



Article ID: 5066

# Configuring Advanced Radio Settings on the WAP131 and WAP351

## Objective

Radio settings are used to configure the wireless radio antenna and its properties on the wireless access point (WAP) device. These settings are helpful in a situation where the WAP is surrounded by other WAPs, and settings like channel mode and frequency need to be changed to achieve smooth communication. If multiple WAPs in close proximity are broadcasting at the same frequency or channel, the transmitted data can become corrupted or canceled out, which greatly decreases performance.

The objective of this document is to explain how to configure Advanced Radio Settings on the WAP131 and WAP351 Access Points.

**Note:** For information on how to configure Basic Radio Settings on the WAP131 and WAP351, refer to the article [Configuring Basic Radio Settings on the WAP131 and WAP351](#).

## Applicable Devices

- WAP131
- WAP351

## Software Version

- v1.0.0.39

## Configuring Advanced Radio Settings

Step 1. Log in to the web configuration utility and choose **Wireless > Radio**. The *Radio* page opens:

The screenshot shows the 'Radio' configuration page. It is divided into several sections:

- Global Settings:** Contains a 'TSPEC Violation Interval' field with the value '300' and a note 'Sec (Range: 0 - 900, 0 = Disable, Default: 300)'.
- Radio Setting Per Interface:** Includes the instruction 'Select the radio interface first, and then enter the configuration parameters.' and a 'Radio:' field with two radio button options: 'Radio 1 (2.4 GHz)' and 'Radio 2 (5 GHz)'. The 'Radio 2 (5 GHz)' option is selected.
- Basic Settings:** Contains several fields: 'Radio:' with an 'Enable' checkbox; 'MAC Address:' with the value '28:34:A2:4A:A7:78'; 'Mode:' with a dropdown menu set to '802.11a/n'; 'Channel Bandwidth:' with a dropdown menu set to '20/40 MHz'; 'Primary Channel:' with a dropdown menu set to 'Lower'; and 'Channel:' with a dropdown menu set to 'Auto'.
- Advanced Settings:** A section header with a right-pointing arrow.

At the bottom of the page, there is a 'Save' button.

Step 2. In order to configure advanced radio settings, select the radio interface you want to configure in the *Radio Setting Per Interface* area. Radio 1 (2.4 GHz) is more compatible with older devices and has a wider range, while Radio 2 (5 GHz) is faster but with less range.

**Radio**

**Global Settings**

TSPEC Violation Interval:  Sec. (Range: 0 - 900, 0 = Disable, Default: 300)

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**Radio Setting Per Interface**

Select the radio interface first, and then enter the configuration parameters.

Radio:  Radio 1 (2.4 GHz)  Radio 2 (5 GHz)

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**Basic Settings**

Radio:  Enable

MAC Address: 28:34:A2:4A:A7:78

Mode:  ▾

Channel Bandwidth:  ▾

Primary Channel:  ▾

Channel:  ▾

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**Advanced Settings** ▶

Step 3. Make sure that the selected radio interface is turned on. To turn on a radio, check the **Enable** check box in the *Radio* field, under the *Basic Settings* area.

**Radio**

**Global Settings**

TSPEC Violation Interval:  Sec. (Range: 0 - 900, 0 = Disable, Default: 300)

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**Radio Setting Per Interface**

Select the radio interface first, and then enter the configuration parameters.

Radio:  Radio 1 (2.4 GHz)  Radio 2 (5 GHz)

---

**Basic Settings**

Radio:  Enable

MAC Address: 28:34:A2:4A:A7:78

Mode:  ▾

Channel Bandwidth:  ▾

Primary Channel:  ▾

Channel:  ▾

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**Advanced Settings** ▶

**Note:** To learn more about configuring basic radio settings, refer to the article [Configuring Basic Radio Settings on the WAP131 and WAP351](#).

Step 4. Click on **Advanced Settings** to display the advanced settings for the selected radio.

**Radio**

**Global Settings**

TSPEC Violation Interval:  Sec (Range: 0 - 900, 0 = Disable, Default: 300)

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**Radio Setting Per Interface**

Select the radio interface first, and then enter the configuration parameters.

Radio:  Radio 1 (2.4 GHz)  Radio 2 (5 GHz)

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**Basic Settings**

Radio:  Enable

MAC Address: 28:34:A2:4A:A7:78

Mode:

Channel Bandwidth:

Primary Channel:

Channel:

**Advanced Settings ▶**

The *Advanced Settings* area appears.

**Advanced Settings ▼**

Short Guard Interval Supported:

Protection:

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:

Fixed Multicast Rate:  Mbps

Rate (Mbps)	54	48	36	24	18	12	11	9	6	5.5	2	1
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

TSPEC Mode:

TSPEC Voice ACM Mode:

TSPEC Voice ACM Limit:  Percent (Range: 0 - 70, Default: 20)

Step 5. If you selected a mode that contains 802.11n in the *Mode* field of the *Basic Settings* area, the *Short Guard Interval Supported* drop-down list will be available. The guard interval is the amount of time that the WAP waits between transmissions, which prevents interference. The guard interval can be shortened to increase throughput by up to 10 percent. If this field is available, select an option from the drop-down list; otherwise skip to the next step.

**Advanced Settings** ▼

Short Guard Interval Supported:

Protection:

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:

Fixed Multicast Rate:  Mbps

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

The available options are defined as follows:

- Yes — Reduces transmission time to every 400 nanoseconds when communicating with clients that also support the short guard interval. This is the default option.
- No — Keeps transmission time to every 800 nanoseconds.

Step 6. Choose an option from the *Protection* drop-down list. The protection feature contains rules to guarantee that 802.11 transmissions do not cause interference with legacy stations or applications.

**Advanced Settings** ▼

Short Guard Interval Supported:

Protection:  (Auto, Off)

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:

Fixed Multicast Rate:  Mbps

Legacy Rate Sets:

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

The available options are defined as follows:

- Auto — Enables protection when legacy devices are within the range of the WAP device. This is the default option.
- Off — Disables the protection feature.

Step 7. In the *Beacon Interval* field, enter the interval of milliseconds between the transmissions of beacon frames. Beacon frames announce the existence of the wireless network. The value must be between 20 to 2000 milliseconds. The default behavior is to send a beacon frame once every 100 milliseconds.

**Advanced Settings** ▼

Short Guard Interval Supported: Yes ▼

Protection: Auto ▼

Beacon Interval: 100 Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period: 2 (Range: 1-255, Default: 2)

Fragmentation Threshold: 2346 Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold: 2347 (Range: 0-2347, Default: 2347)

Maximum Associated Clients: 200 (Range: 0-200, Default: 200)

Transmit Power: Full - 100% ▼

Fixed Multicast Rate: Auto ▼ Mbps

Legacy Rate Sets:

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit: 50 Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst: 75 Packets Per Second (Range: 1 - 75, Default: 75)

Step 8. In the *DTIM Period* field, enter an integer from 1 to 255 beacons to specify the Delivery Traffic Information Map (DTIM) period. The DTIM period indicates how often, in terms of beacon frames, the clients served by your WAP device should check for buffered data still awaiting pickup. The default value is 2, which specifies that clients will check for buffered data on your WAP device on every 2<sup>nd</sup> beacon frame.

**Advanced Settings** ▼

Short Guard Interval Supported: Yes ▼

Protection: Auto ▼

Beacon Interval: 100 Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period: 2 (Range: 1-255, Default: 2)

Fragmentation Threshold: 2346 Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold: 2347 (Range: 0-2347, Default: 2347)

Maximum Associated Clients: 200 (Range: 0-200, Default: 200)

Transmit Power: Full - 100% ▼

Fixed Multicast Rate: Auto ▼ Mbps

Legacy Rate Sets:

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit: 50 Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst: 75 Packets Per Second (Range: 1 - 75, Default: 75)

Step 9. In the *Fragmentation Threshold* field, enter an even number between 256 and 2346 bytes to specify the size limit for packets transmitted over the network. If a packet exceeds the fragmentation threshold, the fragmentation function is activated and the packet is sent as multiple 802.11 frames. By default, fragmentation is off at a threshold of 2346 bytes. Fragmentation is not recommended unless you experience radio interference.

**Advanced Settings** ▼

Short Guard Interval Supported:  ▼

Protection:  ▼

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:  ▼

Fixed Multicast Rate:  ▼ Mbps

Legacy Rate Sets:

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

Step 10. In the *RTS Threshold* field, enter an integer between 0 and 2347 to specify the Request to Send (RTS) Threshold value. A lower threshold value sends packets more frequently which results in higher bandwidth consumption and quicker recovery from collisions or interference on the network. A higher threshold value sends packets less frequently which results in lower bandwidth consumption and a longer recovery time from collisions or interference on the network.



**Advanced Settings** ▼

Short Guard Interval Supported:

Protection:

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:

Fixed Multicast Rate:  Mbps

Legacy Rate Sets:

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

Step 11. In the *Maximum Associated Clients* field, enter the maximum number of clients that can connect to the WAP at one time. The range is 0-200, and is set to 200 by default.

**Advanced Settings** ▼

Short Guard Interval Supported:

Protection:

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:

Fixed Multicast Rate:  Mbps

Legacy Rate Sets:

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

Step 12. In the *Transmit Power* drop-down list, select the percentage of transmit power the WAP uses when broadcasting. A high percentage is more cost-efficient, since it gives the WAP the widest range and thus requires fewer access points to cover the same area. A low percentage requires devices be close to each other, but reduces the overlap and interference among other APs. The default is 100%.

**Advanced Settings** ▼

Short Guard Interval Supported: Yes ▼

Protection: Auto ▼

Beacon Interval: 100 Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period: 2 (Range: 1-255, Default: 2)

Fragmentation Threshold: 2346 Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold: 2347 (Range: 0-2347, Default: 2347)

Maximum Associated Clients: 200 (Range: 0-200, Default: 200)

Transmit Power: Full - 100% ▼

Fixed Multicast Rate: Full - 100% ▼

Legacy Rate Sets:

Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit: 50 Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst: 75 Packets Per Second (Range: 1 - 75, Default: 75)

Step 13. In the *Fixed Multicast Rate* drop-down list, select the transmission rate in Mbps for broadcast and multicast packets. The range of possible values is determined by the radio mode in basic settings. Selecting **Auto** lets the WAP automatically choose the best rate based on the connected clients.

**Advanced Settings** ▼

Short Guard Interval Supported: Yes ▼

Protection: Auto ▼

Beacon Interval: 100 Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period: 2 (Range: 1-255, Default: 2)

Fragmentation Threshold: 2346 Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold: 2347 (Range: 0-2347, Default: 2347)

Maximum Associated Clients: 200 (Range: 0-200, Default: 200)

Transmit Power: Full - 100% ▼

Fixed Multicast Rate: Auto ▼ Mbps

Legacy Rate Sets:

54	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
48	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
36	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit: 50 Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst: 75 Packets Per Second (Range: 1 - 75, Default: 75)

Step 14. In the *Legacy Rate Sets* table, check the check boxes underneath the available rates to determine the Supported and Basic Rate sets. The Supported Rate Sets indicate rates that the WAP supports, while the Basic Rate Sets are the rates that the

WAP advertises to the network to set up communication with other devices. It is more efficient to have a WAP device broadcast a subset of its supported rates. The rates are in Mbps.

**Advanced Settings** ▼

Short Guard Interval Supported:

Protection:

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:

Fixed Multicast Rate:  Mbps

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

**Note:** In order to select a rate as Basic, it must also be selected as Supported. A rate that is not selected as Supported cannot be selected as Basic.

Step 15. (Optional) Check the *Broadcast/Multicast Rate Limiting* checkbox if you want to limit the number of packets transmitted across the network. By default, this feature is disabled. If you do not want to enable this feature, skip to [Step 16](#).

**Advanced Settings** ▼

Short Guard Interval Supported:

Protection:

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:

Fixed Multicast Rate:  Mbps

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)

Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

Step 16. If you enabled *Broadcast/Multicast Rate Limiting*, the *Rate Limit* and *Rate Limit Burst* fields will become available. Enter in the appropriate values for each field.

**Advanced Settings** ▼

Short Guard Interval Supported:

Protection:

Beacon Interval:  Milliseconds (Range: 20 - 2000, Default: 100)

DTIM Period:  (Range: 1-255, Default: 2)

Fragmentation Threshold:  Even Numbers (Range: 256 - 2346, Default: 2346)

RTS Threshold:  (Range: 0-2347, Default: 2347)

Maximum Associated Clients:  (Range: 0-200, Default: 200)

Transmit Power:

Fixed Multicast Rate:  Mbps

Legacy Rate Sets:

Rate (Mbps)	54	48	36	24	18	12	9	6
Supported	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Basic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Broadcast/Multicast Rate Limiting

Rate Limit	<input type="text" value="50"/>	Packets Per Second (Range: 1 - 50, Default: 50)
Rate Limit Burst	<input type="text" value="75"/>	Packets Per Second (Range: 1 - 75, Default: 75)

The fields are defined as:

- **Rate Limit** — This is the rate limit for multicast and broadcast traffic. This rate is expressed in packets per second. The range is 1 – 50, and the default is 50.
- **Rate Limit Burst** — This indicates the amount of traffic that is allowed to pass as a temporary burst even if it exceeds the above maximum rate. The range is 1 – 75, and the default is 75.

Step 17. In the *TSPEC Mode* drop-down list, choose the traffic specification (TSPEC) mode for the WAP. TSPEC is sent from a QoS (Quality of Service) capable client requesting a certain amount of traffic from the WAP. Selecting **On** enables TSPEC and the WAP handles traffic from QoS devices. **Off** disables TSPEC, and QoS devices are not given priority.

<input checked="" type="checkbox"/> Broadcast/Multicast Rate Limiting	Rate Limit	<input type="text" value="50"/>	Packets Per Second (Range: 1 - 50, Default: 50)
	Rate Limit Burst	<input type="text" value="75"/>	Packets Per Second (Range: 1 - 75, Default: 75)
TSPEC Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Limit:		<input type="text" value="20"/>	Percent (Range: 0 - 70, Default: 20)
TSPEC Video ACM Mode:		<input type="text" value="Off"/>	
TSPEC Video ACM Limit:		<input type="text" value="15"/>	Percent (Range: 0 - 70, Default: 15)
TSPEC AP Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Station Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Legacy WMM Queue Map Mode:		<input type="text" value="Off"/>	

Step 18. In the *TSPEC Voice ACM Mode* drop-down list, choose a mode that regulates the admission control mandatory (ACM) for the voice access category. Selecting **On** means that a station must send a TSPEC request for bandwidth to the WAP before sending or receiving a voice traffic stream. **Off** allows stations to send and receive voice traffic without a TSPEC request.

<input checked="" type="checkbox"/> Broadcast/Multicast Rate Limiting	Rate Limit	<input type="text" value="50"/>	Packets Per Second (Range: 1 - 50, Default: 50)
	Rate Limit Burst	<input type="text" value="75"/>	Packets Per Second (Range: 1 - 75, Default: 75)
TSPEC Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Limit:		<input type="text" value="20"/>	Percent (Range: 0 - 70, Default: 20)
TSPEC Video ACM Mode:		<input type="text" value="Off"/>	
TSPEC Video ACM Limit:		<input type="text" value="15"/>	Percent (Range: 0 - 70, Default: 15)
TSPEC AP Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Station Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Legacy WMM Queue Map Mode:		<input type="text" value="Off"/>	

Step 19. In the *TSPEC Voice ACM Limit* field, enter the maximum amount of traffic the WAP tries to transmit through wireless with a voice AC to gain access. The range is 0 – 70 percent, and the default is 20 percent.

<input checked="" type="checkbox"/> Broadcast/Multicast Rate Limiting	Rate Limit	<input type="text" value="50"/>	Packets Per Second (Range: 1 - 50, Default: 50)
	Rate Limit Burst	<input type="text" value="75"/>	Packets Per Second (Range: 1 - 75, Default: 75)
TSPEC Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Limit:		<input type="text" value="20"/>	Percent (Range: 0 - 70, Default: 20)
TSPEC Video ACM Mode:		<input type="text" value="Off"/>	
TSPEC Video ACM Limit:		<input type="text" value="15"/>	Percent (Range: 0 - 70, Default: 15)
TSPEC AP Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Station Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Legacy WMM Queue Map Mode:		<input type="text" value="Off"/>	

Step 20. In the *TSPEC Video ACM Mode* drop-down list, choose a mode that regulates the admission control mandatory (ACM) for the video access category. Selecting **On** means that a station must send a TSPEC request for bandwidth to the WAP before sending or receiving a video traffic stream. **Off** allows stations to send and receive video traffic without a TSPEC request.

<input checked="" type="checkbox"/> Broadcast/Multicast Rate Limiting	Rate Limit	<input type="text" value="50"/>	Packets Per Second (Range: 1 - 50, Default: 50)
	Rate Limit Burst	<input type="text" value="75"/>	Packets Per Second (Range: 1 - 75, Default: 75)
TSPEC Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Limit:		<input type="text" value="20"/>	Percent (Range: 0 - 70, Default: 20)
TSPEC Video ACM Mode:		<input type="text" value="Off"/>	
TSPEC Video ACM Limit:		<input type="text" value="15"/>	Percent (Range: 0 - 70, Default: 15)
TSPEC AP Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Station Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Legacy WMM Queue Map Mode:		<input type="text" value="Off"/>	

Step 21. In the *TSPEC Video ACM Limit* field, enter the maximum amount of traffic the WAP tries to transmit through wireless with a video AC to gain access. The range is 0 – 70 percent, and the default is 15 percent.

<input checked="" type="checkbox"/> Broadcast/Multicast Rate Limiting	Rate Limit	<input type="text" value="50"/>	Packets Per Second (Range: 1 - 50, Default: 50)
	Rate Limit Burst	<input type="text" value="75"/>	Packets Per Second (Range: 1 - 75, Default: 75)
TSPEC Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Limit:		<input type="text" value="20"/>	Percent (Range: 0 - 70, Default: 20)
TSPEC Video ACM Mode:		<input type="text" value="Off"/>	
TSPEC Video ACM Limit:		<input type="text" value="15"/>	Percent (Range: 0 - 70, Default: 15)
TSPEC AP Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Station Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Legacy WMM Queue Map Mode:		<input type="text" value="Off"/>	

Step 22. In the *TSPEC AP Inactivity Timeout* field, enter the number of seconds for a WAP device to detect a downlink traffic specification as idle before deleting it. The range is 0 – 120 seconds, and the default is 30. Entering 0 disables this feature.

<input checked="" type="checkbox"/> Broadcast/Multicast Rate Limiting	Rate Limit	<input type="text" value="50"/>	Packets Per Second (Range: 1 - 50, Default: 50)
	Rate Limit Burst	<input type="text" value="75"/>	Packets Per Second (Range: 1 - 75, Default: 75)
TSPEC Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Mode:		<input type="text" value="Off"/>	
TSPEC Voice ACM Limit:		<input type="text" value="20"/>	Percent (Range: 0 - 70, Default: 20)
TSPEC Video ACM Mode:		<input type="text" value="Off"/>	
TSPEC Video ACM Limit:		<input type="text" value="15"/>	Percent (Range: 0 - 70, Default: 15)
TSPEC AP Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Station Inactivity Timeout:		<input type="text" value="30"/>	Sec (Range: 0 - 120, 0 = Disable, Default: 30)
TSPEC Legacy WMM Queue Map Mode:		<input type="text" value="Off"/>	

Step 23. In the *TSPEC Station Inactivity Timeout* field, enter the number of seconds for a WAP device to detect an uplink traffic specification as idle before deleting it. The range is 0 – 120 seconds, and the default is 30. Entering 0 disables this feature.

Broadcast/Multicast Rate Limiting    Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)  
Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

TSPEC Mode:

TSPEC Voice ACM Mode:

TSPEC Voice ACM Limit:  Percent (Range: 0 - 70, Default: 20)

TSPEC Video ACM Mode:

TSPEC Video ACM Limit:  Percent (Range: 0 - 70, Default: 15)

TSPEC AP Inactivity Timeout:  Sec (Range: 0 - 120, 0 = Disable, Default: 30)

TSPEC Station Inactivity Timeout:  Sec (Range: 0 - 120, 0 = Disable, Default: 30)

TSPEC Legacy WMM Queue Map Mode:

Step 24. In the *TSPEC Legacy WMM Queue Map Mode* drop-down list, select whether to enable (**On**) or disable (**Off**) the intermixing of legacy traffic on queues operating as ACM. By default, this feature is disabled.

Broadcast/Multicast Rate Limiting    Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)  
Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

TSPEC Mode:

TSPEC Voice ACM Mode:

TSPEC Voice ACM Limit:  Percent (Range: 0 - 70, Default: 20)

TSPEC Video ACM Mode:

TSPEC Video ACM Limit:  Percent (Range: 0 - 70, Default: 15)

TSPEC AP Inactivity Timeout:  Sec (Range: 0 - 120, 0 = Disable, Default: 30)

TSPEC Station Inactivity Timeout:  Sec (Range: 0 - 120, 0 = Disable, Default: 30)

TSPEC Legacy WMM Queue Map Mode:

Step 25. Click **Save** to save your changes.

Broadcast/Multicast Rate Limiting    Rate Limit  Packets Per Second (Range: 1 - 50, Default: 50)  
Rate Limit Burst  Packets Per Second (Range: 1 - 75, Default: 75)

TSPEC Mode:

TSPEC Voice ACM Mode:

TSPEC Voice ACM Limit:  Percent (Range: 0 - 70, Default: 20)

TSPEC Video ACM Mode:

TSPEC Video ACM Limit:  Percent (Range: 0 - 70, Default: 15)

TSPEC AP Inactivity Timeout:  Sec (Range: 0 - 120, 0 = Disable, Default: 30)

TSPEC Station Inactivity Timeout:  Sec (Range: 0 - 120, 0 = Disable, Default: 30)

TSPEC Legacy WMM Queue Map Mode:



Step 26. A pop-window will appear warning that wireless connections may be disconnected. Click **OK** to continue.

The screenshot shows a network configuration window with various settings. A modal dialog box titled "Confirm" is overlaid on the settings. The dialog contains a yellow warning triangle icon and the following text: "Your wireless settings are about to be updated. Wireless client sessions that may include management sessions if you manage this device via a wireless connection, may be disconnected. Do you want to continue?". Below the text are two buttons: "OK" and "Cancel". The "OK" button is highlighted with a red rectangular border. In the background, the configuration window shows settings such as "Maximum Associated Clients" (200), "Transmit Power" (Full - 100%), "Fixed Multicast Rate" (Auto), and several "TSPEC" modes (Voice ACM, Video ACM, AP Inactivity Timeout, Station Inactivity Timeout, Legacy WMM Queue Map Mode) all set to "Off". A "Save" button is visible at the bottom left of the configuration window.