Cisco Catalyst Cellular Gateways Command Reference Guide

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CONTENTS

Show Commands

show cellular 1 connections

To display the sessions information, use the **show cellular 1 connections** command in user EXEC mode.

show   cellular   1   connections

Syntax Description   This command has no arguments or keywords.

Command Default   No default behavior or values.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines   Use the **show cellular 1 connections** command to display the sessions information.

Example

This example shows how to view the sessions information

```
Router# show cellular 1 connections
Profile ID = 1
--------------------------
APN = broadband
Connectivity = Attach and Data
Session Status = Connected
IPv4 Address = 10.20.20.60
IPv4 Gateway Address = 10.19.19.60
IPv4 Primary DNS = 10.0.0.8
IPv4 Secondary DNS = 10.0.0.4
IPv6 Address = 2001:db8:ffff:ffff:ffff:fffe:ffff:ffff, IPv6 Prefix length = 64
IPv6 Gateway Address = 2001:db8:ffff:ffff:fffe:fffe:fffe:fffe, IPv6 Gateway Prefix length
= 64
IPv6 Primary DNS = 2001:db8:1000::2000
IPv6 Secondary DNS = 2001:db8:1111::2222
Tx Packets = 1009655, Rx Packets = 983984
Tx Bytes = 297251993, Rx Bytes = 211848740
Tx Drops = 0, Rx Drops = 0
Tx Overflow Count = 0, Rx Overflow Count = 0
```

show cellular 1 hardware

To display the cellular unit hardware information, use the **show cellular 1 hardware** command in user EXEC mode.

show   cellular   1   hardware

Syntax Description

This command has no arguments or keywords.

Command Default

This command has no default settings.

Command Modes

User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines

Use the **show cellular 1 hardware** command to display the cellular unit hardware information.

This example shows how to view all the cellular unit hardware information:

```
Router# show cellular 1 hardware
Modem Firmware Version = SWIX55C_01.07.19.00 000000 jenkins
Device Model ID = EM9190
International Mobile Subscriber Identity (IMSI) = 123456700002084
International Mobile Equipment Identity (IMEI) = 351735110112295
Integrated Circuit Card ID (ICCID) = 8952530076180182084
Mobile Subscriber Integrated Services Digital Network Number (MSISDN) =
Factory Serial Number (FSN) = 4H0335005303A1
Current Modem Temperature = 44 deg C
PRI SKU ID = 1104567
PRI Version = 016.010_000
Carrier = GENERIC
OEM PRI Version = 001.020
Modem Status = MODEM_STATE_DNS_ACQUIRED
```

show cellular 1 profile

To display the cellular profile details, use the **show cellular 1 profile** command in user EXEC mode.

show   cellular   1   profile

Syntax Description   This command has no arguments or keywords.

Command Default   No default behavior or values.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines   Use the **show cellular 1 profile** command to display cellular profile details.

This example shows how to view all the cellular unit profile information:

```
Router# show cellular 1 profile
PROFILE ID    APN        PDP TYPE    STATE    AUTHENTICATION    USERNAME    PASSWORD
------------------------------------------------------------------------------
1             broadband  IPv4v6      ACTIVE   none              -           -
```

show cellular 1 radio

To display the cellular modem radio information, use the **show cellular 1 radio** command in user EXEC mode.

show   cellular   1   radio

Syntax Description   This command has no arguments or keywords.

Command Default   This command has no default settings.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines   Use the **show cellular 1 radio** command display the cellular modem radio information.

Example

This example shows how to view the cellular modem radio information

```
Router# show cellular 1 radio
Radio Power Mode = online
Radio Access Technology(RAT) Selected = LTE
LTE Rx Channel Number(PCC) = 0
LTE Tx Channel Number(PCC) = 0
LTE Band = 1
LTE Bandwidth = 20 MHz
Current RSSI = -25 dBm
Current RSRP = -52 dBm
Current RSRQ = -7 dB
Current SNR = 30.0 dB
Physical Cell Id = 1
Network Change Event = activated LTE
CellularGateway#
```

show cellular 1 radio-band

To display the radio band settings, use the **show cellular 1 radio-band** command in user EXEC mode.

show   cellular   1   radio-band

Syntax Description   This command has no arguments or keywords.

Command Default   This command has no default settings.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines   Use the **show cellular 1 radio-band**command to display the radio band settings.

Example

This example shows how to display the radio band settings.

```
Router# show cellular 1 radio-band
LTE bands supported by modem:
1 2 3 4 5 7 8 12 13 14 17 18 19 20 25 26 28 29 30 32 34 38 39 40 41 42 46 48 66 71
LTE band Preference settings for the active sim:
1 2 3 4 5 7 8 12 13 14 17 18 19 20 25 26 28 29 30 32 34 38 39 40 41 42 46 48 66 71

NR5G bands supported by modem:
1 2 3 5 28 41 66 71 77 78 79
NR5G band Preference settings for the active sim:
1 2 3 5 28 41 66 71 77 78 79

Non-LTE bands supported by modem:

  23 - WCDMA (Europe, Japan, and China) 2100 band
  24 - WCDMA US PCS 1900 band
  25 - WCDMA (Europe and China) DCS 1800 band
  26 - WCDMA US 1700 band
  27 - WCDMA US 850 band
  28 - WCDMA Japan 800 band
  50 - WCDMA Europe and Japan 900 band
  51 - WCDMA Japan 1700 band
  61 - WCDMA Japan 850 band
Non-LTE band Preference settings for the active sim:

  23 - WCDMA (Europe, Japan, and China) 2100 band
  24 - WCDMA US PCS 1900 band
  25 - WCDMA (Europe and China) DCS 1800 band
  26 - WCDMA US 1700 band
  27 - WCDMA US 850 band
  28 - WCDMA Japan 800 band
  50 - WCDMA Europe and Japan 900 band
  51 - WCDMA Japan 1700 band
```

```
  61 - WCDMA Japan 850 band

==========================================
Band index reference list:

For LTE indices 1-128 correspond to bands 1-128 and NR indeces 1-320 correspond to bands
1-320.

For 3G, indices 1-64 maps to the 3G bands mentioned against each above.
```

show cellular 1 radio-details

To display the cellular information when the radio goes to Low Power mode, use the **show cellular 1 radio-details** command in user EXEC mode.

show   cellular   1   radio-details

Syntax Description

This command has no arguments or keywords.

Command Default

This command has no default settings.

Command Modes

User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines

Use the **show cellular 1 radio-details** command to display the carrier aggregation and other radio details.

Example

This example shows how to view the carrier aggregation and additional radio details.

```
Router# show cellular 1 radio-details
Carrier Aggregation Status = Disabled
LTE RX Channel Number(PCC) = 0
LTE TX Channel Number(PCC) = 0
LTE Band = 4
LTE Bandwidth = 20 MHz
PCC CA information:
------------------
LTE band class = 4
E-UTRA absolute radio frequency channel number of the serving cell = 0
Bandwidth = 20 MHz
Physical Cell Id = 28
Current RSRP in 1/10 dBm as measured by L1 = -99 dBm
Current RSSI in 1/10 dBm as measured by L1 = -73 dBm
Current RSRQ in 1/10 dBm as measured by L1 = -7 dB
Measured SINR in dB = 25.2 dB
Tracking area code information for LTE = 1


5G CC information:
------------------
Current ENDC RSRP in 1/10 dBm as measured by L1 = 0 dBm
Current ENDC RSRQ in 1/10 dBm as measured by L1 = 0 dB
Measured ENDC SINR in dB = 0.0 dB
```

show cellular 1 modem-logging

To display the cellular modem logging information, use the **show cellular 1 modem-logging** command in user EXEC mode.

show   cellular   1   modem-logging

Syntax Description   This command has no arguments or keywords.

Command Default   This command has no default settings.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was first integrated in this release.

Usage Guidelines   Use the **show cellular 1 modem-logging** command to obtain information like DMlogs, NAS logs, SDK logs, and driver logs running data.

Examples   This example shows how to view all the cellular unit hardware information:

```
show cellular 1 modem-logging
modem-logging dm-logs-status not-started
```

Related Commands

Command	Description
show cellular 1 firmware	Displays the list of firmwares stored on the modem.

show cellular 1 qos

To display the cellular QoS related information, use the **show cellular 1 qos** command in user EXEC mode.

show cellular 1 qos

Syntax Description This command has no arguments or keywords.

Command Default This command has no default settings.

Command Modes User EXEC

Command History

Release	Modification
Cisco IOS CG 17.11.x release	This command was first introduced in this release.

Usage Guidelines The **show cellular 1 qos** command displays information about the QoS parameters for each of the QoS flow set by the network.

Examples This example shows how to view all the cellular QoS information:

```
show cellular 1 qos
CG522-E# % qos qosflow-list 0
QoS Id = 1434
QoS State = ENABLED
QoS Flow Type = NETWORK_INITIATED
Bearer Id = 50

Tx flow info:
Lte Qci = 5
Data Rate Max = 0
Minimum Data Rate Guaranteed = 0

Rx flow info:
Lte Qci = 5
Data Rate Max = 0
Minimum Data Rate Guaranteed = 0

Tx filter info:
IP version = IPV4
IPv4 Source Address = 209.165.200.225
IPv4 Source Address subnet mask = 255.255.255.224
IPv4 Dest Address = 209.165.200.230
IPv4 Dest Address subnet mask = 255.255.255.0
Tos value = 128
Tos mask = 192
IPv6 Source Address = ::
Source IPv6 address prefix length = 0
IPv6 Dest Address = ::
Dest IPv6 address prefix length = 0
IPv6 Label = 0
Transport Protocol = 0
Transport Port1 = 0
Transport Range1 = 0
Transport Port2 = 0
```

```
Transport Range2 = 0
Transport Port3 = 0
Transport Range3 = 0
Transport Port4 = 0
Transport Range4 = 0

Rx filter info:
IP version = IPV4
IPv4 Source Address = 209.165.201.1
IPv4 Source Address subnet mask = 255.255.255.224
IPv4 Dest Address = 209.165.201.10
IPv4 Dest Address subnet mask = 255.255.255.224
Tos value = 128
Tos mask = 192
IPv6 Source Address = ::
Source IPv6 address prefix length = 0
IPv6 Dest Address = ::
Dest IPv6 address prefix length = 0
IPv6 Label = 0
Transport Protocol = 0
Transport Port1 = 0
Transport Range1 = 0
Transport Port2 = 0
Transport Range2 = 0
Transport Port3 = 0
Transport Range3 = 0
Transport Port4 = 0
Transport Range4 = 0
qos qosflow-list 1
QoS Id = 1435
QoS State = ENABLED
QoS Flow Type = NETWORK_INITIATED
Bearer Id = 51

Tx flow info:
Lte Qci = 4
Data Rate Max = 7000
Minimum Data Rate Guaranteed = 5000

Rx flow info:
Lte Qci = 4
Data Rate Max = 7000
Minimum Data Rate Guaranteed = 5000

Tx filter info:
IP version = IPV4
IPv4 Source Address = 209.165.202.129
IPv4 Source Address subnet mask = 255.255.255.224
IPv4 Dest Address = 209.165.202.158
IPv4 Dest Address subnet mask = 255.255.225.224
Tos value = 0
Tos mask = 0
IPv6 Source Address = ::
Source IPv6 address prefix length = 0
IPv6 Dest Address = ::
Dest IPv6 address prefix length = 0
IPv6 Label = 0
Transport Protocol = 0
Transport Port1 = 0
Transport Range1 = 0
Transport Port2 = 0
Transport Range2 = 0
Transport Port3 = 0
Transport Range3 = 0
```

```
Transport Port4 = 0
Transport Range4 = 0

Rx filter info:
IP version = IPV4
IPv4 Source Address = 209.165.202.139
IPv4 Source Address subnet mask = 255.255.225.0
IPv4 Dest Address = 209.165.202.149
IPv4 Dest Address subnet mask = 255.255.255.0
Tos value = 0
Tos mask = 0
IPv6 Source Address = ::
Source IPv6 address prefix length = 0
IPv6 Dest Address = ::
Dest IPv6 address prefix length = 0
IPv6 Label = 0
Transport Protocol = 0
Transport Port1 = 0
Transport Range1 = 0
Transport Port2 = 0
Transport Range2 = 0
Transport Port3 = 0
Transport Range3 = 0
Transport Port4 = 0
Transport Range4 = 0
qos qosflow-list 2
QoS Id = 1436
QoS State = ENABLED
QoS Flow Type = NETWORK_INITIATED
Bearer Id = 0

Tx flow info:
Lte Qci = 6
Data Rate Max = 0
Minimum Data Rate Guaranteed = 0

Rx flow info:
Lte Qci = 6
Data Rate Max = 0
Minimum Data Rate Guaranteed = 0
Transport Range4 = 0
```

Related Commands

Command	Description
show cellular 1 profile	Displays the cellular profile details.

show cellular 1 details

To display the detailed cellular information, use the **show cellular 1 details** command in user EXEC mode.

show cellular 1 details

Syntax Description

This command has no arguments or keywords.

Command Default

This command has no default settings.

Command Modes

User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines

Use the **show cellular 1 details** command to display the detailed cellular information.

This example shows how to view the detailed cellular information:

```
Router# show cellular 1 details
Cellular Interface status = Up
Cellular Modem Status = Network-Ready
Cellular IP Address = 10.10.0.1
Cellular Default Gateway = 10.10.0.2
Cellular Subnet Mask = 255.0.0.0
Cellular Primary DNS Address = 10.10.0.3
Cellular Secondary DNS Address = 10.10.0.4
Cellular IPv6 Address = 2001:db8:ffff:ffff:ffff:fffe:ffff:ffff
Cellular IPv6 Default Gateway = 2001:db8:ffff:ffff:fffe:fffe:fffe:fffe
Cellular IPv6 Primary DNS Address = 2001:db8:1000::2000
Cellular IPv6 Secondary DNS Address = 2001:db8:1111::2222
```

show cellular 1 firmware

To display the list of firmwares stored in the modem, use the **show cellular 1 firmware** command in user EXEC mode.

show   cellular   1   firmware

Syntax Description   This command has no arguments or keywords.

Command Default   This command has no default settings.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines   Use the **show cellular 1 firmware** command to display the list of firmwares stored in the modem.

This example shows how to view the list of firmwares stored in the modem:

```
Router# show cellular 1 firmware
Firmware Activation Mode = AUTO
INDEX   CARRIER  FW VERSION       PRI VERSION  STATUS
-------------------------------------------------------
1       GENERIC  01.07.19.00_GEN  016.010_000  ACTIVE
2       GENERIC2 01.07.19.00_GEN2 012.012_000  INACTIVE
```

show cellular 1 network

To display the cellular network information, use the **show cellular 1 network** command in user EXEC mode.

show   cellular   1   network

Syntax Description
This command has no arguments or keywords.

Command Default
This command has no default settings.

Command Modes
User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines
Use the **show cellular 1 network** command to display the cellular network information.

This example shows how to view the cellular network information:

```
CellularGateway# show cellular 1 network
Current System Time = Fri Jan 21 22:54:17 2023
Current Service Status = Normal
Current Service = Packet switched
Current Roaming Status = Home
Network Selection Mode = Automatic
Network = 123 456
Mobile Country Code (MCC) = 123
Mobile Network Code (MNC) = 456
Packet Switch domain(PS) state = Attached
EMM State = Registered
EMM Sub state = Normal-Service
RRC Connection State = RRC Connected
Tracking Area Code (TAC) = 1
Cell ID = 7169
Network MTU = 1500
```

show cellular 1 sim

To display the cellular modem SIM information, use the **show cellular 1 sim** command in user EXEC mode.

show   cellular   1   sim

Syntax Description

This command has no arguments or keywords.

Command Default

This command has no default settings.

Command Modes

User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was introduced.

Usage Guidelines

Use the **show cellular 1 sim** command to display the cellular modem SIM information.

This example shows how to view the cellular modem SIM information:

```
Router# show cellular 1 sim
Cellular Dual SIM details:
SIM 0 = Present
SIM 1 = Not Present
Active SIM = 0
```

Configuration Commands

gw-action:request admin-tech

To create admin tech logs file which is required for customer support, use the **gw-action**:**request admin-tech** command in user EXEC mode.

gw-action : request   admin-tech

Syntax Description   This command has no arguments or keywords.

Command Default   This command has no default settings.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was first integrated into the Cisco IOS XE 17.3.x release.

Usage Guidelines   Use the **gw-action**:**request admin-tech** command to create admin tech logs file that is used for troubleshooting purposes for customer support.

Examples

```
CG522-E# gw-action:request admin-tech
Log
Creating support bundle, please wait...
Support file CG522-E.support.user.20230120.114157.tgz created in /flash
```

gw-action:request file list

To display the files listed on the specified location, use the **gw-action**:**request file list** command in the user EXEC mode.

gw-action: request   file list

Syntax Description   This command has no arguments or keywords.

Command Default   This command has no default settings.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was first integrated into this release.

Usage Guidelines

Examples   This example shows how to view all the file related actions that you can perform:

```
gw-action:request file list
-rw-r--r-- 59906252 Sep 22 18:44 CG522-E.support.20220922.184252.tgz
-rw-r--r-- 199807 Jan 20 11:42 CG522-E.support.user.20230120.114157.tgz
drwxrwxrwx 4096 Jan 17 21:02 DL-SW-IMAGES
-rw-r--r-- 1761 Nov 5 15:55 cacert.pem
d--------- 4096 Aug 21 2021 fw_upgrade_sysinfo
-rw-r--r-- 0 Mar 18 2022 issue.pcap
drwx------ 16384 Oct 1 2021 lost+found
-rw-r--r-- 1761 Oct 1 2021 old_cacert.pem
drwxr-xr-x 4096 Jan 20 11:41 storage
-rw-r--r-- 175 Jan 20 11:39 sw_script_upg_confirm.log
-rw-r--r-- 7626 Jan 17 21:03 sw_script_upgrade_task.log
drwxr-xr-x 4096 Oct 1 2021 tmp
```

gw-action:request ping

To display the IPv4 and IPv6 ping information, use the **gw-action**:**request ping** command in user EXEC mode.

gw-action: request   ping

Syntax Description   This command has no arguments or keywords.

Command Default   This command has no default settings.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was first integrated into this release.

Usage Guidelines

Examples   This example shows the ping information for the IPv4 and IPv6 addresses:

```
gw-action:request ping 192.0.2.12
Success :192.0.2.12 (192.0.2.12): 56 data bytes
192.0.2.12 ping statistics
5 packets transmitted, 5 packets received, 0% packet loss round
trip min/avg/max = 43.438/51.709/56.303 ms


gw-action:request ping 2001:DB8::1
Success :2001:DB8::1 (2001:DB8::1): 56 data bytes
2001:DB8::1 ping statistics
5 packets transmitted, 5 packets received, 0% packet loss round
trip min/avg/max = 32.468/40.010/49.135 ms
```

gw-action:request software

To display all the software related information, use the **gw-action**:**request software** command in user EXEC mode.

gw-action: request   software

Syntax Description   This command has no arguments or keywords.

Command Default   This command has no default settings.

Command Modes   User EXEC

Command History

Release	Modification
Cisco IOS XE Amsterdam 17.3.x release	This command was first integrated into this release.

Usage Guidelines

Examples   This example shows all the software image related operations:

```
gw-action:request software
Possible completions:
  activate    Activate software image
  download    Download software image or other file to the device
  install     Install software image
  upgrade     Download, Install and Activate software
```