



VideoStream Commands

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show Commands

This section lists the **show** commands to display information about your VideoStream configuration settings.

show 802.11

To display basic 802.11a, 802.11b/g, or 802.11h network settings, use the **show 802.11** command.

show 802.11{a | b | h}

Syntax Description	a	Specifies the 802.11a network.
	b	Specifies the 802.11b/g network.
	h	Specifies the 802.11h network.
Command Default	None.	
Command History	Release	Modification
	8.3	This command was introduced.

This example shows to display basic 802.11a network settings:

```
> show 802.11a
802.11a Network..... Enabled
11nSupport..... Enabled
    802.11a Low Band..... Enabled
    802.11a Mid Band..... Enabled
    802.11a High Band..... Enabled
802.11a Operational Rates
    802.11a 6M Rate..... Mandatory
    802.11a 9M Rate..... Supported
    802.11a 12M Rate..... Mandatory
    802.11a 18M Rate..... Supported
    802.11a 24M Rate..... Mandatory
    802.11a 36M Rate..... Supported
    802.11a 48M Rate..... Supported
    802.11a 54M Rate..... Supported
802.11n MCS Settings:
    MCS 0..... Supported
    MCS 1..... Supported
    MCS 2..... Supported
    MCS 3..... Supported
    MCS 4..... Supported
    MCS 5..... Supported
    MCS 6..... Supported
    MCS 7..... Supported
    MCS 8..... Supported
    MCS 9..... Supported
    MCS 10..... Supported
    MCS 11..... Supported
    MCS 12..... Supported
    MCS 13..... Supported
```

```

MCS 14..... Supported
MCS 15..... Supported
802.11n Status:
A-MPDU Tx:
  Priority 0..... Enabled
  Priority 1..... Disabled
  Priority 2..... Disabled
  Priority 3..... Disabled
  Priority 4..... Disabled
  Priority 5..... Disabled
  Priority 6..... Disabled
  Priority 7..... Disabled
Beacon Interval..... 100
CF Pollable mandatory..... Disabled
CF Poll Request mandatory..... Disabled
--More-- or (q)uit
CFP Period..... 4
CFP Maximum Duration..... 60
Default Channel..... 36
Default Tx Power Level..... 0
DTPC Status..... Enabled
Fragmentation Threshold..... 2346
TI Threshold..... -50
Legacy Tx Beamforming setting..... Disabled
Traffic Stream Metrics Status..... Enabled
Expedited BW Request Status..... Disabled
World Mode..... Enabled
EDCA profile type..... default-wmm
Voice MAC optimization status..... Disabled
Call Admission Control (CAC) configuration
Voice AC:
  Voice AC - Admission control (ACM)..... Disabled
  Voice max RF bandwidth..... 75
  Voice reserved roaming bandwidth..... 6
  Voice load-based CAC mode..... Disabled
  Voice tspec inactivity timeout..... Disabled
  Voice Stream-Size..... 84000
  Voice Max-Streams..... 2
Video AC:
  Video AC - Admission control (ACM)..... Disabled
  Video max RF bandwidth..... Infinite
  Video reserved roaming bandwidth..... 0

```

This example shows how to display basic 802.11h network settings:

```

> show 802.11h
802.11h ..... powerconstraint : 0
802.11h ..... channelswitch : Disable
802.11h ..... channelswitch mode : 0

```

Related Commands

```

show ap stats
show ap summary
show client summary
show network
show network summary
show port

```

show wlan

show 802.11 media-stream

To display the multicast-direct configuration state, use the **show 802.11 media-stream** command.

show 802.11 { **a** | **b** | **h** } **media-stream** *media_stream_name*

Syntax Description		
a	Specifies the 802.11a network.	
b	Specifies the 802.11b/g network.	
h	Specifies the 802.11h network.	
<i>media_stream_name</i>	Specified media stream name.	

Command Default	None.
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Command History	Release	Modification
	7.6	This command was introduced in a release earlier than Release 7.6.

Command History	Release	Modification
	8.3	This command was introduced.

This example shows how to display the media-stream configuration:

```
> show 802.11a media-stream rrc
Multicast-direct..... Enabled
Best Effort..... Disabled
Video Re-Direct..... Enabled
Max Allowed Streams Per Radio..... Auto
Max Allowed Streams Per Client..... Auto
Max Video Bandwidth..... 0
Max Voice Bandwidth..... 75
Max Media Bandwidth..... 85
Min PHY Rate..... 6000
Max Retry Percentage..... 80
```

Related Commands **show media-stream group summary**

show media-stream client

To display the details for a specific media-stream client or a set of clients, use the **show media-stream client** command.

show media-stream client { *media-stream_name* | **summary** }

Syntax Description	<i>media-stream_name</i>	Name of the media-stream client of which the details is to be displayed.
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summary	Displays the details for a set of media-stream clients.
----------------	---

Command Default	None.
------------------------	-------

Command History	Release	Modification
	8.3	This command was introduced.

This example shows how to display a summary media-stream clients:

```
> show media-stream client summary
Number of Clients..... 1
Client Mac      Stream Name  Stream Type  Radio WLAN  QoS      Status
-----
00:1a:73:dd:b1:12  mountainview  MC-direct   2.4   2       Video  Admitted
```

Related Commands	show media-stream group summary
-------------------------	--

show media-stream group detail

To display the details for a specific media-stream group, use the **show media-stream group detail** command.

show media-stream group detail *media-stream_name*

Syntax Description	<i>media-stream_name</i>	Name of the media-stream group.
---------------------------	--------------------------	---------------------------------

Command Default	None.
------------------------	-------

Command History	Release	Modification
	8.3	This command was introduced.

This example shows how to display media-stream group configuration details:

```
> show media-stream group detail abc
Media Stream Name..... abc
Start IP Address..... 227.8.8.8
End IP Address..... 227.9.9.9
RRC Parameters
Avg Packet Size(Bytes)..... 1200
Expected Bandwidth(Kbps)..... 300
Policy..... Admit
RRC re-evaluation..... periodic
QoS..... Video
Status..... Multicast-direct
Usage Priority..... 5
Violation..... drop
```

Related Commands	show media-stream group summary
-------------------------	--

show media-stream group summary

To display the summary of the media stream and client information, use the **show media-stream group summary** command.

show media-stream group summary

Syntax Description This command has no arguments or keywords.

Command Default None

Command History	Release	Modification
	7.6	This command was introduced in a release earlier than Release 7.6.

Command History	Release	Modification
	8.3	This command was introduced.

This example shows how to display a summary of the media-stream group:

```
(Cisco Controller) > show media-stream group summary
Stream Name   Start IP      End IP        Operation Status
-----
abc           227.8.8.8    227.9.9.9    Multicast-direct
```

Related Commands

- show 802.11 media-stream client**
- show media-stream client**
- show media-stream group detail**

config Commands

This section lists the **config** commands to configure VideoStream settings on the controller.

config 802.11 cac video acm

To enable or disable video Call Admission Control (CAC) for the 802.11a or 802.11b/g network, use the **config 802.11 cac video acm** command.

config 802.11 {a | b} cac video acm {enable | disable}

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
enable	Enables video CAC settings.
disable	Disables video CAC settings.

Command Default

The default video CAC settings for the 802.11a or 802.11b/g network is disabled.

Usage Guidelines

CAC commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable wlan_id** command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable**, or **config 802.11 {a | b} cac video acm enable** commands.

Command History

Release	Modification
8.3	This command was introduced.

The following example shows how to enable the video CAC for the 802.11a network:

```
(Cisco Controller) > config 802.11 cac video acm enable
```

The following example shows how to disable the video CAC for the 802.11b network:

```
(Cisco Controller) > config 802.11 cac video acm disable
```

Related Commands

config 802.11 cac video max-bandwidth

config 802.11 cac video roam-bandwidth

config 802.11 cac video tspec-inactivity-timeout

config 802.11 cac video cac-method

To configure the Call Admission Control (CAC) method for video applications on the 802.11a or 802.11b/g network, use the **config 802.11 cac video cac-method** command.

config 802.11 {a | b} cac video cac-method {static | load-based }

Syntax Description		
a		Specifies the 802.11a network.
b		Specifies the 802.11b/g network.
static		Enables the static CAC method for video applications on the 802.11a or 802.11b/g network. Static or bandwidth-based CAC enables the client to specify how much bandwidth or shared medium time is required to accept a new video request and in turn enables the access point to determine whether it is capable of accommodating the request.
load-based		Enables the load-based CAC method for video applications on the 802.11a or 802.11b/g network. Load-based or dynamic CAC incorporates a measurement scheme that takes into account the bandwidth consumed by all traffic types from itself, from co-channel access points, and by collocated channel interference. Load-based CAC also covers the additional bandwidth consumption results from PHY and channel impairment. The access point admits a new call only if the channel has enough unused bandwidth to support that call. Load-based CAC is not supported if SIP-CAC is enabled.

Command Default Static.

Usage Guidelines CAC commands for video applications on the 802.11a or 802.11b/g network require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Gold.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable wlan_id** command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** command.

Video CAC consists of two parts: Unicast Video-CAC and MC2UC CAC. If you need only Unicast Video-CAC, you must configure only static mode. If you need only MC2UC CAC, you must configure Static or Load-based CAC. Load-based CAC is not supported if SIP-CAC is enabled.

Command History	Release	Modification
	8.3	This command was introduced.

This example shows how to enable the static CAC method for video applications on the 802.11a network:

```
(Cisco Controller) > config 802.11 cac video cac-method static
```

Related Commands
<code>show cac voice stats</code>
<code>show cac voice summary</code>
<code>show cac video stats</code>
<code>show cac video summary</code>
<code>config 802.11 cac video tspec-inactivity-timeout</code>
<code>config 802.11 cac video max-bandwidth</code>
<code>config 802.11 cac video acm</code>
<code>config 802.11 cac video sip</code>
<code>config 802.11 cac video roam-bandwidth</code>
<code>config 802.11 cac load-based</code>
<code>config 802.11 cac defaults</code>
<code>config 802.11 cac media-stream</code>
<code>config 802.11 cac multimedia</code>
<code>debug cac</code>

config 802.11 cac video load-based

To enable or disable load-based Call Admission Control (CAC) for video applications on the 802.11a or 802.11b/g network, use the **config 802.11 cac video load-based** command.

```
config 802.11 {a | b} cac video load-based {enable | disable}
```

Syntax Description	
a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.

enable	Enables load-based CAC for video applications on the 802.11a or 802.11b/g network. Load-based or dynamic CAC incorporates a measurement scheme that takes into account the bandwidth consumed by all traffic types from itself, from co-channel access points, and by collocated channel interference. Load-based CAC also covers the additional bandwidth consumption results from PHY and channel impairment. The access point admits a new call only if the channel has enough unused bandwidth to support that call.
disable	Disables load-based CAC method for video applications on the 802.11a or 802.11b/g network.

Command Default Disabled.

Usage Guidelines CAC commands for video applications on the 802.11a or 802.11b/g network require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Gold.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable wlan_id** command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config command**.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** command.

Video CAC consists of two parts: Unicast Video-CAC and MC2UC CAC. If you need only Unicast Video-CAC, you must configure only static mode. If you need only MC2UC CAC, you must configure Static or Load-based CAC. Load-based CAC is not supported if SIP-CAC is enabled.



Note Load-based CAC is not supported if SIP-CAC is enabled.

Command History

Release	Modification
8.3	This command was introduced.

This example shows how to enable load-based CAC method for video applications on the 802.11a network:

```
(Cisco Controller) > config 802.11 cac video load-based enable
```

Related Commands

show cac voice stats
show cac voice summary
show cac video stats

```

show cac video summary
config 802.11 cac video tspec-inactivity-timeout
config 802.11 cac video max-bandwidth
config 802.11 cac video acm
config 802.11 cac video sip
config 802.11 cac video roam-bandwidth
config 802.11 cac load-based
config 802.11 cac defaults
config 802.11 cac media-stream
config 802.11 cac multimedia
config 802.11 cac video cac-method
debug cac

```

config 802.11 cac video max-bandwidth

To set the percentage of the maximum bandwidth allocated to clients for video applications on the 802.11a or 802.11b/g network, use the **config 802.11 cac video max-bandwidth** command.

```
config 802.11 { a | b } cac video max-bandwidth bandwidth
```

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
<i>bandwidth</i>	Bandwidth percentage value from 5 to 85%.

Command Default

The default maximum bandwidth allocated to clients for video applications on the 802.11a or 802.11b/g network is 0%.

Usage Guidelines

The maximum radio frequency (RF) bandwidth cannot exceed 85% for voice and video. Once the client reaches the value specified, the access point rejects new calls on this network.



Note If this parameter is set to zero (0), the controller assumes that you do not want to allocate any bandwidth and allows all bandwidth requests.

Call Admission Control (CAC) commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable** *wlan_id* command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.

- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable**, or **config 802.11 {a | b} cac video acm enable** commands.

Command History	Release	Modification
	8.3	This command was introduced.

The following example shows how to specify the percentage of the maximum allocated bandwidth for video applications on the selected radio band:

```
(Cisco Contoller) > config 802.11 cac video max-bandwidth 50
```

Related Commands
config 802.11 cac video acm
config 802.11 cac video roam-bandwidth
config 802.11 cac voice stream-size
config 802.11 cac voice roam-bandwidth

config 802.11 cac media-stream

To configure media stream Call Admission Control (CAC) voice and video quality parameters for 802.11a and 802.11b networks, use the **config 802.11 cac media-stream** command.

config 802.11 {a | b} cac media-stream multicast-direct {max-retry-percent *retry-percentage* | min-client-rate *dot11-rate*}

Syntax Description		
a		Specifies the 802.11a network.
b		Specifies the 802.11b/g network.
multicast-direct		Configures CAC parameters for multicast-direct media streams.
max-retry-percent		Configures the percentage of maximum retries that are allowed for multicast-direct media streams.
<i>retry-percentage</i>		Percentage of maximum retries that are allowed for multicast-direct media streams.
min-client-rate		Configures the minimum transmission data rate to the client for multicast-direct media streams.
<i>dot11-rate</i>		Minimum transmission data rate to the client for multicast-direct media streams. Rate in kbps at which the client can operate. If the transmission data rate is below this rate, either the video will not start or the client may be classified as a bad client. The bad client video can be demoted for better effort QoS or subject to denial. The available data rates are 6000, 9000, 12000, 18000, 24000, 36000, 48000, 54000, and 11n rates.

Command Default

The default value for the maximum retry percent is 80. If it exceeds 80, either the video will not start or the client might be classified as a bad client. The bad client video will be demoted for better effort QoS or is subject to denial.

Usage Guidelines

CAC commands for video applications on the 802.11a or 802.11b/g network require that the WLAN you are planning to modify is configured for Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Gold.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable wlan_id** command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** command.

Command History

Release	Modification
8.3	This command was introduced.

The following example shows how to configure the maximum retry percent for multicast-direct media streams as 90 on a 802.11a network:

```
(Cisco Controller) > config 802.11 cac media-stream multicast-direct max-retry-percent 90
```

Related Commands

show cac voice stats
show cac voice summary
show cac video stats
show cac video summary
config 802.11 cac video tspec-inactivity-timeout
config 802.11 cac video max-bandwidth
config 802.11 cac video acm
config 802.11 cac video sip
config 802.11 cac video roam-bandwidth
config 802.11 cac load-based
config 802.11 cac defaults
config 802.11 cac multimedia
debug cac

config 802.11 cac multimedia

To configure the CAC media voice and video quality parameters for 802.11a and 802.11b networks, use the **config 802.11 cac multimedia** command.

config 802.11 {a | b} cac multimedia max-bandwidth *bandwidth*

Syntax	Description
a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
max-bandwidth	Configures the percentage of maximum bandwidth allocated to Wi-Fi Multimedia (WMM) clients for voice and video applications on the 802.11a or 802.11b/g network.
<i>bandwidth</i>	Percentage of the maximum bandwidth allocated to WMM clients for voice and video applications on the 802.11a or 802.11b/g network. Once the client reaches the specified value, the access point rejects new calls on this radio band. The range is from 5 to 85%.

Command Default The default maximum bandwidth allocated to Wi-Fi Multimedia (WMM) clients for voice and video applications on the 802.11a or 802.11b/g network is 85%.

Usage Guidelines Call Admission Control (CAC) commands for video applications on the 802.11a or 802.11b/g network require that the WLAN you are planning to modify is configured for Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Gold.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable *wlan_id*** command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** command.

Command History	Release	Modification
	8.3	This command was introduced.

The following example shows how to configure the percentage of the maximum bandwidth allocated to WMM clients for voice and video applications on the 802.11a network:

```
(Cisco Controller) > config 802.11 cac multimedia max-bandwidth 80
```

Related Commands **show cac voice stats**

```

show cac voice summary
show cac video stats
show cac video summary
config 802.11 cac video tspec-inactivity-timeout
config 802.11 cac video max-bandwidth
config 802.11 cac video acm
config 802.11 cac video sip
config 802.11 cac video roam-bandwidth
config 802.11 cac load-based
config 802.11 cac defaults
debug cac

```

config 802.11 cac video roam-bandwidth

To configure the percentage of the maximum allocated bandwidth reserved for roaming video clients on the 802.11a or 802.11b/g network, use the **config 802.11 cac video roam-bandwidth** command.

```
config 802.11 { a | b } cac video roam-bandwidth bandwidth
```

Syntax Description	a	Specifies the 802.11a network.
	b	Specifies the 802.11b/g network.
	<i>bandwidth</i>	Bandwidth percentage value from 5 to 85%.
Command Default	The maximum allocated bandwidth reserved for roaming video clients on the 802.11a or 802.11b/g network is 0%.	
Command History	Release	Modification
	7.6	This command was introduced in a release earlier than Release 7.6.
Command History	Release	Modification
	8.3	This command was introduced.
Usage Guidelines	The controller reserves the specified bandwidth from the maximum allocated bandwidth for roaming video clients.	



Note If this parameter is set to zero (0), the controller assumes that you do not want to do any bandwidth allocation and, therefore, allows all bandwidth requests.

CAC commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable** *wlan_id* command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** command.

For complete instructions, see the “Configuring Voice and Video Parameters” section in the “Configuring Controller Settings” chapter of the *Cisco Wireless LAN Controller Configuration Guide* for your release.

The following example shows how to specify the percentage of the maximum allocated bandwidth reserved for roaming video clients on the selected radio band:

```
(Cisco Controller) > config 802.11 cac video roam-bandwidth 10
```

Related Commands

config 802.11 cac video tspec-inactivity-timeout

config 802.11 cac video max-bandwidth

config 802.11 cac video acm

config 802.11 cac video cac-method

config 802.11 cac video sip

config 802.11 cac video load-based

config 802.11 cac video tspec-inactivity-timeout

To process or ignore the Call Admission Control (CAC) Wi-Fi Multimedia (WMM) traffic specifications (TSPEC) inactivity timeout received from an access point, use the **config 802.11 cac video tspec-inactivity-timeout** command.

```
config 802.11 {a | b} cac video tspec-inactivity-timeout {enable | ignore}
```

Syntax Description

a	Specifies the 802.11a network.
ab	Specifies the 802.11b/g network.
enable	Processes the TSPEC inactivity timeout messages.
ignore	Ignores the TSPEC inactivity timeout messages.

Command Default

The default CAC WMM TSPEC inactivity timeout received from an access point is disabled (ignore).

Command History	Release	Modification
	8.3	This command was introduced.

Usage Guidelines CAC commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable** *wlan_id* command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** commands.

This example shows how to process the response to TSPEC inactivity timeout messages received from an access point:

```
(Cisco Controller) > config 802.11a cac video tspec-inactivity-timeout enable
```

This example shows how to ignore the response to TSPEC inactivity timeout messages received from an access point:

```
(Cisco Controller) > config 802.11a cac video tspec-inactivity-timeout ignore
```

Related Commands

- config 802.11 cac video acm**
- config 802.11 cac video max-bandwidth**
- config 802.11 cac video roam-bandwidth**

config 802.11 cac voice acm

To enable or disable bandwidth-based voice Call Admission Control (CAC) for the 802.11a or 802.11b/g network, use the **config 802.11 cac voice acm** command.

```
config 802.11 {a | b} cac voice acm {enable | disable}
```

Syntax Description		
	a	Specifies the 802.11a network.
	b	Specifies the 802.11b/g network.
	enable	Enables the bandwidth-based CAC.
	disable	Disables the bandwidth-based CAC.

Command Default The default bandwidth-based voice CAC for the 802.11a or 802.11b/g network id disabled.

Command History	Release	Modification
	8.3	This command was introduced.

Usage Guidelines CAC commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable wlan_id** command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** commands.

This example shows how to enable the bandwidth-based CAC:

```
(Cisco Controller) > config 802.11c cac voice acm enable
```

This example shows how to disable the bandwidth-based CAC:

```
(Cisco Controller) > config 802.11b cac voice acm disable
```

Related Commands [config 802.11 cac video acm](#)

config 802.11 cac voice max-bandwidth

To set the percentage of the maximum bandwidth allocated to clients for voice applications on the 802.11a or 802.11b/g network, use the **config 802.11 cac voice max-bandwidth** command.

```
config 802.11 {a | b} cac voice max-bandwidth bandwidth
```

Syntax Description		
	a	Specifies the 802.11a network.
	b	Specifies the 802.11b/g network.
	<i>bandwidth</i>	Bandwidth percentage value from 5 to 85%.

Command Default The default maximum bandwidth allocated to clients for voice applications on the 802.11a or 802.11b/g network is 0%.

Usage Guidelines The maximum radio frequency (RF) bandwidth cannot exceed 85% for voice and video. Once the client reaches the value specified, the access point rejects new calls on this network.

CAC commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable** *wlan_id* command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** commands.

Command History	Release	Modification
	8.3	This command was introduced.

The following example shows how to specify the percentage of the maximum allocated bandwidth for voice applications on the selected radio band:

```
(Cisco Controller) > config 802.11a cac voice max-bandwidth 50
```

Related Commands
config 802.11 cac voice roam-bandwidth
config 802.11 cac voice stream-size
config 802.11 exp-bwreq
config 802.11 tsm
config wlan save
show wlan
show wlan summary
config 802.11 cac voice tspec-inactivity-timeout
config 802.11 cac voice load-based
config 802.11 cac video acm

config 802.11 cac voice roam-bandwidth

To configure the percentage of the Call Admission Control (CAC) maximum allocated bandwidth reserved for roaming voice clients on the 802.11a or 802.11b/g network, use the **config 802.11 cac voice roam-bandwidth** command.

```
config 802.11 {a | b} cac voice roam-bandwidth bandwidth
```

Syntax Description		
	a	Specifies the 802.11a network.
	b	Specifies the 802.11b/g network.
	<i>bandwidth</i>	Bandwidth percentage value from 0 to 85%.

Command Default	
	The default CAC maximum allocated bandwidth reserved for roaming voice clients on the 802.11a or 802.11b/g network is 85%.

Usage Guidelines

The maximum radio frequency (RF) bandwidth cannot exceed 85% for voice and video. The controller reserves the specified bandwidth from the maximum allocated bandwidth for roaming voice clients.



Note If this parameter is set to zero (0), the controller assumes you do not want to allocate any bandwidth and therefore allows all bandwidth requests.

CAC commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable wlan_id** command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** commands.

Command History

Release	Modification
8.3	This command was introduced.

The following example shows how to configure the percentage of the maximum allocated bandwidth reserved for roaming voice clients on the selected radio band:

```
(Cisco Controller) > config 802.11 cac voice roam-bandwidth 10
```

Related Commands

config 802.11 cac voice acm
config 802.11 cac voice max-bandwidth
config 802.11 cac voice stream-size

config 802.11 cac voice tspec-inactivity-timeout

To process or ignore the Wi-Fi Multimedia (WMM) traffic specifications (TSPEC) inactivity timeout received from an access point, use the **config 802.11 cac voice tspec-inactivity-timeout** command.

```
config 802.11 {a | b} cac voice tspec-inactivity-timeout {enable | ignore}
```

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
enable	Processes the TSPEC inactivity timeout messages.
ignore	Ignores the TSPEC inactivity timeout messages.

Command Default

The default WMM TSPEC inactivity timeout received from an access point is disabled (ignore).

Usage Guidelines

Call Admission Control (CAC) commands require that the WLAN you are planning to modify is configured for Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable** *wlan_id* command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** commands.

Command History

Release	Modification
8.3	This command was introduced.

The following example shows how to enable the voice TSPEC inactivity timeout messages received from an access point:

```
(Cisco Controller) > config 802.11 cac voice tspec-inactivity-timeout enable
```

Related Commands

config 802.11 cac voice load-based
config 802.11 cac voice roam-bandwidth
config 802.11 cac voice acm
config 802.11 cac voice max-bandwidth
config 802.11 cac voice stream-size

config 802.11 cac voice load-based

To enable or disable load-based Call Admission Control (CAC) for the 802.11a or 802.11b/g network, use the **config 802.11 cac voice load-based** command.

```
config 802.11 {a | b} cac voice load-based {enable | disable}
```

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
enable	Enables load-based CAC.
disable	Disables load-based CAC.

Command Default

The default load-based CAC for the 802.11a or 802.11b/g network is disabled.

Usage Guidelines

CAC commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable wlan_id command**.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network command**.
- Save the new configuration by entering the **save config command**.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** commands.

Command History

Release	Modification
8.3	This command was introduced.

The following example shows how to enable the voice load-based CAC parameters:

```
(Cisco Controller) > config 802.11a cac voice load-based enable
```

The following example shows how to disable the voice load-based CAC parameters:

```
(Cisco Controller) > config 802.11a cac voice load-based disable
```

Related Commands

config 802.11 cac voice tspec-inactivity-timeout
config 802.11 cac video max-bandwidth
config 802.11 cac video acm
config 802.11 cac voice stream-size

config 802.11 cac voice max-calls



Note Do not use the **config 802.11 cac voice max-calls** command if the SIP call snooping feature is disabled and if the SIP based Call Admission Control (CAC) requirements are not met.

To configure the maximum number of voice call supported by the radio, use the **config 802.11 cac voice max-calls** command.

```
config 802.11 {a | b} cac voice max-calls number
```

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.

<i>number</i>	Number of calls to be allowed per radio.
---------------	--

Command Default

The default maximum number of voice call supported by the radio is 0, which means that there is no maximum limit check for the number of calls.

Usage Guidelines

CAC commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable** *wlan_id* command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable network** command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** commands.

Command History

Release	Modification
8.3	This command was introduced.

The following example shows how to configure the maximum number of voice calls supported by radio:

```
(Cisco Controller) > config 802.11 cac voice max-calls 10
```

Related Commands

config 802.11 cac voice roam-bandwidth
config 802.11 cac voice stream-size
config 802.11 exp-bwreq
config 802.11 cac voice tspec-inactivity-timeout
config 802.11 cac voice load-based
config 802.11 cac video acm

config 802.11 cac voice stream-size

To configure the number of aggregated voice Wi-Fi Multimedia (WMM) traffic specification (TSPEC) streams at a specified data rate for the 802.11a or 802.11b/g network, use the **config 802.11 cac voice stream-size** command.

```
config 802.11 {a | b} cac voice stream-size stream_size number mean_datarate max-streams mean_datarate
```

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.

stream-size	Configures the maximum data rate for the stream.
<i>stream_size</i>	Range of stream size is between 84000 and 92100.
<i>number</i>	Number (1 to 5) of voice streams.
mean_datarate	Configures the mean data rate.
max-streams	Configures the mean data rate of a voice stream.
<i>mean_datarate</i>	Mean data rate (84 to 91.2 kbps) of a voice stream.

Command Default

The default number of streams is 2 and the mean data rate of a stream is 84 kbps.

Usage Guidelines

Call Admission Control (CAC) commands require that the WLAN you are planning to modify is configured for the Wi-Fi Multimedia (WMM) protocol and the quality of service (QoS) level be set to Platinum.

Before you can configure CAC parameters on a network, you must complete the following prerequisites:

- Disable all WLANs with WMM enabled by entering the **config wlan disable wlan_id** command.
- Disable the radio network you want to configure by entering the **config 802.11 {a | b} disable** network command.
- Save the new configuration by entering the **save config** command.
- Enable voice or video CAC for the network you want to configure by entering the **config 802.11 {a | b} cac voice acm enable** or **config 802.11 {a | b} cac video acm enable** commands.

Command History

Release	Modification
8.3	This command was introduced.

The following example shows how to configure the number of aggregated voice traffic specifications stream with the stream size 5 and the mean data rate of 85000 kbps:

```
(Cisco Controller) > config 802.11 cac voice stream-size 5 max-streams size 85
```

Related Commands

config 802.11 cac voice acm
config 802.11 cac voice load-based
config 802.11 cac voice max-bandwidth
config 802.11 cac voice roam-bandwidth
config 802.11 cac voice tspec-inactivity-timeout
config 802.11 exp-bwreq

config advanced 802.11 edca-parameters

To enable a specific Enhanced Distributed Channel Access (EDCA) profile on a 802.11a network, use the **config advanced 802.11 edca-parameters** command.


```

config advanced 802.11 { a | b } edca-parameters { wmm-default | svp-voice | optimized-voice |
optimized-video-voice | custom-voice | | custom-set { QoS Profile Name } { aifs AP-value
(0-16 ) Client value (0-16) | ecwmax AP-Value (0-10) Client value (0-10) | ecwmin AP-Value (0-10)
Client value (0-10) | txop AP-Value (0-255) Client value (0-255) } }

```

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
wmm-default	Enables the Wi-Fi Multimedia (WMM) default parameters. Choose this option if voice or video services are not deployed on your network.
svp-voice	Enables Spectralink voice-priority parameters. Choose this option if Spectralink phones are deployed on your network to improve the quality of calls.
optimized-voice	Enables EDCA voice-optimized profile parameters. Choose this option if voice services other than Spectralink are deployed on your network.
optimized-video-voice	Enables EDCA voice-optimized and video-optimized profile parameters. Choose this option when both voice and video services are deployed on your network. Note If you deploy video services, admission control must be disabled.
custom-voice	Enables custom voice EDCA parameters for 802.11a. The EDCA parameters under this option also match the 6.0 WMM EDCA parameters when this profile is applied.

custom-set	<p>Enables customization of EDCA parameters</p> <ul style="list-style-type: none"> • aifs—Configures the Arbitration Inter-Frame Space. AP Value (0-16) Client value (0-16) • ecwmax—Configures the maximum Contention Window. AP Value(0-10) Client Value (0-10) • ecwmin—Configures the minimum Contention Window. AP Value(0-10) Client Value(0-10) • txop—Configures the Arbitration Transmission Opportunity Limit. AP Value(0-255) Client Value(0-255) <p>QoS Profile Name - Enter the QoS profile name:</p> <ul style="list-style-type: none"> • bronze • silver • gold • platinum
-------------------	---

Command Default The default EDCA parameter is **wmm-default**.

Command History	Release	Modification
	8.3	This command was introduced.

Examples

The following example shows how to enable Spectralink voice-priority parameters:

```
(Cisco Controller) > config advanced 802.11 edca-parameters svp-voice
```

Related Commands

config advanced 802.11b edca-parameters	Enables a specific Enhanced Distributed Channel Access (EDCA) profile on the 802.11a network.
show 802.11a	Displays basic 802.11a network settings.

Related Topics

- [config advanced 802.11 coverage fail-rate](#)
- [config advanced 802.11 channel update](#)

config 802.11 media-stream multicast-direct

To configure the media stream multicast-direct parameters for the 802.11 networks, use the **config 802.11 media-stream multicast-direct** command.

```
config 802.11 { a | b } media-stream multicast-direct { admission-besteffort { enable | disable } |
{ client-maximum | radio-maximum } { value | no-limit } | enable | disable }
```

Syntax Description		
802.11a		Specifies the 802.11a network.
802.11b		Specifies the 802.11b/g network.
admission-besteffort		Admits media stream to best-effort queue.
enable		Enables multicast-direct on a 2.4-GHz or a 5-GHz band.
disable		Disables multicast-direct on a 2.4-GHz or a 5-GHz band.
client-maximum		Specifies the maximum number of streams allowed on a client.
radio-maximum		Specifies the maximum number of streams allowed on a 2.4-GHz or a 5-GHz band.
<i>value</i>		Number of streams allowed on a client or on a 2.4-GHz or a 5-GHz band, between 1 to 20.
no-limit		Specifies the unlimited number of streams allowed on a client or on a 2.4-GHz or a 5-GHz band.

Command Default	
	None

Command History	Release	Modification
	7.6	This command was introduced in a release earlier than Release 7.6.

Command History	Release	Modification
	8.3	This command was introduced.

Usage Guidelines Before you configure the media stream multicast-direct parameters on a 802.11 network, ensure that the network is nonoperational.

This example shows how to enable a media stream multicast-direct settings on an 802.11a network:

```
> config 802.11a media-stream multicast-direct enable
```

This example shows how to admit the media stream to the best-effort queue:

```
> config 802.11a media-stream multicast-direct admission-besteffort enable
```

This example shows how to set the maximum number of streams allowed on a client:

```
> config 802.11a media-stream multicast-direct client-maximum 10
```

Related Commands

- config 802.11 media-stream video-redirect
- show 802.11a media-stream name
- show media-stream group summary
- show media-stream group detail

config 802.11 media-stream video-redirect

To configure the media stream video-redirect for the 802.11 networks, use the **config 802.11 media-stream video-redirect** command.

```
config 802.11 { a | b } media-stream video-redirect { enable | disable }
```

Syntax Description	802.11a	Specifies the 802.11a network.
	802.11b	Specifies the 802.11b/g network.
	enable	Enables traffic redirection.
	disable	Disables traffic redirection.

Command Default None.

Command History	Release	Modification
	8.3	This command was introduced.

Usage Guidelines Before you configure the media stream video-redirect on a 802.11 network, ensure that the network is nonoperational.

This example shows how to enable media stream traffic redirection on an 802.11a network:

```
> config 802.11a media-stream video-redirect enable
```

Related Commands

- config 802.11 media-stream multicast-redirect
- show 802.11a media-stream name
- show media-stream group summary
- show media-stream group detail

config media-stream multicast-direct

To configure the media-stream multicast direct, use the **config media-stream multicast direct** command.

```
config media-stream multicast-direct {enable | disable}
```

Syntax Description	enable	Enables a media stream.
	disable	Disables a media stream.
Command Default	None.	
Command History	Release	Modification
	8.3	This command was introduced.
Usage Guidelines	Media-stream multicast-direct requires load based Call Admission Control (CAC) to run.	
	This example shows how to enable media-stream multicast-direct settings:	
	<pre>> config media-stream multicast-direct enable</pre>	
	This example shows how to disable media-stream multicast-direct settings:	
	<pre>> config media-stream multicast-direct disable</pre>	
Related Commands	config 802.11 media-stream video-redirect	
	show 802.11a media-stream name	
	show media-stream group summary	
	show media-stream group detail	

config media-stream message

To configure various parameters of message configuration, use the **config media-stream message** command.

```
config media-stream message {state [enable | disable] | url url | email email | phone
phone_number | note note}
```

Syntax Description	state	Specifies the media stream message state.
	enable	(Optional) Enables the session announcement message state.
	disable	(Optional) Disables the session announcement message state.
	url	Configures the URL.
	<i>url</i>	Session announcement URL.
	email	Configures the email ID.
	<i>email</i>	Specifies the session announcement e-mail.

phone	Configures the phone number.
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<i>phone_number</i>	Session announcement phone number.
---------------------	------------------------------------

note	Configures the notes.
-------------	-----------------------

<i>note</i>	Session announcement notes.
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Command Default	Disabled.
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Command History	Release	Modification
	8.3	This command was introduced.

Usage Guidelines	Media-stream multicast-direct requires load-based Call Admission Control (CAC) to run.
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This example shows how to enable the session announcement message state:

```
> config media-stream message state enable
```

This example shows how to configure the session announcement e-mail address:

```
> config media-stream message mail abc@co.com
```

Related Commands	config media-stream
	show 802.11a media-stream name
	show media-stream group summary
	show media-stream group detail

config media-stream add

To configure the various global media-stream configurations, use the **config media-stream add** command.

```
config media-stream add multicast-direct media_stream_name start-IP end-IP [template { very coarse | coarse | ordinary | low-resolution | med-resolution | high-resolution } | detail { bandwidth | packet-size { periodic | initial } } ] qos priority { drop | fallback }
```

Syntax Description	
multicast-direct	Specifies the media stream for the multicast-direct setting.
<i>media_stream_name</i>	Media-stream name.
<i>start-IP</i>	IP multicast destination start address.
<i>end-IP</i>	IP multicast destination end address.
template	(Optional) Configures the media stream from templates.
very coarse	Applies a very-coarse template.

coarse	Applies a coarse template.
ordinary	Applies an ordinary template.
low-resolution	Applies a low-resolution template.
med-resolution	Applies a medium-resolution template.
high-resolution	Applies a high-resolution template.
detail	Configures the media stream with specific parameters.
<i>bandwidth</i>	Maximum expected stream bandwidth.
<i>packet-size</i>	Average packet size.
periodic	Specifies the periodic admission evaluation.
initial	Specifies the Initial admission evaluation.
<i>qos</i>	AIR QoS class (video only).
<i>priority</i>	Media-stream priority.
drop	Specifies that the stream is dropped on a periodic reevaluation.
fallback	Specifies if the stream is demoted to the best-effort class on a periodic reevaluation.

Command Default None

Command History	Release	Modification
	7.6	This command was introduced in a release earlier than Release 7.6.

Command History	Release	Modification
	8.3	This command was introduced.

Usage Guidelines Media-stream multicast-direct requires load-based Call Admission Control (CAC) to run.

This example shows how to configure a new media stream:

```
> config media-stream add multicast-direct abc 227.8.8.8 227.9.9.9 detail 2 150 periodic
video 1 drop
```

Related Commands

- show 802.11a media-stream name
- show media-stream group summary
- show media-stream group detail

config media-stream admit

To allow traffic for a media stream group, use the **config media-stream admit** command.

config media-stream admit *media_stream_name*

Syntax Description	<i>media_stream_name</i>	Media-stream group name.
Command Default	None	
Command History	Release	Modification
	7.6	This command was introduced in a release earlier than Release 7.6.
Command History	Release	Modification
	8.3	This command was introduced.
Usage Guidelines	When you try to allow traffic for the media stream group, you will be prompted that IGMP snooping will be disabled and enabled again, and all clients might observe a glitch on the multicast traffic.	

This example shows how to allow traffic for a media stream group:

```
(Cisco Controller) > config media-stream admit MymediaStream
```

Related Commands	show 802.11a media-stream name
	show media-stream group summary
	show media-stream group detail

config media-stream deny

To block traffic for a media stream group, use the **config media-stream deny** command.

Syntax Description	<i>media_stream_name</i>	Media-stream group name.
	config media-stream deny <i>media_stream_name</i>	
Command Default	None	
Command History	Release	Modification
	7.6	This command was introduced in a release earlier than Release 7.6.

Command History	Release	Modification
	8.3	This command was introduced.

Usage Guidelines When you try to block traffic for the media stream group, you will be prompted that IGMP snooping will be disabled and enabled again, and all clients might observe a glitch on the multicast traffic.

This example shows how to block traffic for a media stream group:

```
(Cisco Controller) > config media-stream deny MymediaStream
```

Related Commands

- show 802.11a media-stream name
- show media-stream group summary
- show media-stream group detail

config media-stream delete

To configure the various global media-stream configurations, use the **config media-stream delete** command.

config media-stream delete *media_stream_name*

Syntax Description	<i>media_stream_name</i>	Media-stream name.
--------------------	--------------------------	--------------------

Command Default None

Command History	Release	Modification
	7.6	This command was introduced in a release earlier than Release 7.6.

Command History	Release	Modification
	8.3	This command was introduced.

Usage Guidelines Media-stream multicast-direct requires load-based Call Admission Control (CAC) to run.

This example shows how to delete the media stream named abc:

```
(Cisco Controller) > config media-stream delete abc
```

Related Commands

- show 802.11a media-stream name
- show media-stream group summary
- show media-stream group detail

config wlan media-stream

To configure multicast-direct for a wireless LAN media stream, use the **config wlan media-stream** command.

config wlan media-stream multicast-direct {*wlan_id* | **all**} {**enable** | **disable**}

Syntax Description

multicast-direct	Configures multicast-direct for a wireless LAN media stream.
<i>wlan_id</i>	Wireless LAN identifier between 1 and 512.
all	Configures the wireless LAN on all media streams.
enable	Enables global multicast to unicast conversion.
disable	Disables global multicast to unicast conversion.

Command Default

None

Command History

Release	Modification
8.3	This command was introduced.

Usage Guidelines

Media stream multicast-direct requires load based Call Admission Control (CAC) to run. WLAN quality of service (QoS) needs to be set to either gold or platinum.

The following example shows how to enable the global multicast-direct media stream with WLAN ID 2:

```
(Cisco Controller) >config wlan media-stream multicast-direct 2 enable
```