



Using Debug Commands for PDSN Release 1.2

This appendix provides information on how to use debug commands to troubleshoot Cisco Packet Data Serving Node (PDSN) networks for Release 1.2.

This document includes the following sections:

- [Introduction, page A-1](#)
- [Using Debug Commands, page A-2](#)
- [Getting Debug Output, page A-3](#)
- [Logging to a Unix Syslog server, page A-4](#)
- [PDSN Debug Commands, page A-6](#)
- [PDSN Conditional Debug Commands, page A-8](#)
- [Enabling Debug Conditional Commands, page A-9](#)
- [Conditional Debug Command Examples, page A-10](#)

Introduction

You should know how to configure a Cisco router and should be familiar with the protocols and media routers are configured to support. You must have some knowledge of interpreting IOS debug outputs and must also be aware of network topology.

PDSN debugging allows you to debug in two different ways. One, all events that are associated with a debug command will be displayed in a debug message (unconditional). Second, you can set a conditional debug trigger so that only events based on certain conditions will cause a debug message to be displayed. PDSN allows two types of conditional debug triggers:

- Username condition
- Calling Party Number (MNID) condition



Caution Enabling debugs can disrupt the operation of the router when internetworks are experiencing high load conditions. Before you use a debug command, always consider the size of the output that may be generated by this command, and the time that it may take to generate. Additional debug information and command references can be found on the Cisco CCO web page.

Using Debug Commands

To list and see a brief description of the debugging command options available on the router, enter the following privileged command at the router's command line:

```
debug cdma pdsn ?
```

This will show the available PDSN debug commands that are available to you.

The following commands can be used to disable the debug messages:

```
no debug all
```

```
undebbug all
```

Or, to turn off a particular debug message, use the following command:

```
no debug protocol
```

An example of this would be **no debug cdma pdsn session event**.

Show Commands

In order to see what debug messages have been turned on, use the following command:

```
show debug
```

The **show debug** command is used to see what has been enabled, but it is also used to verify that debug commands have been turned off. The following example illustrates this command:

```
7206-PDSN#show debug
CDMA:
CDMA PDSN session events debugging is on
```

Timestamps

To make the debug messages more useful, the timestamps should be enabled for millisecond granularity. This is done with the following router configuration commands:

```
router(config)#service timestamps debug datetime msec
```

```
router(config)#service timestamps log datetime msec
```

These commands add timestamps to the debug messages in the format of MMM DD HH:MM:SS, indicating the date and time according to the system clock. If the system clock has not been set, the date and time are preceded with an asterisk (*) to indicate that the values probably are not correct. The millisecond timestamps provide a better indication of the timing of the various debug events relative to each other.

Getting Debug Output

Routers can display debug output messages to various interfaces including console, auxiliary (aux) port and vty ports. The debug messages can be logged to an internal buffer or to an external Unix syslog server.

Console Port

Debug information is automatically displayed to console port, this is the default logging device. All messages are displayed on the console unless otherwise specified. You may need to insure that the logging console level is set to the desired level, and that logging has not been disabled with the **no logging** console command.



Note

The **logging rate-limit** configuration command can affect the number of debug messages that are displayed. In some cases, if too many debug messages are generated, some messages may be lost and not displayed.

Auxiliary (Aux) Port

Use the **terminal monitor** command to view the debugs if you are connected to the Aux port. Also verify that the **no logging on** has not been enabled on the router.

Virtual Terminal (VTY) Ports

Make sure that the **terminal monitor** command has been entered and that the **no logging on** command has not been enabled on the router.

Logging to an Internal Buffer

To log or stop messages to an internal buffer, use the following configuration command:

logging buffered

no logging buffered

The **logging buffered** command copies log messages to an internal buffer instead of writing them to the console. The buffer is circular, so newer messages will overwrite older messages.

To display the messages that are logged in the buffer use the **show logging** command. You can specify the size of the buffer as well as the severity level of the messages to be logged. The **no logging buffered** cancels the use of the buffer and writes messages to console. The **logging ?** command will show additional options that are available for this command.



Note

Use the IOS command **show proc mem** to make sure that there is enough memory available before entering the buffer size.

Logging to a Unix Syslog server

To log messages to a syslog server host, use the logging router configuration command:

logging ip-address

no logging ip-address

The **logging** command identifies the syslog server host that will receive the logging messages. The *ip-address* argument is the IP address of the host. Issuing this command more than once will build a list of syslog servers that receive the logging messages. The **no logging** command deletes the syslog server with the specified address from the list of syslogs.

The debugging destination (console, aux port, vty port, internal buffer) used affects the system overhead. Logging to a console produces the highest overhead. The virtual terminal (vty) produces less overhead, and a syslog server produces even less. Logging to an internal buffer produces the least overhead of any method.



Note The **no logging console** and **terminal no monitor** commands only prevent the output from being output to the console, aux port, vty port. It does not stop the debugging, so router resources will continue to be used for debugging even though no debug messages will be displayed.

Enabling Message Logging

To enable message logging to all supported destinations other than console, use the **logging on** command. The **no logging on** command is used to direct logging to the console only and disable logging output to other destinations.

A sample of a router logging configuration is:

```
no logging console - don't send logs to router console
logging buffered 16384- 16k byte history buffer on router
logging trap debugging- catch debugging level traps (i.e. everything)
logging facility local7- Syslog facility on syslog server
    logging x.x.x.1- address of first syslog server
    logging x.x.x.2- ip address of second syslog server
```

To setup the syslog daemon on a Unix system, include a line similar to the following into the /etc/syslog.conf:

```
local7.debugging/var/log/cisco.log
```

Setting Message Logging Levels

You can set logging levels when logging messages to the console, monitor or syslog server. The levels, keywords and descriptions are:

- Level 0 - Emergencies - System is unusable
- Level 1 - Alerts - Immediate action is needed
- Level 2 - Critical - Critical conditions exist
- Level 3 - Errors - Error conditions exist
- Level 4 - Warnings - Warning conditions exist
- Level 5 - Notifications - Normal, but significant conditions exist

- Level 6 - Informational - Informational messages
- Level 7 - Debugging - Debugging messages

To limit the types of messages that are logged to the console, use the **logging console** configuration command to do so. The format is:

logging console *level*

no logging console

The **logging console** command limits the logging messages displayed on the console to the messages up to and including the specified severity level, which is specified by the *level* parameter. The *level* parameter is one of the logging keywords listed above. The keywords are listed in order from the most severe (level 0) to the least severe (level 7). The **no logging console** command disables logging to the console.

Limits Types of Logging Messages sent to another Monitor

To limit the level of messages logged to the terminal lines (monitors), use the **logging monitor** router configuration command:

logging monitor *level*

no logging monitor

The **logging monitor** command limits the logging messages displayed on the terminal lines other than the console to messages with a level up to and including the specified *level* parameter. The *level* parameter is one of the logging keywords listed above. To display logging messages on a virtual console (vty) use the **terminal monitor** command. The **no logging monitor** command disables logging to terminal lines other than the console.

Limits Messages to a Syslog Server

To limit the number of messages sent to the syslog servers, use the **logging trap** router configuration command:

logging trap *level*

no logging trap

The **logging trap** command limits the logging messages sent to syslog servers to logging messages with a level up to and including the specified *level* parameter. The *level* parameter is one of the keywords listed above.

To send logging messages to a syslog server, specify the host address with the **logging** command:

logging *ip-address*

no logging *ip-address*

PDSN Debug Commands

The default trap level is **informational**. The **no logging trap** command disables logging to the syslog servers. The **show logging** command displays the addresses and levels associated with the current logging setup.

Reference the IOS documentation for additional information about message logging and setting up Syslog servers.

PDSN Debug Commands

The following PDSN debug commands are allowed on PDSN R1.2 routers. These debugs are described in detail in the Command Reference section of this document. This section describes how to enable conditional debugging for the corresponding command.



Note An asterisk (*) denotes that you can use this command with conditional debugging.

- CDMA PDSN a10 *
- CDMA PDSN a11 *
- CDMA PDSN Accounting *
- CDMA PDSN Clustering (only c6 images)
- CDMA PDSN Prepaid (only c6 images)
- CDMA PDSN Resource Manager
- CDMA PDSN Selection
- CDMA PDSN Service-Selection*
- CDMA PDSN Session-Related Information *



Note The prepaid and cluster debugs are only available with c6 images, and will not work for the c5 images.

cdma pdsn a10 debugs

The following debugs help monitor the a10 data information:

```
7206-PDSN#deb cdma pdsn a10 ?
ahdlc--CDMA PDSN a10 ahdळc *
gre--CDMA PDSN a10 gre *
ppp--CDMA PDSN a10 ppp *
```

a10 ahdळc debugs

The following debugs help monitor the a10 ahdळc data information.

```
7206-PDSN#debug cdma pdsn a10 ahdळc ?
errors--CDMA PDSN a10 ahdळc errors *
events--CDMA PDSN a10 ahdळc events *
packet--CDMA PDSN a10 ahdळc packet *
```

a10 gre debugs

The following debugs help monitor the a10 GRE interface.

```
7206-PDSN#debug cdma pdsn a10 gre ?
errors--CDMA PDSN a10 gre errors *
events--CDMA PDSN a10 gre events *
```

a10 ppp debugs

The following debugs help monitor the a10 PPP information.

```
7206-PDSN#debug cdma pdsn a10 ppp ?
errors--CDMA PDSN a10 ppp errors *
events--CDMA PDSN a10 ppp events *
ip-only--CDMA PDSN a10 ppp ip-only
packet--CDMA PDSN a10 ppp packet *
ppp-only--CDMA PDSN a10 ppp ppp-only
```

cdma pdsn a11 debugs

The following debugs help monitor the a11 control information:

```
7206-PDSN#deb cdma pdsn a11 ?
errors--CDMA PDSN a11 errors *
events--CDMA PDSN a11 events *
packet--CDMA PDSN a11 packet *
```

cdma pdsn accounting debugs

The following debugs help monitor the PDSN accounting.

```
7206-PDSN#debug cdma pdsn accounting ?
flow--CDMA PDSN Flow Based Accounting *
time-of-day--CDMA PDSN Accounting Time-of-day
<cr> *
```

cdma pdsn clustering debugs

The following debugs are **only** allowed on c6 images and help monitor the clustering information.

```
7206-PDSN#debug cdma pdsn cluster ?
message--Debug PDSN cluster controller redundancy
redundancy--Debug PDSN cluster controller redundancy
```

cdma pdsn prepaid debugs

The following debug is **only** allowed on c6 images and help monitor the prepaid information.

```
7206-PDSN#debug cdma pdsn prepaid
```

cdma pdsn resource-manager debugs

The following debugs help monitor the resource-manager information.

```
7206-PDSN#debug cdma pdsn resource-manager ?
errors--CDMA PDSN resource manager errors
events--CDMA PDSN resource manager events
```

cdma pdsn selection debugs

These debugs help monitor the selection information.

```
7206-PDSN#debug cdma pdsn selection ?
errors—CDMA PDSN selection errors
events—CDMA PDSN selection events
packet—CDMA PDSN selection packet
```

cdma pdsn service-selection debugs

The following debug helps monitor the service-selection information.

```
7206-PDSN#debug cdma pdsn service-selection *
```

cdma pdsn session debugs

The following debugs help monitor the session information.

```
7206-PDSN#debug cdma pdsn session ?
errors—CDMA PDSN session errors *
events—CDMA PDSN session events *
```

Protocol Debug Commands

Additionally, the following protocol debug commands can be used in conjunction with conditional debugging:

- PPP debugs
 - debug ppp negotiation
 - debug ppp authentication
- AAA debugs
 - debug aaa accounting
 - debug aaa authentication
 - debug aaa authorization
 - debug aaa id
- Radius debugs
 - debug radius
 - debug radius accounting
 - debug radius authentication

PDSN Conditional Debug Commands

PDSN also supports the use of Conditional Debug messages. These messages are based on existing IOS debug conditions using the Cisco router CLI. The conditional triggers that are supported for PDSN are **Username** and **Calling Party Number (MNID)**. The debug conditions work with the PDSN debugs, which are only displayed when these conditions are met.

Not all of the PDSN debugs are available for these debug conditions. Some of the debug commands provide more debug messages when using the MNID trigger condition than the Username condition. This is because the Username is not available until after authentication, whereas the MNID is available earlier on incoming messages.



Note These commands are only used for conditional debugs, and not for all types of debugging.

Enabling Debug Conditional Commands

To enable conditional debugging, a trigger condition is set, and then the required PDSN debug commands are entered. When the debug condition is triggered, the debug messages will be displayed.

```
7206-PDSN#debug condition username simulator
Condition 1 set
7206-PDSN#debug cdma pdsn a10 ahdlc packet
CDMA PDSN A10 AHDLC packet debugging is on
```

The debugs and conditions can be viewed with the following commands:

```
7206-PDSN#show debug condition
Condition 1: username simulator (0 flags triggered)
7206-PDSN#show debug
CDMA:
CDMA PDSN A10 AHDLC packet debugging is on
```

Another condition can be enabled as shown:

```
7206-PDSN#debug condition calling 0000000000000001
Condition 2 set
7206-PDSN#show debug condition
Condition 1: username simulator (0 flags triggered)
Condition 2: calling 0000000000000001 (0 flags triggered)
```

Clearing of the debug conditions:

```
7206-PDSN#no debug condition all
Removing all conditions may cause a flood of debugging messages to result, unless
specific debugging flags are first removed.
Proceed with the removal of all conditions? [yes/no]: yes
2 conditions have been removed
```

Or remove only one of the debug conditions:

```
7206-PDSN#show debug condition
Condition 1: username simulator (0 flags triggered)
Condition 2: calling 0000000000000001 (0 flags triggered)
7206-PDSN#no debug condition 1
Condition 1 has been removed
7206-PDSN#show debug condition
Condition 2: calling 0000000000000001 (0 flags triggered)
```

You can enable multiple debug condition triggers at the same time. Additionally, there is no limit to the number of simultaneous triggers that you can enable. Performance and ease of use factors may determine the optimal maximum number of triggers that you choose to enable.

Conditional Debug Command Examples

The following PDSN debug commands support conditional debugging. Sample debug traces are included to show sample output. The debug conditions and debug commands must be enabled before a session is started, otherwise the debug messages may not be triggered.


Note

- The sample debug messages attached may be different from those in your network.
- The PDSN router configuration will affect the output of the debug messages.
- Some of the debug messages are cryptic and may be complicated for you to understand; however, debug messages are very useful for Cisco engineers debugging a network.
- The format and the content details of the debug messages may be subject to change.

debug cdma pdsn a10 ahdlc

This command allows errors, events and packet debugs. The MNID trigger condition for this debug will show more debug messages than the Username condition.

debug cdma pdsn a10 ahdlc errors

No traces are attached for this conditional debug.

debug cdma pdsn a10 ahdlc events

Debug condition: Username = simulator

```
Close session:  
7206-PDSN#  
*Mar 1 01:17:08.579: hw_ahdclc_engine_decode:source for channel 3 datagramstart 0x7E290A8E  
datagramsize 17 fastswitch 1  
*Mar 1 01:17:08.579: hw_ahdclc_engine_post_decode:channel 3 datagramstart 0xE3268C0  
datagramsize 8  
*Mar 1 01:17:08.579: hw_ahdclc_engine_encode: source for channel 3 datagramstart 0xE844C14  
datagramsize 8  
*Mar 1 01:17:08.579: hw_ahdclc_engine_post_encode:channel 3 datagramstart 0xE326B40  
datagramsize 12  
*Mar 1 01:17:08.579: hw_ahdclc_close_channel: Rxvd Close Channel for Slot 6 Channel 3  
*Mar 1 01:17:08.579: simulator Debug: Condition 1, username simulator cleared, count 0
```

Debug condition: MNID = 0000000000000001

```
Open session:  
7206-PDSN#  
*Mar 1 01:30:23.507: 0000000000000001 Debug: Condition 1, calling 0000000000000001  
triggered,  
count 1  
*Mar 1 01:30:23.507: hw_ahdclc_open_channel: Rxvd Open Channel for Slot 6 Channel 5  
*Mar 1 01:30:23.507: hw_ahdclc_engine_encode: source for channel 5 datagramstart 0xE001C54  
datagramsize 25  
*Mar 1 01:30:23.507: hw_ahdclc_engine_post_encode:channel 5 datagramstart 0xE329840  
datagramsize 46  
*Mar 1 01:30:23.507: 0000000000000001 Debug: Condition 1, calling 0000000000000001  
triggered,  
count 1  
*Mar 1 01:30:23.511: hw_ahdclc_engine_decode:source for channel 5 datagramstart 0x7E296E4E  
datagramsize 25 fastswitch 1
```

```

*Mar 1 01:30:23.511: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E298D2E
datagramsize 13 fastswitch 1
*Mar 1 01:30:23.511: hw_ahdlc_engine_post_decode:channel 5 datagramstart 0xE329AC0
datagramsize 20
*Mar 1 01:30:23.511: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE1F9998
datagramsize 20
*Mar 1 01:30:23.511: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE329D40
datagramsize 37
*Mar 1 01:30:25.495: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE000494
datagramsize 25
*Mar 1 01:30:25.495: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE329FC0
datagramsize 46
*Mar 1 01:30:25.495: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E29484E
datagramsize 25 fastswitch 1
*Mar 1 01:30:25.495: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E2991EE
datagramsize 21 fastswitch 1
*Mar 1 01:30:25.495: hw_ahdlc_engine_post_decode:channel 5 datagramstart 0xE32A240
datagramsize 25
*Mar 1 01:30:25.495: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE000854
datagramsize 39
*Mar 1 01:30:25.495: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE32A4C0
datagramsize 50
*Mar 1 01:30:25.495: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E298F8E
datagramsize 25 fastswitch 1
*Mar 1 01:30:25.495: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E298ACE
datagramsize 21 fastswitch 1
*Mar 1 01:30:25.495: hw_ahdlc_engine_post_decode:channel 5 datagramstart 0xE32A740
datagramsize 34
*Mar 1 01:30:25.495: hw_ahdlc_channel_set_accm: Rxvd Set ACCM for Channel 5 FrAccm
00000000 DeFrAccm 00000000
*Mar 1 01:30:25.507: 0000000000000001 Debug: Condition 1, calling 0000000000000001
triggered,
count 1
*Mar 1 01:30:25.507: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE845254
datagramsize 8
*Mar 1 01:30:25.507: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE844FD4
datagramsize 14
*Mar 1 01:30:25.507: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE32A9C0
datagramsize 12
*Mar 1 01:30:25.507: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE32AC40
datagramsize 18
*Mar 1 01:30:27.511: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE844E94
datagramsize 14
*Mar 1 01:30:27.511: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE32AEC0
datagramsize 18
*Mar 1 01:30:27.511: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E29886E
datagramsize 18 fastswitch 1
*Mar 1 01:30:27.511: hw_ahdlc_engine_post_decode:channel 5 datagramstart 0xE32B140
datagramsize 14
*Mar 1 01:30:27.511: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E29860E
datagramsize 18 fastswitch 1
*Mar 1 01:30:27.511: hw_ahdlc_engine_post_decode:channel 5 datagramstart 0xE32B3C0
datagramsize 14
*Mar 1 01:30:27.511: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE844714
datagramsize 14
*Mar 1 01:30:27.511: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE32B640
datagramsize 18
*Mar 1 01:30:27.511: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E2983AE
datagramsize 18 fastswitch 1
*Mar 1 01:30:27.511: hw_ahdlc_engine_post_decode:channel 5 datagramstart 0xE32B8C0
datagramsize 14
*Mar 1 01:30:27.511: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE001614
datagramsize 14
*Mar 1 01:30:27.511: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE32BB40

```

PDSN Debug Commands

```

datagramsize 18

Close session:

*Mar 1 01:30:37.711: hw_ahdlc_engine_decode:source for channel 5 datagramstart 0x7E299DCE
datagramsize 17 fastswitch 1
*Mar 1 01:30:37.711: hw_ahdlc_engine_post_decode:channel 5 datagramstart 0xE32BDC0
datagramsize 8
*Mar 1 01:30:37.711: hw_ahdlc_engine_encode: source for channel 5 datagramstart 0xE001B14
datagramsize 8
*Mar 1 01:30:37.711: hw_ahdlc_engine_post_encode:channel 5 datagramstart 0xE32C040
datagramsize 12
*Mar 1 01:30:37.715: hw_ahdlc_close_channel: Rxvd Close Channel for Slot 6 Channel 5
*Mar 1 01:30:37.715: 0000000000000001 Debug: Condition 1, calling 0000000000000001 cleared,
count 0

```

debug cdma pdsn a10 ahd1c packet

More debug messages will be seen with the MNID condition.

Debug condition: Username = simulator

```

Close session:
7206-PDSN#
*Mar 1 01:25:59.163: mp:0x62E907C0 start:0xE29698E size:17

*Mar 1 01:25:59.163: 7E FF 7D 23 C0 21 7D 25 7D 22 7D 20 7D 24 59 28
*Mar 1 01:25:59.163: 7E
*Mar 1 01:25:59.163: mp:0x630F6F00 start:0xE329340 size:8

*Mar 1 01:25:59.163: FF 03 C0 21 05 02 00 04
*Mar 1 01:25:59.163: FF 03 C0 21 06 02 00 04
*Mar 1 01:25:59.163: mp:0x630F6F40 start:0xE3295C0 size:12

*Mar 1 01:25:59.163: 7E FF 03 C0 21 06 02 00 04 94 0D 7E
*Mar 1 01:25:59.167: simulator Debug: Condition 1, username simulator cleared, count 0

```

Debug condition: MNID = 0000000000000001

```

Open session:
7206-PDSN#
*Mar 1 01:34:34.159: 0000000000000001 Debug: Condition 1, calling 0000000000000001
triggered, count 1
*Mar 1 01:34:34.159: FF 03 C0 21 01 01 00 15 02 06 00 00 00 00 03 05
*Mar 1 01:34:34.159: C2 23 05 05 06 05 F1 98 8E
*Mar 1 01:34:34.159: mp:0x630F73C0 start:0xE32C2C0 size:46

*Mar 1 01:34:34.159: 7E FF 7D 23 C0 21 7D 21 7D 21 7D 20 7D 35 7D 22
*Mar 1 01:34:34.159: 7D 26 7D 20 7D 20 7D 20 7D 20 7D 23 7D 25 C2 23
*Mar 1 01:34:34.159: 7D 25 7D 25 7D 26 7D 25 F1 98 8E 3B F4 7E
*Mar 1 01:34:34.159: mp:0x62E90E40 start:0xE29A74E size:25

*Mar 1 01:34:34.159: 7E FF 7D 23 C0 21 7D 21 7D 21 7D 20 7D 30 7D 22
*Mar 1 01:34:34.163: 7D 26 7D 20 7D 20 7D 20 7D
*Mar 1 01:34:34.163: mp:0x62E90E00 start:0xE29A4EE size:12

*Mar 1 01:34:34.163: 20 7D 25 7D 26 F0 CF 4F 65 27 51 7E
*Mar 1 01:34:34.163: mp:0x630F7400 start:0xE32C540 size:20

*Mar 1 01:34:34.163: FF 03 C0 21 01 01 00 10 02 06 00 00 00 05 06
*Mar 1 01:34:34.163: F0 CF 4F 65

```

```

*Mar 1 01:34:34.163: FF 03 C0 21 02 01 00 10 02 06 00 00 00 00 05 06
*Mar 1 01:34:34.163: F0 CF 4F 65
*Mar 1 01:34:34.163: mp:0x630F7440 start:0xE32C7C0 size:38

*Mar 1 01:34:34.163: 7E FF 7D 23 C0 21 7D 22 7D 21 7D 20 7D 30 7D 22
*Mar 1 01:34:34.163: 7D 26 7D 20 7D 20 7D 20 7D 20 7D 25 7D 26 F0 CF
*Mar 1 01:34:34.163: 4F 65 7D 26 CB 7E
*Mar 1 01:34:36.151: FF 03 C0 21 01 02 00 15 02 06 00 00 00 00 03 05
*Mar 1 01:34:36.151: C2 23 05 05 06 05 F1 98 8E
*Mar 1 01:34:36.151: mp:0x630F7480 start:0xE32CA40 size:46

*Mar 1 01:34:36.151: 7E FF 7D 23 C0 21 7D 21 7D 22 7D 20 7D 35 7D 22
*Mar 1 01:34:36.151: 7D 26 7D 20 7D 20 7D 20 7D 20 7D 23 7D 25 C2 23
*Mar 1 01:34:36.151: 7D 25 7D 25 7D 26 7D 25 F1 98 8E D0 9D 7E
*Mar 1 01:34:36.151: mp:0x62E911C0 start:0xE29C88E size:25

*Mar 1 01:34:36.151: 7E FF 7D 23 C0 21 7D 22 7D 22 7D 20 7D 35 7D 22
*Mar 1 01:34:36.151: 7D 26 7D 20 7D 20 7D 20 7D 20 7D 23 C2 23
*Mar 1 01:34:36.151: mp:0x62E91180 start:0xE29C62E size:21

*Mar 1 01:34:36.151: 20 7D 23 7D 25 C2 23 7D 25 7D 25 7D 26 7D 25 F1
*Mar 1 01:34:36.151: 98 8E 64 C4 7E
*Mar 1 01:34:36.151: mp:0x630F74C0 start:0xE32CCC0 size:25

*Mar 1 01:34:36.151: FF 03 C0 21 02 02 00 15 02 06 00 00 00 00 03 05
*Mar 1 01:34:36.151: C2 23 05 05 06 05 F1 98 8E
*Mar 1 01:34:36.151: FF 03 C2 23 01 01 00 23 10 6E 1A E7 C9 AC 1D E2
*Mar 1 01:34:36.151: 53 D3 C6 A4 F0 5E AE D1 19 50 52 47 35 2D 37 32
*Mar 1 01:34:36.151: 30 36 2D 50 44 53 4E
*Mar 1 01:34:36.151: mp:0x630F7500 start:0xE32CF40 size:51

*Mar 1 01:34:36.151: 7E FF 7D 23 C2 23 7D 21 7D 20 7D 23 7D 30 6E
*Mar 1 01:34:36.151: 7D 3A E7 C9 AC 7D 3D E2 53 D3 C6 A4 F0 5E AE D1
*Mar 1 01:34:36.151: 7D 39 50 52 47 35 2D 37 32 30 36 2D 50 44 53 4E
*Mar 1 01:34:36.151: C6 FC 7E
*Mar 1 01:34:36.155: mp:0x62E91140 start:0xE29C3CE size:25

*Mar 1 01:34:36.155: 7E FF 7D 23 C2 23 7D 22 7D 21 7D 20 7D 3E 7D 30
*Mar 1 01:34:36.155: 63 D6 38 56 9C 8F 96 35 DA
*Mar 1 01:34:36.155: mp:0x62E91100 start:0xE29C16E size:21
*Mar 1 01:34:36.155: FC FD 97 60 7D 36 BA 8C 73 69 6D 75 6C 61 74 6F
*Mar 1 01:34:36.155: 72 56 7D 2F 7E
*Mar 1 01:34:36.155: mp:0x630F7540 start:0xE32D1C0 size:34

*Mar 1 01:34:36.155: FF 03 C2 23 02 01 00 1E 10 63 D6 38 56 9C 8F 96
*Mar 1 01:34:36.155: 35 DA FC FD 97 60 16 BA 8C 73 69 6D 75 6C 61 74
*Mar 1 01:34:36.155: 6F 72
*Mar 1 01:34:36.163: 0000000000000001 Debug: Condition 1, calling 0000000000000001
triggered, count 1
*Mar 1 01:34:36.167: FF 03 C2 23 03 01 00 04
*Mar 1 01:34:36.167: FF 03 80 21 01 01 00 0A 03 06 06 FF FF FE
*Mar 1 01:34:36.167: mp:0x630F7580 start:0xE32D440 size:12

*Mar 1 01:34:36.167: 7E FF 03 C2 23 03 01 00 04 79 92 7E
*Mar 1 01:34:36.167: mp:0x630F75C0 start:0xE32D6C0 size:18

*Mar 1 01:34:36.167: 7E FF 03 80 21 01 01 00 0A 03 06 06 FF FF FE 4B
*Mar 1 01:34:36.167: 44 7E
*Mar 1 01:34:38.167: FF 03 80 21 01 02 00 0A 03 06 06 FF FF FE
*Mar 1 01:34:38.167: mp:0x630F7600 start:0xE32D940 size:18

*Mar 1 01:34:38.167: 7E FF 03 80 21 01 02 00 0A 03 06 06 FF FF FE 4C
*Mar 1 01:34:38.167: 92 7E
*Mar 1 01:34:38.171: mp:0x62E912C0 start:0xE29D20E size:18

```

PDSN Debug Commands

```

*Mar 1 01:34:38.171: 7E FF 03 80 21 01 01 00 0A 03 06 00 00 00 00 13
*Mar 1 01:34:38.171: 28 7E
*Mar 1 01:34:38.171: mp:0x62E91300 start:0xE29D46E size:18

*Mar 1 01:34:38.171: 7E FF 03 80 21 02 02 00 0A 03 06 06 FF FF FE 25
*Mar 1 01:34:38.171: E6 7E
*Mar 1 01:34:38.171: mp:0x630F7640 start:0xE32DBC0 size:14

*Mar 1 01:34:38.171: FF 03 80 21 01 01 00 0A 03 06 00 00 00 00 00
*Mar 1 01:34:38.171: mp:0x630F7680 start:0xE32DE40 size:14

*Mar 1 01:34:38.171: FF 03 80 21 02 02 00 0A 03 06 06 FF FF FE
*Mar 1 01:34:38.171: FF 03 80 21 03 01 00 0A 03 06 09 03 00 01
*Mar 1 01:34:38.171: mp:0x630F76C0 start:0xE32E0C0 size:18

*Mar 1 01:34:38.171: 7E FF 03 80 21 03 01 00 0A 03 06 09 03 00 01 D3
*Mar 1 01:34:38.171: 77 7E
*Mar 1 01:34:38.171: mp:0x62E91340 start:0xE29D6CE size:18

*Mar 1 01:34:38.171: 7E FF 03 80 21 01 02 00 0A 03 06 09 03 00 01 9A
*Mar 1 01:34:38.171: F9 7E
*Mar 1 01:34:38.171: mp:0x630F7700 start:0xE32E340 size:14

*Mar 1 01:34:38.171: FF 03 80 21 01 02 00 0A 03 06 09 03 00 01 01
*Mar 1 01:34:38.171: FF 03 80 21 02 02 00 0A 03 06 09 03 00 01
*Mar 1 01:34:38.171: mp:0x630F7740 start:0xE32E5C0 size:18

*Mar 1 01:34:38.171: 7E FF 03 80 21 02 02 00 0A 03 06 09 03 00 01 F3
*Mar 1 01:34:38.171: 8D 7E

Close session:

*Mar 1 01:34:45.443: mp:0x62E910C0 start:0xE29BF0E size:17

*Mar 1 01:34:45.443: 7E FF 7D 23 C0 21 7D 25 7D 22 7D 20 7D 24 59 28
*Mar 1 01:34:45.443: 7E
*Mar 1 01:34:45.443: mp:0x630F7780 start:0xE32E840 size:8

*Mar 1 01:34:45.443: FF 03 C0 21 05 02 00 04
*Mar 1 01:34:45.443: FF 03 C0 21 06 02 00 04
*Mar 1 01:34:45.443: mp:0x630F77C0 start:0xE32EAC0 size:12

*Mar 1 01:34:45.443: 7E FF 03 C0 21 06 02 00 04 94 0D 7E
*Mar 1 01:34:45.447: 0000000000000001 Debug: Condition 1, calling 0000000000000001 cleared,
count 0

```

debug cdma pdsn a10 gre

For the a10 gre debugs a tunnel-key parameter has been added to the debug command. The tunnel-key parameter is optional, but when included, adds the conditional debugging functionality. If the parameter is not included, then the debug messages will be unconditionally displayed for all occurrences.

This command does not work the same way as the other conditional debugs, but allows PDSN to find the session. The tunnel-key parameter is equivalent to the MNID value and the tunnel-key parameter is allowed for both the events and errors debugs.



Note In addition to the generic username and calling conditions functionality, this command also supports the tunnel-key and mnid triggers; however, only one tunnel-key value can be triggered at a time.

debug cdma pdsn a10 gre errors tunnel-key value

No traces are attached for this conditional debug.

debug cdma pdsn a10 gre events tunnel-key 1

```
7206-PDSN#
*Mar 1 08:43:14.805: CDMA-GRE: CDMA-Ix1 (GRE/CDMA) created with src 5.0.0.2 dst 0.0.0.0
*Mar 1 08:43:14.809: CDMA-GRE: (in) found session 5.0.0.2-4.0.0.1-1
```

debug cdma pdsn a10 ppp**debug cdma pdsn a10 ppp errors**

No traces are attached for this conditional debug.

debug cdma pdsn a10 ppp events**Debug condition: Username = simulator**

```
Open session:
7206-PDSN#
*Mar 1 17:38:01.207: simulator Debug: Condition 1, username simulator triggered, count 1

Close session:
7206-PDSN#
*Mar 1 17:38:29.235: CDMA-PPP: (in) process_input, key=1 size=8 linktype=0 encsize=14
*Mar 1 17:38:29.235: va=Virtual-Access3.1 enctype=16
*Mar 1 17:38:29.235: CDMA-PPP: (in) size=8, datagramstart=0xE000E98,
*Mar 1 17:38:29.235: network_start=0xE000E98
*Mar 1 17:38:29.235: FF 03 C0 21 05 02 00 04
*Mar 1 17:38:29.235: CDMA-PPP: (out) cdma_ppp_oqueue key=1 va=Virtual-Access3.1
*Mar 1 17:38:29.239: simulator Debug: Condition 1, username simulator cleared, count 0
*Mar 1 17:38:29.239: simulator Debug: Condition 1, username simulator cleared, count 0
*Mar 1 17:38:29.247: simulator Debug: Condition 1, username simulator cleared, count 0
```

Debug condition: MNID = 0000000000000001

```
Open session:
7206-PDSN#
*Mar 1 17:43:07.339: 0000000000000001 Debug: Condition 1, calling 0000000000000001
triggered,
count 1
*Mar 1 17:43:07.339: 0000000000000001 Debug: Condition 1, calling 0000000000000001
triggered,
count 1
*Mar 1 17:43:07.339: cdma_sss_post_decode: if_input=
*Mar 1 17:43:07.339: CDMA-PPP: (in) size=20, datagramstart=0xE1FAE18,
*Mar 1 17:43:07.339: network_start=0xE1FAE18
*Mar 1 17:43:07.339: FF 03 C0 21 01 01 00 10 02 06 00 00 00 00 05 06
*Mar 1 17:43:07.339: F4 46 08 EB
*Mar 1 17:43:09.331: cdma_sss_post_decode: if_input=
*Mar 1 17:43:09.331: CDMA-PPP: (in) size=25, datagramstart=0xE001398,
*Mar 1 17:43:09.331: network_start=0xE001398
*Mar 1 17:43:09.331: FF 03 C0 21 02 02 00 15 02 06 00 00 00 00 03 05
*Mar 1 17:43:09.331: C2 23 05 05 06 09 68 55 3D
*Mar 1 17:43:09.331: cdma_sss_post_decode: if_input=
*Mar 1 17:43:09.331: CDMA-PPP: (in) size=34, datagramstart=0xE000998,
*Mar 1 17:43:09.331: network_start=0xE000998
*Mar 1 17:43:09.331: FF 03 C2 23 02 01 00 1E 10 67 38 BE 8D EB A3 6B
```

PDSN Debug Commands

```
*Mar 1 17:43:09.331: F4 2E F6 6E 28 CF 0C 0D B0 73 69 6D 75 6C 61 74
*Mar 1 17:43:09.331: 6F 72
*Mar 1 17:43:09.343: 0000000000000001 Debug: Condition 1, calling 0000000000000001
triggered,
count 1
*Mar 1 17:43:09.343: CDMA-PPP: (out) cdma_ppp_oqueue key=1 va=Virtual-Access3.1
*Mar 1 17:43:09.343: CDMA-PPP: (out) cdma_ppp_oqueue key=1 va=Virtual-Access3.1
*Mar 1 17:43:11.347: CDMA-PPP: (out) cdma_ppp_oqueue key=1 va=Virtual-Access3.1
*Mar 1 17:43:11.347: CDMA-PPP: (in) process_input, key=1 size=14 linktype=0 encsize=14
*Mar 1 17:43:11.347: va=Virtual-Access3.1 enctype=16
*Mar 1 17:43:11.347: CDMA-PPP: (in) size=14, datagramstart=0xE000E98,
*Mar 1 17:43:11.347: network_start=0xE000E98
*Mar 1 17:43:11.347: FF 03 80 21 01 01 00 0A 03 06 00 00 00 00
*Mar 1 17:43:11.347: CDMA-PPP: (in) process_input, key=1 size=14 linktype=0 encsize=14
*Mar 1 17:43:11.347: va=Virtual-Access3.1 enctype=16
*Mar 1 17:43:11.347: CDMA-PPP: (in) size=14, datagramstart=0xE0014D8,
*Mar 1 17:43:11.347: network_start=0xE0014D8
*Mar 1 17:43:11.347: FF 03 80 21 02 00 0A 03 06 06 FF FF FE
*Mar 1 17:43:11.347: CDMA-PPP: (out) cdma_ppp_oqueue key=1 va=Virtual-Access3.1
*Mar 1 17:43:11.347: CDMA-PPP: (in) process_input, key=1 size=14 linktype=0 encsize=14
*Mar 1 17:43:11.347: va=Virtual-Access3.1 enctype=16
*Mar 1 17:43:11.347: CDMA-PPP: (in) size=14, datagramstart=0xE001118,
*Mar 1 17:43:11.347: network_start=0xE001118
*Mar 1 17:43:11.347: FF 03 80 21 01 02 00 0A 03 06 09 03 00 01
*Mar 1 17:43:11.347: CDMA-PPP: (out) cdma_ppp_oqueue key=1 va=Virtual-Access3.1

Close session:
7206-PDSN#
*Mar 1 17:43:22.355: CDMA-PPP: (in) process_input, key=1 size=8 linktype=0 encsize=14
*Mar 1 17:43:22.355: va=Virtual-Access3.1 enctype=16
*Mar 1 17:43:22.355: CDMA-PPP: (in) size=8, datagramstart=0xE1F9E98,
*Mar 1 17:43:22.355: network_start=0xE1F9E98
*Mar 1 17:43:22.355: FF 03 C0 21 05 02 00 04
*Mar 1 17:43:22.355: CDMA-PPP: (out) cdma_ppp_oqueue key=1 va=Virtual-Access3.1
*Mar 1 17:43:22.355: 0000000000000001 Debug: Condition 1, calling 0000000000000001 cleared,
count 0
```

debug cdma pdsn a10 ppp packet

Debug condition: Username = simulator

```
7206-PDSN#
*Mar 1 17:58:17.751: simulator Debug: Condition 1, username simulator triggered, count 1

Close session:
7206-PDSN#
*Mar 1 17:58:29.839: CDMA-PPP: (in) process_input, size=8, datagramstart=0xE000E98,
*Mar 1 17:58:29.839: network_start=0xE000E98
*Mar 1 17:58:29.839: FF 03 C0 21 05 03 00 04
*Mar 1 17:58:29.839: CDMA-PPP: (out) oqueue, size=8, datagramstart=0xE000FD4,
*Mar 1 17:58:29.839: network_start=0xE000FD8
*Mar 1 17:58:29.839: FF 03 C0 21 06 03 00 04
*Mar 1 17:58:29.843: simulator Debug: Condition 1, username simulator cleared, count 0
```

Debug condition: MNID = 0000000000000001

```
Open session:
7206-PDSN#
*Mar 1 17:53:04.459: 0000000000000001 Debug: Condition 1, calling 0000000000000001
triggered,
count 1
*Mar 1 17:53:06.463: CDMA-PPP: (out) oqueue, size=8, datagramstart=0xE000FD4,
*Mar 1 17:53:06.463: network_start=0xE000FD8
```

```

*Mar 1 17:53:06.463: FF 03 C2 23 03 01 00 04
*Mar 1 17:53:06.463: CDMA-PPP: (out) oqueue, size=14, datagramstart=0xE166DF4,
*Mar 1 17:53:06.463: network_start=0xE166DF8
*Mar 1 17:53:06.463: FF 03 80 21 01 00 0A 03 06 06 FF FF FE
*Mar 1 17:53:08.467: CDMA-PPP: (out) oqueue, size=14, datagramstart=0xE000714,
*Mar 1 17:53:08.467: network_start=0xE000718
*Mar 1 17:53:08.467: FF 03 80 21 01 02 00 0A 03 06 06 FF FF FE
*Mar 1 17:53:08.467: CDMA-PPP: (in) process_input, size=14, datagramstart=0xE000AD8,
*Mar 1 17:53:08.467: network_start=0xE000AD8
*Mar 1 17:53:08.467: FF 03 80 21 01 01 00 0A 03 06 00 00 00 00
*Mar 1 17:53:08.467: CDMA-PPP: (in) process_input, size=14, datagramstart=0xE844358,
*Mar 1 17:53:08.467: network_start=0xE844358
*Mar 1 17:53:08.467: FF 03 80 21 02 02 00 0A 03 06 06 FF FF FE
*Mar 1 17:53:08.467: CDMA-PPP: (out) oqueue, size=14, datagramstart=0xE844AD4,
*Mar 1 17:53:08.467: network_start=0xE844AD8
*Mar 1 17:53:08.467: FF 03 80 21 03 01 00 0A 03 06 09 03 00 01
*Mar 1 17:53:08.467: CDMA-PPP: (in) process_input, size=14, datagramstart=0xE1FACD8,
*Mar 1 17:53:08.467: network_start=0xE1FACD8
*Mar 1 17:53:08.467: FF 03 80 21 01 02 00 0A 03 06 09 03 00 01
*Mar 1 17:53:08.467: CDMA-PPP: (out) oqueue, size=14, datagramstart=0xE844C14,
*Mar 1 17:53:08.471: network_start=0xE844C18
*Mar 1 17:53:08.471: FF 03 80 21 02 02 00 0A 03 06 09 03 00 01

Close session:
7206-PDSN#
*Mar 1 17:53:17.919: CDMA-PPP: (in) process_input, size=8, datagramstart=0xE1F9C18,
*Mar 1 17:53:17.919: network_start=0xE1F9C18
*Mar 1 17:53:17.919: FF 03 C0 21 05 02 00 04
*Mar 1 17:53:17.919: CDMA-PPP: (out) oqueue, size=8, datagramstart=0xE000854,
*Mar 1 17:53:17.919: network_start=0xE000858
*Mar 1 17:53:17.919: FF 03 C0 21 06 02 00 04
*Mar 1 17:53:17.919: 0000000000000001 Debug: Condition 1, calling 0000000000000001 cleared,
count 0

```

debug cdma pdsn a11

These debugs allow the a11 call information to be displayed. The PDSN mnid debug works best for these debugs.



Note In addition to the generic username and calling conditions functionality, this command also supports the tunnel-key and mnid triggers; however, only one tunnel-key value can be triggered at a time.

debug cdma pdsn a11 errors

No traces are attached for this conditional debug.

debug cdma pdsn a11 errors mnid *value*

No traces are attached for this conditional debug.

debug cdma pdsn a11 events

Debug Condition: Username = simulator

Open session:

7206-PDSN#

*Mar 1 18:55:30.647: simulator Debug: Condition 1, username simulator triggered, count 1

PDSN Debug Commands

```

Close session:
7206-PDSN#
*Mar 1 18:55:46.083: CDMA-RP: (out) send_rp_update, session=5.0.0.2-4.0.0.1-1
IMSI=0000000000000001
*Mar 1 18:55:46.083: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 18:55:46.083: CDMA-RP: (ack) process_rp_update_ack, homeagent=0.0.0.0
coaddr=4.0.0.1
*Mar 1 18:55:46.083: lifetime=0 id=BC9741A3-EFA6D739 IMSI=0000000000000001
*Mar 1 18:55:46.083: CDMA-RP: Reg Upd Ack Failed - (85H) Identification mismatch
*Mar 1 18:55:46.083: CDMA-RP: (out) send_rp_update, session=5.0.0.2-4.0.0.1-1
IMSI=0000000000000001
*Mar 1 18:55:46.083: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 18:55:46.083: CDMA-RP: (ack) process_rp_update_ack, homeagent=0.0.0.0
coaddr=4.0.0.1
*Mar 1 18:55:46.083: lifetime=0 id=BC9741A3-1 IMSI=0000000000000001
*Mar 1 18:55:46.083: CDMA-RP: (req) rp_req_lifetime_zero 5.0.0.2-4.0.0.1-1
*Mar 1 18:55:46.083: IMSI=0000000000000001
*Mar 1 18:55:46.083: CDMA-RP: (out) rp_reply session=5.0.0.2-4.0.0.1-1, lifetime=0
*Mar 1 18:55:46.087: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 18:55:46.087: simulator Debug: Condition 1, username simulator cleared, count 0

```

Debug Condition: MNID = 0000000000000001

```

Open session:
7206-PDSN#
*Mar 1 18:37:37.043: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered,
count 1
*Mar 1 18:37:37.043: CDMA-RP: (out) rp_reply session=5.0.0.2-4.0.0.1-1, lifetime=1800
*Mar 1 18:37:37.043: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 18:37:39.071: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered,
count 1
*Mar 1 18:37:41.079: CDMA-RP: simple ip visitor added, mn=9.3.0.1, ha=0.0.0.0

Close session:
7206-PDSN#
*Mar 1 18:37:56.179: CDMA-RP: (out) send_rp_update, session=5.0.0.2-4.0.0.1-1
IMSI=0000000000000001
*Mar 1 18:37:56.179: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 18:37:56.179: CDMA-RP: (ack) process_rp_update_ack, homeagent=0.0.0.0
coaddr=4.0.0.1
*Mar 1 18:37:56.179: lifetime=0 id=BC973D76-C57B479 IMSI=0000000000000001
*Mar 1 18:37:56.183: CDMA-RP: Reg Upd Ack Failed - (85H) Identification mismatch
*Mar 1 18:37:56.183: CDMA-RP: (out) send_rp_update, session=5.0.0.2-4.0.0.1-1
IMSI=0000000000000001
*Mar 1 18:37:56.183: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 18:37:56.183: CDMA-RP: (ack) process_rp_update_ack, homeagent=0.0.0.0
coaddr=4.0.0.1
*Mar 1 18:37:56.183: lifetime=0 id=BC973D76-1 IMSI=0000000000000001
*Mar 1 18:37:56.183: CDMA-RP: (req) rp_req_lifetime_zero 5.0.0.2-4.0.0.1-1
*Mar 1 18:37:56.183: IMSI=0000000000000001
*Mar 1 18:37:56.183: CDMA-RP: (out) rp_reply session=5.0.0.2-4.0.0.1-1, lifetime=0
*Mar 1 18:37:56.183: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 18:37:56.183: 0000000000000001 Debug: Condition 2, calling 0000000000000001 cleared,
count 0

```

debug cdma pdsn a11 events mnid 0000000000000001

This conditional debug triggers a debug message based on the IMSI number. It does not use the IOS conditional debug triggers.

```

Open session:
7206-PDSN#

```

```

*Mar 1 19:02:52.383: CDMA-RP: len=8, 01-00-00-00-00-00-10 convert to 0000000000000001
(15 digits), type=IMSI
*Mar 1 19:02:52.383: CDMA-RP: (req) process_rp_req, homeagent=5.0.0.2 coaddr=4.0.0.1
*Mar 1 19:02:52.383: lifetime=1800 id=AF3CDC5B-3A656D65
IMSI=0000000000000001
*Mar 1 19:02:52.383: CDMA-RP: (req) rp_req_create, ha=5.0.0.2, coa=4.0.0.1, key=1
IMSI=0000000000000001
*Mar 1 19:02:52.383: CDMA-RP: (out) rp_reply session=5.0.0.2-4.0.0.1-1, lifetime=1800
*Mar 1 19:02:52.383: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 19:02:56.407: CDMA-RP: simple ip visitor added, mn=9.3.0.1, ha=0.0.0.0

Close session:
7206-PDSN#
*Mar 1 19:03:03.691: CDMA-RP: (out) send_rp_update, session=5.0.0.2-4.0.0.1-1
IMSI=0000000000000001
*Mar 1 19:03:03.691: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 19:03:03.691: CDMA-RP: len=8, 01-00-00-00-00-00-10 convert to 0000000000000001
(15 digits), type=IMSI
*Mar 1 19:03:03.691: CDMA-RP: (ack) process_rp_update_ack, homeagent=0.0.0.0
coaddr=4.0.0.1
*Mar 1 19:03:03.691: lifetime=0 id=BC974359-893E76D9 IMSI=0000000000000001
*Mar 1 19:03:03.691: CDMA-RP: Reg Upd Ack Failed - (85H) Identification mismatch
*Mar 1 19:03:03.691: CDMA-RP: (out) send_rp_update, session=5.0.0.2-4.0.0.1-1
IMSI=0000000000000001
*Mar 1 19:03:03.691: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1
*Mar 1 19:03:03.691: CDMA-RP: len=8, 01-00-00-00-00-00-10 convert to 0000000000000001
(15 digits), type=IMSI
*Mar 1 19:03:03.691: CDMA-RP: (ack) process_rp_update_ack, homeagent=0.0.0.0
coaddr=4.0.0.1
*Mar 1 19:03:03.691: lifetime=0 id=BC974359-1 IMSI=0000000000000001
*Mar 1 19:03:03.691: CDMA-RP: len=8, 01-00-00-00-00-00-10 convert to 0000000000000001
(15 digits), type=IMSI
*Mar 1 19:03:03.691: CDMA-RP: (req) process_rp_req, homeagent=5.0.0.2 coaddr=4.0.0.1
*Mar 1 19:03:03.691: lifetime=0 id=AF3CDC66-893E76D9 IMSI=0000000000000001
*Mar 1 19:03:03.691: CDMA-RP: (req) rp_req_lifetime_zero 5.0.0.2-4.0.0.1-1
*Mar 1 19:03:03.691: IMSI=0000000000000001
*Mar 1 19:03:03.691: CDMA-RP: (out) rp_reply session=5.0.0.2-4.0.0.1-1, lifetime=0
*Mar 1 19:03:03.691: CDMA-RP: (out) Setup RP message, ha=5.0.0.2 coa=4.0.0.1 key=1

```

debug cdma pdsn a11 packet

Normal conditional debug commands do not work as well with this debug. The best conditional debug to use for this case is the **debug cdma pdsn a11 packet mnid value** command.

Debug Condition: Username = simulator

```

Open session:
7206-PDSN#
*Mar 1 19:09:02.103: simulator Debug: Condition 1, username simulator triggered, count 1

Close session:
7206-PDSN#
*Mar 1 19:09:26.771: simulator Debug: Condition 1, username simulator cleared, count 0

```

Debug Condition: MNID = 0000000000000001

```

Open session:
7206-PDSN#
*Mar 1 19:14:00.163: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered,
count 1

Close session:

```

PDSN Debug Commands

```

7206-PDSN#
*Mar 1 19:14:16.203: 0000000000000001 Debug: Condition 2, calling 0000000000000001 cleared,
count 0

debug cdma pdsn a11 packets mnid 0000000000000001

Open session:
7206-PDSN#
*Mar 1 19:26:27.735: CDMA-RP: extension type=38, len=0
*Mar 1 19:26:27.735: CDMA-RP: extension type=38, len=0
*Mar 1 19:26:27.735: CDMA-RP: extension type=38, len=0
*Mar 1 19:26:27.735: CDMA-RP: extension type=32, len=20
*Mar 1 19:26:27.735:          00 00 01 00 AB A4 29 DB 73 5C 56 CF E4 EA D1 C7
*Mar 1 19:26:27.735:          9C 7C 78 5C

Close session:
7206-PDSN#
*Mar 1 19:26:37.243: CDMA-RP: extension type=40, len=20
*Mar 1 19:26:37.243:          00 00 01 00 80 DB 19 02 0E 39 F5 F7 1C C5 9C 06
*Mar 1 19:26:37.243:          16 7A 7D 95
*Mar 1 19:26:37.243: CDMA-RP: extension type=40, len=20
*Mar 1 19:26:37.243:          00 00 01 00 F3 C3 74 C0 46 58 BD 7C 2B 1A D3 39
*Mar 1 19:26:37.243:          99 6F 3F B6
*Mar 1 19:26:37.243: CDMA-RP: extension type=38, len=0
*Mar 1 19:26:37.243: CDMA-RP: extension type=32, len=20
*Mar 1 19:26:37.243:          00 00 01 00 EE 31 1F 76 AD CD 04 C4 0B 21 D2 06
*Mar 1 19:26:37.243:          D6 5F C1 08

```

debug cdma pdsn accounting

This displays the PDSN accounting information.

Debug Condition: Username = simulator

```

Open session:
*Mar 1 19:28:55.575: simulator Debug: Condition 1, username simulator triggered, count 1
*Mar 1 19:28:55.575: CDMA-ACCT: calling accounting flow start
*Mar 1 19:28:55.575: CDMA-ACCT: UDR for session 0x642E1870
*Mar 1 19:28:55.575:      A - A1:0000000000000001 A2:0000000000000001
*Mar 1 19:28:55.575:      B - B1:9.3.0.1 B2:simulator
*Mar 1 19:28:55.575:      C - 'C2:31 C3:0
*Mar 1 19:28:55.575:      D - D1:0.0.0.0 D3:4.0.0.1 D4:000000000000
*Mar 1 19:28:55.575:      E - E1:0000
*Mar 1 19:28:55.575:      F - F1:00F1 F2:00F2 F5:00F5 F6:F6 F7:F7 F8:F8 F9:F9 F10:FA
F11:01 F12:00 F13:05 F14:00
*Mar 1 19:28:55.575:      G - G1:0 G2:0 G3:0 G4:731014135 G8:0 G9:0 G10:0 G11:0 G12:0
G13:0 G14:183 G15:0 G16:0
*Mar 1 19:28:55.575:      I - I1:0 I4:0
*Mar 1 19:28:55.575:      Y - Y2:1
*Mar 1 19:28:55.575:      Packets- in:0 out:0

Close session:
7206-PDSN#
*Mar 1 19:29:07.331: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:29:07.331: CDMA-ACCT: VSA type:[40] len:[6] 00 00 00 03 Processing Y1
*Mar 1 19:29:07.331: CDMA-ACCT: Stop airlink record received
*Mar 1 19:29:07.331: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:29:07.331: CDMA-ACCT: VSA type:[41] len:[6] 00 00 00 01 CDMA-ACCT:
Processing Y2
*Mar 1 19:29:07.331: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:29:07.331: CDMA-ACCT: VSA type:[42] len:[6] 00 00 00 02 CDMA-ACCT:
Processing Y3

```

```
*Mar 1 19:29:07.331: CDMA-ACCT: Current Attribute type:0x[2E] len:[6] 00 00 00 00 10
Processing G8
*Mar 1 19:29:07.331: CDMA-ACCT: calling accounting flow stop
*Mar 1 19:29:07.331: CDMA-ACCT: UDR for session 0x642E1870
*Mar 1 19:29:07.331:     A - A1:0000000000000001 A2:0000000000000001
*Mar 1 19:29:07.331:     B - B1:9.3.0.1 B2:simulator
*Mar 1 19:29:07.331:     C - 'C2:31 C3:0
*Mar 1 19:29:07.331:     D - D1:0.0.0.0 D3:4.0.0.1 D4:000000000000
*Mar 1 19:29:07.331:     E - E1:0000
*Mar 1 19:29:07.331:     F - F1:00F1 F2:00F2 F5:00F5 F6:F6 F7:F7 F8:F8 F9:F9 F10:FA
F11:01 F12:00 F13:03 F14:00
*Mar 1 19:29:07.331:     G - G1:0 G2:0 G3:0 G4:731014147 G8:16 G9:0 G10:0 G11:0 G12:0
G13:0 G14:200 G15:0 G16:0
*Mar 1 19:29:07.331:     I - I1:0 I4:0
*Mar 1 19:29:07.331:     Y - Y2:1
*Mar 1 19:29:07.331:     Packets- in:0 out:0
*Mar 1 19:29:07.331: simulator Debug: Condition 1, username simulator cleared, count 0
```

Debug Condition: MNID = 0000000000000001

```
Open session:
7206-PDSN#
*Mar 1 19:37:08.211: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered, count 1
*Mar 1 19:37:08.211: CDMA-ACCT: Accounting session start
*Mar 1 19:37:08.211: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.211: CDMA-ACCT: VSA type:[40] len:[6] 00 00 00 01 Processing Y1
*Mar 1 19:37:08.211: CDMA-ACCT: Setup airlink record received

*Mar 1 19:37:08.211: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.211: CDMA-ACCT: VSA type:[41] len:[6] 00 00 00 01 CDMA-ACCT:
Processing Y2
*Mar 1 19:37:08.211: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.211: CDMA-ACCT: VSA type:[42] len:[6] 00 00 00 00 CDMA-ACCT:
Processing Y3
*Mar 1 19:37:08.211: CDMA-ACCT: Current Attribute type:0x[1F] len:[17] 30 30 30 30 30 30 30
30 30 30 30 30 30 30 31 Processing A1
*Mar 1 19:37:08.211: CDMA-ACCT: Current Attribute type:0x[1A] len:[23]
*Mar 1 19:37:08.211: CDMA-ACCT: VSA type:[52] len:[17] 30 30 30 30 30 30 30 30 30 30
30 30 30 30 31 Processing A2
*Mar 1 19:37:08.211: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.211: CDMA-ACCT: VSA type:[9] len:[6] 04 00 00 01 Processing D3
*Mar 1 19:37:08.211: CDMA-ACCT: Current Attribute type:0x[1A] len:[20]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[10] len:[14] 30 30 30 30 30 30 30 30 30 30
30 30 Processing D4
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[40] len:[6] 00 00 00 02 Processing Y1
*Mar 1 19:37:08.215: CDMA-ACCT: Start airlink record received
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[41] len:[6] 00 00 00 01 CDMA-ACCT:
Processing Y2
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[42] len:[6] 00 00 00 01 CDMA-ACCT:
Processing Y3
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[11] len:[6] 00 00 00 00 Processing E1
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[12] len:[6] 00 00 00 F1 Processing F1
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[13] len:[6] 00 00 00 F2 Processing F2
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[14] len:[6] 00 00 00 F3 Ignoring F3
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[15] len:[6] 00 00 00 F4 Ignoring F4
```

■ PDSN Debug Commands

```

*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[16] len:[6] 00 00 00 F5 Processing F5
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[17] len:[6] 00 00 00 F6 Processing F6
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[18] len:[6] 00 00 00 F7 Processing F7
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[19] len:[6] 00 00 00 F8 Processing F8
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[20] len:[6] 00 00 00 F9 Processing F9
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[21] len:[6] 00 00 00 FA Processing F10
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[50] len:[6] 00 00 00 00 Processing F14
*Mar 1 19:37:08.215: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:08.215: CDMA-ACCT: VSA type:[39] len:[6] 00 00 00 00 Processing I4
*Mar 1 19:37:12.247: CDMA-ACCT: calling accounting flow start
*Mar 1 19:37:12.247: CDMA-ACCT: UDR for session 0x642E1870
*Mar 1 19:37:12.247: A - A1:0000000000000001 A2:0000000000000001
*Mar 1 19:37:12.247: B - B1:9.3.0.1 B2:simulator
*Mar 1 19:37:12.247: C - 'C2:32 C3:0
*Mar 1 19:37:12.247: D - D1:0.0.0.0 D3:4.0.0.1 D4:000000000000
*Mar 1 19:37:12.247: E - E1:0000
*Mar 1 19:37:12.247: F - F1:00F1 F2:00F2 F5:00F5 F6:F6 F7:F7 F8:F8 F9:F9 F10:FA
F11:01 F12:00 F13:05 F14:00
*Mar 1 19:37:12.247: G - G1:0 G2:0 G3:0 G4:731014632 G8:0 G9:0 G10:0 G11:0 G12:0
G13:0 G14:221 G15:0 G16:0

*Mar 1 19:37:12.247: I - I1:0 I4:0
*Mar 1 19:37:12.247: Y - Y2:1
*Mar 1 19:37:12.247: Packets- in:0 out:0

Close session:
7206-PDSN#
*Mar 1 19:37:22.515: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:22.515: CDMA-ACCT: VSA type:[40] len:[6] 00 00 00 03 Processing Y1
*Mar 1 19:37:22.515: CDMA-ACCT: Stop airlink record received
*Mar 1 19:37:22.515: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:22.515: CDMA-ACCT: VSA type:[41] len:[6] 00 00 00 01 CDMA-ACCT:
Processing Y2
*Mar 1 19:37:22.515: CDMA-ACCT: Current Attribute type:0x[1A] len:[12]
*Mar 1 19:37:22.515: CDMA-ACCT: VSA type:[42] len:[6] 00 00 00 02 CDMA-ACCT:
Processing Y3
*Mar 1 19:37:22.515: CDMA-ACCT: Current Attribute type:0x[2E] len:[6] 00 00 00 0E
Processing G8
*Mar 1 19:37:22.515: CDMA-ACCT: calling accounting flow stop
*Mar 1 19:37:22.515: CDMA-ACCT: UDR for session 0x642E1870
*Mar 1 19:37:22.515: A - A1:0000000000000001 A2:0000000000000001
*Mar 1 19:37:22.515: B - B1:9.3.0.1 B2:simulator
*Mar 1 19:37:22.515: C - 'C2:32 C3:0
*Mar 1 19:37:22.515: D - D1:0.0.0.0 D3:4.0.0.1 D4:000000000000
*Mar 1 19:37:22.515: E - E1:0000
*Mar 1 19:37:22.515: F - F1:00F1 F2:00F2 F5:00F5 F6:F6 F7:F7 F8:F8 F9:F9 F10:FA
F11:01 F12:00 F13:03 F14:00
*Mar 1 19:37:22.515: G - G1:0 G2:0 G3:0 G4:731014642 G8:14 G9:0 G10:0 G11:0 G12:0
G13:0 G14:238 G15:0 G16:0
*Mar 1 19:37:22.515: I - I1:0 I4:0
*Mar 1 19:37:22.515: Y - Y2:1
*Mar 1 19:37:22.515: Packets- in:0 out:0
*Mar 1 19:37:22.515: 0000000000000001 Debug: Condition 2, calling 0000000000000001 cleared,
count 0

```

debug cdma pdsn session

This displays the PDSN session information.

debug cdma pdsn session errors

No debug traces are attached for this conditional debug.

debug cdma pdsn session events

Debug Condition: Username = simulator

```
Open session:
7206-PDSN#
*Mar 1 19:58:49.043: simulator Debug: Condition 1, username simulator triggered, count 1
*Mar 1 19:58:49.043: CDMA-SM: cdma_sm_create_flow mn=9.3.0.1, ha=0.0.0.0 nai=simulator,
service=0
*Mar 1 19:58:49.043: CDMA-SM: cdma_sm_create_flow Sending Acc Req for initial quota for
prepaid user

Close session:
*Mar 1 19:59:40.943: CDMA-SM: cdma_sm_search_session_by_grekeyfind session: key=1
imsi=0000000000000001
*Mar 1 19:59:40.943: CDMA-SM: Received PPP response=6 for session 5.0.0.2-4.0.0.1-1,
state=8
*Mar 1 19:59:40.943: CDMA-SM: Destroy SSS switch context for session 5.0.0.2-4.0.0.1-1
*Mar 1 19:59:40.943: CDMA-SM: cdma_sm_enter_dismantle_state session(5.0.0.2-4.0.0.1-1)
*Mar 1 19:59:40.943: CDMA-SM: new_cdma_sm_search_session_by_imsifind session: key=1
imsi=0000000000000001
*Mar 1 19:59:40.947: CDMA-SM: new_cdma_sm_search_session_by_imsifind session: key=1
imsi=0000000000000001
*Mar 1 19:59:40.947: CDMA-SM: new_cdma_sm_search_session_by_imsifind session: key=1
imsi=0000000000000001
*Mar 1 19:59:40.947: CDMA-SM: cdma_sm_delete_session1 key=1 imsi=0000000000000001
*Mar 1 19:59:40.947: CDMA-SM: delete flow simulator in session 0000000000000001
*Mar 1 19:59:40.947: simulator Debug: Condition 1, username simulator cleared, count 0
```

Debug Condition: MNID = 0000000000000001

```
Open session:
7206-PDSN#
*Mar 1 20:01:43.919: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered,
count 1
*Mar 1 20:01:43.919: CDMA-SM: cdma_sm_create_session pdsn=5.0.0.2, pcf=4.0.0.1, key=1
*Mar 1 20:01:43.919: CDMA-SM: cdma_sm_create_session session subblock allocated,
sb=0x642E1864 session=0x642E1870
*Mar 1 20:01:43.919: CDMA-HDLC: cdma_hdlc_create_session init ahdhc for session
5.0.0.2-4.0.0.1-1
*Mar 1 20:01:43.919: CDMA-SM: Access IE handle=0x64322C34 allocated for session
5.0.0.2-4.0.0.1-1
*Mar 1 20:01:43.919: CDMA-SM: SSS switch handle allocated for session 5.0.0.2-4.0.0.1-1
sss_circuit=0x64332B24, sss_switch_handle=0x7E000023
*Mar 1 20:01:43.919: CDMA-SM: SSS sss_sip_service_request succeeds for session
5.0.0.2-4.0.0.1-1
*Mar 1 20:01:43.919: CDMA-SM: Received SSS response=1 for session 5.0.0.2-4.0.0.1-1,
state=3
*Mar 1 20:01:43.919: CDMA-SM: PPP bind request succeeds for session 5.0.0.2-4.0.0.1-1
*Mar 1 20:01:43.919: CDMA-SM: Received PPP response=1 for session 5.0.0.2-4.0.0.1-1,
state=4
*Mar 1 20:01:43.919: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered,
```

PDSN Debug Commands

```

count 1
*Mar 1 20:01:43.923: CDMA-SM: cdma_sm_search_session_by_grekeyfind session: key=1
imsi=0000000000000001
*Mar 1 20:01:43.923: CDMA-SM: cdma_sm_search_session_by_grekeyfind session: key=1
imsi=0000000000000001
*Mar 1 20:01:45.907: CDMA-SM: Received PPP response=3 for session 5.0.0.2-4.0.0.1-1,
state=5
*Mar 1 20:01:45.911: CDMA-SM: request vaccess for session 5.0.0.2-4.0.0.1-1
*Mar 1 20:01:45.919: CDMA-PPP: Subblock session 5.0.0.2-4.0.0.1-1 (0x642E1870) to
Virtual-Access3.1 swidb=0x62B488A8 sb=0x642E1864
*Mar 1 20:01:45.919: CDMA-SM: clone vaccess=Virtual-Access3.1 subif_state=0
hwidb->state=4
*Mar 1 20:01:45.919: CDMA-SM: Set session state=7 for session 5.0.0.2-4.0.0.1-1
*Mar 1 20:01:45.919: CDMA-SM: Received PPP response=2 for session 5.0.0.2-4.0.0.1-1,
state=7
*Mar 1 20:01:45.919: 00000000000001 Debug: Condition 2, calling 0000000000000001
triggered,
count 1
*Mar 1 20:01:45.919: CDMA-SM: state=7, event=1 for session 5.0.0.2-4.0.0.1-1
*Mar 1 20:01:45.919: CDMA-SM: Vaccess Virtual-Access3.1 UP for session 0x642E1870
*Mar 1 20:01:47.927: CDMA-SM: cdma_sm_search_session_by_grekeyfind session: key=1
imsi=0000000000000001
*Mar 1 20:01:47.927: CDMA-SM: cdma_sm_search_session_by_grekeyfind session: key=1
imsi=0000000000000001
*Mar 1 20:01:47.927: CDMA-SM: cdma_sm_create_flow mn=9.3.0.1, ha=0.0.0.0 nai=simulator,
service=0
*Mar 1 20:01:47.927: CDMA-SM: cdma_sm_create_flow Sending Acc Req for initial quota for
prepaid user
Close session:
7206-PDSN#
*Mar 1 20:10:31.814: CDMA-SM: cdma_sm_search_session_by_grekeyfind session: key=1
imsi=0000000000000001
*Mar 1 20:10:31.814: CDMA-SM: Received PPP response=6 for session 5.0.0.2-4.0.0.1-1,
state=8
*Mar 1 20:10:31.814: CDMA-SM: Destroy SSS switch context for session 5.0.0.2-4.0.0.1-1
*Mar 1 20:10:31.814: CDMA-SM: cdma_sm_enter_dismantle_state session(5.0.0.2-4.0.0.1-1)
*Mar 1 20:10:31.818: CDMA-SM: new_cdma_sm_search_session_by_imsifind session: key=1
imsi=0000000000000001
*Mar 1 20:10:31.818: CDMA-SM: new_cdma_sm_search_session_by_imsifind session: key=1
imsi=0000000000000001
*Mar 1 20:10:31.818: CDMA-SM: new_cdma_sm_search_session_by_imsifind session: key=1
imsi=0000000000000001
*Mar 1 20:10:31.818: CDMA-SM: cdma_sm_delete_session1 key=1 imsi=0000000000000001
*Mar 1 20:10:31.818: CDMA-SM: delete flow simulator in session 0000000000000001
*Mar 1 20:10:31.818: 00000000000001 Debug: Condition 1, calling 0000000000000001 cleared,
count 0

```

debug cdma pdsn service-selection (Service Provisioning)

Attached are debug messages when **debug cdma pdsn service-selection** is enabled.

Debug Condition: Username = simulator

Open session:

```
7206-PDSN#
*Mar 1 15:54:19.752: ppp7 Debug: Condition 1, username simulator triggered, count 1
*Mar 1 15:54:19.752: CDMA-SP: Hook Stage is PPP_STAGE_UNAUTHENTICATED_NAME
*Mar 1 15:54:19.800: CDMA-SP: Hook Stage is PPP_STAGE_AUTHENTICATED_NAME
*Mar 1 15:54:19.800: (0x1A000006) CDMA-SP: CDMA/SP/AAA: PPP get author data
*Mar 1 15:54:19.800: (0x1A000006) CDMA-SP: CDMA/SP/AAA :AAA_AT_CDMA_USER_CLASS
*Mar 1 15:54:19.800: (0x1A000006) CDMA-SP: CDMA user-class returns 1
*Mar 1 15:54:19.800: (0x1A000006) CDMA-SP: CDMA/SP/AAA :AAA_AT_CRB_ENTITY_TYPE
*Mar 1 15:54:19.800: (0x1A000006) CDMA-SP: USER_TYPE returns 1
*Mar 1 15:54:19.800: (0x1A000006) CDMA-SP: Checking for Locally configured SPI
*Mar 1 15:54:19.800: (0x1A000006) CDMA-SP: Nai_remote_name is =simulator
*Mar 1 15:54:19.808: CDMA-SP: peer address negotiated
*Mar 1 15:54:19.808: Virtual-Access3.1 CDMA-SP: user_class=1, ms_ipaddr_req=0
*Mar 1 15:54:19.808: Virtual-Access3.1 CDMA-SP: Adding simple ip flow, user=simulator,
mn=9.3.0.1
```

Debug condition: MNID = 0000000000000001

Open session:

```
PRG5-7206-PDSN#
*Mar 1 15:54:57.167: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered, count 1
*Mar 1 15:54:59.175: CDMA-SP: Hook Stage is PPP_STAGE_UNAUTHENTICATED_NAME
*Mar 1 15:54:59.187: CDMA-SP: Hook Stage is PPP_STAGE_AUTHENTICATED_NAME
*Mar 1 15:54:59.187: (0xEF000007) CDMA-SP: CDMA/SP/AAA: PPP get author data
*Mar 1 15:54:59.187: (0xEF000007) CDMA-SP: CDMA/SP/AAA :AAA_AT_CDMA_USER_CLASS
*Mar 1 15:54:59.187: (0xEF000007) CDMA-SP: CDMA user-class returns 1
*Mar 1 15:54:59.187: (0xEF000007) CDMA-SP: CDMA/SP/AAA :AAA_AT_CRB_ENTITY_TYPE
*Mar 1 15:54:59.187: (0xEF000007) CDMA-SP: USER_TYPE returns 1
*Mar 1 15:54:59.187: (0xEF000007) CDMA-SP: Checking for Locally configured SPI
*Mar 1 15:54:59.187: (0xEF000007) CDMA-SP: Nai_remote_name is =simulator
*Mar 1 15:54:59.199: CDMA-SP: peer address negotiated
*Mar 1 15:54:59.199: Virtual-Access3.1 CDMA-SP: user_class=1, ms_ipaddr_req=0
*Mar 1 15:54:59.199: Virtual-Access3.1 CDMA-SP: Adding simple ip flow, user=simulator,
mn=9.3.0.1
```

debug ppp

Attached are debug messages when **debug ppp negotiation** and **debug ppp authentication** are enabled.

Debug Condition: Username = simulator

Open session:

```
7206-PDSN#
*Mar 1 20:12:40.534: simulator Debug: Condition 1, username simulator triggered, count 1
*Mar 1 20:12:40.534: Vi3.1 IPCP: Install route to 9.3.0.1
*Mar 1 20:12:40.534: Vi3.1 IPCP: Add link info for cef entry 9.3.0.1
```

Close session:

```
7206-PDSN#
*Mar 1 20:12:51.030: Vi3.1 PPP: I pkt type 0xC021, datagramsize 8 link[ppp]
```

```
*Mar 1 20:12:51.030: Vi3.1 LCP: I TERMREQ [Open] id 3 len 4
*Mar 1 20:12:51.030: Vi3.1 LCP: O TERMACK [Open] id 3 len 4
*Mar 1 20:12:51.030: Vi3.1 IPCP: Remove link info for cef entry 9.3.0.1
*Mar 1 20:12:51.030: Vi3.1 IPCP: State is Closed
*Mar 1 20:12:51.030: Vi3.1 PPP: Phase is TERMINATING
*Mar 1 20:12:51.030: Vi3.1 IPCP: Remove route to 9.3.0.1
*Mar 1 20:12:51.034: Vi3.1 LCP: State is Closed
*Mar 1 20:12:51.034: Vi3.1 PPP: Phase is DOWN
*Mar 1 20:12:51.046: simulator Debug: Condition 1, username simulator cleared, count 0
```

Debug Condition: MNID = 0000000000000001

```
Open session:
7206-PDSN#
*Mar 1 20:16:09.294: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered, count 1
*Mar 1 20:16:09.298: ppp40 LCP: I CONFREQ [REQsent] id 1 len 16
*Mar 1 20:16:09.298: ppp40 LCP: ACCM 0x00000000 (0x020600000000)
*Mar 1 20:16:09.298: ppp40 LCP: MagicNumber 0xF4D2238E (0x0506F4D2238E)
*Mar 1 20:16:09.298: ppp40 LCP: O CONFACK [REQsent] id 1 len 16
*Mar 1 20:16:09.298: ppp40 LCP: ACCM 0x00000000 (0x020600000000)
*Mar 1 20:16:09.298: ppp40 LCP: MagicNumber 0xF4D2238E (0x0506F4D2238E)
*Mar 1 20:16:11.282: ppp40 LCP: TIMEOUT: State ACKsent
*Mar 1 20:16:11.282: ppp40 LCP: O CONFREQ [ACKsent] id 2 len 21
*Mar 1 20:16:11.282: ppp40 LCP: ACCM 0x00000000 (0x020600000000)
*Mar 1 20:16:11.282: ppp40 LCP: AuthProto CHAP (0x0305C22305)
*Mar 1 20:16:11.282: ppp40 LCP: MagicNumber 0x09F47096 (0x050609F47096)
*Mar 1 20:16:11.282: ppp40 LCP: I CONFACK [ACKsent] id 2 len 21
*Mar 1 20:16:11.282: ppp40 LCP: ACCM 0x00000000 (0x020600000000)
*Mar 1 20:16:11.282: ppp40 LCP: AuthProto CHAP (0x0305C22305)
*Mar 1 20:16:11.282: ppp40 LCP: MagicNumber 0x09F47096 (0x050609F47096)
*Mar 1 20:16:11.282: ppp40 LCP: State is Open
*Mar 1 20:16:11.282: ppp40 PPP: Phase is AUTHENTICATING, by this end
*Mar 1 20:16:11.282: ppp40 CHAP: O CHALLENGE id 1 len 35 from "7206-PDSN"
*Mar 1 20:16:11.282: ppp40 CHAP: I RESPONSE id 1 len 30 from "simulator"
*Mar 1 20:16:11.282: ppp40 PPP: Phase is FORWARDING, Attempting Forward
*Mar 1 20:16:11.282: ppp40 PPP: Phase is AUTHENTICATING, Unauthenticated User
*Mar 1 20:16:11.282: ppp40 PPP: Sent CHAP LOGIN Request to AAA
*Mar 1 20:16:11.286: ppp40 PPP: Received LOGIN Response from AAA = PASS
*Mar 1 20:16:11.286: ppp40 PPP: Phase is FORWARDING, Attempting Forward
*Mar 1 20:16:11.294: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered, count 1
*Mar 1 20:16:11.294: Vi3.1 PPP: Phase is AUTHENTICATING, Authenticated User
*Mar 1 20:16:11.294: Vi3.1 CHAP: O SUCCESS id 1 len 4
*Mar 1 20:16:11.294: Vi3.1 PPP: Phase is UP
*Mar 1 20:16:11.294: Vi3.1 IPCP: O CONFREQ [Closed] id 1 len 10
*Mar 1 20:16:11.294: Vi3.1 IPCP: Address 6.255.255.254 (0x030606FFFFFE)
*Mar 1 20:16:11.294: Vi3.1 PPP: Process pending packets
*Mar 1 20:16:13.298: Vi3.1 IPCP: TIMEOUT: State REQsent
*Mar 1 20:16:13.298: Vi3.1 IPCP: O CONFREQ [REQsent] id 2 len 10
*Mar 1 20:16:13.298: Vi3.1 IPCP: Address 6.255.255.254 (0x030606FFFFFE)
*Mar 1 20:16:13.302: Vi3.1 PPP: I pkt type 0x8021, datagramsize 14 link[ip]
*Mar 1 20:16:13.302: Vi3.1 PPP: I pkt type 0x8021, datagramsize 14 link[ip]
*Mar 1 20:16:13.302: Vi3.1 IPCP: I CONFREQ [REQsent] id 1 len 10
*Mar 1 20:16:13.302: Vi3.1 IPCP: Address 0.0.0.0 (0x030600000000)
*Mar 1 20:16:13.302: Vi3.1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
*Mar 1 20:16:13.302: Vi3.1 AAA/AUTHOR/IPCP: Says use pool pdsn-pool
*Mar 1 20:16:13.302: Vi3.1 AAA/AUTHOR/IPCP: Pool returned 9.3.0.1
*Mar 1 20:16:13.302: Vi3.1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 9.3.0.1
*Mar 1 20:16:13.302: Vi3.1 IPCP: O CONFNAK [REQsent] id 1 len 10
*Mar 1 20:16:13.302: Vi3.1 IPCP: Address 9.3.0.1 (0x030609030001)
*Mar 1 20:16:13.302: Vi3.1 IPCP: I CONFACK [REQsent] id 2 len 10
*Mar 1 20:16:13.302: Vi3.1 IPCP: Address 6.255.255.254 (0x030606FFFFFE)
*Mar 1 20:16:13.302: Vi3.1 PPP: I pkt type 0x8021, datagramsize 14 link[ip]
```

```

*Mar 1 20:16:13.302: Vi3.1 IPCP: I CONFREQ [ACKrcvd] id 2 len 10
*Mar 1 20:16:13.302: Vi3.1 IPCP: Address 9.3.0.1 (0x030609030001)
*Mar 1 20:16:13.302: Vi3.1 IPCP: O CONFACK [ACKrcvd] id 2 len 10
*Mar 1 20:16:13.302: Vi3.1 IPCP: Address 9.3.0.1 (0x030609030001)
*Mar 1 20:16:13.302: Vi3.1 IPCP: State is Open
*Mar 1 20:16:13.302: Vi3.1 IPCP: Install route to 9.3.0.1
*Mar 1 20:16:13.302: Vi3.1 IPCP: Add link info for cef entry 9.3.0.1

Close session:
7206-PDSN#
*Mar 1 20:16:21.738: Vi3.1 PPP: I pkt type 0xC021, datagramsize 8 link[ppp]
*Mar 1 20:16:21.742: Vi3.1 LCP: I TERMREQ [Open] id 2 len 4
*Mar 1 20:16:21.742: Vi3.1 LCP: O TERMACK [Open] id 2 len 4
*Mar 1 20:16:21.742: Vi3.1 IPCP: Remove link info for cef entry 9.3.0.1
*Mar 1 20:16:21.742: Vi3.1 IPCP: State is Closed
*Mar 1 20:16:21.742: Vi3.1 PPP: Phase is TERMINATING
*Mar 1 20:16:21.742: Vi3.1 IPCP: Remove route to 9.3.0.1

*Mar 1 20:16:21.742: Vi3.1 LCP: State is Closed
*Mar 1 20:16:21.742: Vi3.1 PPP: Phase is DOWN
*Mar 1 20:16:21.754: 0000000000000001 Debug: Condition 2, calling 0000000000000001 cleared,
count 0

```

debug aaa

The following messages are displayed for the **debug aaa authentication**, **debug aaa authorization**, **debug aaa accounting**, and **debug aaa id** commands.

Debug condition: username = simulator

```

7206-PDSN#
*Mar 1 00:05:00.426: ppp3 Debug: Condition 1, username simulator triggered, count 1
*Mar 1 00:05:00.426: AAA/AUTHEN/PPP (00000006): Pick method list 'default'
*Mar 1 00:05:00.430: AAA/ID(00000006): Connection progress 203
*Mar 1 00:05:00.430: ppp3 PPP/AAA: Check Attr: cdma-user-class
*Mar 1 00:05:00.430: ppp3 PPP/AAA: Check Attr: addr-pool
*Mar 1 00:05:00.430: ppp3 PPP/AAA: Check Attr: crb-entity-type
*Mar 1 00:05:00.430: ppp3 PPP/AAA: Check Attr: crb-duration
*Mar 1 00:05:00.442: Vi3.1 AAA/AUTHOR/LCP: Process Author
*Mar 1 00:05:00.442: Vi3.1 AAA/AUTHOR/IPCP: FSM authorization not needed
*Mar 1 00:05:00.442: Vi3.1 AAA/AUTHOR/FSM: We can start IPCP
*Mar 1 00:05:00.450: Vi3.1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
*Mar 1 00:05:00.450: Vi3.1 AAA/AUTHOR/IPCP: Says use pool pdsn-pool
*Mar 1 00:05:00.450: Vi3.1 AAA/AUTHOR/IPCP: Pool returned 9.3.0.1
*Mar 1 00:05:00.450: Vi3.1 AAA/AUTHOR/IPCP: Processing AV addr-pool
*Mar 1 00:05:00.450: Vi3.1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 1 00:05:00.450: Vi3.1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 9.3.0.1
*Mar 1 00:05:00.450: AAA/AUTHOR (0x7): Pick method list 'default'
*Mar 1 00:05:00.450: AAA/ACCT/NET(00000007): Pick method list 'pdsn'
*Mar 1 00:05:00.450: AAA/ACCT/SETMLIST(00000007): Handle 89000006, mlist 62B9AEA8, Name
pdsn
*Mar 1 00:05:00.450: AAA/ACCT(00000007): Type NET: Periodic timer initialized
*Mar 1 00:05:00.450: AAA/ACCT/EVENT/(00000007): NET UP
*Mar 1 00:05:00.450: AAA/ACCT/HC(00000007): Update PDSN/28000002
*Mar 1 00:05:00.450: AAA/ACCT/HC(00000007): PDSN/28000002 [pre-sess] (rx/tx) base 0/0 pre
0/0 call 0/0
*Mar 1 00:05:00.450: AAA/ACCT/HC(00000007): PDSN/28000002 [pre-sess] (rx/tx) adjusted,
pre 0/0 call 0/0
*Mar 1 00:05:00.450: AAA/ACCT/HC(00000007): Call authenticated 16:05:00 PDT Feb 28 1993
*Mar 1 00:05:00.450: AAA/ID(00000007): Connection progress 10
*Mar 1 00:05:00.450: AAA/ID(00000007): Queueing record is START

```

PDSN Debug Commands

```

*Mar 1 00:05:00.454: AAA/ACCT(00000007): Accouting method=radius (radius)
*Mar 1 00:05:00.454: AAA/ID(00000007): Connection progress 203
*Mar 1 00:05:00.458: AAA/ACCT/NET(00000007): START protocol reply PASS
*Mar 1 00:05:00.458: AAA/ACCT(00000007): Resetting Periodic timer

Close session

7206-PDSN#
*Mar 1 00:05:11.169: Vi3.1 Debug: Condition 1, username simulator cleared, count 1
*Mar 1 00:05:11.169: AAA/ACCT/NET(00000007): Pick method list 'pdsn'
*Mar 1 00:05:11.173: AAA/ACCT/SETMLIST(00000007): Handle 89000006, mlist 62B9AEA8, Name
pdsn
*Mar 1 00:05:11.173: AAA/ACCT/EVENT/(00000007): NET DOWN
*Mar 1 00:05:11.173: AAA/ACCT/HC(00000007): Update PDSN/28000002
*Mar 1 00:05:11.173: AAA/ACCT/HC(00000007): PDSN/28000002 [sess] (rx/tx) base 0/0 pre 0/0
call 0/0
*Mar 1 00:05:11.173: AAA/ACCT/HC(00000007): PDSN/28000002 [sess] (rx/tx) adjusted, pre
0/0 call 0/0
*Mar 1 00:05:11.173: AAA/ACCT/NET(00000007): Queueing record is STOP osr 1
*Mar 1 00:05:11.173: AAA/ACCT(00000007): del node, session 9
*Mar 1 00:05:11.173: AAA/ACCT/NET(00000007): free_rec, count 0
*Mar 1 00:05:11.173: AAA/ACCT/NET(00000007): Setting session id 10 : db=6470FFE4
*Mar 1 00:05:11.173: AAA/ID(00000007): dealloc , no idb or tty
*Mar 1 00:05:11.173: AAA/ID(00000007): Enqueuing in aaa_stop_Q for CALL STOP
*Mar 1 00:05:11.173: AAA/ACCT/HC(00000007): Update PDSN/28000002
*Mar 1 00:05:11.173: AAA/ACCT/HC(00000007): PDSN/28000002 [sess] (rx/tx) base 0/0 pre 0/0
call 0/0
*Mar 1 00:05:11.173: AAA/ACCT/HC(00000007): PDSN/28000002 [sess] (rx/tx) adjusted, pre
0/0 call 0/0
*Mar 1 00:05:11.173: AAA/ACCT/HC(00000007): Deregister PDSN/28000002
*Mar 1 00:05:11.173: AAA/ID(00000007): action(CALL STOP) rcv(0) xmit(0) ip(0) op(0)
xmitrt(0) rcvrt(0)
*Mar 1 00:05:11.173: AAA/ID(00000007): Call completed 16:05:11 PDT Feb 28 1993
*Mar 1 00:05:11.173: simulator Debug: Condition 1, username simulator cleared, count 0
*Mar 1 00:05:11.173: AAA/ACCT(00000007): Accouting method=radius (radius)
*Mar 1 00:05:11.173: AAA/ID/STOP(00000007): action(CALL STOP) rcv(0) xmit(0) ip(0) op(0)
xmitrt(0) rcvrt(0)
*Mar 1 00:05:11.173: AAA/ACCT/EVENT/(00000007): CALL STOP
*Mar 1 00:05:11.173: AAA/ACCT(00000007) recct 0, osr 1
*Mar 1 00:05:11.193: AAA/ACCT/NET(00000007): STOP protocol reply PASS
*Mar 1 00:05:11.193: AAA/ACCT/NET(00000007): Cleaning up from Callback osr 0
*Mar 1 00:05:11.193: AAA/ACCT/NET(00000007): Record not present
*Mar 1 00:05:11.193: AAA/ACCT/NET(00000007) recct 0, csr TRUE, osr 0
*Mar 1 00:05:11.193: AAA/ACCT/NET(00000007): Last rec in db, intf not enqueued
*Mar 1 00:05:11.193: AAA/AAA_SEND_STOP_PROC(00000007): Initiated message callback

```

Debug condition: MNID = 0000000000000001

Open session

```

7206-PDSN#
*Mar 1 00:07:26.957: 0000000000000001 Debug: Condition 2, calling 0000000000000001
triggered, count 1
*Mar 1 00:07:28.965: AAA/AUTHEN/PPP (00000008): Pick method list 'default'
*Mar 1 00:07:28.969: AAA/ID(00000008): Connection progress 203
*Mar 1 00:07:28.969: ppp4 PPP/AAA: Check Attr: cdma-user-class
*Mar 1 00:07:28.969: ppp4 PPP/AAA: Check Attr: addr-pool
*Mar 1 00:07:28.969: ppp4 PPP/AAA: Check Attr: crb-entity-type
*Mar 1 00:07:28.969: ppp4 PPP/AAA: Check Attr: crb-duration
*Mar 1 00:07:28.977: Vi3.1 AAA/AUTHOR/LCP: Process Author
*Mar 1 00:07:28.977: Vi3.1 AAA/AUTHOR/IPCP: FSM authorization not needed
*Mar 1 00:07:28.977: Vi3.1 AAA/AUTHOR/FSM: We can start IPCP
*Mar 1 00:07:28.985: Vi3.1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
*Mar 1 00:07:28.985: Vi3.1 AAA/AUTHOR/IPCP: Says use pool pdsn-pool

```

```

*Mar 1 00:07:28.985: Vi3.1 AAA/AUTHOR/IPCP: Pool returned 9.3.0.1
*Mar 1 00:07:28.985: Vi3.1 AAA/AUTHOR/IPCP: Processing AV addr-pool
*Mar 1 00:07:28.985: Vi3.1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 1 00:07:28.985: Vi3.1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 9.3.0.1
*Mar 1 00:07:28.989: AAA/AUTHOR (0x9): Pick method list 'default'
*Mar 1 00:07:28.989: AAA/ACCT/NET(00000009): Pick method list 'pdsn'
*Mar 1 00:07:28.989: AAA/ACCT/SETMLIST(00000009): Handle 89000006, mlist 62B9AEA8, Name
pdsn
*Mar 1 00:07:28.989: AAA/ACCT(00000009): Type NET: Periodic timer initialized
*Mar 1 00:07:28.989: AAA/ACCT/EVENT/(00000009): NET UP
*Mar 1 00:07:28.989: AAA/ACCT/HC(00000009): Update PDSN/92000003
*Mar 1 00:07:28.989: AAA/ACCT/HC(00000009): PDSN/92000003 [pre-sess] (rx/tx) base 0/0 pre
0/0 call 0/0
*Mar 1 00:07:28.989: AAA/ACCT/HC(00000009): PDSN/92000003 [pre-sess] (rx/tx) adjusted,
pre 0/0 call 0/0
*Mar 1 00:07:28.989: AAA/ID(00000009): Call authenticated 16:07:28 PDT Feb 28 1993
*Mar 1 00:07:28.989: AAA/ID(00000009): Connection progress 10
*Mar 1 00:07:28.989: AAA/ACCT/NET(00000009): Queueing record is START
*Mar 1 00:07:28.989: AAA/ACCT(00000009): Accounting method=radius (radius)
*Mar 1 00:07:28.993: AAA/ID(00000009): Connection progress 203
*Mar 1 00:07:28.997: AAA/ACCT/NET(00000009): START protocol reply PASS
*Mar 1 00:07:28.997: AAA/ACCT(00000009): Resetting Periodic timer

```

Close session

```

7206-PDSN#
*Mar 1 00:07:44.660: AAA/ID(00000008): dealloc , no idb or tty
*Mar 1 00:07:44.660: AAA/ID(00000008): Enqueuing in aaa_stop_Q for CALL STOP
*Mar 1 00:07:44.660: AAA/ACCT/HC(00000008): Update PDSN/00000000
*Mar 1 00:07:44.660: AAA/ACCT/HC(00000008): no HC PDSN/00000000
*Mar 1 00:07:44.660: AAA/ACCT/HC(00000008): Update PDSN/00000000
*Mar 1 00:07:44.660: AAA/ACCT/HC(00000008): no HC PDSN/00000000
*Mar 1 00:07:44.660: AAA/ID(00000008): action(CALL STOP) rcv(0) xmit(0) ip(0) op(0)
xmitrt(0) rcvrt(0)
*Mar 1 00:07:44.660: AAA/ID(00000008): Call completed 16:07:44 PDT Feb 28 1993
*Mar 1 00:07:44.660: AAA/ID/STOP(00000008): action(CALL STOP) rcv(0) xmit(0) ip(0) op(0)
xmitrt(0) rcvrt(0)
*Mar 1 00:07:44.660: AAA/ACCT/EVENT/(00000008): CALL STOP
*Mar 1 00:07:44.660: AAA/ACCT/CALL STOP(00000008): Sending stop requests
*Mar 1 00:07:44.660: AAA/ACCT(00000008): Send all stops
*Mar 1 00:07:44.660: AAA/ACCT/NET(00000008): STOP
*Mar 1 00:07:44.660: AAA/ACCT/NET(00000008): Method list not found
*Mar 1 00:07:44.660: AAA/ACCT(00000008): del node, session 11
*Mar 1 00:07:44.660: AAA/ACCT/NET(00000008): free_rec, count 0
*Mar 1 00:07:44.660: AAA/ACCT/NET(00000008) reccnt 0, csr TRUE, osr 0
*Mar 1 00:07:44.660: AAA/ACCT/NET(00000008): Last rec in db, intf not enqueued
*Mar 1 00:07:44.660: AAA/AAA_SEND_STOP_PROC(00000008): Initiated message callback
*Mar 1 00:07:44.664: AAA/ACCT/NET(00000009): Pick method list 'pdsn'
*Mar 1 00:07:44.664: AAA/ACCT/SETMLIST(00000009): Handle 89000006, mlist 62B9AEA8, Name
pdsn
*Mar 1 00:07:44.664: AAA/ACCT/EVENT/(00000009): NET DOWN
*Mar 1 00:07:44.664: AAA/ACCT/HC(00000009): Update PDSN/92000003
*Mar 1 00:07:44.664: AAA/ACCT/HC(00000009): PDSN/92000003 [sess] (rx/tx) base 0/0 pre
0/0 call 0/0
*Mar 1 00:07:44.664: AAA/ACCT/HC(00000009): PDSN/92000003 [sess] (rx/tx) adjusted, pre
0/0 call 0/0
*Mar 1 00:07:44.664: AAA/ACCT/NET(00000009): Queueing record is STOP osr 1
*Mar 1 00:07:44.664: AAA/ACCT(00000009): del node, session 12
*Mar 1 00:07:44.664: AAA/ACCT/NET(00000009): free_rec, count 0
*Mar 1 00:07:44.664: AAA/ACCT/NET(00000009): Setting session id 13 : db=6470FD18
*Mar 1 00:07:44.664: AAA/ID(00000009): dealloc , no idb or tty
*Mar 1 00:07:44.664: AAA/ID(00000009): Enqueuing in aaa_stop_Q for CALL STOP
*Mar 1 00:07:44.664: AAA/ACCT/HC(00000009): Update PDSN/92000003

```

PDSN Debug Commands

```
*Mar 1 00:07:44.664: AAA/ACCT/HC(00000009): PDSN/92000003 [sess] (rx/tx) base 0/0 pre 0/0
call 0/0
*Mar 1 00:07:44.668: AAA/ACCT/HC(00000009): PDSN/92000003 [sess] (rx/tx) adjusted, pre
0/0 call 0/0
*Mar 1 00:07:44.668: AAA/ACCT/HC(00000009): Dereister PDSN/92000003
*Mar 1 00:07:44.668: AAA/ID(00000009): action(CALL STOP) rcv(0) xmit(0) ip(0) op(0)
xmitrt(0) rcvrt(0)
*Mar 1 00:07:44.668: AAA/ID(00000009): Call completed 16:07:44 PDT Feb 28 1993
*Mar 1 00:07:44.668: 0000000000000001 Debug: Condition 2, calling 0000000000000001 cleared,
count 0
*Mar 1 00:07:44.668: AAA/ACCT(00000009): Accouting method=radius (radius)
*Mar 1 00:07:44.668: AAA/ID/STOP(00000009): action(CALL STOP) rcv(0) xmit(0) ip(0) op(0)
xmitrt(0) rcvrt(0)
*Mar 1 00:07:44.668: AAA/ACCT/EVENT/(00000009): CALL STOP
*Mar 1 00:07:44.668: AAA/ACCT(00000009) recnt 0, osr 1
*Mar 1 00:07:44.688: AAA/ACCT/NET(00000009): STOP protocol reply PASS
*Mar 1 00:07:44.688: AAA/ACCT/NET(00000009): Cleaning up from Callback osr 0
*Mar 1 00:07:44.688: AAA/ACCT/NET(00000009): Record not present
*Mar 1 00:07:44.688: AAA/ACCT/NET(00000009): recnt 0, csr TRUE, osr 0
*Mar 1 00:07:44.688: AAA/ACCT/NET(00000009): Last rec in db, intf not enqueued
*Mar 1 00:07:44.688: AAA/AAA_SEND_STOP_PROC(00000009): Initiated message callback
```

debug radius

The following messages are displayed for the **debug radius**, **debug radius accounting**, and **debug radius authentication** commands:

Debug condition: username = simulator

Open session:

```
7206-PDSN#
*Mar 1 00:09:38.880: ppp5 Debug: Condition 1, username simulator triggered, count 1
*Mar 1 00:09:38.880: RADIUS: Pick NAS IP for uid=10 tableid=0 cfg_addr=0.0.0.0
*Mar 1 00:09:38.880: RADIUS/ENCODE(0000000A): acct_session_id: 14
*Mar 1 00:09:38.880: RADIUS(0000000A): sending
*Mar 1 00:09:38.880: RADIUS(0000000A): Send to unknown id 21645/17 12.50.50.10:2890,
Access-Request, len 101
*Mar 1 00:09:38.880: RADIUS: authenticator B0 8C CE 6C B6 76 C5 AF - D3 C6 A4 F0 9A 53
DF 40
*Mar 1 00:09:38.880: RADIUS: Vendor, 3GPP2 [26] 16
*Mar 1 00:09:38.880: RADIUS: cdma-correlation-id[44] 10 "00000006"
*Mar 1 00:09:38.880: RADIUS: Calling-Station-Id [31] 17 "0000000000000001"
*Mar 1 00:09:38.880: RADIUS: Framed-Protocol [7] 6 PPP [1]
*Mar 1 00:09:38.880: RADIUS: User-Name [1] 11 "simulator"
*Mar 1 00:09:38.880: RADIUS: CHAP-Password [3] 19 *
*Mar 1 00:09:38.880: RADIUS: Service-Type [6] 6 Framed [2]
*Mar 1 00:09:38.880: RADIUS: NAS-IP-Address [4] 6 6.255.255.254
*Mar 1 00:09:38.884: RADIUS: Received from id 21645/17 12.50.50.10:2890, Access-Accept,
len 128
*Mar 1 00:09:38.884: RADIUS: authenticator 54 39 5D E9 64 8C 0B 75 - 55 43 2E FD D9 E3
D4 2F
*Mar 1 00:09:38.884: RADIUS: Vendor, Cisco [26] 29
*Mar 1 00:09:38.884: RADIUS: Cisco AVpair [1] 23 "lcp:cdma-user-class=1"
*Mar 1 00:09:38.884: RADIUS: Vendor, Cisco [26] 30
*Mar 1 00:09:38.884: RADIUS: Cisco AVpair [1] 24 "ip:addr-pool=pdsn-pool"
*Mar 1 00:09:38.884: RADIUS: Vendor, Cisco [26] 25
*Mar 1 00:09:38.884: RADIUS: Cisco AVpair [1] 19 "crb-entity-type=1"
*Mar 1 00:09:38.884: RADIUS: Vendor, Cisco [26] 24
*Mar 1 00:09:38.884: RADIUS: Cisco AVpair [1] 18 "crb-duration=120"
*Mar 1 00:09:38.884: RADIUS(0000000A): Received from id 21645/17
*Mar 1 00:09:38.884: RADIUS/DECODE: VSA crb-entity-type=1 maps to 1
```

```

*Mar 1 00:09:38.904: RADIUS: Pick NAS IP for uid=11 tableid=0 cfg_addr=0.0.0.0
*Mar 1 00:09:38.904: RADIUS/ENCODE(0000000B): acct_session_id: 15
*Mar 1 00:09:38.904: RADIUS(0000000B): sending
*Mar 1 00:09:38.904: RADIUS/ENCODE(0000000B): Unsupported AAA attribute timezone
*Mar 1 00:09:38.904: RADIUS: Pick NAS IP for uid=11 tableid=0 cfg_addr=0.0.0.0
*Mar 1 00:09:38.904: RADIUS(0000000B): sending
*Mar 1 00:09:38.904: RADIUS(0000000B): Send to unknown id 21645/18 12.50.50.10:2890,
Access-Request, len 261
*Mar 1 00:09:38.908: RADIUS: authenticator E0 0E 1C 4D F4 C5 28 A7 - 0C 04 D8 AF A7 D7
D0 68
*Mar 1 00:09:38.908: RADIUS: User-Name [1] 11 "simulator"
*Mar 1 00:09:38.908: RADIUS: Calling-Station-Id [31] 17 "0000000000000001"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-service-option[16] 6 245
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco [26] 40
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair [1] 34
"crb-session-id=00000006730944578"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 16
*Mar 1 00:09:38.908: RADIUS: cdma-correlation-id[44] 10 "00000006"
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco [26] 25
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair [1] 19 "crb-auth-reason=4"
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco [26] 27
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair [1] 21 "crb-user-id=0.0.0.0"
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco [26] 24
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair [1] 18 "crb-service-id=1"
*Mar 1 00:09:38.908: RADIUS: User-Password [2] 18 *
*Mar 1 00:09:38.908: RADIUS: NAS-Port-Type [61] 6 Virtual [5]
*Mar 1 00:09:38.908: RADIUS: NAS-Port [5] 6 6
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco [26] 27
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair [1] 21 "interface=CDMA-IX/6"
*Mar 1 00:09:38.908: RADIUS: Service-Type [6] 6 Outbound [5]
*Mar 1 00:09:38.908: RADIUS: NAS-IP-Address [4] 6 6.255.255.254
*Mar 1 00:09:38.908: RADIUS(0000000B): Send to unknown id 21645/19 12.50.50.10:2891,
Accounting-Request, len 516
*Mar 1 00:09:38.908: RADIUS: authenticator DC 33 C9 14 AB 90 F9 3C - 11 0F 37 5E CD F4
9C 21
*Mar 1 00:09:38.908: RADIUS: Acct-Session-Id [44] 10 "0000000F"
*Mar 1 00:09:38.908: RADIUS: Calling-Station-Id [31] 17 "0000000000000001"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 23
*Mar 1 00:09:38.908: RADIUS: cdma-esn [52] 17 "0000000000000001"
*Mar 1 00:09:38.908: RADIUS: Framed-IP-Address [8] 6 9.3.0.1
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 16
*Mar 1 00:09:38.908: RADIUS: cdma-correlation-id[44] 10 "00000006"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-ha-ip-addr [7] 6 0.0.0.0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-pcf-ip-addr [9] 6 4.0.0.1
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 20
*Mar 1 00:09:38.908: RADIUS: cdma-bs-msc-addr [10] 14 "000000000000"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-user-id [11] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-forward-mux [12] 6 241
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-reverse-mux [13] 6 242
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-service-option[16] 6 245
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-forward-type [17] 6 246
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-reverse-type [18] 6 247
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-frame-size [19] 6 248
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12

```

■ PDSN Debug Commands

```

*Mar 1 00:09:38.908: RADIUS: cdma-forward-rc [20] 6 249
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-reverse-rc [21] 6 250
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-ip-tech [22] 6 1
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-comp-flag [23] 6 No Tunnel [0]
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-frame-size [50] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-bad-frame-coun[25] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-active-time [49] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-num-active [30] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-sdb-input-octe[31] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-sdb-output-oct[32] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-numsdb-input [33] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-numsdb-output [34] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-hd1c-layer-byt[43] 6 224
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-moip-inbound [46] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-moip-outbound [47] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-ip-qos [36] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-airlink-qos [39] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-rp-session-id [41] 6 1
*Mar 1 00:09:38.912: RADIUS: Authentic [45] 6 RADIUS [1]
*Mar 1 00:09:38.912: RADIUS: User-Name [1] 11 "simulator"
*Mar 1 00:09:38.912: RADIUS: Acct-Status-Type [40] 6 Start [1]
*Mar 1 00:09:38.912: RADIUS: NAS-Port-Type [61] 6 Virtual [5]
*Mar 1 00:09:38.912: RADIUS: NAS-Port [5] 6 6
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 27
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 21 "interface=CDMA-IX/6"
*Mar 1 00:09:38.912: RADIUS: Service-Type [6] 6 Framed [2]
*Mar 1 00:09:38.912: RADIUS: NAS-IP-Address [4] 6 6.255.255.254
*Mar 1 00:09:38.912: RADIUS: Acct-Delay-Time [41] 6 0
*Mar 1 00:09:38.912: RADIUS: Received from id 21645/18 12.50.50.10:2890, Access-Accept,
len 128
*Mar 1 00:09:38.912: RADIUS: authenticator 4C C4 F1 42 72 16 19 6B - 82 B0 C8 87 34 40
BB 8B
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 29
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 23 "lcp:cdma-user-class=1"
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 30
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 24 "ip:addr-pool=pdsn-pool"
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 25
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 19 "crb-entity-type=1"
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 24
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 18 "crb-duration=120"
*Mar 1 00:09:38.912: RADIUS(0000000B): Received from id 21645/18
*Mar 1 00:09:38.912: RADIUS/DECODE: VSA crb-entity-type=1 maps to 1
*Mar 1 00:09:38.924: RADIUS: Received from id 21645/19 12.50.50.10:2891,
Accounting-response, len 20
*Mar 1 00:09:38.924: RADIUS: authenticator 83 22 59 6F 14 C1 40 96 - BF D2 E7 2F 07 B2
FB 96

```

Close session:

```
7206-PDSN#
*Mar 1 00:09:57.504: Vi3.1 Debug: Condition 1, username simulator cleared, count 1
*Mar 1 00:09:57.508: simulator Debug: Condition 1, username simulator cleared, count 0
*Mar 1 00:09:57.508: RADIUS/ENCODE(0000000B): Unsupported AAA attribute timezone
*Mar 1 00:09:57.508: RADIUS: Pick NAS IP for uid=11 tableid=0 cfg_addr=0.0.0.0
*Mar 1 00:09:57.508: RADIUS(0000000B): sending
*Mar 1 00:09:57.524: RADIUS(0000000B): Send to unknown id 21645/20 12.50.50.10:2891,
Accounting-Request, len 736
*Mar 1 00:09:57.524: RADIUS: authenticator EE CE C0 F1 B0 57 69 4C - 8F 9B 25 A9 FA BD
53 44
*Mar 1 00:09:57.524: RADIUS: Acct-Session-Id [44] 10 "0000000F"
*Mar 1 00:09:57.524: RADIUS: Calling-Station-Id [31] 17 "0000000000000001"
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 23
*Mar 1 00:09:57.524: RADIUS: cdma-esn [52] 17 "0000000000000001"
*Mar 1 00:09:57.524: RADIUS: Framed-IP-Address [8] 6 9.3.0.1
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 16
*Mar 1 00:09:57.524: RADIUS: cdma-correlation-id[44] 10 "00000006"
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-ha-ip-addr [7] 6 0.0.0.0
*Mar 1 00:09:57.524: RADIUS: Vendor, Cisco [26] 34
*Mar 1 00:09:57.524: RADIUS: Cisco AVpair [1] 28 "connect-progress=Auth Open"
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-session-contin[48] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-pcf-ip-addr [9] 6 4.0.0.1
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 20
*Mar 1 00:09:57.524: RADIUS: cdma-bs-msc-addr [10] 14 "000000000000"
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-user-id [11] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-forward-mux [12] 6 241
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-reverse-mux [13] 6 242
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-service-option[16] 6 245
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-forward-type [17] 6 246
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-reverse-type [18] 6 247
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-frame-size [19] 6 248
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-forward-rc [20] 6 249
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-reverse-rc [21] 6 250
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-ip-tech [22] 6 1
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-comp-flag [23] 6 No Tunnel [0]
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-reason-ind [24] 6 PPP termination [3]
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-frame-size [50] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-bad-frame-coun[25] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-active-time [49] 6 20
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-num-active [30] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-sdb-input-octe[31] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
```

■ PDSN Debug Commands

```

*Mar 1 00:09:57.524: RADIUS: cdma-sdb-output-oct[32] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-numsdb-input [33] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-numsdb-output [34] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-hdlc-layer-byt[43] 6 241
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-moip-inbound [46] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.528: RADIUS: cdma-moip-outbound [47] 6 0
*Mar 1 00:09:57.528: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.528: RADIUS: cdma-ip-qos [36] 6 0
*Mar 1 00:09:57.528: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.528: RADIUS: cdma-airlink-qos [39] 6 0
*Mar 1 00:09:57.528: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.528: RADIUS: cdma-rp-session-id [41] 6 1
*Mar 1 00:09:57.528: RADIUS: Authentic [45] 6 RADIUS [1]
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco [26] 25
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair [1] 19 "crb-auth-reason=5"
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco [26] 40
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair [1] 34
"crb-session-id=00000006730944578"
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco [26] 23
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair [1] 17 "crb-duration=19"
*Mar 1 00:09:57.528: RADIUS: Acct-Session-Time [46] 6 19
*Mar 1 00:09:57.528: RADIUS: Acct-Input-Octets [42] 6 0
*Mar 1 00:09:57.528: RADIUS: Acct-Output-Octets [43] 6 0
*Mar 1 00:09:57.528: RADIUS: Acct-Input-Packets [47] 6 0
*Mar 1 00:09:57.528: RADIUS: Acct-Output-Packets [48] 6 0
*Mar 1 00:09:57.528: RADIUS: Acct-Terminate-Cause[49] 6 none [0]
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco [26] 32
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair [1] 26 "disc-cause-ext=No Reason"
*Mar 1 00:09:57.528: RADIUS: Authentic [45] 6 RADIUS [1]
*Mar 1 00:09:57.528: RADIUS: User-Name [1] 11 "simulator"
*Mar 1 00:09:57.528: RADIUS: Acct-Status-Type [40] 6 Stop [2]
*Mar 1 00:09:57.528: RADIUS: NAS-Port-Type [61] 6 Virtual [5]
*Mar 1 00:09:57.528: RADIUS: NAS-Port [5] 6 6
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco [26] 27
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair [1] 21 "interface=CDMA-IX/6"
*Mar 1 00:09:57.528: RADIUS: Service-Type [6] 6 Framed [2]
*Mar 1 00:09:57.528: RADIUS: NAS-IP-Address [4] 6 6.255.255.254
*Mar 1 00:09:57.528: RADIUS: Acct-Delay-Time [41] 6 0
*Mar 1 00:09:57.540: RADIUS: Received from id 21645/20 12.50.50.10:2891,
Accounting-response, len 20
*Mar 1 00:09:57.540: RADIUS: authenticator 33 8C A5 D8 1F 53 C1 3F - 65 A7 53 9C 27 80
C1 DE

```

Debug condition: MNID = 0000000000000001

Open Session:

```

7206-PDSN#
*Mar 1 00:09:38.880: ppp5 Debug: Condition 1, username simulator triggered, count 1
*Mar 1 00:09:38.880: RADIUS: Pick NAS IP for uid=10 tableid=0 cfg_addr=0.0.0.0
*Mar 1 00:09:38.880: RADIUS/ENCODE(0000000A): acct_session_id: 14
*Mar 1 00:09:38.880: RADIUS(0000000A): sending
*Mar 1 00:09:38.880: RADIUS(0000000A): Send to unknown id 21645/17 12.50.50.10:2890,
Access-Request, len 101
*Mar 1 00:09:38.880: RADIUS: authenticator B0 8C CE 6C B6 76 C5 AF - D3 C6 A4 F0 9A 53
DF 40
*Mar 1 00:09:38.880: RADIUS: Vendor, 3GPP2 [26] 16
*Mar 1 00:09:38.880: RADIUS: cdma-correlation-id[44] 10 "00000006"
*Mar 1 00:09:38.880: RADIUS: Calling-Station-Id [31] 17 "0000000000000001"

```

```

*Mar 1 00:09:38.880: RADIUS: Framed-Protocol      [7]   6   PPP          [1]
*Mar 1 00:09:38.880: RADIUS: User-Name           [1]   11  "simulator"
*Mar 1 00:09:38.880: RADIUS: CHAP-Password        [3]   19  *
*Mar 1 00:09:38.880: RADIUS: Service-Type         [6]   6   Framed        [2]
*Mar 1 00:09:38.880: RADIUS: NAS-IP-Address       [4]   6   6.255.255.254
*Mar 1 00:09:38.884: RADIUS: Received from id 21645/17 12.50.50.10:2890, Access-Accept,
len 128
*Mar 1 00:09:38.884: RADIUS: authenticator 54 39 5D E9 64 8C 0B 75 - 55 43 2E FD D9 E3
D4 2F
*Mar 1 00:09:38.884: RADIUS: Vendor, Cisco        [26]  29
*Mar 1 00:09:38.884: RADIUS: Cisco AVpair         [1]   23  "lcp:cdma-user-class=1"
*Mar 1 00:09:38.884: RADIUS: Vendor, Cisco        [26]  30
*Mar 1 00:09:38.884: RADIUS: Cisco AVpair         [1]   24  "ip:addr-pool=pdsn-pool"
*Mar 1 00:09:38.884: RADIUS: Vendor, Cisco        [26]  25
*Mar 1 00:09:38.884: RADIUS: Cisco AVpair         [1]   19  "crb-entity-type=1"
*Mar 1 00:09:38.884: RADIUS: Vendor, Cisco        [26]  24
*Mar 1 00:09:38.884: RADIUS: Cisco AVpair         [1]   18  "crb-duration=120"
*Mar 1 00:09:38.884: RADIUS(0000000A): Received from id 21645/17
*Mar 1 00:09:38.884: RADIUS/DECODE: VSA crb-entity-type=1 maps to 1
*Mar 1 00:09:38.904: RADIUS: Pick NAS IP for uid=11 tableid=0 cfg_addr=0.0.0.0
*Mar 1 00:09:38.904: RADIUS/ENCODE(0000000B): acct_session_id: 15
*Mar 1 00:09:38.904: RADIUS(0000000B): sending
*Mar 1 00:09:38.904: RADIUS/ENCODE(0000000B): Unsupported AAA attribute timezone
*Mar 1 00:09:38.904: RADIUS: Pick NAS IP for uid=11 tableid=0 cfg_addr=0.0.0.0
*Mar 1 00:09:38.904: RADIUS(0000000B): sending
*Mar 1 00:09:38.904: RADIUS(0000000B): Send to unknown id 21645/18 12.50.50.10:2890,
Access-Request, len 261
*Mar 1 00:09:38.908: RADIUS: authenticator E0 0E 1C 4D F4 C5 28 A7 - 0C 04 D8 AF A7 D7
D0 68
*Mar 1 00:09:38.908: RADIUS: User-Name           [1]   11  "simulator"
*Mar 1 00:09:38.908: RADIUS: Calling-Station-Id  [31]  17  "0000000000000001"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2        [26]  12
*Mar 1 00:09:38.908: RADIUS: cdma-service-option[16] 6   245
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco        [26]  40
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair         [1]   34
"crb-session-id=00000006730944578"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2        [26]  16
*Mar 1 00:09:38.908: RADIUS: cdma-correlation-id[44] 10  "00000006"
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco        [26]  25
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair         [1]   19  "crb-auth-reason=4"
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco        [26]  27
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair         [1]   21  "crb-user-id=0.0.0.0"
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco        [26]  24
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair         [1]   18  "crb-service-id=1"
*Mar 1 00:09:38.908: RADIUS: User-Password        [2]   18  *
*Mar 1 00:09:38.908: RADIUS: NAS-Port-Type       [61]  6   Virtual        [5]
*Mar 1 00:09:38.908: RADIUS: NAS-Port             [5]   6   6
*Mar 1 00:09:38.908: RADIUS: Vendor, Cisco        [26]  27
*Mar 1 00:09:38.908: RADIUS: Cisco AVpair         [1]   21  "interface=CDMA-IX/6"
*Mar 1 00:09:38.908: RADIUS: Service-Type         [6]   6   Outbound        [5]
*Mar 1 00:09:38.908: RADIUS: NAS-IP-Address       [4]   6   6.255.255.254
*Mar 1 00:09:38.908: RADIUS(0000000B): Send to unknown id 21645/19 12.50.50.10:2891,
Accounting-Request, len 516
*Mar 1 00:09:38.908: RADIUS: authenticator DC 33 C9 14 AB 90 F9 3C - 11 0F 37 5E CD F4
9C 21
*Mar 1 00:09:38.908: RADIUS: Acct-Session-Id     [44]  10  "0000000F"
*Mar 1 00:09:38.908: RADIUS: Calling-Station-Id  [31]  17  "0000000000000001"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2        [26]  23
*Mar 1 00:09:38.908: RADIUS: cdma-esn            [52]  17  "0000000000000001"
*Mar 1 00:09:38.908: RADIUS: Framed-IP-Address   [8]   6   9.3.0.1
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2        [26]  16
*Mar 1 00:09:38.908: RADIUS: cdma-correlation-id[44] 10  "00000006"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2        [26]  12
*Mar 1 00:09:38.908: RADIUS: cdma-ha-ip-addr    [7]   6   0.0.0.0

```

■ PDSN Debug Commands

```

*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-pcf-ip-addr [9] 6 4.0.0.1
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 20
*Mar 1 00:09:38.908: RADIUS: cdma-bs-msc-addr [10] 14 "000000000000"
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-user-id [11] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-forward-mux [12] 6 241
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-reverse-mux [13] 6 242
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-service-option [16] 6 245
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-forward-type [17] 6 246
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-reverse-type [18] 6 247
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-frame-size [19] 6 248
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-forward-rc [20] 6 249
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-reverse-rc [21] 6 250
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-ip-tech [22] 6 1
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-comp-flag [23] 6 No Tunnel [0]
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-frame-size [50] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-bad-frame-coun [25] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-active-time [49] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-num-active [30] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-sdb-input-octe [31] 6 0
*Mar 1 00:09:38.908: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.908: RADIUS: cdma-sdb-output-oct [32] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-numsdb-input [33] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-numsdb-output [34] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-hdLC-layer-byt [43] 6 224
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-moip-inbound [46] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-moip-outbound [47] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-ip-qos [36] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-airlink-qos [39] 6 0
*Mar 1 00:09:38.912: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:38.912: RADIUS: cdma-rp-session-id [41] 6 1
*Mar 1 00:09:38.912: RADIUS: Authentic [45] 6 RADIUS [1]
*Mar 1 00:09:38.912: RADIUS: User-Name [1] 11 "simulator"
*Mar 1 00:09:38.912: RADIUS: Acct-Status-Type [40] 6 Start [1]
*Mar 1 00:09:38.912: RADIUS: NAS-Port-Type [61] 6 Virtual [5]
*Mar 1 00:09:38.912: RADIUS: NAS-Port [5] 6 6
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 27
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 21 "interface=CDMA-IX/6"
*Mar 1 00:09:38.912: RADIUS: Service-Type [6] 6 Framed [2]
*Mar 1 00:09:38.912: RADIUS: NAS-IP-Address [4] 6 6.255.255.254
*Mar 1 00:09:38.912: RADIUS: Acct-Delay-Time [41] 6 0

```

```
*Mar 1 00:09:38.912: RADIUS: Received from id 21645/18 12.50.50.10:2890, Access-Accept,
len 128
*Mar 1 00:09:38.912: RADIUS: authenticator 4C C4 F1 42 72 16 19 6B - 82 B0 C8 87 34 40
BB 8B
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 29
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 23 "lcp:cdma-user-class=1"
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 30
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 24 "ip:addr-pool=pdsn-pool"
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 25
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 19 "crb-entity-type=1"
*Mar 1 00:09:38.912: RADIUS: Vendor, Cisco [26] 24
*Mar 1 00:09:38.912: RADIUS: Cisco AVpair [1] 18 "crb-duration=120"
*Mar 1 00:09:38.912: RADIUS(0000000B): Received from id 21645/18
*Mar 1 00:09:38.912: RADIUS/DECODE: VSA crb-entity-type=1 maps to 1
*Mar 1 00:09:38.924: RADIUS: Received from id 21645/19 12.50.50.10:2891,
Accounting-response, len 20
*Mar 1 00:09:38.924: RADIUS: authenticator 83 22 59 6F 14 C1 40 96 - BF D2 E7 2F 07 B2
FB 96
```

Close session:

```
7206-PDSN#
*Mar 1 00:09:57.504: Vi3.1 Debug: Condition 1, username simulator cleared, count 1
*Mar 1 00:09:57.508: simulator Debug: Condition 1, username simulator cleared, count 0
*Mar 1 00:09:57.508: RADIUS/ENCODE(0000000B): Unsupported AAA attribute timezone
*Mar 1 00:09:57.508: RADIUS: Pick NAS IP for uid=11 tableid=0 cfg_addr=0.0.0.0
*Mar 1 00:09:57.508: RADIUS(0000000B): sending
*Mar 1 00:09:57.524: RADIUS(0000000B): Send to unknown id 21645/20 12.50.50.10:2891,
Accounting-Request, len 736
*Mar 1 00:09:57.524: RADIUS: authenticator EE CE C0 F1 B0 57 69 4C - 8F 9B 25 A9 FA BD
53 44
*Mar 1 00:09:57.524: RADIUS: Acct-Session-Id [44] 10 "0000000F"
*Mar 1 00:09:57.524: RADIUS: Calling-Station-Id [31] 17 "0000000000000001"
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 23
*Mar 1 00:09:57.524: RADIUS: cdma-esn [52] 17 "0000000000000001"
*Mar 1 00:09:57.524: RADIUS: Framed-IP-Address [8] 6 9.3.0.1
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 16
*Mar 1 00:09:57.524: RADIUS: cdma-correlation-id[44] 10 "00000006"
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-ha-ip-addr [7] 6 0.0.0.0
*Mar 1 00:09:57.524: RADIUS: Vendor, Cisco [26] 34
*Mar 1 00:09:57.524: RADIUS: Cisco AVpair [1] 28 "connect-progress=Auth Open"
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-session-contin[48] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-pcf-ip-addr [9] 6 4.0.0.1
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 20
*Mar 1 00:09:57.524: RADIUS: cdma-bs-msc-addr [10] 14 "000000000000"
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-user-id [11] 6 0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-forward-mux [12] 6 241
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-reverse-mux [13] 6 242
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-service-option[16] 6 245
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-forward-type [17] 6 246
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-reverse-type [18] 6 247
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-frame-size [19] 6 248
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2 [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-forward-rc [20] 6 249
```

■ PDSN Debug Commands

```

*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-reverse-rc   [21] 6  250
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-ip-tech     [22] 6  1
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-comp-flag    [23] 6  No Tunnel      [0]
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-reason-ind   [24] 6  PPP termination [3]
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-frame-size   [50] 6  0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-bad-frame-coun[25] 6  0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-active-time   [49] 6  20
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-num-active    [30] 6  0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-sdb-input-octe[31] 6  0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-sdb-output-oct[32] 6  0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-numsdb-input  [33] 6  0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-numsdb-output [34] 6  0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-hdLC-layer-byt[43] 6  241
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.524: RADIUS: cdma-moip-inbound  [46] 6  0
*Mar 1 00:09:57.524: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.528: RADIUS: cdma-moip-outbound [47] 6  0
*Mar 1 00:09:57.528: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.528: RADIUS: cdma-ip-qos       [36] 6  0
*Mar 1 00:09:57.528: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.528: RADIUS: cdma-airlink-qos  [39] 6  0
*Mar 1 00:09:57.528: RADIUS: Vendor, 3GPP2      [26] 12
*Mar 1 00:09:57.528: RADIUS: cdma-rp-session-id[41] 6  1
*Mar 1 00:09:57.528: RADIUS: Authentic        [45] 6  RADIUS      [1]
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco      [26] 25
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair     [1]  19 "crb-auth-reason=5"
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco      [26] 40
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair     [1]  34
"crb-session-id=00000006730944578"
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco      [26] 23
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair     [1]  17 "crb-duration=19"
*Mar 1 00:09:57.528: RADIUS: Acct-Session-Time [46] 6  19
*Mar 1 00:09:57.528: RADIUS: Acct-Input-Octets [42] 6  0
*Mar 1 00:09:57.528: RADIUS: Acct-Output-Octets[43] 6  0
*Mar 1 00:09:57.528: RADIUS: Acct-Input-Packets[47] 6  0
*Mar 1 00:09:57.528: RADIUS: Acct-Output-Packets[48] 6  0
*Mar 1 00:09:57.528: RADIUS: Acct-Terminate-Cause[49] 6  none      [0]
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco      [26] 32
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair     [1]  26 "disc-cause-ext=No Reason"
*Mar 1 00:09:57.528: RADIUS: Authentic        [45] 6  RADIUS      [1]
*Mar 1 00:09:57.528: RADIUS: User-Name        [1]  11 "simulator"
*Mar 1 00:09:57.528: RADIUS: Acct-Status-Type [40] 6  Stop       [2]
*Mar 1 00:09:57.528: RADIUS: NAS-Port-Type    [61] 6  Virtual     [5]

```

```
*Mar 1 00:09:57.528: RADIUS: NAS-Port [5] 6 6
*Mar 1 00:09:57.528: RADIUS: Vendor, Cisco [26] 27
*Mar 1 00:09:57.528: RADIUS: Cisco AVpair [1] 21 "interface=CDMA-IX/6"
*Mar 1 00:09:57.528: RADIUS: Service-Type [6] 6 Framed [2]
*Mar 1 00:09:57.528: RADIUS: NAS-IP-Address [4] 6 6.255.255.254
*Mar 1 00:09:57.528: RADIUS: Acct-Delay-Time [41] 6 0
*Mar 1 00:09:57.540: RADIUS: Received from id 21645/20 12.50.50.10:2891,
Accounting-response, len 20
*Mar 1 00:09:57.540: RADIUS: authenticator 33 8C A5 D8 1F 53 C1 3F - 65 A7 53 9C 27 80
C1 DE
```