

PGW 2200 软交换机 'Bearer Capability Not Implemented' 原因值

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简介

本文为没断开原因值提供信息在Cisco PGW 2200。本文特别地适用于Cisco SS7互连为语音/数据网关解决方案。

先决条件

要求

本文档读者应了解以下主题的知识：

- 知识[Cisco媒体网关控制器软件版本9](#)

使用的组件

本文档中的信息根据Cisco PGW 2200软件版本7.x和9.x。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

规则

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

‘载体功能不可用的’说明

当cisco ios命令isdn incoming-voice modem没有激活在接口Serial0:x下时，您体验= 0x80BA - Disconnect值。

注意：某些线路在此命令输出中给空间的原因的第二条线路减少了。

```
Time stamp   Orig IP address   Dest IP address   Prot   Msg   Data
-----
*****
* 03 SNOOPER INFO: Snooper is listening on interface "hme1"... *
*****
14:07:33.450567  1-002-1[02065]   1-010-1[02129]   ITU   ISUP.  -> IAM (01) CIC=00062
                                   CDPN=1492169679F CGPN=9678
                                   SLS=14 Pr:0 Ni:NTL

*****  DETAIL  *****
CIC                               62
MESSAGE TYPE                      0x01 IAM - Initial_Address_Msg
NATURE_OF_CONNECTION              0x06
  LENGTH:                          0x01 FIXED DATA 0x00
  SATELLITE IND                     0 no_satellite_circuit_in_connection
  CONTINUITY CHECK IND              0 Continuity_check_not_required
  ECHO SUPPRESSOR IND              0 outgoing_half_echo_suppressor_not_included
FORWARD CALL IND.                  0x07
  LENGTH:                          0x02 FIXED DATA 0x20 0x01
  NATL/INTL CALL IND                0 incoming_national_call
  END-TO-END METHOD IND              0 no_end_to_end_method_available
  INTERWORKING IND                  0 no_interworking_encountered
  END-TO-END INFO IND               0 no_end_to_end_information_available
  ISUP IND.                          1 ISUP_used_all_the_way
  ISDN PREFERENCE IND               0 isdn_up_pref_all_the_way
  ISDN ACCESS IND.                  1 originating_access_ISDN
  SCCP Method                        0 no indication
CALLING PARTYS CATEGORY            0x09
  LENGTH:                          0x01 FIXED DATA 0x0A
  CALLING PARTYS CATEGORY            10 ordinary_subscriber_precedence_level_1
TRANSMISSION MEDIUM REQUIRED        0x02
  LENGTH:                          0x01 FIXED DATA 0x00
  TRANSMISSION MEDIUM REQUIRED        0 speech
INDEX TO CALLED PTY ADDRESS         0x02
INDEX TO OPTIONAL PART              0x0A
CALLED PARTY NUMBER PARM            0x04
  LENGTH:                          0x08 VAR.  DATA 0x82 0x90 0x41 0x29 0x61 0x69 0x97 0x0F
```

```

ODD/EVEN IND                1 odd_number_of_digits
NATURE OF ADDRESS IND       0x02 Called_reserved_for_national_use
INTERNAL NETWORK PARM       1 routing to internal network number not allowed
NUMBERING PLAN              1 ISDN_Telephony_Numbering_Plan
DIGITS:                     1492169679F
EXTENSION DIGIT            F -ST
OPTIONAL PARAMETERS:
CALLING PARTY ADDRESS       0x0A
  LENGTH:                   0x04 OPT.  DATA 0x02 0x11 0x69 0x87
  ODD/EVEN IND              0 even_number_of_digits
  NATURE OF ADDRESS IND     0x02 Calling_reserved_for_national_use
  NUMBER INCOMPLETE IND.    0 complete
  PRESENTATION IND.        0 address_presentation_allowed
  SCREENING IND.           1 user_provided_passed_network_screening
  NUMBERING PLAN           1 ISDN_Telephony_Numbering_Plan
  DIGITS:                  9678
RESERVED/UNKNOWN OPT PARM   0x3D
  LENGTH:                   0x01 OPT.  DATA 0x1F
USER SERVICE INFO          0x1D
  LENGTH:                   0x03 OPT.  DATA 0x80 0x90 0xA3
  EXTENSION BIT             1 last_octet
  CODING STANDARD           0 CCITT_coding_standard
  BC INFO TRANSFER CAP      0 transfer_speech
  EXTENSION BIT             1 last_octet
  TRANSFER MODE             0 circuit_mode
  INFORMATION TRANSFER RATE 16 rate_64_kb_per_s
  EXTENSION BIT             1 last_octet
  USER LAYER IDENTIFICATION 1 user_info_layer_1_protocol
  MULTIPLIER/PROTOCOL ID    3 A_law_speech
END OF OPTIONAL PARAMETERS   0x00
*****                      END_OF_MSG                      *****

```

```

14:07:33.607918 1-010-1[02129] 1-002-1[02065] ITU ISUP. -> IAM (01) CIC=00001
                                           CDPN=92169679F CGPN=9678
                                           SLS=01 Pr:0 Ni:NTL

```

***** DETAIL *****

```

CIC                          1
MESSAGE TYPE                  0x01 IAM - Initial_Address_Msg
NATURE_OF_CONNECTION         0x06
  LENGTH:                     0x01 FIXED DATA 0x00
  SATELLITE IND               0 no_satellite_circuit_in_connection
  CONTINUITY CHECK IND        0 Continuity_check_not_required
  ECHO SUPPRESSOR IND        0 outgoing_half_echo_suppressor_not_included
FORWARD CALL IND.           0x07
  LENGTH:                     0x02 FIXED DATA 0x20 0x01
  NATL/INTL CALL IND         0 incoming_national_call
  END-TO-END METHOD IND       0 no_end_to_end_method_available
  INTERWORKING IND           0 no_interworking_encountered
  END-TO-END INFO IND        0 no_end_to_end_information_available
  ISUP IND.                  1 ISUP_used_all_the_way
  ISDN PREFERENCE IND         0 isdn_up_pref_all_the_way
  ISDN ACCESS IND.           1 originating_access_ISDN
  SCCP Method                 0 no indication
CALLING PARTYS CATEGORY      0x09
  LENGTH:                     0x01 FIXED DATA 0x0A
  CALLING PARTYS CATEGORY     10 ordinary_subscriber_precedence_level_1
TRANSMISSION MEDIUM REQUIRED  0x02
  LENGTH:                     0x01 FIXED DATA 0x00
  TRANSMISSION MEDIUM REQUIRED 0 speech
INDEX TO CALLED PTY ADDRESS  0x02
INDEX TO OPTIONAL PART       0x09
CALLED PARTY NUMBER PARM     0x04

```

```

LENGTH:                0x07 VAR.  DATA 0x82 0x90 0x29 0x61 0x69 0x97 0x0F
ODD/EVEN IND           1 odd_number_of_digits
NATURE OF ADDRESS IND  0x02 Called_reserved_for_national_use
INTERNAL NETWORK PARM  1 routing to internal network number not allowed
NUMBERING PLAN         1 ISDN_Telephony_Numbering_Plan
DIGITS:                92169679F
EXTENSION DIGIT       F -ST
OPTIONAL PARAMETERS:
CALLING PARTY ADDRESS  0x0A
  LENGTH:              0x04 OPT.  DATA 0x02 0x11 0x69 0x87
  ODD/EVEN IND         0 even_number_of_digits
  NATURE OF ADDRESS IND 0x02 Calling_reserved_for_national_use
  NUMBER INCOMPLETE IND. 0 complete
  PRESENTATION IND.    0 address_presentation_allowed
  SCREENING IND.       1 user_provided_passed_network_screening
  NUMBERING PLAN       1 ISDN_Telephony_Numbering_Plan
  DIGITS:              9678
RESERVED/UNKNOWN OPT PARM 0x3D
  LENGTH:              0x01 OPT.  DATA 0x1F
USER SERVICE INFO        0x1D
  LENGTH:              0x03 OPT.  DATA 0x80 0x90 0xA3
  EXTENSION BIT        1 last_octet
  CODING STANDARD      0 CCITT_coding_standard
  BC INFO TRANSFER CAP 0 transfer_speech
  EXTENSION BIT        1 last_octet
  TRANSFER MODE        0 circuit_mode
  INFORMATION TRANSFER RATE 16 rate_64_kb_per_s
  EXTENSION BIT        1 last_octet
  USER LAYER IDENTIFICATION 1 user_info_layer_1_protocol
  MULTIPLIER/PROTOCOL ID 3 A_law_speech
END OF OPTIONAL PARAMETERS 0x00
*****                END_OF_MSG                *****

```

```

14:07:33.630890 10.48.85.24:3001 10.48.85.187:3001
NI2+..... -> SETUP (05) PROT:08 CREF:0003
  IE:BEARER_CAPAB (04) 8090a3
  IE:CHANNEL_ID (18) e9808381
  IE:CALLING_PARTY_NB (6c) 0181 CALLING_NB:9678
  IE:CALLED_PARTY_NB (70) 81 CALLED_NB:92169679

```

```

14:07:33.640377 10.48.85.187:3001 10.48.85.24:3001 NI2+..... -> REL_COMP (5a) PROT:08 CREF:8003
IE:CAUSE (08) 80ba Cause 58 = Bearer Cap Not Avail 14:07:33.660505 1-002-1[02065] 1-010-1[02129]
ITU ISUP. -> REL (0c) CIC=00001 Cause 58 = Bearer Cap Not Avail SLS=01 Pr:0 Ni:Ntl
***** DETAIL ***** CIC 1 MESSAGE TYPE
0x0C REL - Release_Msg INDEX TO VARIABLE PART 0x02 INDEX TO OPTIONAL PART 0x00 CAUSE IND 0x12
LENGTH: 0x02 VAR. DATA 0x80 0xBA EXTENSION BIT 1 diagnostic_is_not_included CODING STANDARD 0
CCITT_standard GENERAL LOCATION 0 User EXTENSION BIT 1 diagnostic_is_not_included CLASS 3
Service or option not available VALUE IN CLASS 10 CAUSE VALUE 58 Bearer capability not presently
available ***** END_OF_MSG ***** 14:07:33.742257 1-010-1[02129] 1-002-
1[02065] ITU ISUP. -> REL (0c) CIC=00062 Cause 58 = Bearer Cap Not Available SLS=14 Pr:0 Ni:Ntl
***** DETAIL ***** CIC 62 MESSAGE TYPE
0x0C REL - Release_Msg INDEX TO VARIABLE PART 0x02 INDEX TO OPTIONAL PART 0x00 CAUSE IND 0x12
LENGTH: 0x02 VAR. DATA 0x80 0xBA EXTENSION BIT 1 diagnostic_is_not_included CODING STANDARD 0
CCITT_standard GENERAL LOCATION 0 User EXTENSION BIT 1 diagnostic_is_not_included CLASS 3
Service or option not available VALUE IN CLASS 10 CAUSE VALUE 58 Bearer capability not presently
available ***** END_OF_MSG ***** 14:07:33.770574 1-010-1[02129] 1-002-
1[02065] ITU ISUP. -> RLC (10) CIC=00001 SLS=01 Pr:0 Ni:Ntl *****
DETAIL ***** CIC 1 MESSAGE TYPE 0x10 RLC - Release_Complete_Msg
***** END_OF_MSG ***** 14:07:33.780953 1-002-1[02065] 1-010-1[02129]
ITU ISUP. -> RLC (10) CIC=00062 SLS=14 Pr:0 Ni:Ntl ***** DETAIL
***** CIC 62 MESSAGE TYPE 0x10 RLC - Release_Complete_Msg
***** END_OF_MSG

```

注意：发出原因的Cisco IOS debug命令debug isdn q931我= 0x80BA。这在[了解debug isdn](#)

[q931断开原因代码](#)文档解释。

注意：原因我= 0x82c1 -没实现的载体功能，网络不能提供用户请求的载体功能。这可以与电信公司问题连接。

如果这是实际情形，请添加命令在Serial interfaces下。如果仍然遇到此问题，请发出**debug isdn q931**并且确认。如果那样，请发出**debug isdn q931**命令并且添加这些Cisco IOS命令到配置。

- **service timestamps debug datetime msec**
- **service timestamps log datetime msec**

再做一测试呼叫，并且检查输出**debug isdn q931**命令。

添加**isdn incoming-voice modem**命令在Serial interfaces下更改行为= 0x80BA。

```
May 3 10:31:02.916: ISDN Se0:15 SC Q931: RX <- SETUP pd = 8 callref = 0x000D Bearer Capability i = 0x8090A3 Standard = CCITT Transer Capability = Speech Transfer Mode = Circuit Transfer Rate = 64 kbit/s Channel ID i = 0xE980839F Exclusive, Interface 0, Channel 31 Calling Party Number i = 0x0181, '9678' Plan:ISDN, Type:Unknown Called Party Number i = 0x81, '92169679' Plan:ISDN, Type:Unknown May 3 10:31:02.936: ISDN Se0:15 SC Q931: TX -> CALL_PROC pd = 8 callref = 0x800D Channel ID i = 0xE180839F Preferred, Interface 0, Channel 31 May 3 10:31:05.300: ISDN Se0:15 SC Q931: TX -> ALERTING pd = 8 callref = 0x800D Facility i = 0x9E8100036774640000001B41434D2C0D0A50524E2C6973646E2A2C2C4E45543 52A2C0D0A0D0A May 3 10:31:07.088: ISDN Se0:15 SC Q931: TX -> CONNECT pd = 8 callref = 0x800D May 3 10:31:07.108: ISDN Se0:15 SC Q931: RX <- CONNECT_ACK pd = 8 callref = 0x000D May 3 10:31:09.672: %ISDN-6-CONNECT: Interface Serial0:30 is now connected to 9678 May 3 10:31:09.672: %ISDN-6-DISCONNECT: Interface Serial0:30 disconnected from 9678 , call lasted 2 seconds May 3 10:31:09.672: ISDN Se0:15 SC Q931: TX -> DISCONNECT pd = 8 callref = 0x800D Cause i = 0x8090 - Normal call clearing Facility i = 0x9E8100036774640000001B52454C2C0D0A50524E2C6973646E2A2C2C4E45543 52A2C0D0A0D0A May 3 10:31:09.824: ISDN Se0:15 SC Q931: RX <- RELEASE pd = 8 callref = 0x000D May 3 10:31:09.828: ISDN Se0:15 SC Q931: TX -> RELEASE_COMP pd = 8 callref = 0x800D
```

[排除故障并且验证](#)

如果遇到任何问题，请收集SS7嗅探器跟踪与Cisco IOS **debug**命令**debug isdn q931**和Cisco PGW 2200消息定义语言(MDL) trace的组合。

[收集Cisco PGW 2200 MDL Trace](#)

遵从这些步骤收集MDL trace：

1. 确定呼叫发出的产生的Ss7sigPath编号或产生的Trunkgroup编号。
2. 通过运行查找的脚本转动日志在/opt/CiscoMGC/bin/log_rotate.sh。
3. 通过发出**sta-sc-trc**开始MDL trace：**ss7sigPath**名称|**number**命令的**orig trunkgroup**和确认。如果想要更多详细信息，请发出**帮助：sta-sc-trc help**命令通过人机语言(MML)。
4. 执行一测验由进行呼叫。
5. 通过发出**stp-sc-trc**终止MDL trace：**all**命令。
6. 识别呼叫ID (C :)坏呼叫。如果测试呼叫在测试环境被做，只有一呼叫ID显示。这是您接收详细信息的示例，当您发出**./get_trc.sh trace_file_name**时：

```
:/opt/CiscoMGC/bin
```

```
mgcusr@PGW2200% ./get_trc.sh _ss7path_20040116104232.btr get_trc.sh ca/sim/sp Trace File Utility Mistral Version 1.2 The ANALYSIS mdo file is: GENERIC_ANALYSIS.mdo Retrieving _ss7path_20040116104232.btr trace file Call ID's, please wait... Enter one of the following commands: S = Simprint in less F = Simprint with printing of sent and received Fields in less D = Display trc trace in less G = Display trc trace in less (Generated) C = Convert to trc trace file A = Display CA file in less N = Move to Next call ID P = Move to Previous call ID L = List call ID's in current file X = Set SP flags H = Print Help Q = Quit
```

get_trc.sh Or just enter the ID of the call you want if you know it Use (N)ext and (P)revious to move between the call ID's _ss7path_20040116104232.btr contains 10 call(s)

==> Working on call 1 ID 24 H = Help [S/F/D/G/C/A/N/P/L/H/Q/id]? **注意：**如果捕获在制作Cisco PGW 2200，被采取这些文件能包含许多混合呼叫追踪。在文件的每个跟踪记录有与该记录关联类型的一个特定记录类型和记录信息。每个记录有与一特定呼叫涉及它的呼叫ID。

7. 转换MDL trace到可读的格式。去目录/opt/CiscoMGC/bin并且发出命令./get_trc.sh trace文件名。
8. 键入呼叫ID在提示符跳到坏呼叫的MDL trace。
9. 选择C选项转换跟踪文件。**注意：**有分机.btr的文件是Cisco PGW 2200跟踪程序功能导致的二进制跟踪文件。文件名的主要部分在Cisco PGW 2200 mml命令sta-sc-trc给。Cisco PGW 2200总是添加一.btr分机到这些文件。当您使用“C”选项时，文件转换到文本格式，并且分机.trc被添加到文件名。这些文件包含从在仿真重播运行导致文件的MDO代码的详细的一行行的跟踪信息，因此他们包含MDL跟踪。
10. 跟踪文件查找在/opt/CiscoMGC/var/trace。上传.btr和.trc文件对服务要求复核。
11. 收集platform.log文件查找在/opt/CiscoMGC/var/log。有时，当处理服务请求，思科技术支持工程师要求时其他platform.log相关的信息对问题报告。

收集的snoop/SIP-SS7嗅探器跟踪

此部分列出收集的嗅探器跟踪几个方法。哪个您选择取决于您是否安排[Cisco分组电话中心监测与排障\(PTC-MT\)](#)安装或运行思科刺探者旧版本。Cisco刺探者能提供一好了解SS7-SIP呼叫流。

- 发出snoop命令在所有Solaris平台：要收集UNIX监听信息，请登陆作为超级用户并且发出命令：
`snoop -o snoop.log IP address` 输入Ctrl+C退出监听和上传snoop.log文件到案例注释。**注意：**解释在案例注释此文件通过snoop命令使用的UNIX捕获。
- 运行思科刺探者应用程序：要收集Cisco刺探者信息，请登陆作为超级用户并且发出list命令./snooper int接口的PARMS或运行./snooper，给予您完整说明。
`./snooper int hme'x' ni2+ ss7 > snooper_int1 !--- Where 'x' is the interface number, which you can also find !--- by issuing the ifconfig -a command.` **注意：**上传snooper_int1文件对案例注释。
- 运行PTC-MT。收集PTC-MT信息，请登陆作为超级用户和发出./ptcmt int接口PARMS list命令或运行./snooper，给予您完整说明。
`./ptcmt int hme'x' ni2+ ss7 > snooper_int1 !--- Where 'x' is the interface number, which you can also find !--- by issuing the ifconfig -a command.` 上传"snooper_int1"文件对案例注释。

相关信息

- [Cisco PGW 2200 Softswitch技术说明](#)
- [PGW2200 配置示例](#)
- [语音技术支持](#)
- [语音和统一通信产品支持](#)
- [Cisco IP 电话故障排除](#)
- [技术支持 - Cisco Systems](#)

本文档是否是有用？[有](#) [没有](#)

感谢您的反馈。

[打开支持案例](#)（需要[思科服务合同](#)。）

相关的思科支持社区讨论

[思科支持社区](#)是提出和解答问题、分享建议以及与同行协作的论坛。

有关本文档中所用的规则信息，请参阅 [Cisco Technical Tips Conventions](#)。

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