



## Configuring SSIDs

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This chapter describes how to configure a service set identifier (SSID) on the Cisco wireless mobile interface card.

### Understanding SSIDs

The SSID is a unique identifier that wireless networking devices use to establish and maintain wireless connectivity. Multiple bridges on a network or subnetwork can use the same SSID. SSIDs are case sensitive and can contain up to 32 alphanumeric characters. Do not include spaces in your SSID. The Cisco 3201 WMIC supports multiple SSIDs.

When you configure an SSID you assign these configuration settings to the SSID:

- VLAN
- RADIUS accounting for traffic using the SSID
- Encryption settings (2.4-GHz Cisco 3201 WMIC only)
- Authentication method



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**Note** For detailed information on client authentication types, see [Chapter 9, “Configuring Authentication Types.”](#)

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If you want the WMIC to allow associations from bridges that do not specify an SSID in their configurations, you can include the SSID in the beacon. The default SSID, *autoinstall*, is included in the beacon. However, to keep your network secure, you should remove the SSID from the beacon. You can assign an authentication username and password to the SSID to allow the WMIC to authenticate to your network using the Extensible Authentication Protocol (EAP) authentication method.

# Configuring the SSID

These sections contain configuration information for the SSID.

## Default SSID Configuration

Table 5-1 shows the default SSID configuration.

*Table 5-1 Default SSID Configuration*

Feature	Default Setting
SSID	<ul style="list-style-type: none"> <li>• autoinstall, if station role is install or if there are no saved configurations</li> <li>• tsunami, if station role is other than install</li> </ul>
Guest Mode SSID	autoinstall (The WMIC broadcasts this SSID in its beacon and allows bridges with no SSID to associate.)

## Creating an SSID

To create an SSID for a WMIC, follow these steps, beginning in privileged EXEC mode:

	Command	Purpose
Step 1	<b>configure terminal</b>	Enters global configuration mode.
Step 2	<b>dot11 ssid <i>ssid-string</i></b>	Creates an SSID and enter SSID configuration mode for the new SSID. The SSID can consist of up to 32 alphanumeric characters. SSIDs are case sensitive.  <b>Note</b> You can include spaces in an SSID, but do not add spaces at the end of the SSID.
Step 3	<b>accounting <i>list-name</i></b>	(Optional) Enables RADIUS accounting for this SSID. For <i>list-name</i> , specify the accounting method list. For more information on method lists, click this link: <a href="http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122cgcr/fsecur_c/fsaaa/scfacct.htm#xtocid2">http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122cgcr/fsecur_c/fsaaa/scfacct.htm#xtocid2</a>
Step 4	<b>vlan <i>vlanid-or-name</i></b>	(Optional) Assigns the SSID to a VLAN on your network using the VLAN ID or name. On your WMIC, you should assign the SSID to the native VLAN.
Step 5	<b>infrastructure-ssid</b>	Designates the SSID as the infrastructure SSID. It is used to instruct a non-root bridge or workgroup bridge radio to associate with this SSID.
Step 6	<b>end</b>	Returns to privileged EXEC mode.
Step 7	<b>copy running-config startup-config</b>	(Optional) Saves your entries in the configuration file.

Use the **no** form of the command to disable the SSID.

**Note**

Use the **ssid** authentication options to configure an authentication type for the SSID. See [Chapter 9, “Configuring Authentication Types,”](#) for instructions on configuring authentication types.

The following example shows how to

- Name an SSID
- Configure the SSID for RADIUS accounting
- Assign the SSID to the native VLAN
- Designate the SSID as the infrastructure SSID

```
bridge# configure terminal
bridge(config)# dot11r ssid bridgeman
bridge(config-ssid)# accounting accounting-method-list
bridge(config-ssid)# vlan 1
bridge(config-ssid)# infrastructure-ssid
bridge(config-ssid)# end
```

## Configuring Multiple Basic SSIDs

Access point 802.11b and 802.11g radios now support up to 8 basic SSIDs (BSSIDs), which are similar to MAC addresses. You use multiple BSSIDs to assign a unique Delivery Traffic Indication Message (DTIM) setting for each SSID and to broadcast more than one SSID in beacons. A large DTIM value increases battery life for power-save client devices that use an SSID; broadcasting multiple SSIDs makes your wireless LAN more accessible to guests.

**Note**

Devices on your wireless LAN that are configured to associate to a specific access point based on the access point MAC address (for example, client devices, hot standby units, or workgroup bridges) might lose their association when you add or delete a multiple BSSID. When you add or delete a multiple BSSID, check the association status of devices configured to associate to a specific access point. If necessary, reconfigure the disassociated device to use the new MAC address of the BSSID.

## Requirements for Configuring Multiple BSSIDs (2.4-GHz Cisco 3201 WMIC only)

To configure multiple BSSIDs, your access points must meet these minimum requirements:

- VLANs must be configured.
- Access points must run Cisco IOS Release 12.3(4)JA or later.
- Access points must contain an 802.11b or 802.11g radio that supports multiple BSSIDs. To determine whether a radio supports multiple basic SSIDs, enter the **show controllers radio\_interface** command. The radio supports multiple basic SSIDs if the results include this line:

```
Number of supported simultaneous BSSID on radio_interface: 8
```

## Guidelines for Using Multiple BSSIDs

Keep these guidelines in mind when configuring multiple BSSIDs:

- RADIUS-assigned VLANs are not supported when you enable multiple BSSIDs.
- When you enable BSSIDs, the access point automatically maps a BSSID to each SSID. You cannot manually map a BSSID to a specific SSID.
- When multiple BSSIDs are enabled on the access point, the Service Set Identification List information element (SSIDL IE) does not contain a list of SSIDs; it contains only extended capabilities.
- Any Wi-Fi certified client device can associate to an access point using multiple BSSIDs.
- You can enable multiple BSSIDs on access points that participate in WDS.

## CLI Configuration Example

This example shows the commands that you can use on the command-line interface (CLI) to enable multiple BSSIDs on a radio interface, create an SSID called *visitor*, designate the SSID as a BSSID, specify that the BSSID is included in beacons, set a DTIM period for the BSSID, and assign the SSID *visitor* to the radio interface.

Use the **dot11 mbssid** command in global configuration mode to simultaneously enable multiple BSSIDs on all radio interfaces that support multiple BSSIDs.

```
ap(config)# configure terminal
ap(config)# dot11 mbssid
ap(config)# dot11 ssid visitor
ap(config-ssid)# mbssid guest-mode dtim-period 75
ap(config-ssid)# exit
ap(config)# interface d0
ap(config-if)# ssid visitor
```

You can also use the **mbssid** command in configuration interface mode to enable multiple BSSIDs on an access point radio interface. This example shows how to enable multiple BSSIDs on a radio interface:

```
ap(config)# interface d0
ap(config-if)# mbssid
ap(config-if)# exit
```

## Displaying Configured BSSIDs

Use the **show dot11 bssid** command in privileged EXEC mode to display the relationship between SSIDs and BSSIDs or MAC addresses. This example shows the command output:

```
AP1230# show dot11 bssid
Interface      BSSID          Guest  SSID
Dot11Radio1   0011.2161.b7c0 Yes    atlantic
Dot11Radio0   0005.9a3e.7c0f Yes    WPA2-TLS-g
```