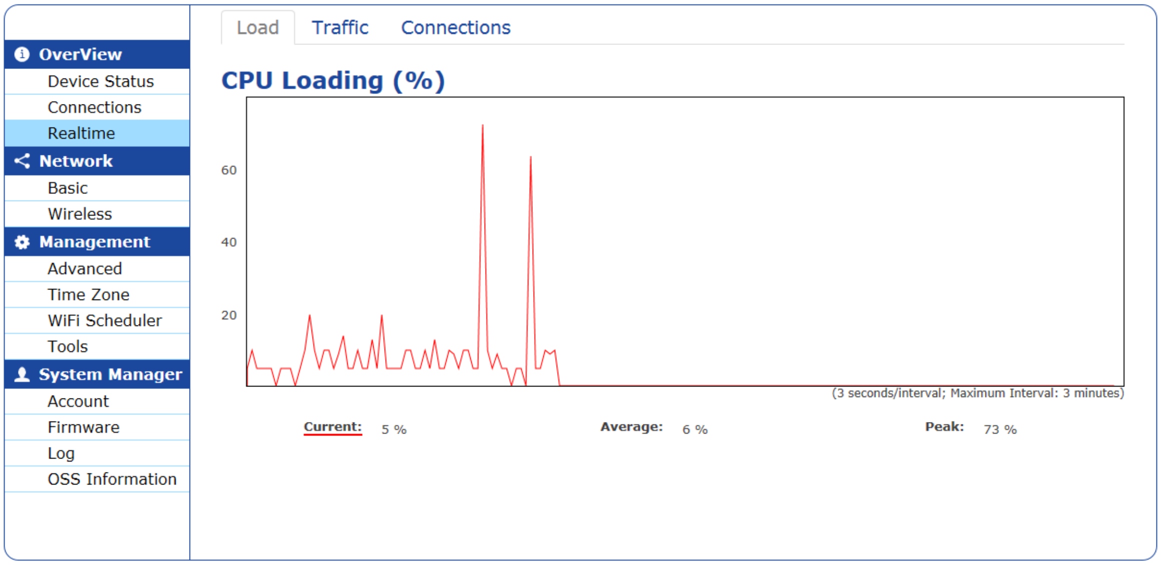
Displaying CPU Loading, Traffic, and the Number of Packets

The Realtime page is only available for the AT-MWS2533AP model.

You can view CPU loading, traffic, and the numbers of packets on the Realtime page.

CPU Loading

To display CPU loading data, select Overview > Realtime from the side bar menu. The CPU loading page displays as shown in Figure 16.



Current: 5 %

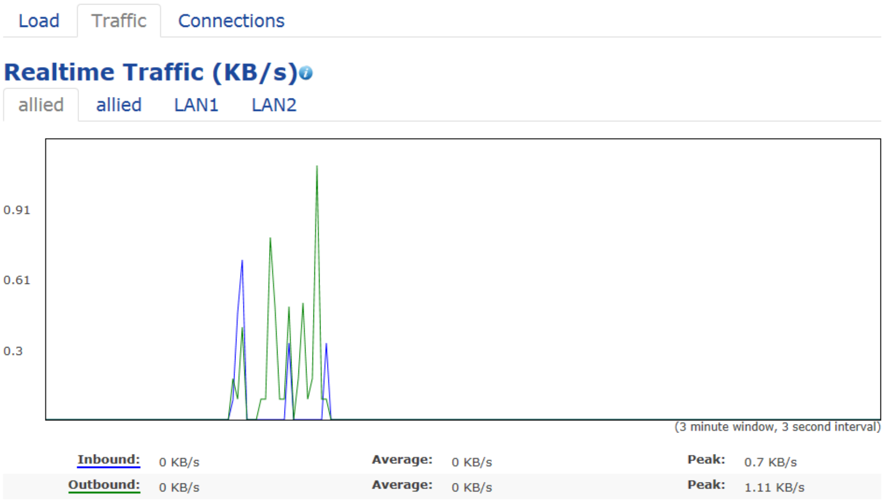
Average: 6 %

Peak: 73 %

Figure 16. CPU Loading Page

Traffic

To display traffic data for SSIDs for 2.4GHz and 5GHz, LAN1, and LAN2 interfaces, select Overview > Realtime from the side bar menu and click the Traffic tab. The Realtime Traffic (KB/s) page displays as shown in Figure 17 on page 26.



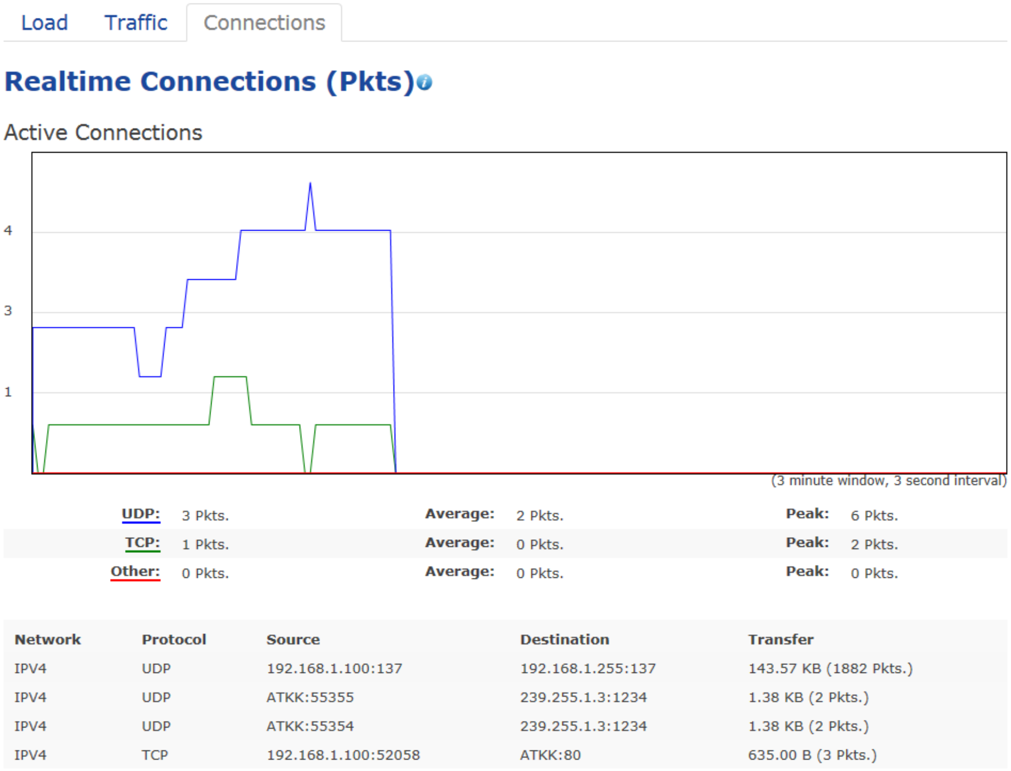
Realtime Traffic (KB/s)

Inbound:	0 KB/s	Average:	0 KB/s	Peak:	0.7 KB/s
Outbound:	0 KB/s	Average:	0 KB/s	Peak:	1.11 KB/s

Figure 17. Realtime Traffic (KB/s) Page

Realtime Connections

To display the numbers of TCP and UDP packets forwarded from the device, select Overview > Realtime from the side bar menu and click the Connections tab. The Realtime Connections (Pkts) page displays as shown in Figure 18 The fields are defined in Table 10 on page 27.



Realtime Connections (Pkts)

UDP:	3 Pkts.	Average:	2 Pkts.	Peak:	6 Pkts.
TCP:	1 Pkts.	Average:	0 Pkts.	Peak:	2 Pkts.
Other:	0 Pkts.	Average:	0 Pkts.	Peak:	0 Pkts.

Network	Protocol	Source	Destination	Transfer
IPV4	UDP	192.168.1.100:137	192.168.1.255:137	143.57 KB (1882 Pkts.)
IPV4	UDP	ATKK:55355	239.255.1.3:1234	1.38 KB (2 Pkts.)
IPV4	UDP	ATKK:55354	239.255.1.3:1234	1.38 KB (2 Pkts.)
IPV4	TCP	192.168.1.100:52058	ATKK:80	635.00 B (3 Pkts.)

Figure 18. Realtime Connections Page

Table 10. Connections

Field	Description
Network	Displays whether IPv4 or IPv6.
Protocol	Displays the protocol: ❒ UDP ❒ TCP ❒ Others - Protocols other than UDP and TCP
Source	Displays the IP address and TCP or UDP port of the source.
Destination	Displays the IP address and TCP or UDP port of the destination.
Transfer	Displays the size of received and transmitted data in kilo bytes and the number of received and transmitted packets.

Chapter 3

Network Section

This chapter describes the information in the Network section. The chapter contains the following sections:

- “Modifying the Basic Settings” on page 30
- “Specifying and Modifying Wireless Settings” on page 34

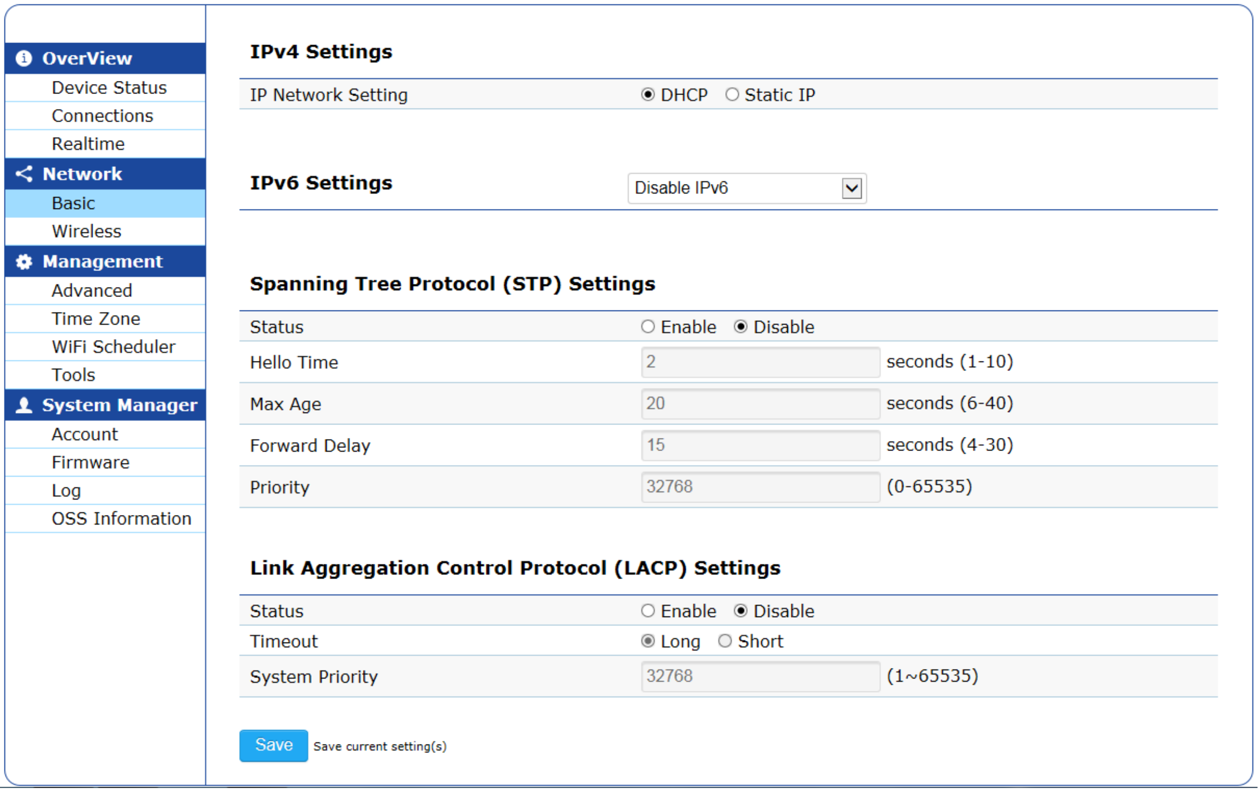
Modifying the Basic Settings

To modify the basic settings for network, select Network > Basic from the side bar. the IPv4 Settings and IPv6 Settings page is displayed.

Note
For your changes to take effect, save your changes by clicking the Save button on a setting page, click the Change: *n* button on the top banner, and click the Apply button. For more information, see “Saving and Applying Your Changes” on page 11.

IPv4 Settings

You can modify the IPv4 settings on the device on the IPv4 Settings section as shown in Figure 19. The fields are defined in Table 11 on page 31.



IPv4 Settings

IP Network Setting	● DHCP ○ Static IP

IPv6 Settings Disable IPv6

Spanning Tree Protocol (STP) Settings

Status	○ Enable ● Disable	
Hello Time	2	seconds (1-10)
Max Age	20	seconds (6-40)
Forward Delay	15	seconds (4-30)
Priority	32768	(0-65535)

Link Aggregation Control Protocol (LACP) Settings

Status	○ Enable ● Disable	
Timeout	● Long ○ Short	
System Priority	32768	(1~65535)

Save current setting(s)

Figure 19. IPv4 Settings and IPv6 Settings Section

ed3z

Table 11. IPv4 Settings

Field	Description
IP Network Setting	Specifies IPv4 address assignment either dynamically from a DHCP server or manually. The default setting is DHCP.
IP Address	Specifies an IPv4 address when Static IP is selected as the IP Network Setting. The default value is 192.168.1.230.
Subnet Mask	Specifies a subnet mask when Static IP is selected as the IP Network Setting. The default value is 255.255.255.0.
Gateway	Specifies a gateway when Static IP is selected as the IP Network Setting. The default value is 192.168.1.1.
Primary DNS	Specifies the IPv4 address of a primary DNS when Static IP is selected as the IP Network Setting.
Secondary DNS	Specifies the IPv4 address of a secondary DNS when Static IP is selected as the IP Network Setting.

IPv6 Settings

You can modify the IPv6 settings on the device on the IPv6 Settings section. See Figure 19 on page 30. The fields are described in Table 12

Table 12. IPv6 Settings

Field	Description
IPv6 Settings	Specifies one of the following options: ❐ Disable IPv6 - This is the default setting. ❐ Link-Local address only - a link-local address is assigned. ❐ Static IPv6 - manually assign an IPv6 address.
IP Address	Specifies an IPv6 address when Static IPv6 is selected.
Subnet Prefix Length	Specifies a subnet prefix length when Static IPv6 is selected.
Gateway	Specifies a gateway when Static IPv6 is selected.
Primary DNS	Specifies the address of a primary DNS when Static IPv6 is selected.

Table 12. IPv6 Settings (Continued)

Field	Description
Secondary DNS	Specifies the address of a secondary DNS when Static IPv6 is selected.

Spanning Tree Protocol (STP) Settings

This section is only available for AT-MWS2533AP model.

You can modify the STP settings in the STP section as shown in Figure 19 on page 30. The fields are defined in Table 13.

Table 13. STP Settings

Field	Description
Status	Specifies whether STP is enabled or disabled. The default setting is disabled.
Hello Time	Specifies hello time in seconds. The range is 1 to 10. The default value is 2 seconds. The hello time is the frequency that the root bridge sends bridge protocol data units (BPDUs).
Max Age	Specifies maximum age time in seconds. The range is 6 to 40. The default value is 20 seconds. The Max Age is the maximum length of time that a bridge port waits to receive a BPDU from the root bridge.When the Max Age time is reached, STP starts re-electing a root bridge. Max Age must be determined according to the following formulas: Max Age <= 2 X (forward delay - 1 second) Max Age => 2 X (hello time + 1 second)
Forward Delay	Specifies the forward delay time in seconds. The range is 4 to 30 seconds. The default value is 15. The forward delay time is the time that the root bridge port changes its state from the listening state to the learning state and to the forwarding state.
Priority	Specifies the bridge priority. The range is 0 to 65535. The default value is 32768.

Ling Aggregation Control Protocol (LACP) Settings

This section is only available for AT-MWS2533AP model.

You can modify the LACP settings in the LACP section as shown in Figure 19 on page 30. The fields are defined in Table 14.

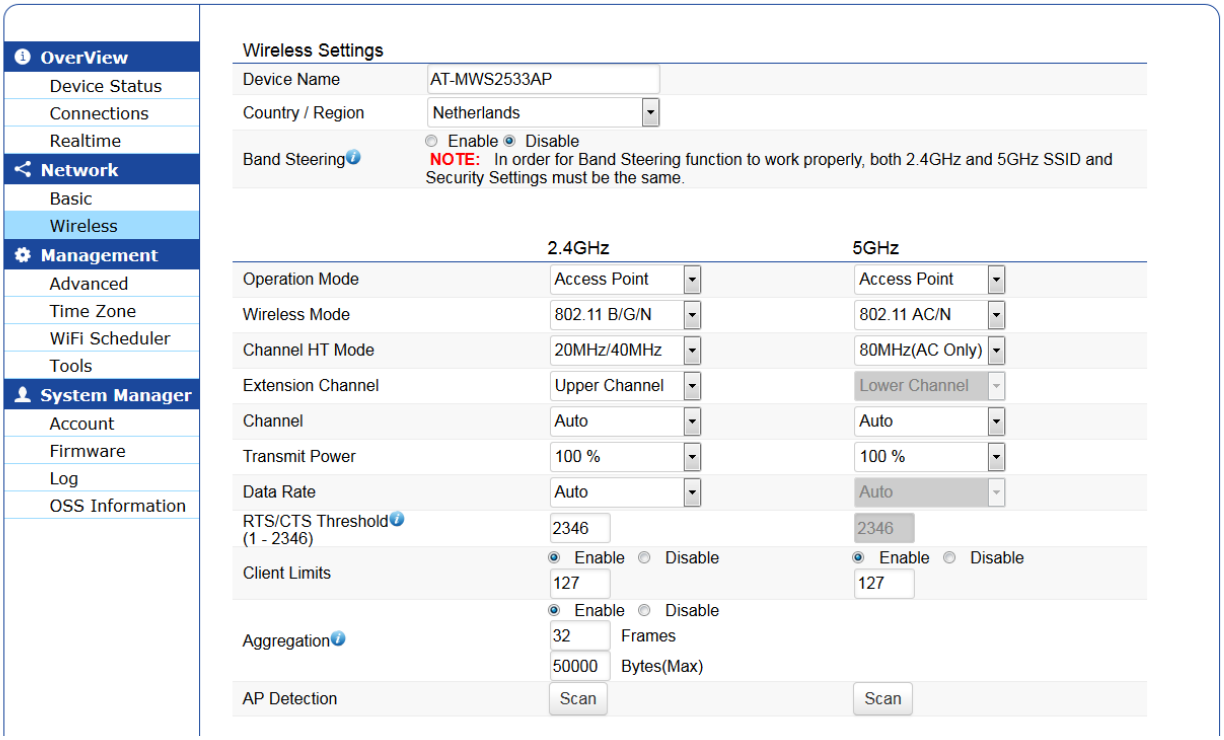
Table 14. LACP

Field	Description
Status	Enable or disable LACP. The default setting is disable.
Timeout	Select LACP timeout. The options are: ❒ Long - The LACP packet is sent out every 30 seconds. The LACP timeout is 90 seconds. ❒ Short - The LACP packet is sent out every second. The LACP timeout is 3 seconds. The default setting is Long.
System Priority	Specify the LACP system priority value. The range is from 1 to 65535. The default value is 32768.

Specifying and Modifying Wireless Settings

To specify and modify the 2.4GHz and 5GHz settings, select Network > Wireless from the side bar. The Wireless Settings page is displayed as shown in Figure 20. The fields are defined in Table 15.

> **Note**
> For your changes to take effect, save your changes by clicking the Save button on a setting page, click the Change: *n* button on the top banner, and click the Apply button. For more information, see “Saving and Applying Your Changes” on page 11.



Wireless Settings

Device Name	AT-MWS2533AP
Country / Region	Netherlands
Band Steering	○ Enable ● Disable **NOTE:** In order for Band Steering function to work properly, both 2.4GHz and 5GHz SSID and Security Settings must be the same.

	2.4GHz	5GHz
Operation Mode	Access Point	Access Point
Wireless Mode	802.11 B/G/N	802.11 AC/N
Channel HT Mode	20MHz/40MHz	80MHz(AC Only)
Extension Channel	Upper Channel	Lower Channel
Channel	Auto	Auto
Transmit Power	100 %	100 %
Data Rate	Auto	Auto
RTS/CTS Threshold (1 - 2346)	2346	2346
Client Limits	● Enable ○ Disable 127	● Enable ○ Disable 127
Aggregation	● Enable ○ Disable 32 Frames 50000 Bytes(Max)	
AP Detection	Scan	Scan

Figure 20. Wireless Settings Page

Table 15. Wireless Settings

Field	Description
Device Name	Assigns a name to the device. The name can have up to 32 alphanumeric characters. The special characters (! $,% ( ) * + , - . < = > ? @ ^ _ { | } ~) are allowed. The device name is used by SNMP managers.

Table 15. Wireless Settings (Continued)

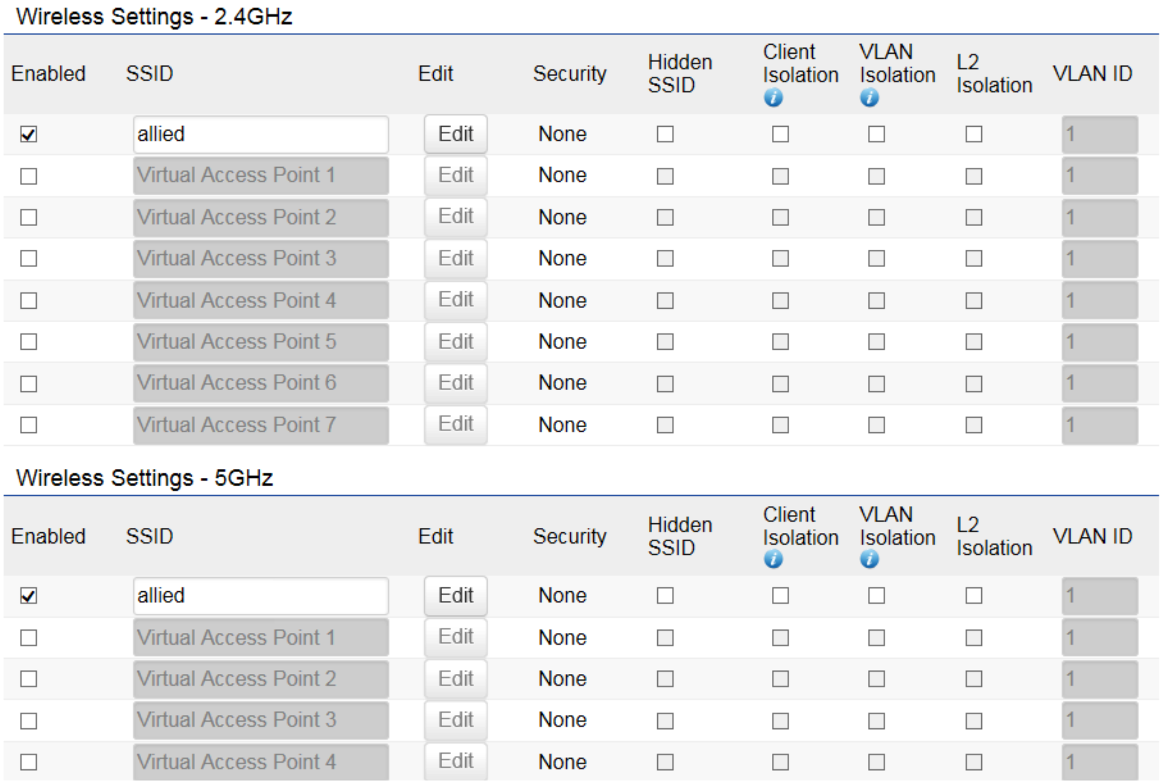
Field		Description
Country / Region		Select the country or region name. If the Country / Region drop-down list is deactivated, the country parameter was set by the manufacturer and cannot be changed. **Note** Contact your Allied Telesis sales representative if the setting is not correct for your country or region. See "Contacting Allied Telesis" on page 5.
Band Steering		Enable or disable Band Steering. When Band Steering is enabled, the device pushes a wireless client to connect the 5GHz network if the client is dual-band capable. The default setting is disable.
Operation Mode	2.4GHz	Displays the operation mode as "Access Point." You cannot change the setting.
	5GHz	
Wireless Mode	2.4GHz	Select an IEEE standard to support.
	5GHz	
Channel HT Mode	2.4GHz	Select a channel High Throughput (HT) mode.
	5GHz	
Extension Channel	2.4GHz	Select a extension channel either upper channel or lower channel. The default value is upper channel.
	5GHz	You cannot change the value.
Channel	2.4GHz	Select a channel or Auto. When Auto is selected, the system uses the lowest chance to be interfered. The default setting is Auto.
	5GHz	
Transmit Power	2.4GHz	Select the transmit power from 100%, 75%, 50%, 25%, and 10%. The default setting is 100%
	5GHz	
Data Rate	2.4GHz	Select a date rate. The default setting is Auto.
	5GHz	
RTS/CTS Threshold	2.4GHz	Specify the packet size to determine whether an RTS packet to send. The default value is 2346 bytes.
	5GHz	Displays the RTS value. You cannot change it.

Table 15. Wireless Settings (Continued)

Field			Description
Client Limits	2.4GHz		Enable to limit the number of clients or disable not to limit. When it is enabled, specify the number of clients. The range is 1 to 127 clients. By default, limiting the number of clients is enabled and the value is 127.
	5GHz		
Aggregation	2.4GHz		Enable or disable Frame Aggregation. When enabled, Frame Aggregation reduces communication overhead to improve throughput by sending multiple frames as one frame. The default setting is enabled. **Note** Aggregation for the 5GHz frequency band is only applicable to the AT-MWS600AP model.
	5GHz		
	2.4GHz	Frames	Specify the number of frames to be sent in a single transmission. The range is 1 to 32 frames. The default value is 32. **Note** Aggregation for the 5GHz frequency band is only applicable to the AT-MWS600AP model.
	5GHz		
	2.4GHz	Bytes (Max)	Specify the maximum frame size of a single transmission, in bytes. The range is from 2304 to 65535. The default value is 50000. **Note** Aggregation for the 5GHz frequency band is only applicable to the AT-MWS600AP model.
	5GHz		
AP Detection	2.4GHz		Click the Scan button to detect neighbor access points. A list of detected access points and detailed information are displayed.
	5GHz		

VAP Settings - 2.4GHz and 5GHz

You can add or modify the settings for the Virtual Access Point (VAP). By collaborating VAPs and VLANs, you can use one physical access point as multiple virtual access points. You can specify up to 8 VAPs for each 2.4GHz and 5 GHz. See Figure 21 on page 37.The fields are defined in Table 16 on page 37.



Wireless Settings - 2.4GHz

Enabled	SSID	Edit	Security	Hidden SSID	Client Isolation	VLAN Isolation	L2 Isolation	VLAN ID
☑	allied	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 1	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 2	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 3	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 4	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 5	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 6	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 7	Edit	None	☐	☐	☐	☐	1

Wireless Settings - 5GHz

Enabled	SSID	Edit	Security	Hidden SSID	Client Isolation	VLAN Isolation	L2 Isolation	VLAN ID
☑	allied	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 1	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 2	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 3	Edit	None	☐	☐	☐	☐	1
☐	Virtual Access Point 4	Edit	None	☐	☐	☐	☐	1

Figure 21. VAP Settings -2.4GHz and 5GHz Section

Table 16. VAP Settings - 2.4GHz and 5GHz

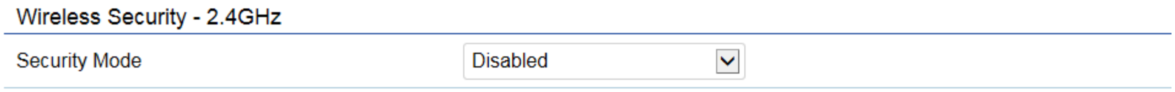
Field	Description
Enabled	Enable or disable the VAP. By default, VAP is disabled.
SSID	Specify the SSID name for the VAP. The SSID is assigned to the VLAN for this VAP. The SSID name must be alphanumeric characters. The special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ _ { | } ~ are allowed. By default, the first SSID is named “allied,” and the rest of the SSID are “Virtual Access Point *n*.” The *n* is a number from 1 to 7.
Edit	Bring up anther page to specify or modify the VAP security, MAC filtering, and Traffic Shaping settings. See “Wireless Security for 2.4GHz and 5GHz” on page 38.
Security	Displays the VAP security settings.

Table 16. VAP Settings - 2.4GHz and 5GHz (Continued)

Field	Description
Hidden SSID	Hide or Broadcast the SSID. When the check box is checked (hide), the SSID is not included in beacon signals. When the check box is *not* checked, the SSID is included in beacon signals and the SSID is displayed as an available SSID in clients' systems. By default, the Hidden SSID check box is *not* checked (broadcast).
Client Isolation	Allow the clients connected to the same VAP to communicate or deny communication among the clients connected to the same VAP. To allow, uncheck the check box. To deny, check the check box. By default, the check box is *not* checked (allow).
VLAN Isolation	Isolate the VAP traffic only to a specific VLAN or not isolate the VAP traffic. To isolate the VAP traffic, check the check box and assign a VLAN ID. When the check box is *not* checked, the VAP traffic is not isolated and VLAN 1 is assigned to the VAP. By default, the check box is *not* checked (not isolated).
L2 Isolation	Allow the clients connected to different access points in the same network to communicate or deny these clients to communicate each other. To deny such communication, check the check box. When the L2 Isolation check box is checked (deny), the Client Isolation check box is automatically checked (deny). By default, the check box is *not* checked (allow).
VLAN ID	Specify a VLAN ID. The range is 1 to 4094. The VLAN ID take effect only when VLAN Isolation is activated. The default value is 1.

Wireless Security for 2.4GHz and 5GHz

When you click the Edit button for the wireless security settings for 2.4GHz and 5Ghz, the Wireless Security, MAC Filter, and Traffic Shaping page appears. see Figure 22.The field is defined in Table 18 on page 40.



Wireless Security - 2.4GHz

Security Mode: Disabled

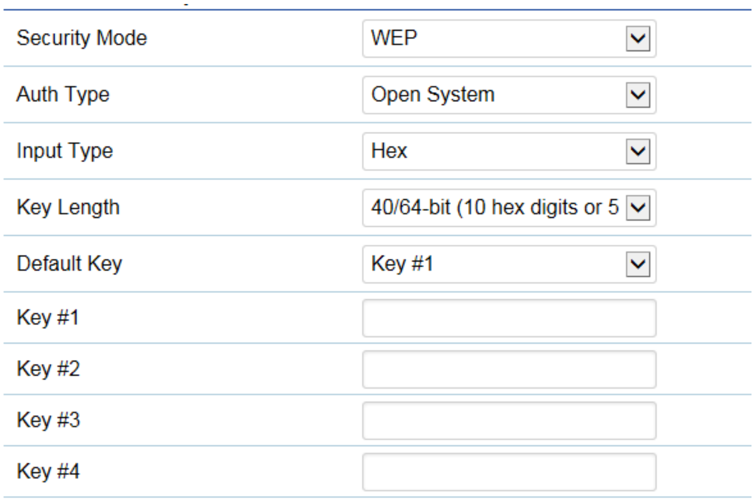
Figure 22. Wireless Security for 2.4GHz and 5GHz Section

Table 17. Wireless Security for 2.4GHz and 5GHz

Field	Description
Security Mode	Select one of the following options: ❒ Disabled - No authentication or encryption ❒ WEP - Security system using keys. it’s considered a weak security system. ❒ WPA-PSK - Using encryption and authentication between a client and the access point with PSK. (the AT-MWS600AP and AT-MWS1750AP models only) ❒ WPA2-PSK - Using encryption and authentication between a client and the access point with PSK. ❒ WPA-PSK Mixed - Using encryption and authentication between a client and the access point with PSK. Applicable to both WPA and WPA2. ❒ WPA-Enterprise - Using encryption and authentication between a client and the access point with Radius servers. (the AT-MWS600AP and AT-MWS1750AP models only) ❒ WPA2-Enterprise - Using encryption and authentication between a client and the access point with Radius servers. ❒ WPA Mixed-Enterprise - Using encryption and authentication between a client and the access point with Radius servers. Applicable to both WPA and WPA2.

WEP

When you select the WEP from the Security Mode pull-down menu, the following section appears. See Figure 23 on page 40.The fields are defined in Table 18 on page 40.



Security Mode	WEP
Auth Type	Open System
Input Type	Hex
Key Length	40/64-bit (10 hex digits or 5
Default Key	Key #1
Key #1	
Key #2	
Key #3	
Key #4	

Figure 23. WEP Security Mode

Table 18. WEP Security Mode

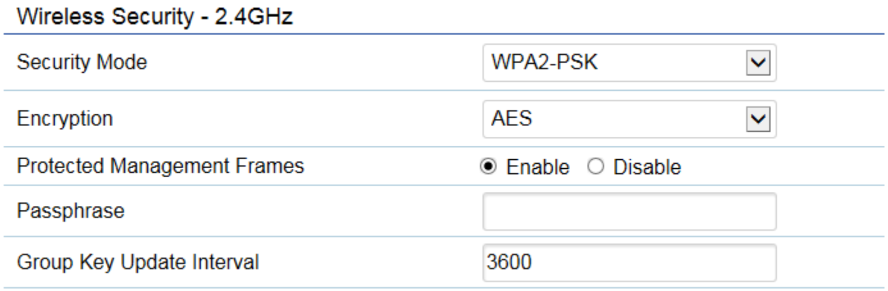
Field	Description
Auth Type	Select one of the following authentication methods: ❐ Open System - A client is allowed to connect to the access point; however, the client must encrypt data with the right WEP key to exchange traffic with the access point. ❐ Shared Key - Without the right WEP key, a client is *not* allowed to connect to the access point. The default setting is Open System.
Input Type	Select one of the following key generation methods: ❐ Hex - Enter your WEP key in hexadecimal (0 to 9, A to F, and a to f) The key is *not* case-sensitive. ❐ ASCII - Type your WEP key in characters. The key is case-sensitive. Alphanumeric characters including the special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ _ { | } ~ are allowed. The default setting is Hex.

Table 18. WEP Security Mode (Continued)

Field	Description
Key Length	Select one of the following key lengths: ❐ 40/64-bit - 10 digits in hexadecimal, 5 characters in ASCII. ❐ 104/128-bit - 26 digits in hexadecimal, 13 characters in ASCII. ❐ 128/152-bit - 32 digits in hexadecimal, 16 characters in ASCII. The longer key is stronger as a WEP key. The default setting is 40/64-bit.
Default Key	Select the key to use from Key #1 to Key #4. You can set up to 4 keys, but only one key is used. The default setting is Key #1.
Key #1	Enter the WEP key according to the settings of the Input Type and Key Length. A client must have the same WEP key, which is selected as the Default Key above.
Key #2	
Key #3	
Key #4	

WPA-PSK, WPA2-PSK, and WPA-PSK Mixed

When you select the WPA-PSK, WPA2-PSK, or WPA-PSK Mixed from the Security Mode pull-down menu, the following section appears. See Figure 24 as an example.The fields are defined in Table 19 on page 42.



Wireless Security - 2.4GHz

Security Mode	WPA2-PSK
Encryption	AES
Protected Management Frames	● Enable ○ Disable
Passphrase	
Group Key Update Interval	3600

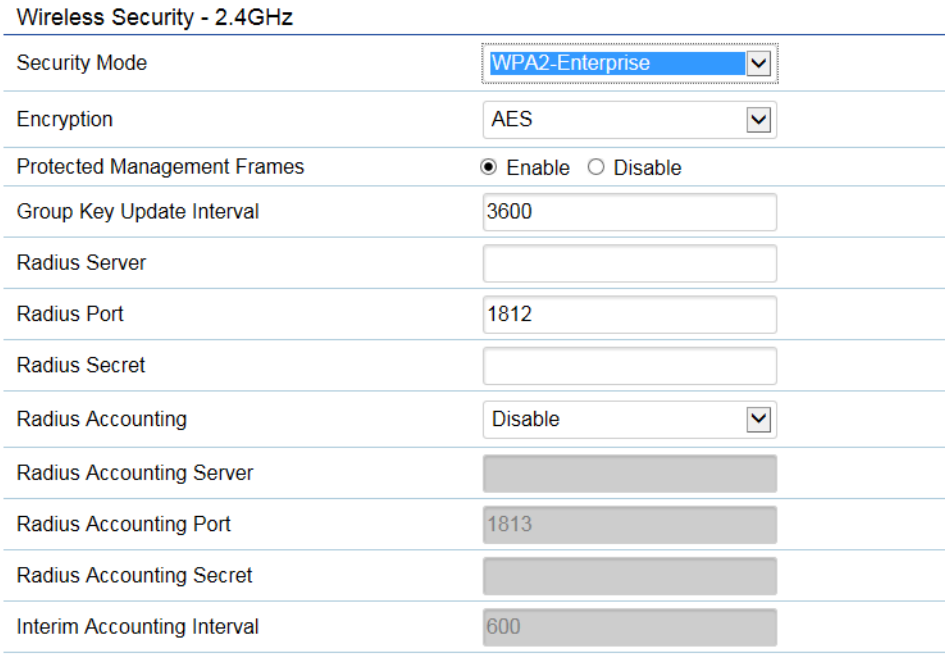
Figure 24. WPA2-PSK Mode

Table 19. WPA-PSK, WPA2-PSK, WPA-PSK Mixed Modes

Field	Description
Encryption	**AT-MWS600AP and AT-MWS1750AP models** Select one of the following options: ❒ TKIP ❒ AES ❒ Both(TKIP+AES) **AT-MWS2533AP model** Displays the encryption protocol. The security mode determines the encryption protocol to use. When the WPA2-PSK security mode is selected, the encryption is set to AES. When the WPA-PSK Mixed security mode is selected, the encryption is set to Both(TKIP+AES).
Protected Management Frames	This feature is available only when WPA2-PSK is selected. (on the AT-MWS2533AP or AT-MWS1750AP model) Enable or disable Management Frame Protection (MFP). When MFP is enabled on the access point and the client supports MFP, 802.11 management frames passed between the access point and the client are protected. By default, MFP is enabled.
Group Key Update Interval	Specify the interval in seconds between the creation of the new encryption keys that are sent to the clients connected to the VAP. The range is from 30 to 3600 seconds. The default value is 3600 seconds.
Passphrase	Specify the encryption key. The passphrase must be from 8 to 64 alphanumeric characters, including the special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ _ { | } ~. The passphrase is case-sensitive.

WPA-Enterprise, WPA2-Enterprise, and WPA Mixed-Enterprise

When you select the WPA-Enterprise, WPA2-Enterprise, or WPA Mixed-Enterprise from the Security Mode pull-down menu, the following section appears. See Figure 25 on page 43 as an example.The fields are defined in Table 20 on page 43.



Wireless Security - 2.4GHz

Security Mode	WPA2-Enterprise
Encryption	AES
Protected Management Frames	● Enable ○ Disable
Group Key Update Interval	3600
Radius Server	
Radius Port	1812
Radius Secret	
Radius Accounting	Disable
Radius Accounting Server	
Radius Accounting Port	1813
Radius Accounting Secret	
Interim Accounting Interval	600

Figure 25. WPA2-Enterprise

Table 20. WPA-Enterprise, WPA2-Enterprise, WPA Mixed-Enterprise

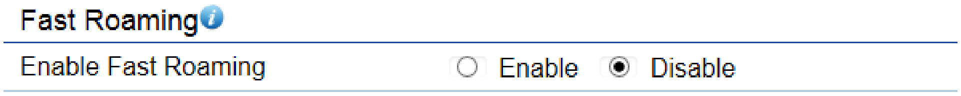
Field	Description
Encryption	**AT-MWS600AP and AT-MWS1750AP models** Select one of the following options: ❐ TKIP ❐ AES ❐ Both(TKIP+AES) **AT-MWS2533AP model** Displays the encryption protocol. The security mode determines the encryption protocol to use. When the WPA2-Enterprise security mode is selected, the encryption is set to AES. When the WPA Mixed-Enterprise security mode is selected, the encryption is set to Both(TKIP+AES).

Table 20. WPA-Enterprise, WPA2-Enterprise, WPA Mixed-Enterprise

Field	Description
Protected Management Frames	This feature is available only when WPA2-Enterprise is selected. (on the AT-MWS2533AP or AT-MWS1750AP model) Enable or disable Management Frame Protection (MFP). When MFP is enabled on the access point and the client supports MFP, 802.11 management frames passed between the access point and the client are protected. By default, MFP is enabled.
Group Key Update Interval	Specify the interval in seconds between the creation of the new encryption keys that are sent to the clients connected to the VAP. The range is from 30 to 3600 seconds. The default value is 3600 seconds.
Radius Server	Specify the IP address of the RADIUS server.
Radius Port	Specify the UDP port number for the RADIUS server. The range is 0 to 65535. The default value is 1812.
Radius Secret	Specify the password to connect to the RADIUS server. The password must be 1 to 64 alphanumeric characters.
Radius Accounting	Enable or disable RADIUS Accounting. When it is enabled, information about network usage is logged. By default, RADIUS Accounting is disabled.
Radius Accounting Server	Specify the IP address of the RADIUS Accounting server.
Radius Accounting Port	Specify the UDP port number for the RADIUS Accounting server. The range is 0 to 65535. The default value is 1813.
Radius Accounting Secret	Specify the password to connect to the RADIUS Accounting server. The password must be 1 to 64 alphanumeric characters.
Radius Accounting Interval	Specify the interval in seconds between sending data to the RADIUS Accounting server. The range is from 60 to 600 seconds. The default value is 600 seconds.

Fast Roaming

When you edit the security mode for SSID 1 for 2.4GHz or 5GHz and select the security mode WPA2-Enterprise, or WPA Mixed-Enterprise, you can enable or disable Fast Roaming. See Figure 26.The fields are defined in Table 21.



Fast Roaming

Enable Fast Roaming ○ Enable ● Disable

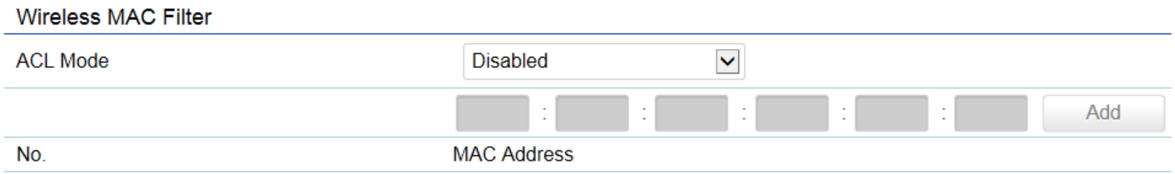
Figure 26. Fast Roaming Section

Table 21. Fast Roaming

Field	Description
Enable Fast Roaming	Enable or disable Fast Roaming. When a client is roaming, the access points exchange information without authenticating the client from the RADIUS server. Fast Roaming reduces time for a wireless phone using VoIP to disconnect. By default, Fast Roaming is disabled.

Wireless MAC Filter for 2.4GHz and 5GHz

When you edit the security mode, you can also add security using the MAC addresses of clients. Figure 27.The fields are defined in Table 22.



Wireless MAC Filter

ACL Mode: Disabled

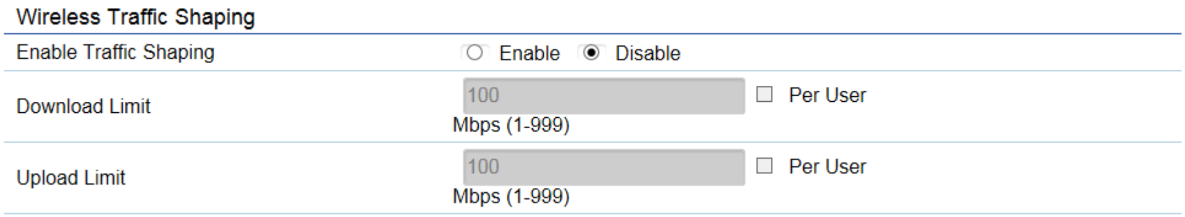
Figure 27. MAC Filter for 2.4GHz and 5GHz Section

Table 22. MAC Filter for 2.4GHz and 5GHz

Field	Description
ACL Mode	Select one of the following options: ❐ Disabled - Disable MAC Filtering. ❐ Deny MAC in the List - Denies access form clients with the MAC addresses on the list. ❐ Allow MAC in the List - Allow clients with the MAC addresses on the list to access the access point..
MAC Address	Enter a MAC address.
Add button	Click the Add button to add the MAC address to the list.
No. and MAC Address	Displays a list of the added MAC addresses and the list number.

Wireless Traffic Shaping for 2.4GHz and 5GHz

When you edit the security mode, you can also control communication rates between the access point and clients. Figure 28.The fields are defined in Table 23.



Wireless Traffic Shaping

Enable Traffic Shaping	○ Enable ● Disable
Download Limit	100 □ Per User Mbps (1-999)
Upload Limit	100 □ Per User Mbps (1-999)

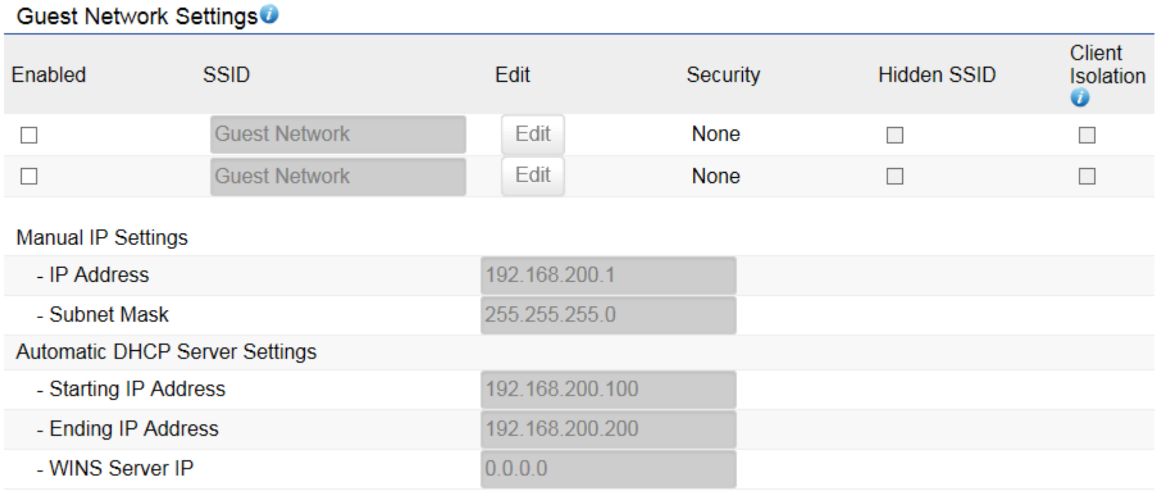
Figure 28. Wireless Traffic Shaping for 2.4GHz and 5GHz Section

Table 23. Wireless Traffic Shaping for 2.4GHz and 5GHz

Field	Description
Enable Traffic Shaping	Enable or disable Traffic Shaping. By default, Traffic Shaping is disabled.
Download Limit	Specify the maximum communication rate from the access point to a client. The range is 1 to 999 Mbps. The default value is 100 Mbps.
Upload Limit	Specify the maximum communication rate from a client to the access point. The range is 1 to 999 Mbps. The default value is 100 Mbps.

Guest Network Settings

In addition to private SSID, you can create up to two guest networks.See Figure 29.The fields are defined in Table 24.



Guest Network Settings

Enabled	SSID	Edit	Security	Hidden SSID	Client Isolation
□	Guest Network	Edit	None	□	□
□	Guest Network	Edit	None	□	□

Manual IP Settings

- IP Address	192.168.200.1
- Subnet Mask	255.255.255.0

Automatic DHCP Server Settings

- Starting IP Address	192.168.200.100
- Ending IP Address	192.168.200.200
- WINS Server IP	0.0.0.0

Figure 29. Guest Network Settings

Table 24. Guest Network Settings

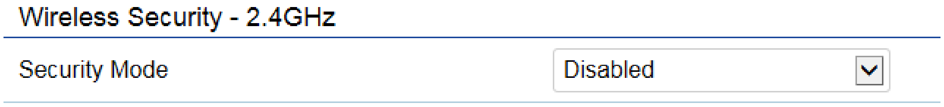
Field	Description
Enabled	Enable or disable the guest network. By default, the guest network is disabled.
SSID	Specify the SSID name for the guest network. The SSID name must be alphanumeric characters. The special characters, such as ! " # $ % & ' ( ) * + , - ./ < = > ? @ [ ] ^ _ { | } ~ are allowed. By default, guest network SSIDs are "Guest Network."
Edit	Bring up another page to specify or modify the VAP security setting. See "Wireless Security for 2.4GHz and 5GHz" on page 38.
Security	Displays the VAP security settings.
Hidden SSID	Hide or Broadcast the guest network SSID. When the check box is checked (hide), the SSID is not included in beacon signals. When the check box is *not* checked, the SSID is included in beacon signals. The SSID is displayed as an available SSID in clients' systems. By default, the Hidden SSID check box is *not* checked (broadcast).

Table 24. Guest Network Settings (Continued)

Field	Description
Client Isolation	Allow the clients connected to the same guest network VAP to communicate or deny communication among the clients connected to the same guest network VAP. To allow, uncheck the check box. To deny, check the check box. The default settings are: ❒ Disabled on the AT-MWS2533AP model. ❒ Enabled on the AT-MWS600AP and AT-MWS1750AP models.
Manual IP Settings	
- IP Address	Specify the IPv4 address for the guest network. The default IPv4 address is 192.168.200.1.
- Subnet Mask	Specify the subnet mask for the guest network. The default subnet mask is 255.155.255.0.
Automatic DHCP Server Settings	
- Starting IP Address	Specify the smallest IPv4 address among the IPv4 addresses that the access point lends to clients. The default starting IPv4 address is 192.168.200.100.
- Ending IP Address	Specify the largest IPv4 address among the IPv4 addresses that the access point lends to clients. The default ending IPv4 address is 192.168.200.200.
- WINS Server IP	Specify the IPv4 address of the WINS server when IPv4 address is assigned to the client's NetBIOS name. The default IPv4 address is 0.0.0.0.

Wireless Security for The Guest Network

When you click the Edit button for the wireless security settings for the Guest Network, the Wireless Security page appears. To change the security mode, see Figure 30.The field is defined in Table 25 on page 49.



Wireless Security - 2.4GHz

Security Mode: Disabled

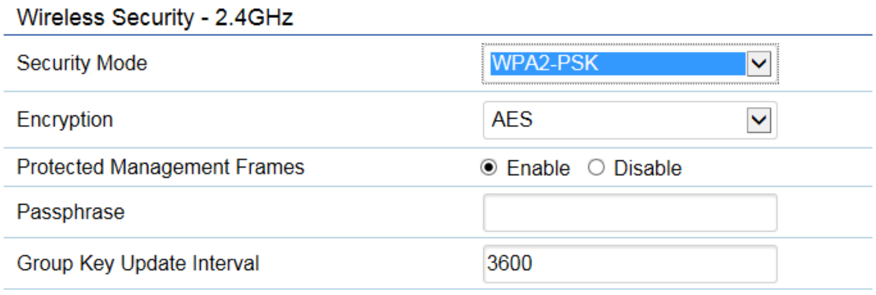
Figure 30. Wireless Security for Guest Network Page

Table 25. Wireless Security for Guest Network

Field	Description
Security Mode	Select one of the following options: □ Disabled - No authentication or encryption □ WPA-PSK - Using encryption and authentication between a client and the access point with PSK. (the AT-MWS600AP and AT-MWS1750AP models only) □ WPA2-PSK - Using encryption and authentication between a client and the access point with PSK. □ WPA-PSK Mixed - Using encryption and authentication between a client and the access point with PSK. Applicable to both WPA and WPA2.

WPA-PSK, WPA2-PSK, and WPA-PSK Mixed

When you select the WPA-PSK, WPA2-PSK, or WPA-PSK Mixed from the Security Mode pull-down menu, the following section appears. See Figure 31.The fields are defined in Table 26 on page 50.



Wireless Security - 2.4GHz

Security Mode	WPA2-PSK
Encryption	AES
Protected Management Frames	● Enable ○ Disable
Passphrase	
Group Key Update Interval	3600

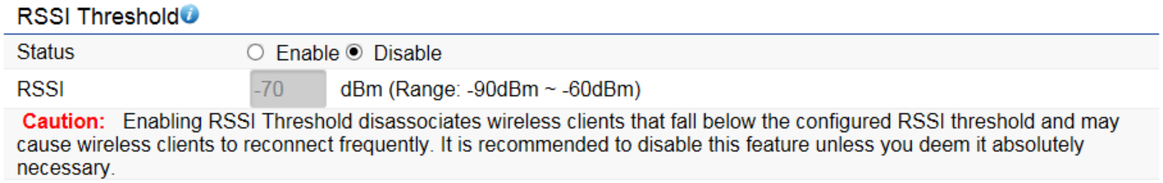
Figure 31. WPA2-PSK Security Mode for Guest Network

Table 26. WPA2-PSK Security Mode for Guest Network

Field	Description
Encryption	**AT-MWS600AP and AT-MWS1750AP models** Select one of the following options: ❐ TKIP ❐ AES ❐ Both(TKIP+AES) **AT-MWS2533AP model** Displays the encryption protocol. The security mode determines the encryption protocol to use. When the WPA2-PSK security mode is selected, the encryption is set to AES. When the WPA-PSK Mixed security mode is selected, the encryption is set to Both(TKIP+AES).
Passphrase	Specify the encryption key. The passphrase must be from 8 to 64 alphanumeric characters, including the special characters, such as ! " # $ % & ' ( ) * + , - ./ < = > ? @ [ ] ^ _ { | } ~. The passphrase is case-sensitive.
Group Key Update Interval	Specify the interval in seconds between the creation of the new encryption keys that are sent to the clients connected to the VAP. The range is from 30 to 3600 seconds. The default value is 3600 seconds.

RSSI Threshold (Fast Handover)

You can enable or disable Fast Handover and specify RSSI value. See Figure 32.The fields are defined in Table 27 on page 51.



RSSI Threshold

Status ○ Enable ● Disable

RSSI -70 dBm (Range: -90dBm ~ -60dBm)

Caution: Enabling RSSI Threshold disassociates wireless clients that fall below the configured RSSI threshold and may cause wireless clients to reconnect frequently. It is recommended to disable this feature unless you deem it absolutely necessary.

Figure 32. RSSI Threshold Section

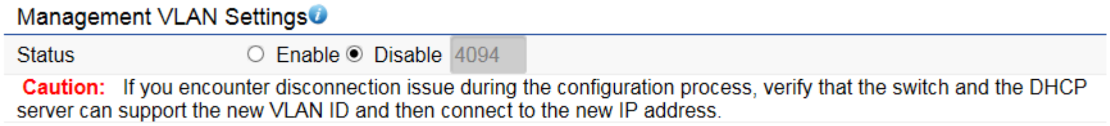
ed3z

Table 27. RSSI Threshold

Field	Description
Status	Enable or disable Fast Handover. By default, Fast Handover is disabled.
RSSI	Specify the RSSI (Received Signal Strength Indication) threshold. The range is -60 to -90 dBm. The default value is -70 dBm.

Management VLAN Settings

You can set the management VLAN from the Management VLAN Settings page as shown in Figure 33.The fields are defined in Table 28 on page 51.



Management VLAN Settings

Status ○ Enable ● Disable 4094

Caution: If you encounter disconnection issue during the configuration process, verify that the switch and the DHCP server can support the new VLAN ID and then connect to the new IP address.

Figure 33. Management VLAN Settings Section

ed3z

Table 28. Management VLAN Settings

Field	Description
Status	Enable or disable Management VLAN. When it is enabled, the access point uses the specified VLAN as the management tagged VLAN. By default, Management VLAN is disabled (untagged VLAN).
VLAN ID	Specify the VLAN ID for the management VLAN. The range is 1 to 4094.

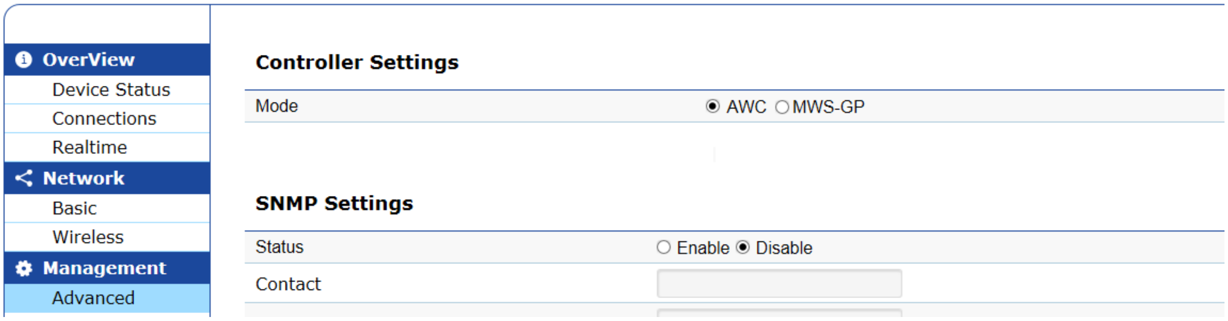
Chapter 4

Management Section

This chapter describes the management functions of the menu selections in the Manage menu. The chapter contains the following sections:

Specifying Management Settings

To mange the Controller, SNMP, HTTPS, or Email alert, select Management > Advanced from the side bar as shown in Figure 34.



Controller Settings

Mode ● AWC ○ MWS-GP

SNMP Settings

Status ○ Enable ● Disable

Contact

Figure 34. Management Advanced Page

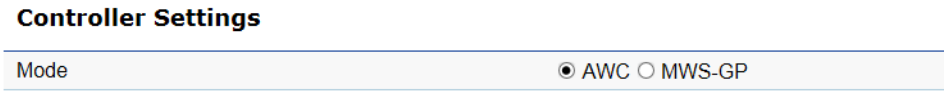
Sections Not Supported

The following sections on the Management > Advanced page are *not* supported:

- CLI Setting
- SSH Setting

Controller Settings

You can view the Controller settings as shown in Figure 35. The fields are defined in Table 29.



Controller Settings

Mode ● AWC ○ MWS-GP

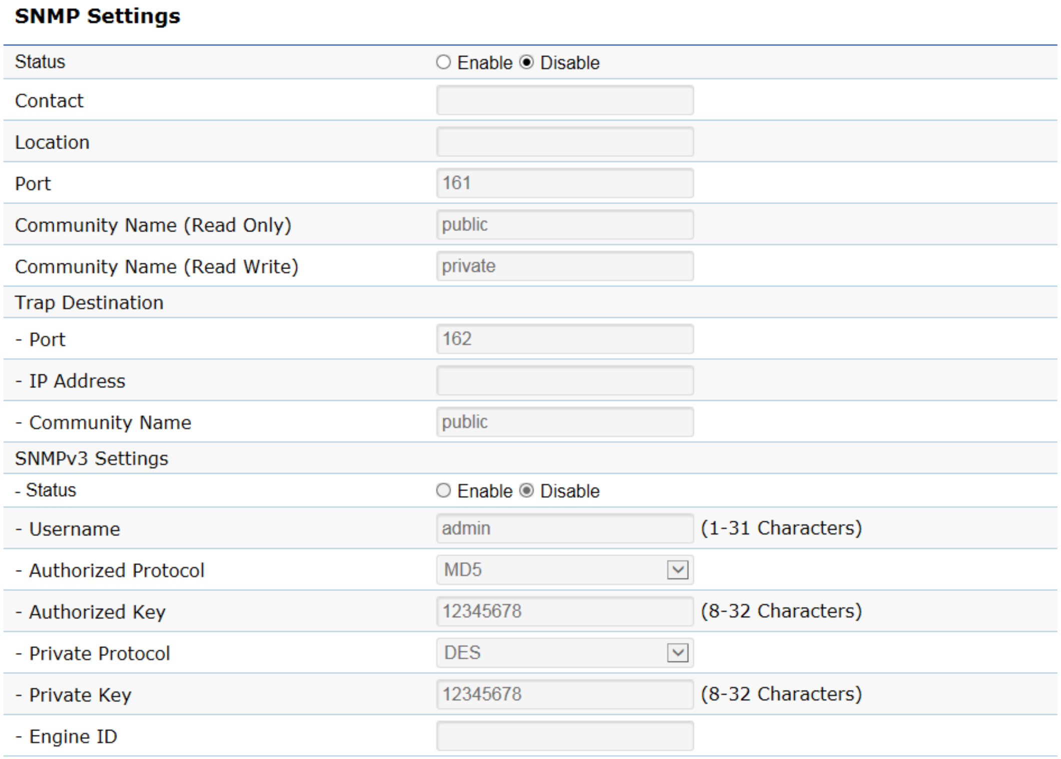
Figure 35. Controller Settings

Table 29. Controller Settings

Field	Description
Mode	Indicates that the wireless controller mode is AWC. You cannot change the setting. ❐ AWC - Allows the AWC plug-in by the AT-Vista Manager EX to manage the access point. ❐ MWS-GP - Not available.

SNMP Settings

You can specify or modify the SNMP settings in the SNMP settings section as shown in Figure 36 on page 55. The fields are defined in Table 30 on page 56.



SNMP Settings

Status	○ Enable ● Disable	
Contact		
Location		
Port	161	
Community Name (Read Only)	public	
Community Name (Read Write)	private	
Trap Destination		
- Port	162	
- IP Address		
- Community Name	public	
SNMPv3 Settings		
- Status	○ Enable ● Disable	
- Username	admin	(1-31 Characters)
- Authorized Protocol	MD5	
- Authorized Key	12345678	(8-32 Characters)
- Private Protocol	DES	
- Private Key	12345678	(8-32 Characters)
- Engine ID		

Figure 36. SNMP Section

Table 30. SNMP Settings

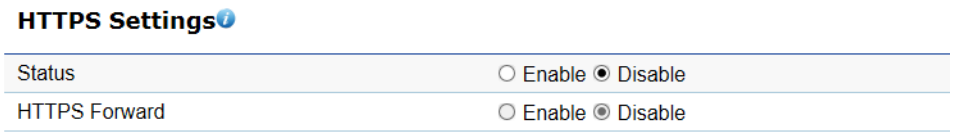
Field		Description
Status		Specifies the SNMP agent enabled or disabled. The default setting is disable.
Contact		Assigns a system administrator name (the MIB object sysContact). The Contact can have 1 to 255 alphanumeric characters. The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The name is case-sensitive.
Location		Assigns a system administrator name (the MIB object sysLocation). The Location can have 0 to 255 alphanumeric characters.The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The name is case-sensitive.
Port		Specifies the SNMP listening UDP port number. The value can be 1 to 65535. The default value is 161.
Community Name (Read Only)		Specifies the read-only community name. The name can have 1 to 32 alphanumeric characters. The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The name is case-sensitive. The default name is public.
Community Name (Read Write)		Specifies the write-read community name. The name can have 1 to 32 alphanumeric characters.The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The name is case-sensitive. The default name is private.
Trap Destination	Port	Specifies the UDP port number to send traps to. The port number can be 1 to 65535. The default value is 162.
	IP Address	Specifies the IP address of a trap host.
	Community Name	Specifies the name of the community to send traps. The name can have 1 to 32 alphanumeric characters.The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The name is case-sensitive. The default name is public.

Table 30. SNMP Settings (Continued)

Field		Description
SNMPv3 Settings	Status	Select enable of disable: ❒ Enable - enables SNMPv3 ❒ Disable - enables SNMPv1/v2c
	Username	Specifies the SNMPv3 username. The username can have 1 to 31 alphanumeric characters. The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The name is case-sensitive. The default name is admin.
	Authorized Protocol	Select an authorized protocol: ❒ MD5 - Requires to set the following Authorized Key, Private Protocol, and Private Key. This is the default value for the AT-MWS2533AP model. ❒ SHA - Requires to set the following Authorized Key, Private Protocol, and Private Key. ❒ None - No authorization. This is the default value for the AT-MWS600AP and AT-MWS1750AP models.
	Authorized Key	Specifies the authorization password. The password can have 8 to 32 alphanumeric characters.The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The password is case-sensitive. The default password is 12345678.
	Private Protocol	Select the encryption protocol: ❒ DES- Requires to set the following Private Key. This is the default value for the AT-MWS2533AP model. ❒ None - No encryption. This is the default value for the AT-MWS600AP and AT-MWS1750AP models.
	Private Key	Specifies the encryption password. The password can have 8 to 32 alphanumeric characters.The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The password is case-sensitive. The default name is 12345678.
	Engine ID	Specifies the SNMP engine ID. The ID can have 0 to 32 alphanumeric characters. The space and special characters, such as ! “ # $ % & ‘ ( ) * + , - ./ < = > ? @ [ ] ^ “ _ { | } ~ are allowed. The engine ID is case-sensitive.

HTTPS Settings

You can specify or modify the HTTPS settings in the HTTPS settings section as shown in Figure 37. The field definitions are described in Table 31.



HTTPS Settings

Status	○ Enable ● Disable
HTTPS Forward	○ Enable ● Disable

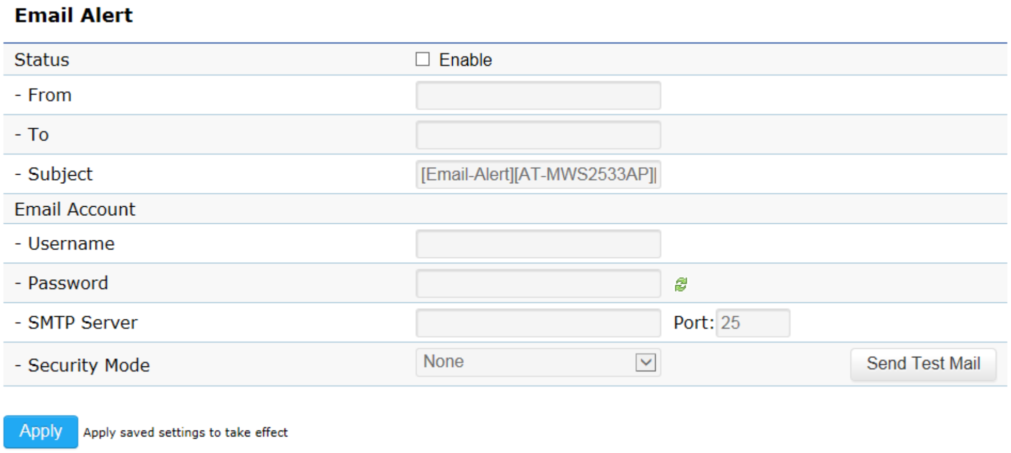
Figure 37. HTTPS Settings

Table 31. HTTPS Settings

Field	Description
Status	Specifies the HTTPS server enabled or disabled. The default setting is disable.
HTTPS Forward	Specifies the HTTPS forwarding enabled or disabled: ❒ Enable - When a user access using HTTP, the system displays a screen using HTTPS. ❒ Disable - When a user access using HTTP, the system displays a screen using HTTP.

Email Alert

You can enable or disable the email alert function and specify email information in the Email Alert section as shown in Figure 38. The field definitions are described in Table 32 on page 59.



Email Alert

Status	□ Enable	
- From		
- To		
- Subject	[Email-Alert][AT-MWS2533AP]	
Email Account		
- Username		
- Password		
- SMTP Server		Port: 25
- Security Mode	None	Send Test Mail

Figure 38. Email Alert

Table 32. Email Alert

Field		Description
Status	Status	Enable or disable receiving alert messages via e-mail. The default setting is disable.
	From	Specify the e-mail address of the sender.
	To	Specify the email address to receive alert messages.
	Subject	Specify the subject line of the alert messages.The default setting is “[Email-Alert] *device_model_name device_MAC_address* Configuration Changed.”
Email Account	Username	Specify the account (username) of the SMTP server that sends alert messages.
	Password	Specify the password for the account of the SMTP server that sends alert messages. The green two arrows button is a toggle-key, which enables or disables password display.
	SMTP Server	Specify the IP address of the SMTP server that sends alert messages.
	Port	Specify the port number of the SMTP server. The range is 1 to 65535. The default value is 25. (25 means the Security Mode set “None.”)
	Security Mode	Select the encryption mode that the SMTP server uses when sending alert messages: ❐ SSL/TLS - SSL/TLS encryption ❐ STARTTLS - The system first checks whether the SMTP server supports SSL/TLS. If the SMTP supports SSL/TLS, the system uses encryption. ❐ None - This is the default value.
	Send Test Mail	To test the all the email settings work, click the Send Test Mail button.

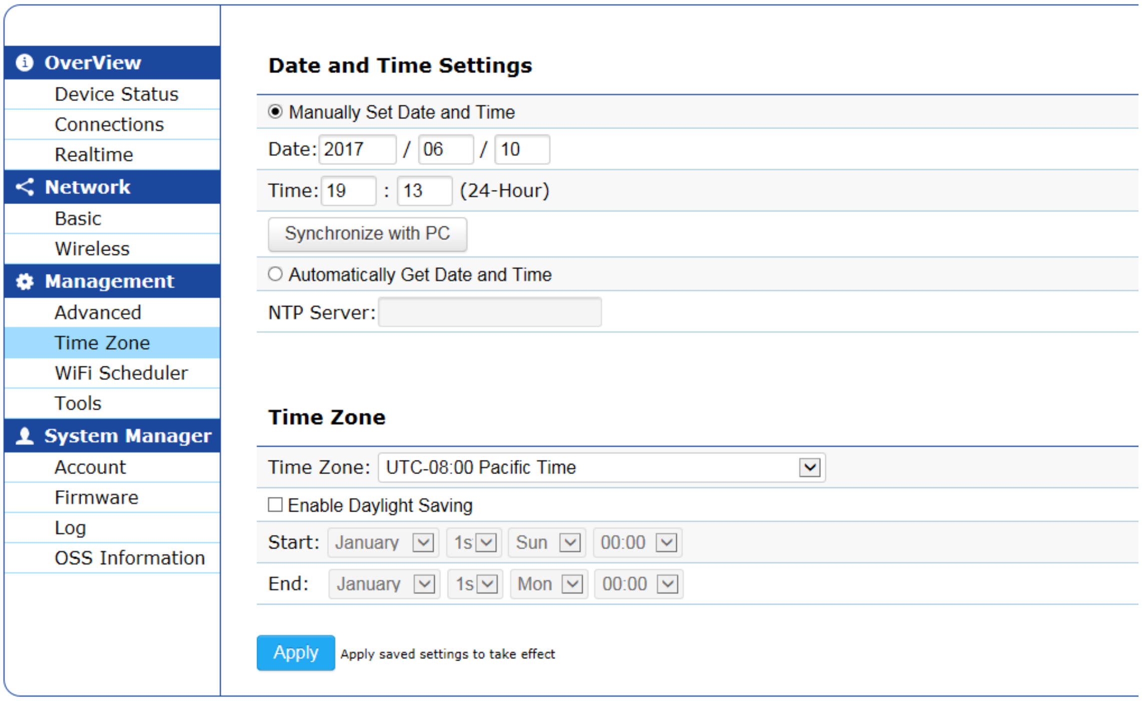
Specifying Date, Time, and Time Zone Settings

To specify the date and time, select Management > Time Zone from the side bar.

Note
For your changes to take effect, save your changes by clicking the Save button on a setting page, click the Change: *n* button on the top banner, and click the Apply button. For more information, see “Saving and Applying Your Changes” on page 11.

Date and Time Settings

You can specify or modify the date and time on the system from the Date and Time Settings page as shown in Figure 39. The fields are defined in Table 33 on page 61.



Date and Time Settings

● Manually Set Date and Time

Date: 2017 / 06 / 10

Time: 19 : 13 (24-Hour)

○ Automatically Get Date and Time

NTP Server:

Time Zone

Time Zone: UTC-08:00 Pacific Time

□ Enable Daylight Saving

Start: January 1s Sun 00:00

End: January 1s Mon 00:00

Apply saved settings to take effect

Figure 39. Date, Time, and Time Zone Settings Page

Table 33. Date and Time Settings

Field	Description
Manually Set Date and Time	Turn on the radio button to set date and time manually. When selecting the manual setting, fill the date and time.
Date	Specify year, month, and day.
Time	Specify time.
Synchronize with PC	Click the Synchronize with PC button to set the date and time by synchronizing with the management PC.
Automatically Get Date and Time	Turn on the radio button to get date and time automatically from an NTP server. When selecting the automatic setting, specify the NTP server.
NTP Server	Specify the IP address or host name (FQDN) of the NTP server.

Time Zone

You can view the time zone set on your device on the Time Zone section as shown in Figure 39 on page 60. The fields are defined in Table 34.

Table 34. Time Zone

Field	Description
Time Zone	Select your time zone.
Enable Daylight Saving	Enable or disable to adjust the clock for Daylight Saving Time.

Specifying Auto Reboot Setting and Wi-Fi Scheduler

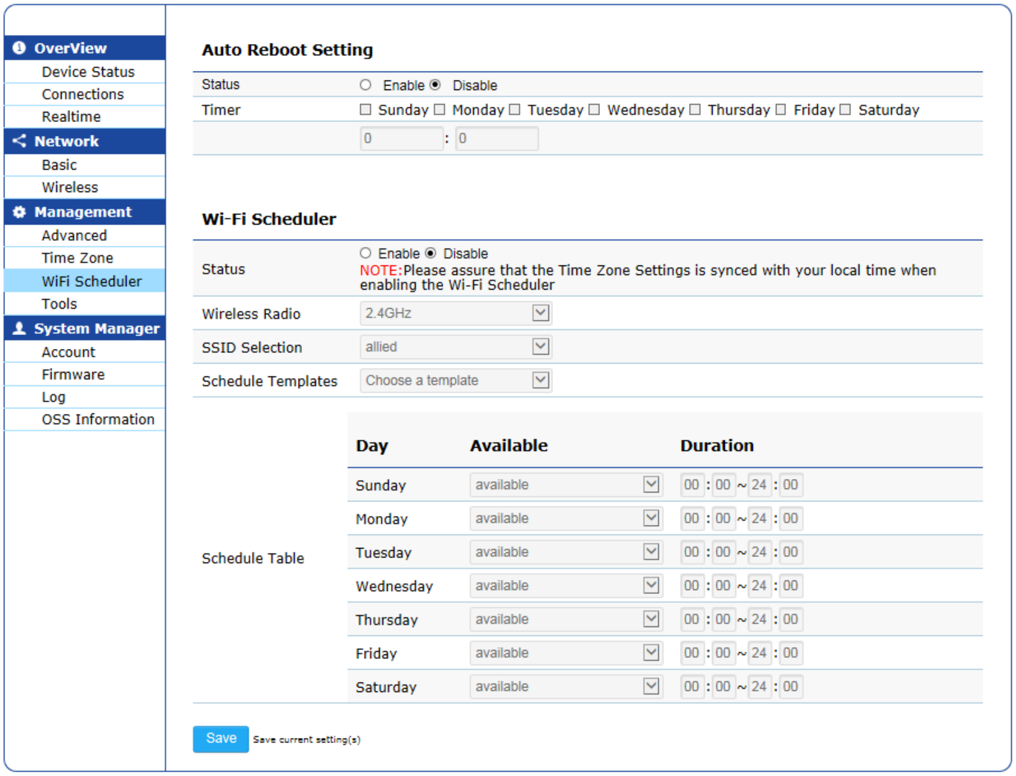
To specify the Auto Reboot and Wi-Fi Scheduler, select Management > Wi-FI Scheduler from the side bar.

Note

For your changes to take effect, save your changes by clicking the Save button on a setting page, click the Change: *n* button on the top banner, and click the Apply button. For more information, see “Saving and Applying Your Changes” on page 11.

Auto Reboot Settings

You can enable or disable the automatic rebooting function on the Auto Reboot Settings section as shown in Figure 40. The fields are defined in Table 35.



Auto Reboot Setting

Status	○ Enable ● Disable
Timer	□ Sunday □ Monday □ Tuesday □ Wednesday □ Thursday □ Friday □ Saturday
	0 : 0

Wi-Fi Scheduler

Status	○ Enable ● Disable NOTE:Please assure that the Time Zone Settings is synced with your local time when enabling the Wi-Fi Scheduler
Wireless Radio	2.4GHz
SSID Selection	allied
Schedule Templates	Choose a template

Schedule Table

Day	Available	Duration
Sunday	available	00 : 00 ~ 24 : 00
Monday	available	00 : 00 ~ 24 : 00
Tuesday	available	00 : 00 ~ 24 : 00
Wednesday	available	00 : 00 ~ 24 : 00
Thursday	available	00 : 00 ~ 24 : 00
Friday	available	00 : 00 ~ 24 : 00
Saturday	available	00 : 00 ~ 24 : 00

Figure 40. Auto Reboot and Wi-Fi Scheduler Settings Page

Table 35. Auto Reboot Settings

Field	Description
Status	Enable or disable the automatic rebooting function. When this function is enabled. the system reboots at the specified time on the specified days of the week.
Timer	Select days of the week and time of the day when the system reboots.

Wi-Fi Scheduler

You can enable or disable Wi-Fi Scheduler and specify the scheduling on the Wi-Fi Scheduler section as shown in Figure 40 on page 62. The fields are described in Table 36.

Table 36. Wi-Fi Scheduler

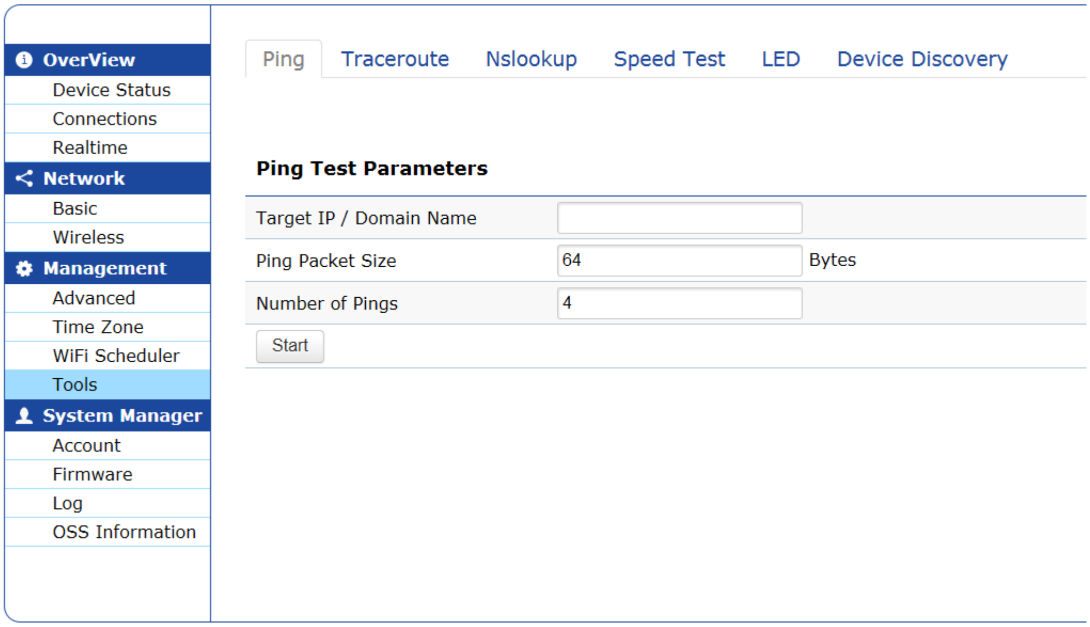
Field	Description
Status	Enable or disable VAP access scheduling. The default setting is disable.
Wireless Radio	Select the radio, 2.4GHz or 5Hz.
SSID Selection	Select an SSID to be scheduled from the list.
Schedule Templates	Select a schedule template if using a schedule table for scheduling.
Schedule Table	Specify the available or unavailable VAP access time each day.

Using the Management Tools

The common network tools are available on the Tools page. To use thees tools, select Management > Tools from the side bar.

Ping Test Parameters

You can use ping command on the Ping section as shown in Figure 41. The fields are defined in Table 37.



Ping Test Parameters

Target IP / Domain Name

Ping Packet Size: 64 Bytes

Number of Pings: 4

Figure 41. Ping Test Parameters Page

Table 37. Ping Test Parameters

Field	Description
Target IP / Domain Name	Specify the IP address or host name of the target to query.
Ping Packet Size	Specify the length of a query packet. The range is 64 to 20480 bytes. The default value is 64 bytes.
Number of Pings	Specify how many times to send query packets. The range is 1 to 9999 times. The default value is 4 times.
Start	Click the Start button to execute the ping command.

Traceroute Test Parameters

To use traceroute command, go to Management > Tools and click the Tracerout tab. See Figure 41. The fields are defined in Table 40 and Table 38.

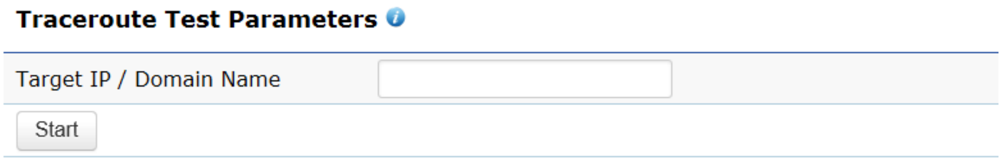


Figure 42. Traceroute Test Parameters

Table 38. Traceroute Test Parameters

Field	Description
Target IP / Domain Name	Specify the IP address or host name of the target to trace the route.
Start	Click the Start button to execute the traceroute command. Click the Stop button to stop the command.

Nslookup Test Parameters

This section is only available for the AT-MWS2533AP model.

To use Nslookup command, go to Management > Tools and click the Nslookup tab. See Figure 43. The fields are defined in Table 39.

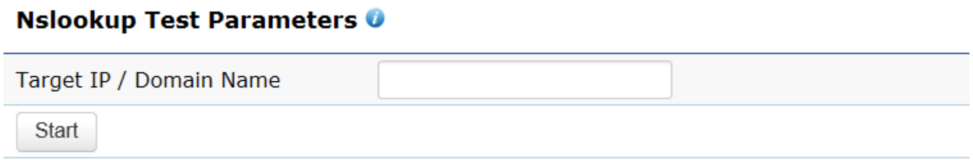


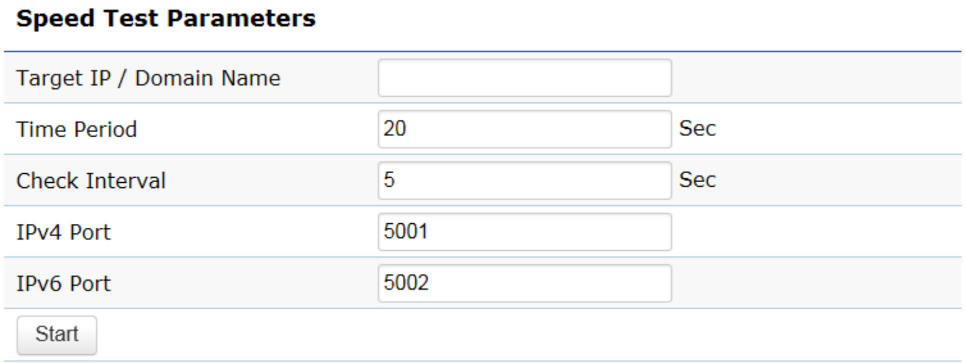
Figure 43. Nslookup Test Parameters Page

Table 39. Nslookup Test Parameters

Field	Description
Target IP / Domain Name	Specify the IP address or host name of the target to query the Domain Name System (DNS).
Start	Click the Start button to execute the nslookup command.

Speed Test Parameters

To test the speed, go to Management > Tools and click the Speed Test tab. See Figure 44. The fields are defined in Table 40.



Speed Test Parameters

Target IP / Domain Name		
Time Period	20	Sec
Check Interval	5	Sec
IPv4 Port	5001	
IPv6 Port	5002	

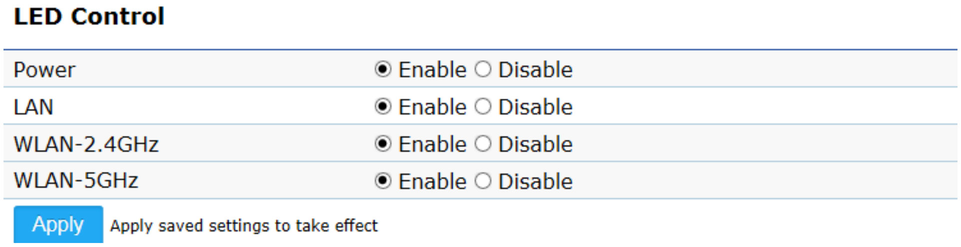
Figure 44. Speed Test Parameters Page

Table 40. Speed Test Parameters

Field	Description
Target IP / Domain Name	Specify the IP address or host name of the target to test the speed.
Time Period	Specify the amount of time to test the speed in seconds. The range is 1 to 9999 seconds. The default value is 20 seconds.
Check Interval	Specify the interval of the tests in seconds.The range is 1 to 9999 seconds. The default value is 5 seconds.
Start	Click the Start button to star the speed test.
IPv4 Port	Displays the TCP/UDP port number for the IPv4 test. You cannot change the value.
IPv6 Port	Displays the TCP/UDP port number for the IPv6 test. You cannot change the value.

LED Control

To control LED, go to Management > Tools and click the LED tab. See Figure 45. The fields are defined in Table 41 on page 67.



LED Control

Power	● Enable ○ Disable
LAN	● Enable ○ Disable
WLAN-2.4GHz	● Enable ○ Disable
WLAN-5GHz	● Enable ○ Disable

Apply saved settings to take effect

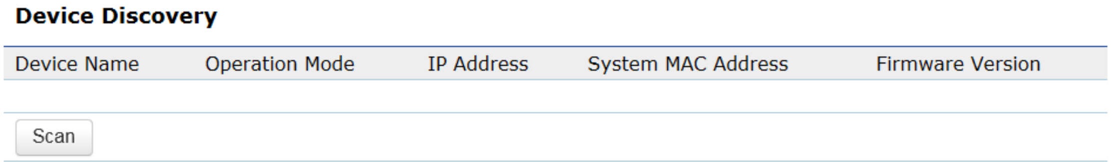
Figure 45. LED Control Page

Table 41. LED Control

Field	Description
Power	Enable or disable the Power LED. When enabled, the LED indicates the status. When disabled, the LED is off.
LAN	Enable or disable the LAN LED. When enabled, the LED indicates the status. When disabled, the LED is off.
WLAN-2.4GHz	Enable or disable the 2.4GHz LED. When enabled, the LED indicates the status. When disabled, the LED is off.
WLAN-5GHz	Enable or disable the 5GHz LED. When enabled, the LED indicates the status. When disabled, the LED is off.
Apply	Click the Apply button to take effect.

Device Discovery

To discover other AT-MWS series access points, go to Management > Tools and click the Device Discovery tab. See Figure 46. The fields are defined in Table 42.



Device Discovery

Device Name	Operation Mode	IP Address	System MAC Address	Firmware Version

Figure 46. Device Discovery

Table 42. Device Discovery

Field	Description
Device Name	Displays the device name of the detected access point.
Operation Mode	Displays the operation mode of the detected access point.
IP Address	Displays the IP address of the detected access point.
System MAC Address	Displays the MAC address of the detected access point.
Firmware Version	Displays the version of the firmware that the detected access point
Scan	Click the Scan button to start the device discovery scan.

Chapter 5

System Manager

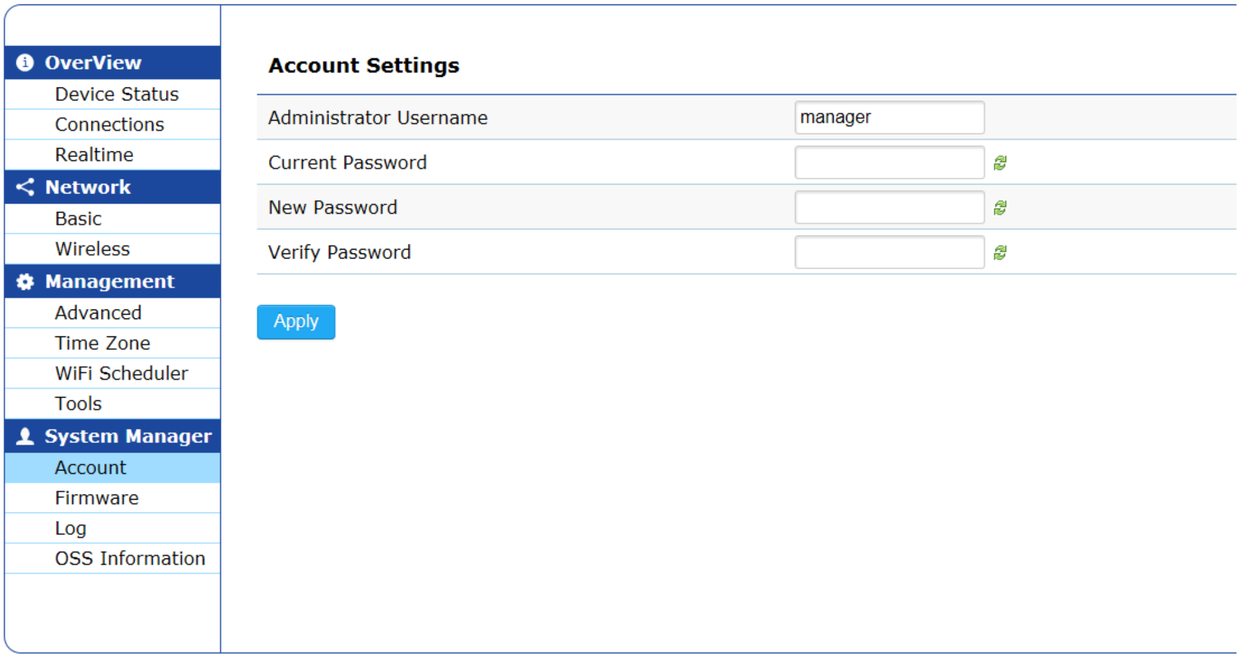
This chapter describes the function to manage the system in the System Manger menu.The chapter contains the following sections:

Modifying the Manager Account

To modify the manager account, select System Manager > Account from the side bar.

Account Settings

You can specify or modify the account settings. Figure 47 shows the Account Settings page. The fields are defined in Table 43.



Account Settings

Administrator Username	manager
Current Password	
New Password	
Verify Password	

Figure 47. Account Settings Page

Table 43. Account Settings

Field	Description
Administrator Username	Specify the new name. The username can have 1 to 12 alphanumeric characters.The special characters, such as ! $ % & ( ) * + , - ; < = > ? @ ^ [|] ~ are allowed. The name is case-sensitive. The default value is “manager.”
Current Password	Specify the current password. The default value is ” friend.” The green two arrows button is a toggle-key, which enables or disables password display.

Table 43. Account Settings (Continued)

Field	Description
New Password	Specify a new password.The password can have 1 to 12 alphanumeric characters.The special characters, such as ! $ % & ( ) * + , - ; < = > ? @ ^ [|] ~ are allowed. The name is case-sensitive. The green two arrows button is a toggle-key, which enables or disables password display.
Verify Password	Specifies the new password again here. The green two arrows button is a toggle-key, which enables or disables password display.
Apply	Click the Apply button to activate your changes.

Firmware Upgrade

You can upgrade the firmware on the device from the Firmware Upgrade section ash shown in Figure 48 on page 72. The fields are defined in Table 44 on page 72.

To upgrade the firmware, do the following procedures:

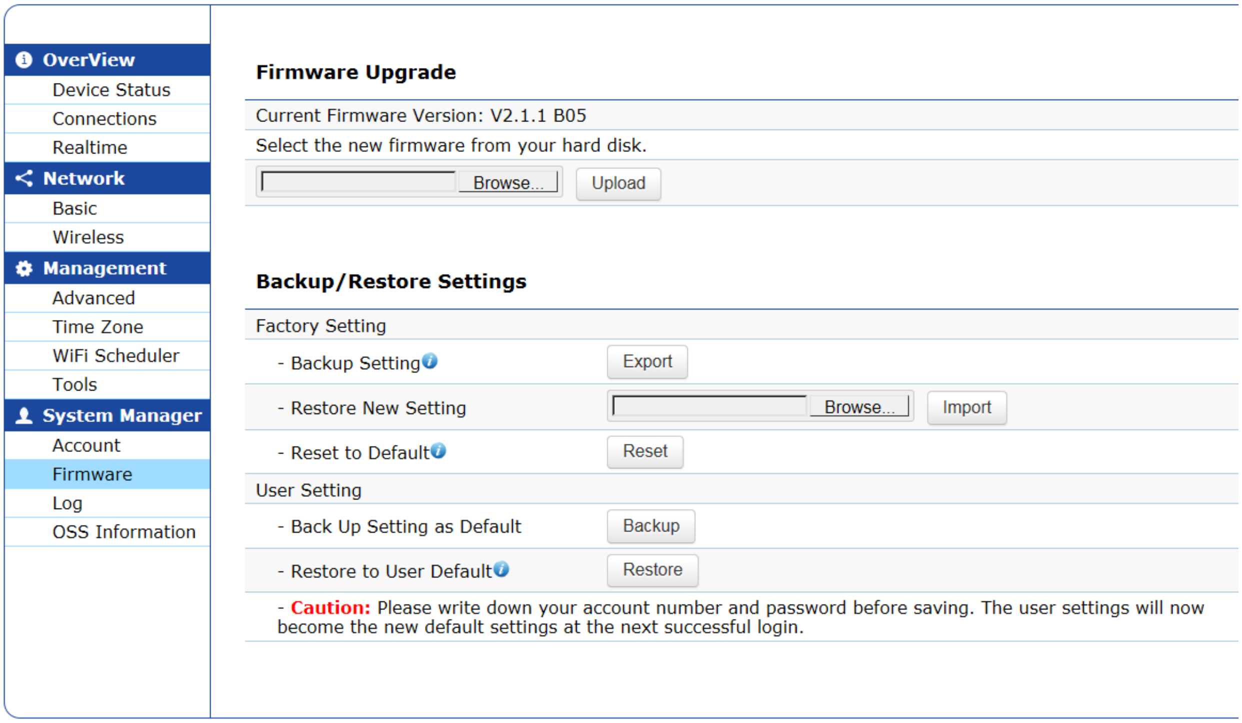
1. Click the Browse button.
2. Select the firmware image file.
3. Click the Upload button.

   The MD5 checksum and file size of the uploaded file are displayed.

4. Click the Upgrade button.

   The status bar is displayed. After 120 seconds from the completion of the firmware upgrade, the system reboots.

Note
Do not turn off the power during the firmware upgrade.



Firmware Upgrade

Current Firmware Version: V2.1.1 B05

Select the new firmware from your hard disk.

Backup/Restore Settings

Factory Setting

- Backup Setting
- Restore New Setting
- Reset to Default

User Setting

- Back Up Setting as Default
- Restore to User Default
- **Caution:** Please write down your account number and password before saving. The user settings will now become the new default settings at the next successful login.

Figure 48. Firmware Upgrade Page

Table 44. Firmware Upgrade

Field	Description
Current Firmware Version	Displays the version number of the firmware that is currently installed on the device.
Browse...	Click the Browse... button to specify the firmware file to install.
Upload	Click the Upload button to install the specified firmware.

Backup / Restore Settings

You can back up a configuration file or restore a configuration from the Backup / Restore Settings section as shown in Figure 48 on page 72.

The fields are defined in Table 45 on page 73.

Table 45. Backup / Restore Settings

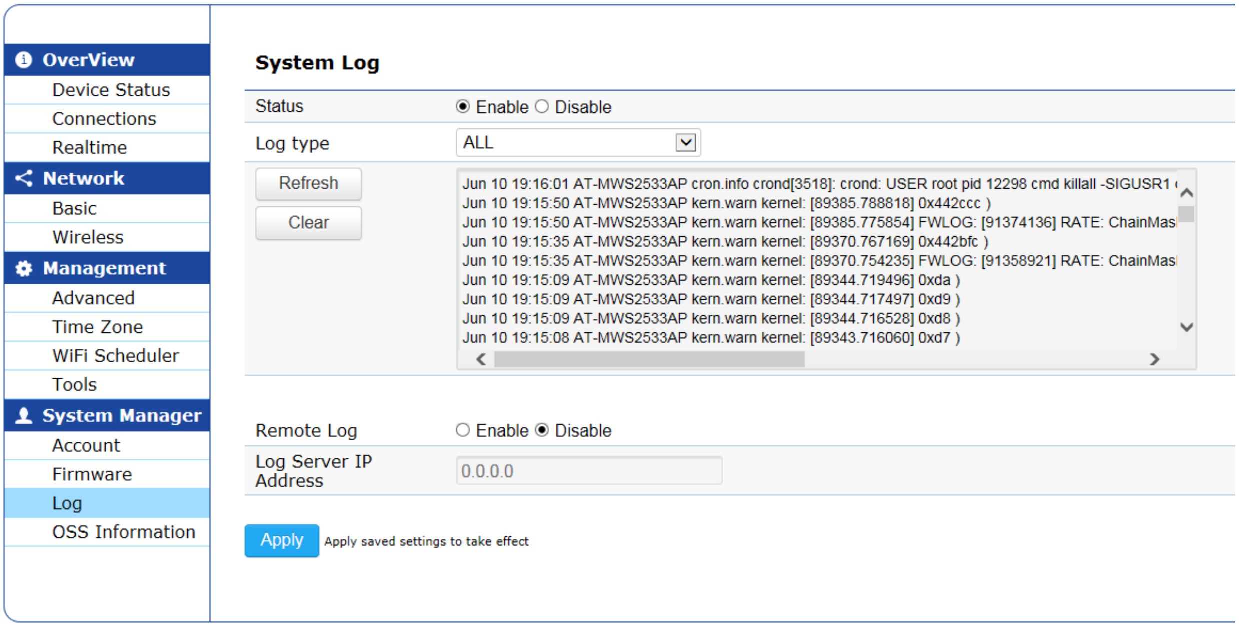
	Field	Description
Factory Setting	Backup Setting	Click the Export button to save the current configuration file as backup. The default file name is backup- *device_model_name-date*.tar.gz. For example, backup-AT-MWS2533AP-2017-07-07.tar.gz.
	Restore New Setting	Click the Import to install the selected backup configuration file onto the device. **Note** Do not turn the power off during the backup configuration restoring.
	Reset to Default	Click the Reset button to reset the device to the factory -setting default configuration.
User Setting	Backup Setting as Default	Click the Backup button to save the current configuration file as a user default configuration file.
	Restore to User Default	Click the Restore button to install the user default configuration file onto the device.

Modifying the System Log Settings

To modify the system log settings, select System Manger > Log from the side bar.

System Log

You can modify the system log settings from the System Log page as shown in Figure 49. The fields are defined in Table 46.



System Log

Status ● Enable ○ Disable

Log type ALL

```
Jun 10 19:16:01 AT-MWS2533AP cron.info crond[3518]: crond: USER root pid 12298 cmd killall -SIGUSR1
Jun 10 19:15:50 AT-MWS2533AP kern.warn kernel: [89385.788818] 0x442ccc )
Jun 10 19:15:50 AT-MWS2533AP kern.warn kernel: [89385.775854] FWLOG: [91374136] RATE: ChainMas
Jun 10 19:15:35 AT-MWS2533AP kern.warn kernel: [89370.767169] 0x442bfc )
Jun 10 19:15:35 AT-MWS2533AP kern.warn kernel: [89370.754235] FWLOG: [91358921] RATE: ChainMas
Jun 10 19:15:09 AT-MWS2533AP kern.warn kernel: [89344.719496] 0xda )
Jun 10 19:15:09 AT-MWS2533AP kern.warn kernel: [89344.717497] 0xd9 )
Jun 10 19:15:09 AT-MWS2533AP kern.warn kernel: [89344.716528] 0xd8 )
Jun 10 19:15:08 AT-MWS2533AP kern.warn kernel: [89343.716060] 0xd7 )
```

Remote Log ○ Enable ● Disable

Log Server IP Address 0.0.0.0

Apply saved settings to take effect

Figure 49. System Log Page

Table 46. System Log

Field	Description
Status	Enable or disable system logging. The default setting is enable.

Table 46. System Log (Continued)

Field	Description
Log Type	Select a message severity level to log from the following: ❒ ALL ❒ Debug ❒ Information ❒ Notice ❒ Warning ❒ Error (the AT-MWS2533AP model only) ❒ Critical ❒ Alert (the AT-MWS2533AP model only) ❒ Emergency (the AT-MWS2533AP model only)
Refresh	Click the Refresh button to refresh the log display.
Clear	Click the Clear button to delete all the log messages.
Remote Log	Enable or disable remote logging. The default setting is disable.
Log Server IP Address	Specify the IP address of the host where the log messages are sent.
Apply	Click the Apply button to save the changes.

Displaying OSS Information

To view OSS information, select System Manager > OSS Information from the side bar.