Basic Radio Settings on the WAP371

Objective

The radio is the physical component of the WAP that creates a wireless network. The radio settings on the WAP control the behavior of the radio and determine what kind of wireless signals the WAP sends out. This configuration is useful if the WAP is in close proximity to other wireless sources and when the frequency needs to be changed to prevent interference with other sources.

The objective of this article is to explain the basic radio settings on the WAP371.

Applicable Devices

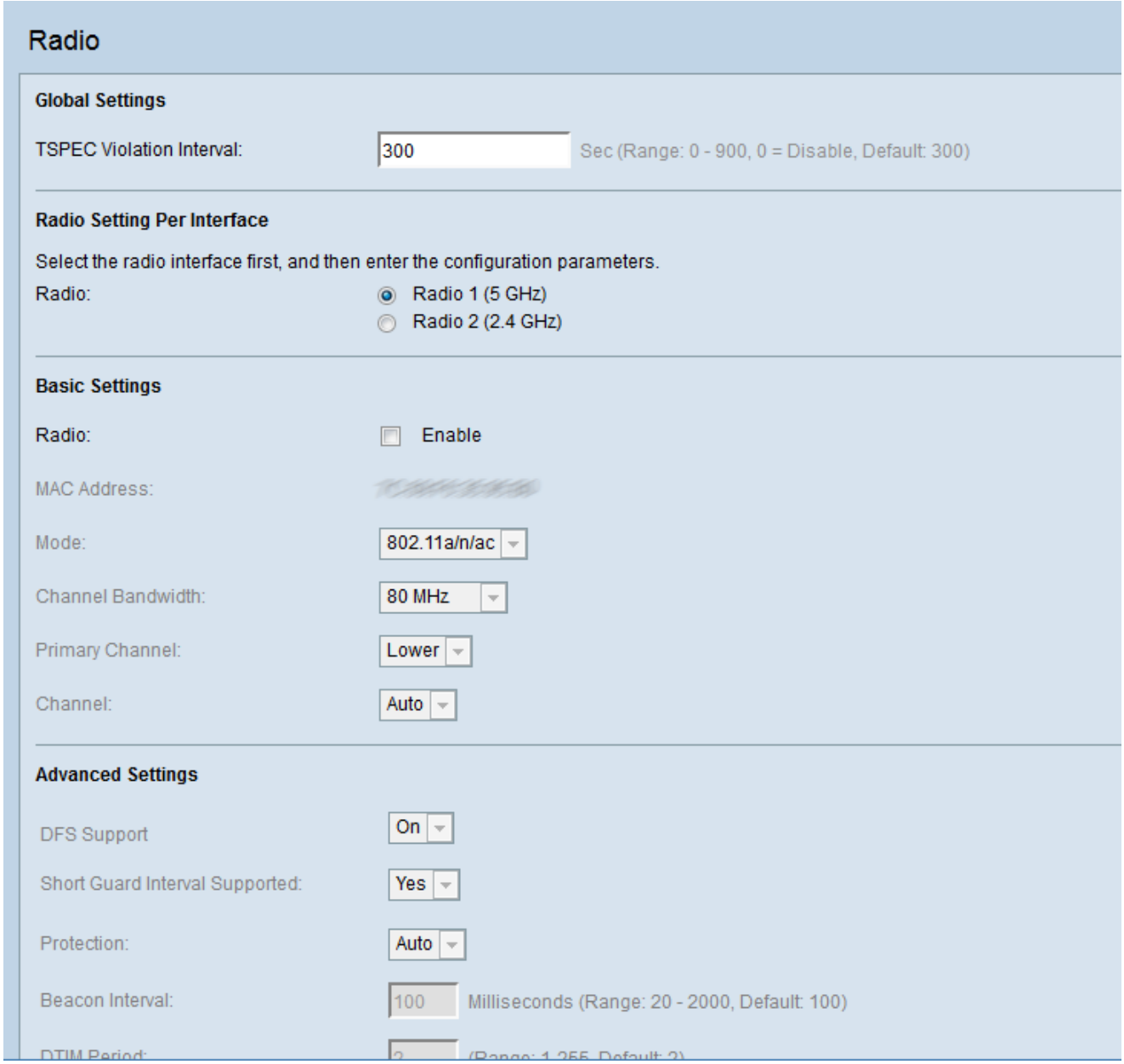
- WAP371

Software Version

- v1.2.0.2

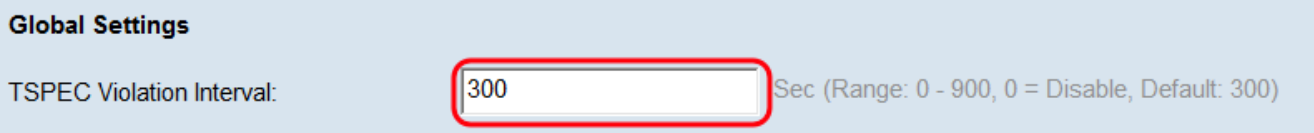
Radio Settings Configuration

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



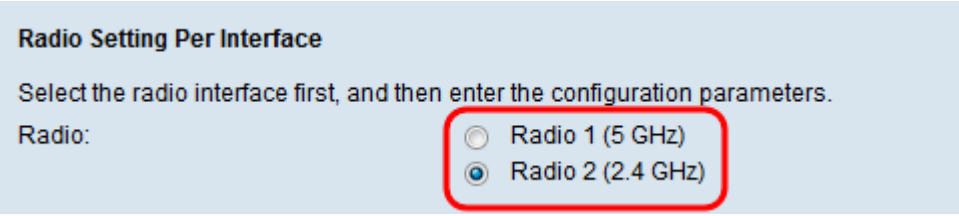
Configuration of Global Radio Settings

Step 1. In the *TSPEC Violation Interval* field, enter the time interval (in seconds) that the WAP waits before it reports the associated clients that do not adhere to mandatory admission control procedures. These reports are sent through the system log and Simple Network Management Protocol (SNMP), a protocol for managing devices on IP networks.



Configuration of Basic Radio Settings

Step 1. In the *Radio Setting Per Interface* area, click the radio button of the Radio frequency settings you would like to configure. The basic and advanced settings you configure are applied to this radio.



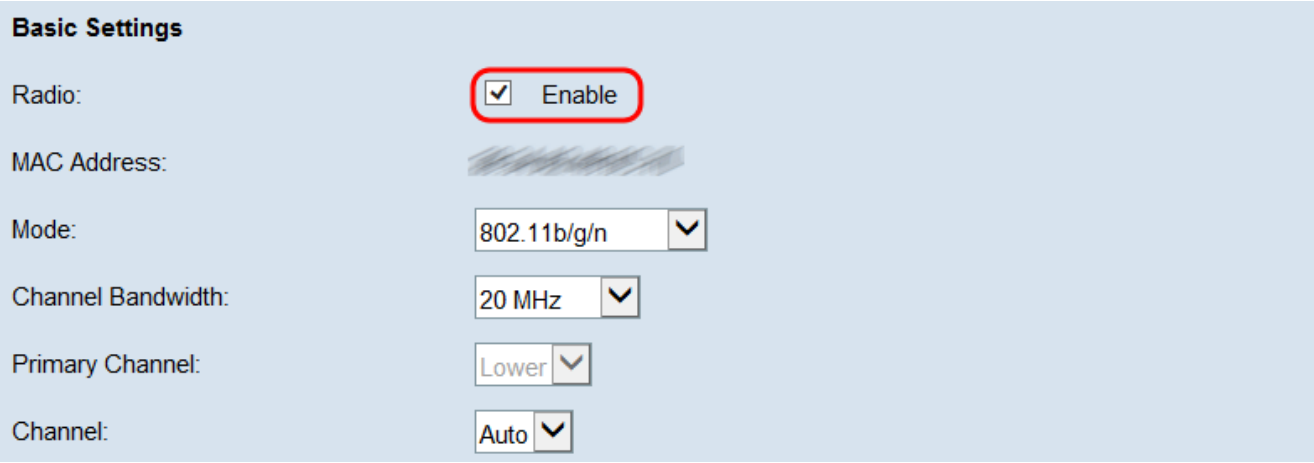
The options are described as follows:

• Radio 1 — Has a radio frequency of 5 GHz and supports the following radio modes: 802.11a, 802.11a/n/ac, and 802.11n/ac. Refer to the Configuration of 5 GHz Basic Radio Settings section.

• Radio 2 — Has a radio frequency of 2.4 GHz and supports the following radio modes: 802.11b/g, 802.11b/g/n, and 802.11n. Refer to the Configuration of 2.4 GHz Basic Radio Settings section.

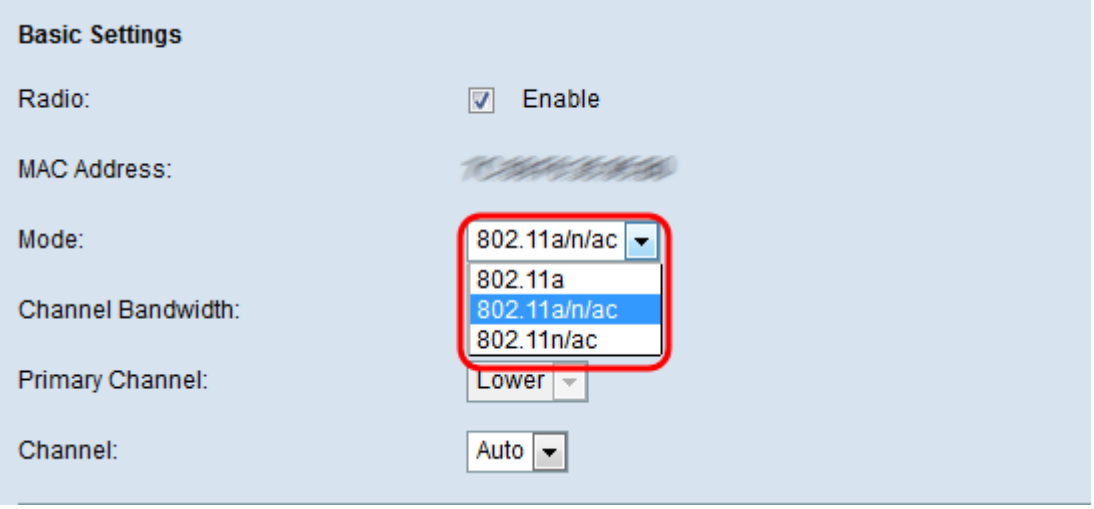
Configuration of 5 GHz Basic Radio Settings

Step 1. Check the **Enable** check box in the *Radio* field to enable the radio interface.



Note: The *MAC Address* field shows the MAC address of the radio interface.

Step 2. Choose the desired radio mode from the *Mode* drop-down list.



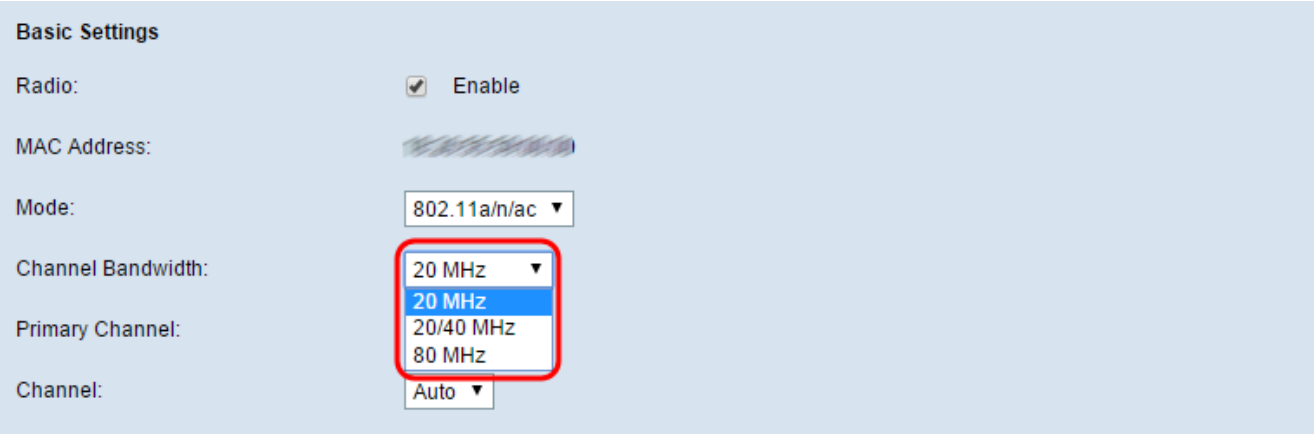
The available options are described as follows:

• 802.11a — Only 802.11a clients can connect to the WAP device. The clients can get a maximum of 54 Mbps bandwidth when this mode is selected.

• 802.11a/n/ac — 802.11a, 802.11n and 802.11ac clients that operate in the 5 GHz frequency can connect to the WAP device. 802.11n clients can get a maximum of 150 Mbps bandwidth and 802.11ac clients can get up to 1 Gbps.

• 5 GHz 802.11n/ac — Only 802.11n and 802.11ac clients that operate in the 5 GHz frequency can connect to the WAP device.

Step 3. Choose the channel bandwidth for the radio from the *Channel Bandwidth* drop-down list.



The options are described as follows:

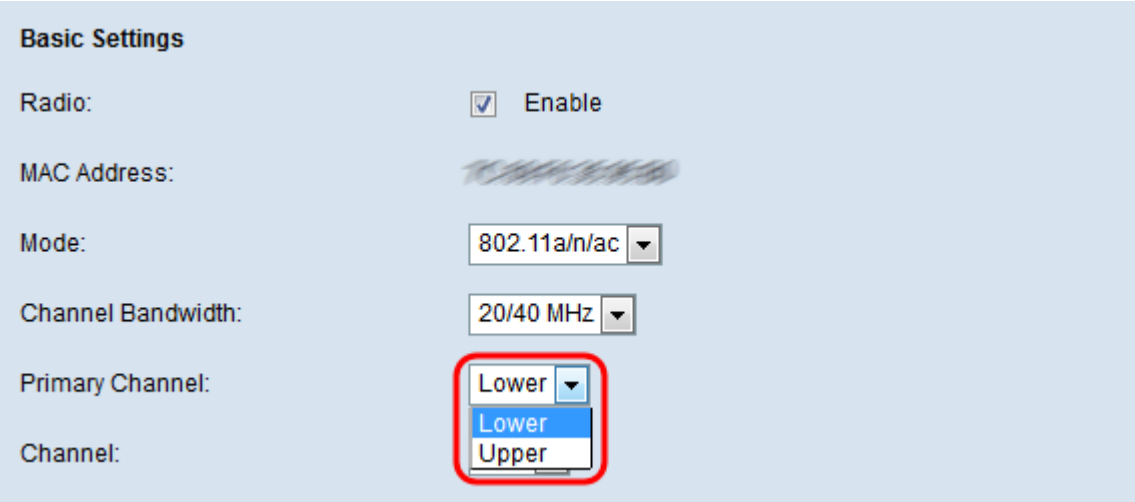
• 20 MHz — Restricts the use of channel bandwidth to a 20 MHz channel.

• 20/40 MHz — Consists of two 20 MHz channels that are contiguous in the frequency domain.

• 80 MHz — Restricts the use of channel bandwidth to an 80 MHz channel.

Note: If 20 or 80 MHz are selected, the options to configure the Primary Channel and Channel fields are not available. Skip to Step 6.

Step 4. From the *Primary Channel* drop-down list, choose a channel to set as primary. The primary channel is used for devices that only support 20/40 MHz channels.

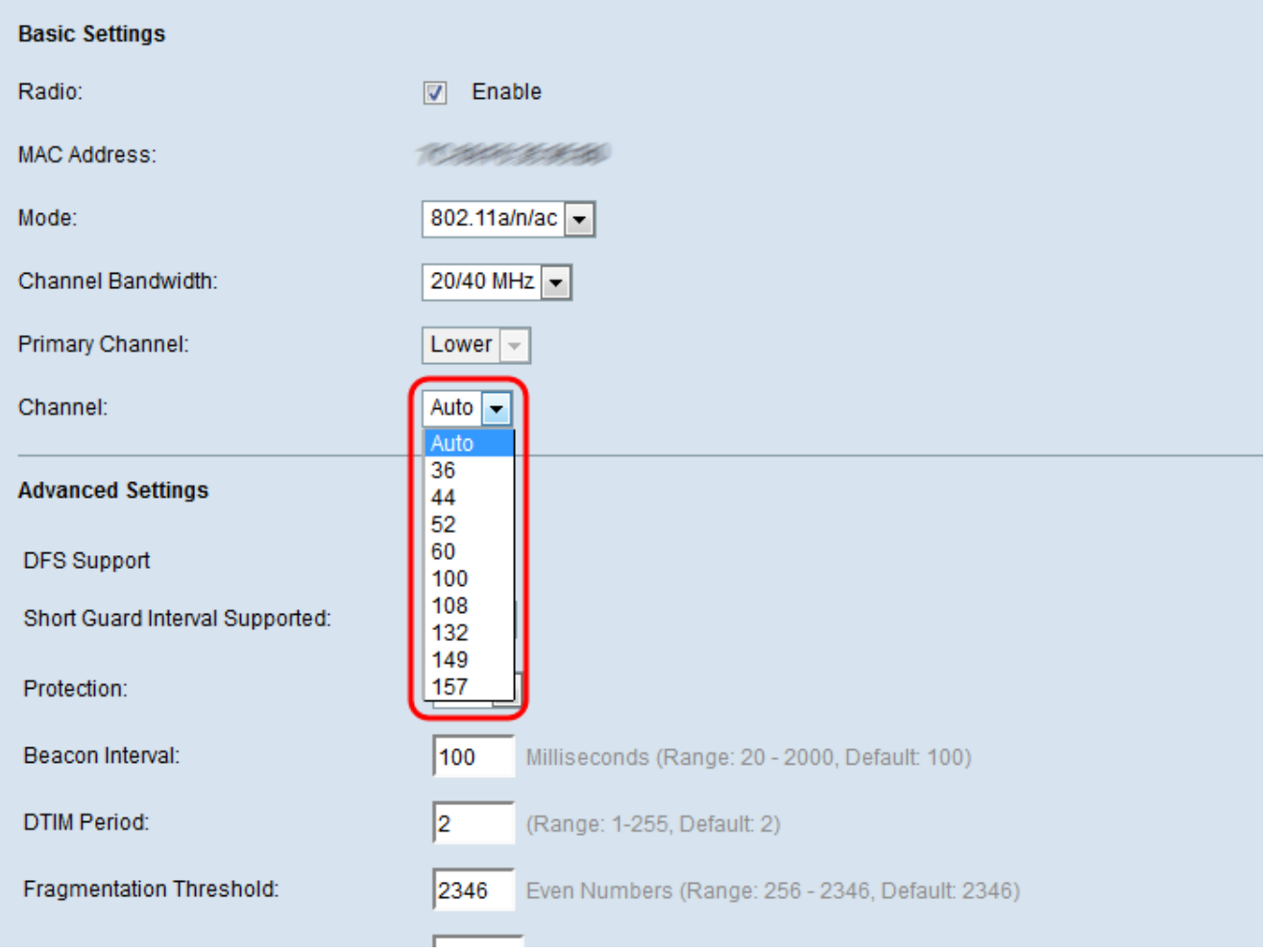


The available options are described as follows:

- Upper — Sets the upper 20 MHz channel as the primary channel.
- Lower — Sets the lower 20 MHz channel as the primary channel.

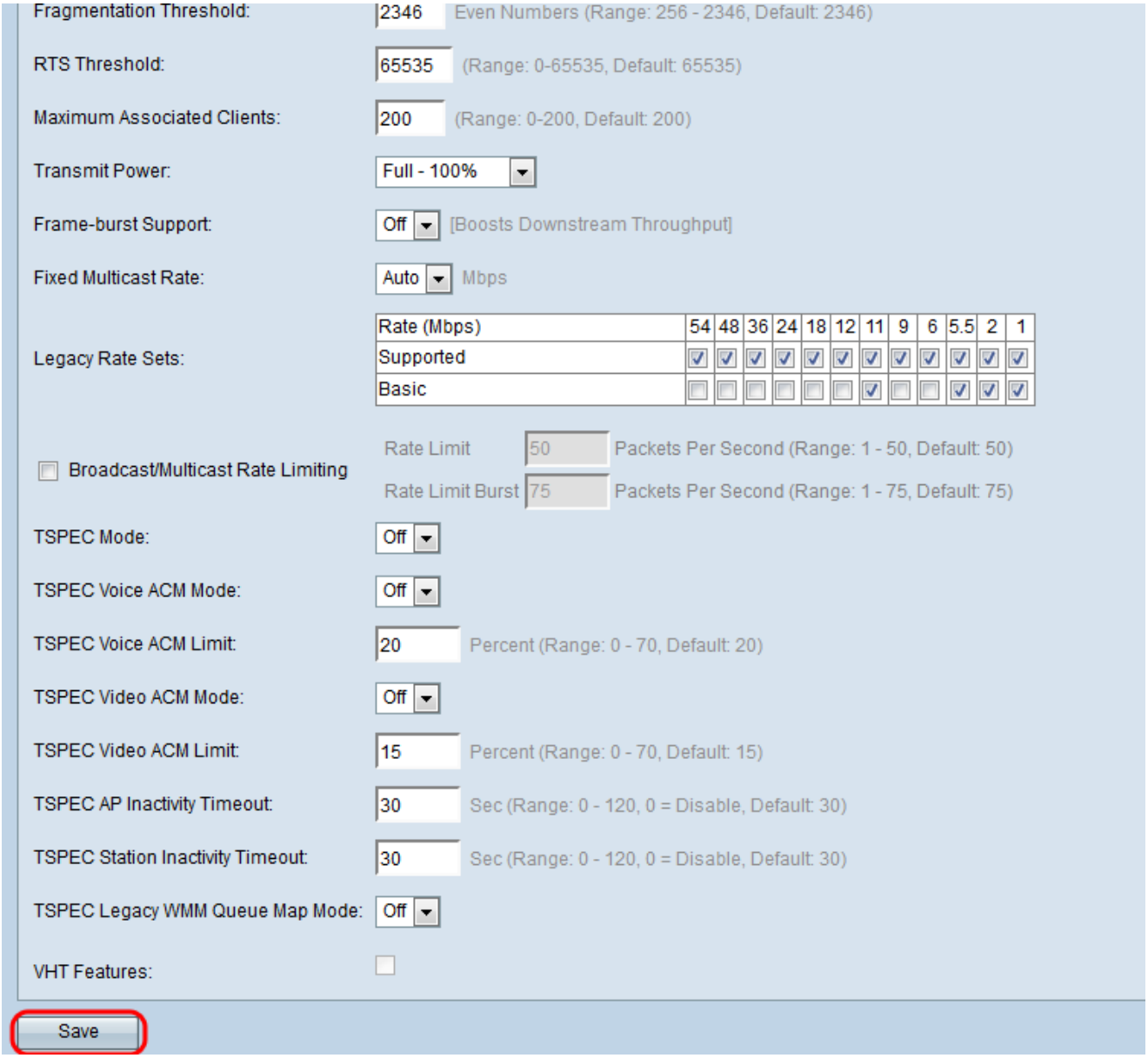
Note: The web UI disables the *Primary Channel* drop-down if the *Channel* field is left as Auto.

Step 5. Choose the portion of the radio spectrum that the radio uses to transmit and receive from the *Channel* drop-down list.



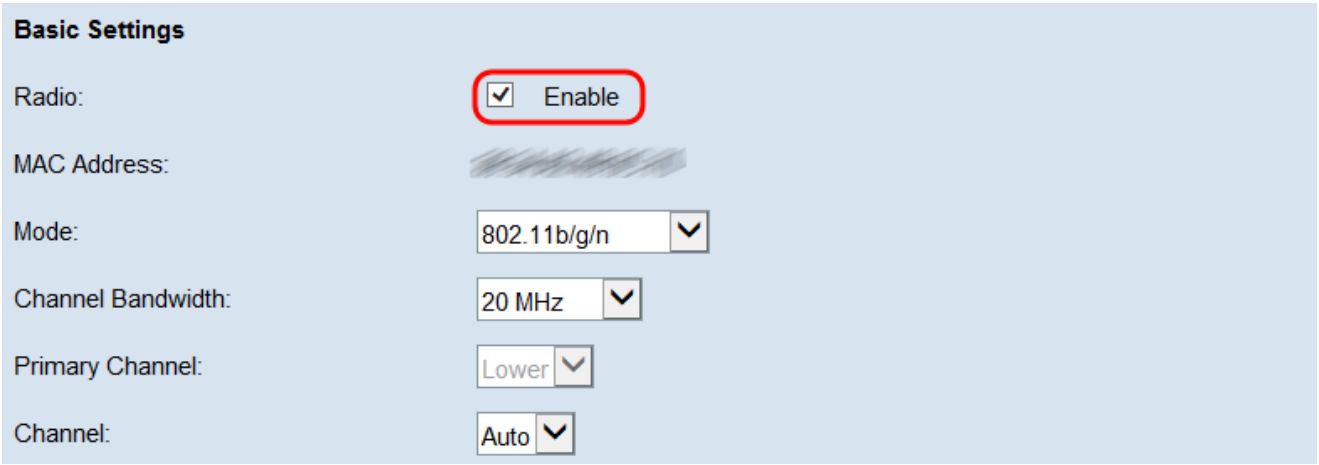
Note: If auto is chosen, the WAP scans the available channels and chooses a channel where the least traffic is detected.

Step 6. Click **Save** to save the settings.



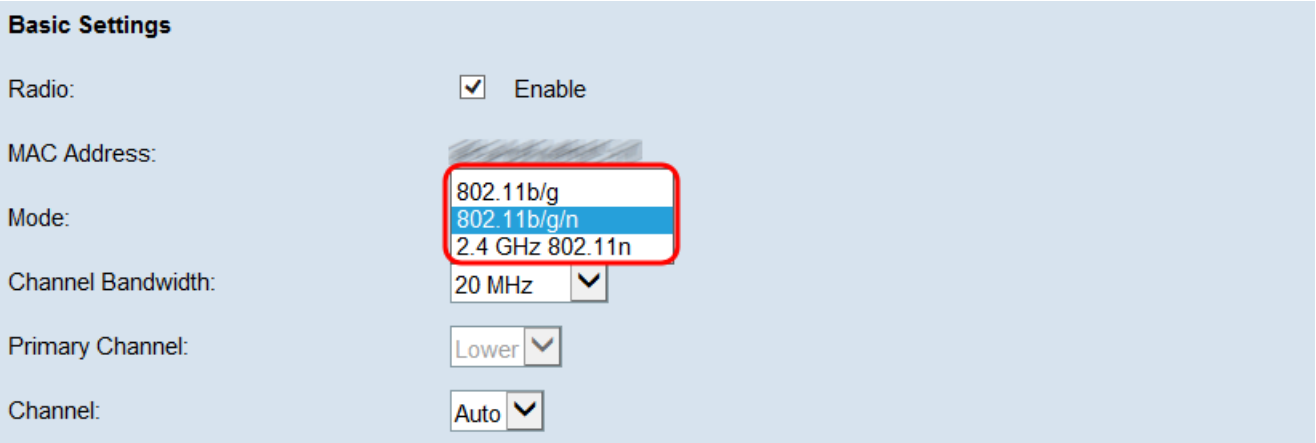
Configuration of 2.4 GHz Basic Radio Settings

Step 1. Check the **Enable** check box in the *Radio* field to enable the radio interface.



Note: The *MAC Address* field shows the MAC address of the radio interface.

Step 2. Choose the desired radio mode from the *Mode* drop-down list.



The available options are described as follows:

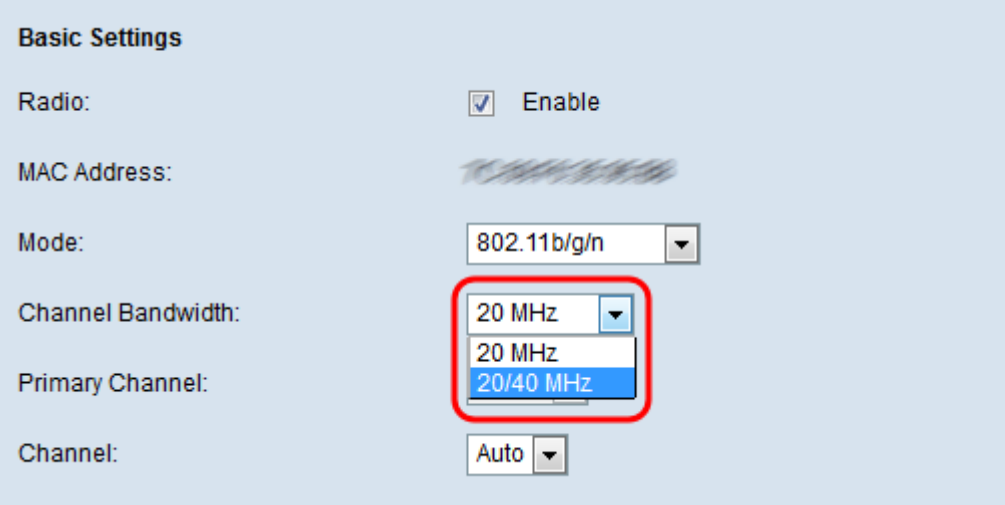
- 802.11b/g — 802.11b and 802.11g clients can connect to the WAP device. 802.11b clients can get a maximum of 11 Mbps bandwidth while an 802.11g client can support a maximum of 54 Mbps.

- 802.11b/g/n — 802.11b, 802.11g, and 802.11n clients which operate in the 2.4 GHz frequency can connect to the WAP.

- 2.4 GHz 802.11n — Only 802.11n clients that operate in the 2.4-GHz frequency can connect to this radio settings.

Note: 802.11n is the only specification that allows a 40 MHz-wide channel. Steps 3 and 4 are only applicable if you chose a radio mode that supports 802.11n in Step 2.

Step 3. Choose the channel bandwidth for the radio from the *Channel Bandwidth* drop-down list.



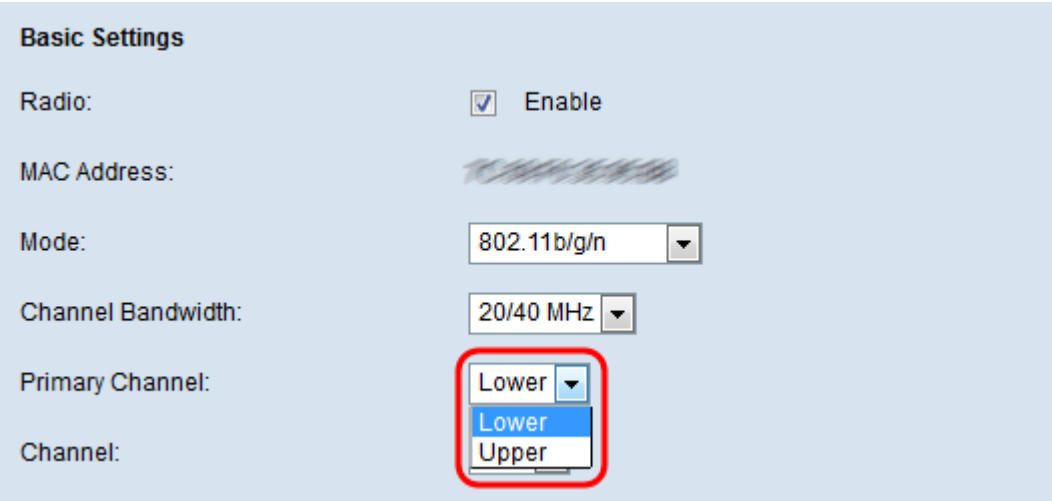
The options are described as follows:

- 20 MHz — Restricts the use of channel bandwidth to a 20 MHz channel.

- 20/40 MHz — Consists of two 20 MHz channels that are contiguous in the frequency domain.

Note: If 20 MHz is selected, the options to configure the *Primary Channel* and *Channel* fields are not available. Skip to Step 6.

Step 4. From the *Primary Channel* drop-down list, choose a channel to set as primary. The primary channel is used for devices that only support 20/40 MHz channels.

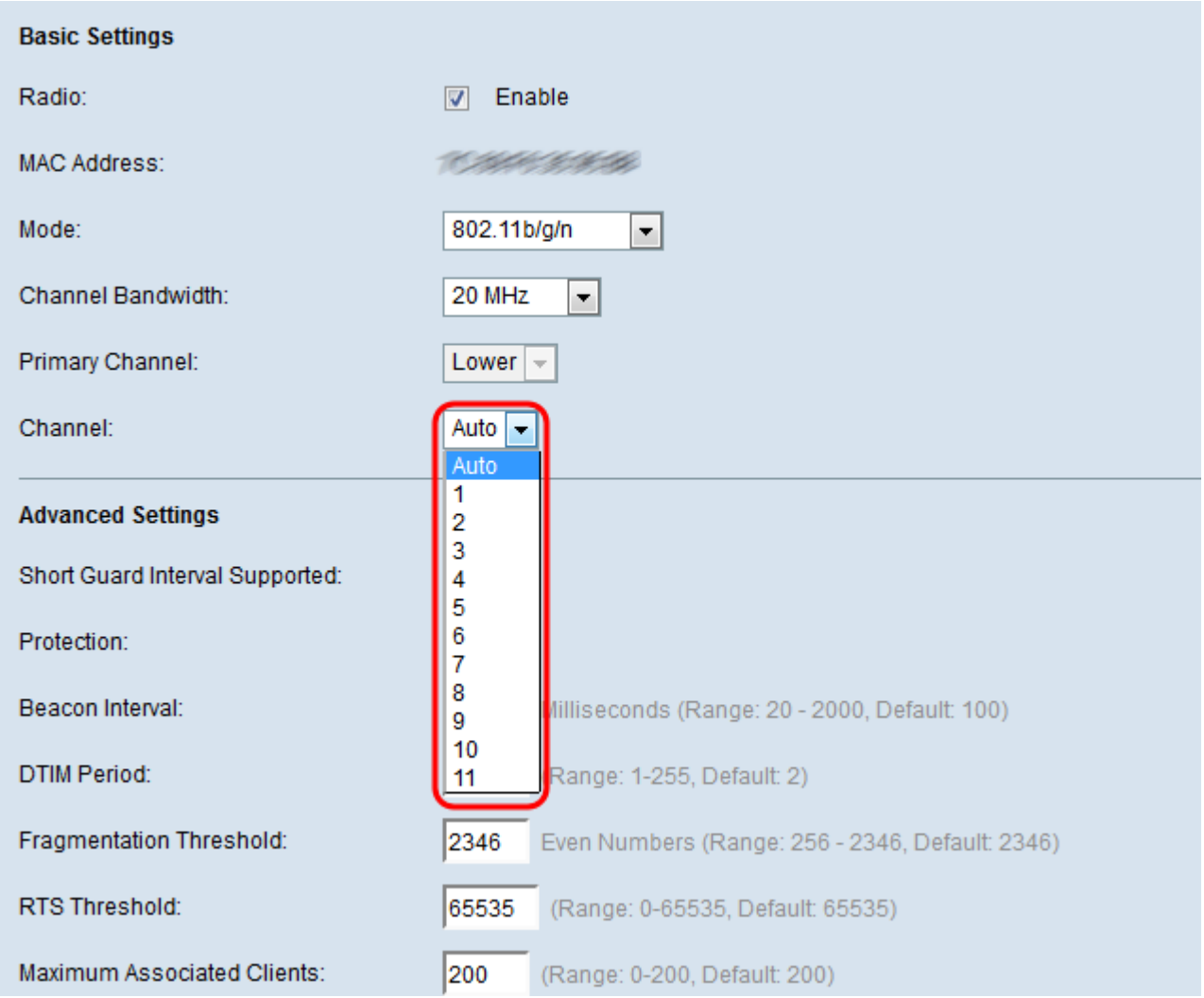


The available options are described as follows:

- Upper — Sets the upper 20 MHz channel as the primary channel.
- Lower — Sets the lower 20 MHz channel as the primary channel.

Note: The web UI disables the *Primary Channel* drop-down if the *Channel Bandwidth* field is left as 20 Mhz or if the *Channel* field is left as Auto.

Step 5. Choose the portion of the radio spectrum that the radio uses to transmit and receive from the *Channel* drop-down list.



Note: If auto is chosen, the WAP scans the available channels and chooses a channel where the least traffic is detected.

Step 6. Click **Save** to save the settings.

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

RTS Threshold: 65535 (Range: 0-65535, Default: 65535)

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

Transmit Power: Full - 100%

Frame-burst Support: Off [Boosts Downstream Throughput]

Fixed Multicast Rate: Auto Mbps

Legacy Rate Sets:

Rate (Mbps)	54	48	36	24	18	12	11	9	6	5.5	2	1
Supported	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Basic	☐	☐	☐	☐	☐	☐	☑	☐	☐	☑	☑	☑

☐ 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)

TSPEC Mode: Off

TSPEC Voice ACM Mode: Off

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

TSPEC Video ACM Mode: Off

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

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

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

TSPEC Legacy WMM Queue Map Mode: Off

VHT Features: ☐

Save