Show Commands: 802.11

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.

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

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.

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 cleanair

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

show 802.11{**a** | **b** | **h**} **cleanair config**

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
h	Specifies the 802.11h network.
config	Displays the network Cleanair configuration.

Command Default

None

Command History

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

The following example shows how to display the 802.11a cleanair configuration:

```
(Cisco Controller) > show 802.11a cleanair
Clean Air Solution..............................  Enabled
Air Quality Settings:
    Air Quality Reporting.......................  Enabled
    Air Quality Reporting Period (min)..........  15
    Air Quality Alarms..........................  Enabled
    Air Quality Alarm Threshold.................  35 Interference Device
 Settings:
    Interference Device Reporting...............  Enabled
    Interference Device Types:
        TDD Transmitter.........................  Disabled
        Jammer..................................  Disabled
        Continuous Transmitter..................  Disabled
        DECT-like Phone.........................  Disabled
        Video Camera............................  Disabled
        WiFi Inverted...........................  Disabled
        WiFi Invalid Channel....................  Disabled
        SuperAG.................................  Disabled
        Radar...................................  Disabled
        Canopy..................................  Disabled
        WiMax Mobile............................  Disabled
        WiMax Fixed.............................  Disabled
Interference Device Alarms...................  Enabled
    Interference Device Types Triggering Alarms:
        TDD Transmitter.........................  Disabled
        Jammer..................................  Disabled
```

```
        Continuous Transmitter.................. Disabled
        DECT-like Phone......................... Disabled
        Video Camera............................ Disabled
        WiFi Inverted........................... Disabled
        WiFi Invalid Channel.................... Disabled
        SuperAG................................. Disabled
        Radar................................... Disabled
        Canopy.................................. Disabled
        WiMax Mobile............................ Disabled
        WiMax Fixed............................. Disabled Additional
Clean Air Settings:
    CleanAir Event-driven RRM State.............. Enabled
    CleanAir Driven RRM Sensitivity.............. Medium
    CleanAir Persistent Devices state............ Disabled
```

show 802.11 cleanair air-quality summary

To display the air quality summary information for the 802.11 networks, use the **show 802.11 cleanair air-quality summary** command.

show 802.11 {**a** | **b** | **h**} **cleanair air-quality summary**

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
h	Specifies the 802.11h network.
summary	Displays a summary of 802.11 radio band air quality information.

Command Default

None

Command History

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

The following example shows how to display a summary of the air quality information for the 802.11a network:

```
(Cisco Controller) > show 802.11a cleanair air-quality summary
AQ = Air Quality
DFS = Dynamic Frequency Selection
AP Name            Channel  Avg AQ  Min AQ  Interferers  DFS
------------------ -------  ------  ------  -----------  ---
CISCO_AP3500       36   95  70   0
CISCO_AP3500     40   93  75   0
```

show 802.11 cleanair air-quality worst

To display the worst air quality information for the 802.11 networks, use the **show 802.11 cleanair air-quality worst** command.

show 802.11{**a** | **b** | **h**} **cleanair air-quality worst**

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
h	Specifies the 802.11h network.
worst	Displays the worst air quality information for 802.11 networks.

Command Default

None

Command History

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

The following example shows how to display worst air quality information for the 802.11a network:

```
(Cisco Controller) > show 802.11 cleanair air-quality worst
AQ = Air Quality
DFS = Dynamic Frequency Selection
AP Name            Channel  Avg AQ  Min AQ  Interferers  DFS
------------------ -------  ------  ------  -----------  ---
CISCO_AP3500       1   83  57   3   5
```

show 802.11 cleanair device ap

To display the information of the device access point on the 802.11 radio band, use the **show 802.11 cleanair device ap** command.

show 802.11 {**a** | **b** | **h**} **cleanair device ap** *cisco_ap*

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
h	Specifies the 802.11h network.
cisco_ap	Specified access point name.

Command Default

None

Command History

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

The following example shows how to display the device access point for the 802.11a network:

```
(Cisco Controller) > show 802.11a cleanair device ap AP_3500
DC = Duty Cycle (%)
ISI = Interference Severity Index (1-Low Interference, 100-High
Interference)
RSSI  = Received Signal Strength Index (dBm)
DevID = Device ID
No  ClusterID          DevID  Type             AP Name             ISI
RSSI   DC   Channel
--- ------------------ ------ ---------- --------------- ---- ----- ----
 -------------
1   c2:f7:40:00:00:03  0x8001 DECT phone  CISCO_AP3500  1    -43     3
    149,153,157,161
2   c2:f7:40:00:00:51  0x8002 Radar       CISCO_AP3500  1    -81     2
  153,157,161,165
3   c2:f7:40:00:00:03  0x8005 Canopy      CISCO_AP3500  2    -62     2
   153,157,161,165
```

show 802.11 cleanair device type

To display the information of all the interferers device type detected by a specific access point on the 802.11 radio band, use the **show 802.11 cleanair device type** command.

show 802.11{**a** | **b** | **h**} **cleanair device type** *device_type*

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
h	Specifies the 802.11h network.
device_type	Interferer device type for a specified radio band. The device type is one of the following: • tdd-tx—Tdd-transmitter device information. • jammer—Jammer device information. • cont-tx—Continuous-transmitter devices information. • dect-like—Dect-like phone devices information. • video—Video devices information. • 802.11-inv—WiFi inverted devices information. • 802.11-nonstd—Nonstandard WiFi devices information. • superag—Superag devices information. • canopy—Canopy devices information. • wimax-mobile—WiMax mobile devices information. • wimax-fixed—WiMax fixed devices information.

Command Default

None

Command History

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

The following example shows how to display the information of all the interferers detected by a specified access point for the 802.11a network:

```
(Cisco Controller) > show 802.11a cleanair device type canopy
DC = Duty Cycle (%)
```

```
ISI = Interference Severity Index (1-Low Interference, 100-High
Interference)
RSSI  = Received Signal Strength Index (dBm)
DevID = Device ID
No  ClusterID          DevID  Type             AP Name             ISI
RSSI   DC   Channel
--- ------------------ ------ ---------- --------------- ---- ----- ----
 -------------
1c2:f7:40:00:00:03  0x8005 Canopy          CISCO_AP3500  2    -62      2
     153,157,161,165
```

show 802.11 cu-metrics

To display access point channel utilization metrics, use the **show 802.11 cu-metrics** command.

show 802.11{**a** | **b**} **cu-metrics** *cisco_ap*

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
cisco_ap	Access point name.

Command Default

None

Command History

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

The following is a sample output of the **show 802.11a cu-metrics** command:

```
(Cisco Controller) > show 802.11a cu-metrics AP1
AP Interface Mac:           30:37:a6:c8:8a:50
Measurement Duration:       90sec
 Timestamp               Thu Jan 27 09:08:48 2011
   Channel Utilization stats
   ================
     Picc (50th Percentile)..................... 0
     Pib (50th Percentile)...................... 76
     Picc (90th Percentile)..................... 0
     Pib (90th Percentile)...................... 77
 Timestamp               Thu Jan 27 09:34:34 2011
```

show 802.11 extended

To display access point radio extended configurations, use the **show 802.11 extended** command.

show 802.11 {**a** | **b**} **extended**

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
extended	Displays the 802.11a/b radio extended configurations.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.
8.0	The command output was expanded to include the Rx SOP threshold.

The following example shows how to display radio extended configurations:

```
(Cisco Controller) > show 802.11a extended
Default 802.11a band radio extended configurations:
    beacon period 300, range 60;
    multicast buffer 45, rate 200;
    RX SOP -80; CCA threshold -90;
AP0022.9090.b618 00:24:97:88:99:60
    beacon period 300, range 60; multicast buffer 45, rate 200;
    RX SOP -80; CCA threshold -77
AP0022.9090.bb3e 00:24:97:88:c5:d0
    beacon period 300, range 0; multicast buffer 0, rate 0;
    RX SOP -80; CCA threshold -0
ironRap.ddbf 00:17:df:36:dd:b0
    beacon period 300, range 0; multicast buffer 0, rate 0;
    RX SOP  -80; CCA threshold -0
```

The following example shows how to display radio extended configurations and the Rx SOP threshold:

```
(Cisco Controller) > show 802.11a extended
Default 802.11a band Radio Extended Configurations:
    Beacon period: 100, range: 0 (AUTO);
    Multicast buffer: 0 (AUTO), rate: 0 (AUTO);
    RX SOP threshold: -76; CCA threshold: 0 (AUTO);

AP3600-XALE3  34:a8:4e:6a:7b:00
    Beacon period: 100, range: 0 (AUTO);
    Multicast buffer: 0 (AUTO), rate: 0 (AUTO);
    RX SOP threshold: -76; CCA threshold: 0 (AUTO);
```

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.
media_stream_name	Specified media stream name.

Command Default

None.

Command History

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

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 802.11 SI

To view the System Intelligence configuration, use the **show 802.11 SI** command.

show 802.11{**a** | **b** | **h**} **si config**

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
h	Specifies the 802.11h network.
config	Displays the network QCA spectrum intelligence configuration.

Command Default

None

Command History

Release	Modification
8.6	This command was introduced.

The following example shows how to display the 802.11a si configuration:

```
(Cisco Controller) > show 802.11a si SI
Solution..................................... Enabled
```

show 802.11 si device ap

To display the information of the device access point on the 802.11 radio band, use the **show 802.11 si device ap** command.

show 802.11 {**a** | **b** | **h**} **si device ap** *cisco_ap*

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
h	Specifies the 802.11h network.
cisco_ap	Specified access point name.

Command Default

None

Command History

Release	Modification
8.6	This command was introduced.

The following example shows how to display the device access point for the 802.11a network:

```
(Cisco Controller) > show 802.11a si device ap AP_3500
DC = Duty Cycle (%)
ISI = Interference Severity Index (1-Low Interference, 100-High
Interference)
RSSI  = Received Signal Strength Index (dBm)
DevID = Device ID
No  ClusterID          DevID  Type             AP Name             ISI
RSSI   DC   Channel
--- ------------------ ------ ---------- --------------- ---- ----- ----
 -------------
1   c2:f7:40:00:00:03  0x8001 DECT phone  CISCO_AP3500  1    -43     3
    149,153,157,161
2   c2:f7:40:00:00:51  0x8002 Radar       CISCO_AP3500  1    -81     2
  153,157,161,165
3   c2:f7:40:00:00:03  0x8005 Canopy      CISCO_AP3500  2    -62     2
   153,157,161,165
```

show 802.11 si device type

To display the information of all the interferers device type detected by a specific access point on the 802.11 radio band, use the **show 802.11 si device type** command.

show 802.11{**a** | **b** | **h**} **si device type** {**cont-tx | si_fhss** }

Syntax Description

a	Specifies the 802.11a network.
b	Specifies the 802.11b/g network.
h	Specifies the 802.11h network.
type	Displays 802.11 interference information for the given device type in 5 GHz.
cont-tx	Display 802.11 continuous-transmitter devices information.
si_fhss	Displays QCA SI Display QCA SI FHSS devices information (FHSS) devices information

Command Default

None

Command History

Release	Modification
8.6	This command was introduced.

The following example shows how to display the information of all the FHSS devices detected by a specified access point for the 802.11a network:

```
(Cisco Controller) > show 802.11a si device type si_fhss
DC = Duty Cycle (%)
ISI = Interference Severity Index (1-Low Interference, 100-High
Interference)
RSSI  = Received Signal Strength Index (dBm)
DevID = Device ID
No  ClusterID          DevID  Type             AP Name             ISI
RSSI   DC   Channel
--- ------------------ ------ ---------- --------------- ---- ----- ----
 -------------
1c2:f7:40:00:00:03  0x8005 si_fhss          CISCO_AP3500  2    -62
2     153,157,161,165
```