

Cisco PGW 2200的SimWriter测试拨号计划

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简介

当您创建拨号方案然后测试它时，无法验证呼叫如何通过Cisco PGW 2200上的拨号方案运行。此时，您需要进行测试调用并在调用上运行完整的MDL跟踪。当您查看这些跟踪时，它们冗长且复杂，难以理解。因此，`/opt/CiscoMGC/bin`目录下的SimWriter更易于理解跟踪。翻译验证工具为您提供了解如何根据系统的拨号方案处理呼叫的方法。此工具创建拨号方案处理的呼叫的模拟。

先决条件

要求

Cisco 建议您了解以下主题：

- [Cisco媒介网关控制器版本9](#)

使用的组件

本文档中的信息基于Cisco PGW 2200 SoftSwitch。

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。

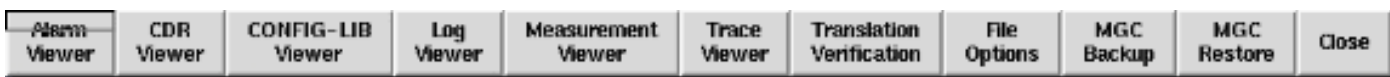
规则

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

思科PGW 2200 SimWriter

要查看最新的SimWriter帮助选项，请转到`/opt/CiscoMGC/bin`目录，并在命令行上运行**SimWriter**命令或**simWriter -help**命令。帮助参数为您提供每个参数的帮助说明。本文档仅重点介绍其中一些参数。如果要在图形环境中使用此命令，请通过X-windows在目录`/opt/Toolkit/bin`下运行**MGC_Toolkit**命令。此部分包含内置的翻译验证部分。另外，使用**SimWriter**命令。

目前，在/opt/Toolkit/bin目录下发出./MGC_Toolkit命令时，您会收到以下信息：



选择“转换验证”选项以显示此窗口：

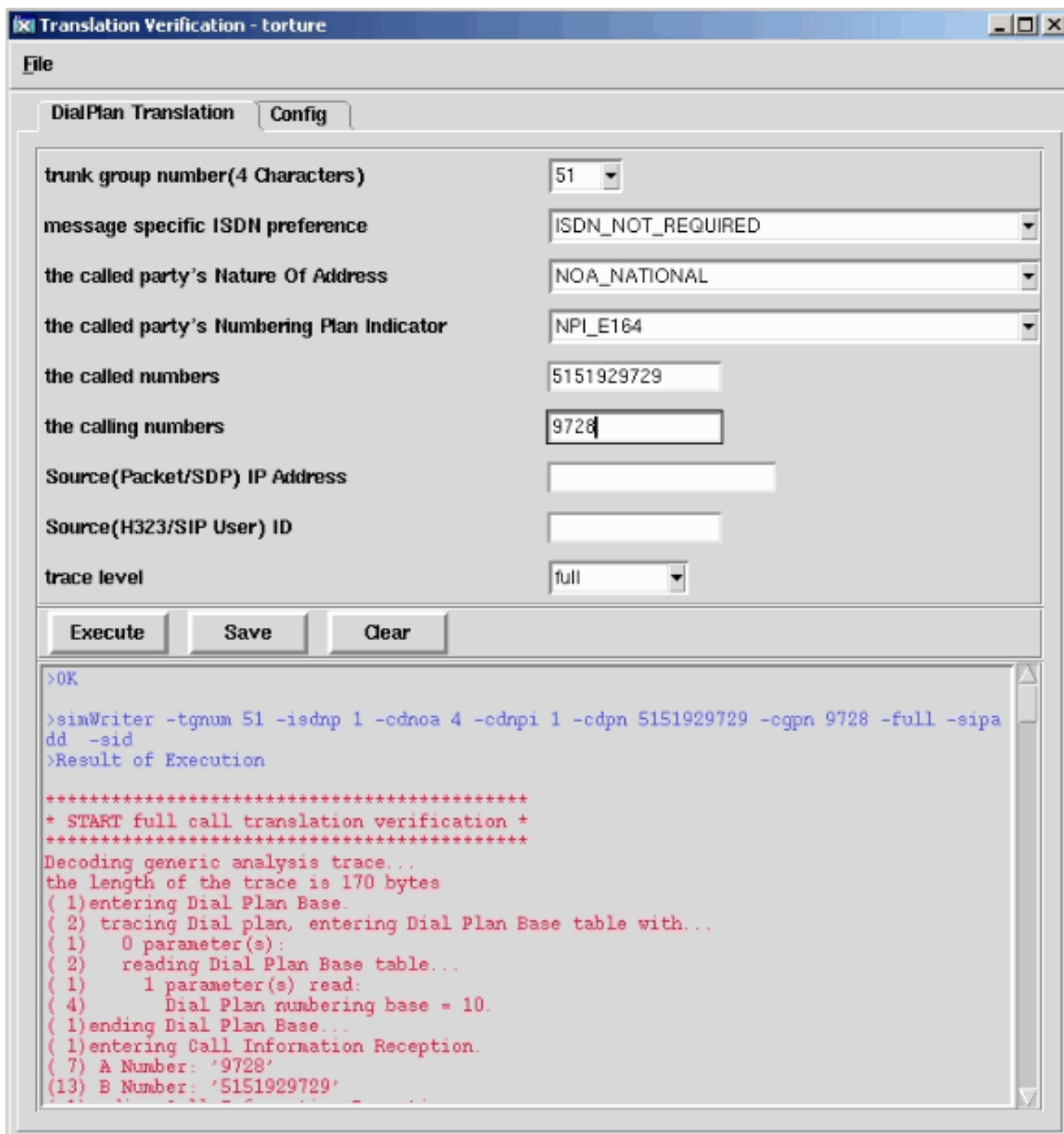


表 1：SimWriter帮助输出信息

选项字符串	参数	参数类型	描述
-------	----	------	----

- t g n u m	中继组编号	4位	此选项为必填项。它指定呼入的中继组号。然后，指定的中继组将用于从.dat文件中查找有关客户及其首选项的所有存储信息。
- f u l l	< 无 >	< 无 >	向SimWriter和调用程序指示需要完全跟踪。在此模式下，将打印更详细的跟踪。有关此格式 的详细说明 ，请参阅Callver输出部分。
- d i a g	< 无 >	< 无 >	向SimWriter和调用程序指示需要诊断跟踪。在此模式下，所有结果都会打印，但所有表信息都会遗漏。有关此格式 的详细说明 ，请参阅Callver输出部分。
- i s d p n	ISDP首选项枚举代码	数字	指定在选择传出路由时要使用的ISDN首选项。此首选项是包含在初始地址消息中的首选项。还有一个路由首选项，使用始发中继组从.dat文件中选取。表2中列出了可能的 值 。
- c d n o a	被叫方的地址性质 (NOA)	数字	表示被叫方NOA的枚举数。这是与呼叫情景中NOA的值对应的编号。有关NOA类型及其整数值，请参阅 表3 。
- c d n p i	被叫方的编号计划指标 (NPI)	数字	表示被叫方NOA的枚举数。这是与呼叫情景中NPI的值对应的编号。有关NPI类型及 其整数值 ，请参阅表4。
- c d p n	被叫方号码	数字字符串	这是被叫方号码。目前，拨号方案仅支持数字0到9。因此，不允许使用十六进制数字。
- c g n o a	主叫方的NOA	数字	表示主叫方NOA的枚举数。这是与呼叫情景中NOA的值对应的编号。
- c g n p i	主叫方的NPI	数字	表示主叫方NOA的枚举数。这是与呼叫情景中NPI的值对应的编号。
- c g p n	主叫方号码	数字字符串	这是主叫方号码。目前，拨号方案仅支持数字0到9。不允许使用十六进制数字。

表 2 : ISDN的整数值

ISDN类型	整数值
CLASS_ISDN_PREFERRED	0
CLASS_ISDN_NOT_REQUIRED默认值	1
CLASS_ISDN_REQUIRED	2

表 3 : NOA的整数值

NOA类型	整数值
NOA_NONE	1
NOA_UNKNOWN	2
NOA_SUBSCRIBER	3
NOA_NATIONAL	4
NOA_INTERNATIONAL	5
NOA_NETWORK	6
NOA_MERIDIAN	7
NOA_ABBR	8
NOA_UNIQUE_3DIG_NAT_NUM	9
NOA_ANI	10
NOA_NO_ANI_REC'D	11
NOA_NON_UNIQUE_SUBSCRIBER	12
NOA_NON_UNIQUE_NATIONAL	13 ↑
NOA_NON_UNIQUE_INTERNATIONAL	14
NOA_OPRREQ_TREATED	15
NOA_OPRREQ_SUBSCRIBER	16
NOA_OPRREQ_NATIONAL	17
NOA_OPRREQ_INTERNATIONAL	18
NOA_OPRREQ_NO_NUM	19
NOA_CARRIER_NO_NUM	20
NOA_950_CALL	21
NOA_TEST_LINE_CODE	22
NOA_INT_INBOUND	23
NOA_NAT_OR_INTL_CARRIER_ACC_CODE_INC	24
NOA_CELL_GLOBAL_ID_GSM	25
NOA_CELL_GLOBAL_ID_NMT_900	26
NOA_CELL_GLOBAL_ID_NMT_450	27
NOA_CELL_GLOBAL_ID_AUTONET	28
NOA_PORTED_NUMBER	29
NOA_PISN_SPECIFIC_NUMBER	30
NOA_UK_SPECIFIC_ADDRESS	31

NOA_SPARE	32
NOA_SUBSCRIBER_OPERATOR_REQUESTED	33
NOA_NATIONAL_OPERATOR_REQUESTED	34
NOA_INTERNATIONAL_OPERATOR_REQUESTED	35
NOA_NO_NUMBER_PRESENT_OPERATOR_REQUESTED	36
NOA_NO_NUMBER_CUT_THROUGH_TO_CARRIER	37
NOA_950_PUBLIC_HOTEL_LINE	38
NOA_TEST_CALL	39
NOA_MCI_VNET	40
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_OUTSIDE_WZI	41
NOA_INTERNATIONAL_OPERATOR_TO_OPERATOR_INSIDE_WZI	42
NOA_DIRECT_TERMINATION_OVERFLOW	43
NOA_ISN_EXTENDED_INTERNATIONAL_TERMINATION	44
NOA_TRANSFER_ISN_TO_ISN	45
NOA_CREDIT_CARD	46
保留	47

表 4：NPI的整数值

NPI类型	整数值
NPI_NONE	0
NPI_E164默认值	1
NPI_DATA	2
NPI_TELEX	3
NPI_PNP	4
NPI_NATIONAL	5
NPI_TELEPHONY	6
NPI_MARITIME_MOBILE	7
NPI_LAND_MOBILE	8
NPI_ISDN_MOBILE	9

SimWriter使用示例

在本示例中，TDM发夹呼叫通过PGW 2200发到NAS。首先，通过SimWriter查看Cisco PGW 2200拨号方案是否在PGW 2200配置错误时报告任何错误。

注意：由于对SimWriter进行了一些修改，Cisco建议您将PGW升级到最新补丁。有关其他信息，请查看。另请确保在/opt/CiscoMGC/etc目录的XECfgParm.dat文件中看到`engine.SysVirtualSwitch = 1`，并且CALLVER*.mdos安装在/opt/CiscoMGC/lib目录下。请参阅Cisco Bug ID [CSCee18831\(仅注册客户\)](#)，该错误说明SimWriter应如何捕获所有属性驱动的改变。

本示例从B号码删除前两位数，并在route51上重新路由回呼。BMODDIG结果类型有“dw=1”和“dw=2”，表示开始从B号码的第一位开始删除，并删除前两位[dw=2]。

```
numan-add:resultset:custgrpid="sw01",name="rset51"
```

```
numan-add:resulttable:custgrpid="sw01",name="strip51",resulttype="BMODDIG",
dw1="1",dw2="2",setname="rset51"
```

```
numan-add:resulttable:custgrpid="sw01",name="route51",resulttype="ROUTE",
dw1="rtgrp51",setname="rset51"
```

添加BMODDIG和ROUTE mml命令并发出mml命令prov-cpy或prov-dply后，可以使用prov-rtrv 和 numan-rtrv 命令检查配置。

```
PGW2200 mml>prov-rtrv:trnkgrp:"all"
```

```
MGC-01 - Media Gateway Controller 2004-02-02 18:51:34.983 WET
```

```
M RTRV
```

```
"session=UnsolNot_On17:trnkgrp"
```

```
/*
```

NAME	CLLI	SVC	TYPE	SELSEQ	QABLE
51	NULL	ss7-bru8	TDM_ISUP	LIDL	N

```
*/
```

```
;
```

```
PGW2200 mml>numan-rtrv:bdigtree:custgrpid="sw01",callside="originating"
```

```
MGC-01 - Media Gateway Controller 2004-02-02 18:54:31.632 WET
```

```
M RTRV
```

```
"session=UnsolNot_On17:bdigtree"
```

```
/*
```

```
digitString      callSide
-----          -
                    originating
```

```
PointInDigitString
-----
```

```
51
```

```
ResultSetName
```

```
rset51
```

resultName	resultType	dw1	dw2	dw3	dw4	nextResult
strip51	BMODDIG	1	2	0	0	route51
route51	ROUTE	rtgrp51	0	0	0	0

在这种情况下，您可以发出测试呼叫并检查工作是否正确，或者检查SimWriter的输出以查看是否报告了任何错误消息。

如果您不记得simWriter参数，请使用提示符接口代替命令行，如以下输出所示：

```
mgcusr@PGW2200%simWriter -prompt
```

```
Enter the trunk group number (4 Characters) : 51
```

```
Enter the ISDN preference (0-2 [Default 1]) :
```

```
Enter the Called party's NOA (1-47 [Default 4]) : 4
```

```
Enter the Called party's NPI(0-9 [Default 1]) : 1
```

```
Enter the Called party number : 5151929729
```

```
Enter the Calling party number : 9727
```

您还可以选择直接使用命令行，如以下输出所示：

!--- This command has been wrapped to the second !--- line for spatial reasons. mgcusr@PGW2200%

```
simWriter -tgnum 51 -isdnp 0 -cdnoa 4 -cdnpi 1 -cdpn  
5151929729 -cgpn 9727 -full -sipadd -sid
```

Analyzing .dat files:

used default Route Preference
used default Terminating Max Digits
used default Terminating Min Digits
used default Originating Min Digits
used default Originating Max Digits
used default Carrier Screening property
used default Anumnormalise property
used default Bnumnormalise property
used default Enable IP Screening property
used default NPA
used default AOCEnabled field
used the default field for default directory number
used the default Database Access Error flag

Analysis complete, writing message...

Message completed, running simulator...

```
*****  
* START full call translation verification *  
*****
```

Decoding generic analysis trace...

the length of the trace is 170 bytes

```
( 1)entering Dial Plan Base.  
( 2) tracing Dial plan, entering Dial Plan Base table with...  
( 1) 0 parameter(s):  
( 2) reading Dial Plan Base table...  
( 1) 1 parameter(s) read:  
( 4) Dial Plan numbering base = 10.  
( 1)ending Dial Plan Base...  
( 1)entering Call Information Reception.  
( 7) A Number: '9727'  
(13) B Number: '5151929729'  
( 1)ending Call Information Reception...  
( 1)entering Profile Analysis (NOA).  
(13) Tracing call number: '5151929729' (Called party number)  
( 7) Trace for customer: 'sw01'  
( 5) TreeBase: '10'  
( 2) tracing Dial plan, entering NOA_A table with...  
( 1) 1 parameter(s):  
( 4) NOA_A table index = 4.  
( 2) reading NOA_A table...  
( 1) 2 parameter(s) read:  
( 4) NPI_A index = 0.  
( 4) Result index = 0.  
( 2) tracing Dial plan, entering CPC table with...  
( 1) 1 parameter(s):  
( 4) CPC table index = 9.  
( 2) reading CPC table...  
( 1) 1 parameter(s) read:  
( 4) Result Index = 0.  
( 2) tracing Dial plan, entering TMR table with...  
( 1) 1 parameter(s):  
( 4) TMR table index = 78.  
( 2) reading TMR table...  
( 1) 1 parameter(s) read:  
( 4) Result Index = 0.  
( 2) tracing Dial plan, entering NOA table with...  
( 1) 1 parameter(s):  
( 4) NOA table index = 4.  
( 2) reading NOA table...
```

```
( 1)      2 parameter(s) read:
( 4)      NPI index = 0.
( 4)      Result index = 0.
( 2) tracing Dial plan, entering Result table with...
( 1)      1 parameter(s):
( 4)      Result table index = 0.
( 1)ending Profile Analysis (NOA)...
( 1)entering A-Number Analysis.
( 7) Tracing call number: '9727' (Calling party number)
( 7) Trace for customer: 'sw01'
( 2) tracing Dial plan, entering A-Number digit tree table with...
( 1)      1 parameter(s):
( 4)      A-Number digit tree index = 1 (starting index table)
( 2)      reading A-Number digit tree table...
( 1)      3 parameter(s) read:
( 4)      Digit to present = 0.
( 4)      Next tree index = 0.
( 4)      Result index = 0.
-----break in message reached-----
Decoding generic analysis trace...
the length of the trace is 206 bytes
( 2) tracing Dial plan, entering A-Number digit tree table with...
( 1)      1 parameter(s):
( 4)      A-Number digit tree index = 10 (table: 2 / digit: '-1')
( 2)      reading A-Number digit tree table...
( 1)      3 parameter(s) read:
( 4)      Digit to present = 0.
( 4)      Next tree index = 0.
( 4)      Result index = 0.
( 1)ending A-Number Analysis...
( 1)entering B-Number Analysis.
(13) Tracing call number: '5151929729' (Called party number)
( 7) Trace for customer: 'sw01'
( 2) tracing Dial plan, entering B-Number digit tree table with...
( 1)      1 parameter(s):
( 4)      B-Number digit tree index = 1 (starting index table)
( 2)      reading B-Number digit tree table...
( 1)      3 parameter(s) read:
( 4)      Digit to present = 0.
( 4)      Next tree index = 0.
( 4)      Result index = 0.
( 2) tracing Dial plan, entering B-Number digit tree table with...
( 1)      1 parameter(s):
( 4)      B-Number digit tree index = 6 (table: 1 / digit: '5')
( 2)      reading B-Number digit tree table...
( 1)      3 parameter(s) read:
( 4)      Digit to present = 0.
( 4)      Next tree index = 4.
( 4)      Result index = 0.
( 2) tracing Dial plan, entering B-Number digit tree table with...
( 1)      1 parameter(s):
( 4)      Route table index = 1.
( 4)      Next route index = 0.
( 4)      Route Size = 1.
( 4)      Distribution (0=Sequential, else=Load Shared) = 0.
( 1)ending Route Analysis...
( 1)entering Trunk Group Analysis.
( 2) tracing Routing plan, entering Trunk route table with...
( 1)      2 parameter(s):
( 4)      Trunk route table index = 1.
( 4)      Trunk route table offset = 1.
( 2)      reading Trunk route table...
( 1)      1 parameter(s) read:
( 4)      Trunk group table index = 1.
```



```

( 2) tracing Routing plan, entering Trunk group table with...
( 1) 1 parameter(s):
( 4) Trunk group table index = 1.
( 2) reading Trunk group table...
( 1) 3 parameter(s) read:
( 4) Trunk group ID = 51.
( 4) Signalling type = 1.
( 4) Attributes table index = 1.
( 2) tracing Routing plan, entering TDM attributes table with...
( 1) 1 parameter(s):
( 4) TDM attributes table index = 1.
( 2) reading TDM attributes table...
( 1) 5 parameter(s) read:
( 4) Reattempts = 0.
( 4) Queueing = 0.
( 4) Cut through = 3.
( 4) Reserve Incoming Percentage = 0.
( 4) Bearer Capability Index = 0.
( 1)ending Trunk Group Analysis...
( 1)entering Trunk Sorting.
( 3) trunk group summary: 1 primary and 0 secondary trunk groups
      primary trunk groups:
( 4) 51
      secondary trunk groups:
( 1)ending Trunk Sorting...
( 1)end of trace reached

```

```

*****
* DONE full call translation verification *
* with 0 bytes left untranslated *
*****

```

mgcusr@PGW2200%

最后，使用SS7嗅探器（本例中为PT-MCT思科嗅探器应用）进行测试调用并捕获详细信息。

```

Time stamp  Orig IP address  Dest IP address  Prot  Msg  Data
-----
15:44:33.184859 1-010-1[02129] 1-003-1[02073] ITU  ISUP. -> IAM (01) CIC=00031
                                         CDPN=51929729F
                                         SLS=15 Pr:0 Ni:NTL

```

```

*****  DETAIL  *****
CIC 31
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 0x60 0x00
  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 1 isdn_up_pref_not_reqd
  ISDN ACCESS IND. 0 originating_access_non_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 0x03
  TRANSMISSION MEDIUM REQUIRED 3 3_1_kHz_audio
INDEX TO CALLED PTY ADDRESS 0x02
INDEX TO OPTIONAL PART 0x09
CALLED PARTY NUMBER PARM 0x04
  LENGTH: 0x07 VAR. DATA 0x83 0x90 0x15 0x29 0x79 0x92 0x0F
  ODD/EVEN IND 1 odd_number_of_digits
  NATURE OF ADDRESS IND 0x03 national_number
  INTERNAL NETWORK PARM 1 routing to internal network number not allowed
  NUMBERING PLAN 1 ISDN_Telephony_Numbering_Plan
  DIGITS: 51929729F
  EXTENSION DIGIT F -ST
OPTIONAL PARAMETERS:
RESERVED/UNKNOWN OPT PARM 0x3D
  LENGTH: 0x01 OPT. DATA 0x1F
USER SERVICE INFO 0x1D
  LENGTH: 0x03 OPT. DATA 0x90 0x90 0xA3
  EXTENSION BIT 1 last_octet
  CODING STANDARD 0 CCITT_coding_standard
  BC INFO TRANSFER CAP 16 audio_3_1_khz
  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
ACCESS TRANSPORT 0x03
  LENGTH: 0x04 OPT. DATA 0x1E 0x02 0x81 0x83
END OF OPTIONAL PARAMETERS 0x00
***** END_OF_MSG *****

```

```

15:44:33.211009 10.48.84.25:2427 10.48.84.188:2427 MGCP..... ->
CRCX 2001761 s0/ds1-0/31@v5300-3.cisco.com MGCP 0.1
  C: 75
  L: e:off,nt:LOCAL
  M: sendrecv
  R:
  S:
  X: 1E8B60

```

```

15:44:33.225115 10.48.84.188:2427 10.48.84.25:2427 MGCP..... -> 200 2001761 OK
  I: 33
  v=0
  o=- 51 0 LOCAL EPN S0/DS1-0/31
  s=Cisco SDP 0
  c=LOCAL EPN S0/DS1-0/31
  t=0 0
  m=audio 0 LOCAL 0

```

```

15:44:33.241263 10.48.84.25:2427 10.48.84.188:2427 MGCP..... ->
CRCX 2001762 s0/ds1-0/1@v5300-3.cisco.com MGCP 0.1
  C: 75
  L: e:off,nt:LOCAL
  M: sendrecv
  v=0
  o=- 51 0 LOCAL EPN S0/DS1-0/31
  s=Cisco SDP 0
  c=LOCAL EPN S0/DS1-0/31
  t=0 0
  m=audio 0 LOCAL 0

```

```

15:44:33.254784 10.48.84.188:2427 10.48.84.25:2427 MGCP..... -> 200 2001762 OK
  I: 34
  v=0
  o=- 52 0 LOCAL EPN S0/DS1-0/1

```

s=Cisco SDP 0
c=LOCAL EPN S0/DS1-0/1
t=0 0
m=audio 0 LOCAL 0
15:44:33.270628 1-003-1[02073] 1-010-1[02129] ITU ISUP. ->
IAM (01) CIC=00001
CDPN=929729F
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 0x60 0x00
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 1 isdn_up_pref_not_reqd
ISDN ACCESS IND. 0 originating_access_non_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 0x03
TRANSMISSION MEDIUM REQUIRED 3 3_1_kHz_audio
INDEX TO CALLED PTY ADDRESS 0x02
INDEX TO OPTIONAL PART 0x08
CALLED PARTY NUMBER PARM 0x04
LENGTH: 0x06 VAR. DATA 0x83 0x90 0x29 0x79 0x92 0x0F
ODD/EVEN IND 1 odd_number_of_digits
NATURE OF ADDRESS IND 0x03 national_number
INTERNAL NETWORK PARM 1 routing_to_internal_network_number_not_allowed
NUMBERING PLAN 1 ISDN_Telephony_Numbering_Plan
DIGITS: **929729F**
EXTENSION DIGIT F -ST
OPTIONAL PARAMETERS:
RESERVED/UNKNOWN OPT PARM 0x3D
LENGTH: 0x01 OPT. DATA 0x1F
USER SERVICE INFO 0x1D
LENGTH: 0x03 OPT. DATA 0x90 0x90 0xA3
EXTENSION BIT 1 last_octet
CODING STANDARD 0 CCITT_coding_standard
BC INFO TRANSFER CAP 16 audio_3_1_khz
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
ACCESS TRANSPORT 0x03
LENGTH: 0x04 OPT. DATA 0x1E 0x02 0x81 0x83
RESERVED/UNKNOWN OPT PARM 0x39
LENGTH: 0x02 OPT. DATA 0x3D 0xC0
END OF OPTIONAL PARAMETERS 0x00
***** END_OF_MSG *****

15:44:33.544074 1-010-1[02129] 1-003-1[02073] ITU ISUP. -> **ACM** (06) CIC=00001
SLS=01 Pr:0 Ni:NTL

***** DETAIL *****

CIC 1
MESSAGE TYPE 0x06 **ACM** - Address_Complete_Msg
BACKWARD CALL IND 0x11
LENGTH: 0x02 FIXED DATA 0x02 0x14
CHARGE IND 2 charge
CALLED PTYS STATUS IND 0 no_indication_default
CALLED PARTYS CATEGORY 0 no_indication_default
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
REVERSE HOLDING IND 0 reverse_holding_not_required
ISDN ACCESS IND. 1 terminating_access_ISDN
INDEX TO OPTIONAL PART 0x01
OPTIONAL PARAMETERS:
OPTIONAL BACKWARD CALL IND 0x29
LENGTH: 0x01 OPT. DATA 0x01
FORWARDING IND 0 no_indication
INBAND INFO IND 1 inband_information
SIMPLE SEGMENTATION 0 no additional information will be sent
NET EXCESSIVE DELAY 0 no_indication
USER NETWORK INTERACTION 0 no_indication
END OF OPTIONAL PARAMETERS 0x00
***** END_OF_MSG *****

15:44:33.560716 10.48.84.25:2427 10.48.84.188:2427 **MGCP**..... ->
MDCX 2001764 s0/ds1-0/31@v5300-3.cisco.com MGCP 0.1

C: 75
I: 33
L: e:off,nt:LOCAL
M: sendrecv
R:
S:
X: 1E8B63
v=0
o=- 52 0 LOCAL EPN S0/DS1-0/1
s=Cisco SDP 0
c=LOCAL EPN S0/DS1-0/1
t=0 0
m=audio 0 LOCAL 0

15:44:33.565405 10.48.84.188:2427 10.48.84.25:2427 **MGCP**..... -> 200 2001764 OK

v=0
o=- 51 1 LOCAL EPN S0/DS1-0/31
s=Cisco SDP 0
c=LOCAL EPN S0/DS1-0/31
t=0 0
m=audio 0 LOCAL 0

15:44:33.580472 1-003-1[02073] 1-010-1[02129] ITU ISUP. -> **ACM** (06) CIC=00031
SLS=15 Pr:0 Ni:NTL

***** DETAIL *****

CIC 31
MESSAGE TYPE 0x06 **ACM** - Address_Complete_Msg
BACKWARD CALL IND 0x11
LENGTH: 0x02 FIXED DATA 0x02 0x14
CHARGE IND 2 charge
CALLED PTYS STATUS IND 0 no_indication_default
CALLED PARTYS CATEGORY 0 no_indication_default

```

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
REVERSE HOLDING IND          0 reverse_holding_not_required
ISDN ACCESS IND.             1 terminating_access_ISDN
INDEX TO OPTIONAL PART       0x01
OPTIONAL PARAMETERS:
OPTIONAL BACKWARD CALL IND    0x29
  LENGTH:                     0x01 OPT.  DATA 0x01
  FORWARDING IND              0 no_indication
  INBAND INFO IND             1 inband_information
  SIMPLE SEGMENTATION         0 no additional information will be sent
  NET EXCESSIVE DELAY         0 no_indication
  USER NETWORK INTERACTION    0 no_indication
END OF OPTIONAL PARAMETERS    0x00
*****                          END_OF_MSG                          *****

```

15:44:34.824070 1-010-1[02129] 1-003-1[02073] ITU ISUP. -> **ANM** (09) CIC=00001
SLS=01 Pr:0 Ni:NTL

***** DETAIL *****

```

CIC                                1
MESSAGE TYPE                    0x09 ANM - Answer_Msg
INDEX TO OPTIONAL PART          0x01
OPTIONAL PARAMETERS:
BACKWARD CALL IND              0x11
  LENGTH:                      0x02 OPT.  DATA 0x02 0x04
  CHARGE IND                   2 charge
  CALLED PTYS STATUS IND       0 no_indication_default
  CALLED PARTYS CATEGORY       0 no_indication_default
  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
  REVERSE HOLDING IND         0 reverse_holding_not_required
  ISDN ACCESS IND.           0 terminating_access_non_ISDN
ACCESS TRANSPORT               0x03
  LENGTH:                      0x04 OPT.  DATA 0x1E 0x02 0x81 0x82
END OF OPTIONAL PARAMETERS      0x00
*****                          END_OF_MSG                          *****

```

15:44:34.841851 1-003-1[02073] 1-010-1[02129] ITU ISUP. -> **ANM** (09) CIC=00031
SLS=15 Pr:0 Ni:NTL

***** DETAIL *****

```

CIC                                31
MESSAGE TYPE                    0x09 ANM - Answer_Msg
INDEX TO OPTIONAL PART          0x01
OPTIONAL PARAMETERS:
BACKWARD CALL IND              0x11
  LENGTH:                      0x02 OPT.  DATA 0x02 0x04
  CHARGE IND                   2 charge
  CALLED PTYS STATUS IND       0 no_indication_default
  CALLED PARTYS CATEGORY       0 no_indication_default
  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
  REVERSE HOLDING IND         0 reverse_holding_not_required
  ISDN ACCESS IND.           0 terminating_access_non_ISDN
ACCESS TRANSPORT               0x03

```

LENGTH: 0x04 OPT. DATA 0x1E 0x02 0x81 0x82
END OF OPTIONAL PARAMETERS 0x00
***** END_OF_MSG *****

15:44:39.112351 1-010-1[02129] 1-003-1[02073] ITU ISUP. -> **REL (0c) CIC=00001**
Cause 16 = Normal Call Clearing
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 0x90
EXTENSION BIT 1 diagnostic_is_not_included
CODING STANDARD 0 CCITT_standard
GENERAL LOCATION 0 User
EXTENSION BIT 1 diagnostic_is_not_included
CLASS 1 Normal event
VALUE IN CLASS 0
CAUSE VALUE 16 Normal_clearing
***** END_OF_MSG *****

15:44:39.130674 10.48.84.25:2427 10.48.84.188:242 **MGCP..... ->**
DLCX 2001766 s0/ds1-0/31@v5300-3.cisco.com MGCP 0.1
C: 75
I: 33
R:
S:
X: 1E8B65

15:44:39.131018 10.48.84.25:2427 10.48.84.188:2427 **MGCP..... ->**
DLCX 2001768 s0/ds1-0/1@v5300-3.cisco.com MGCP 0.1
C: 75
I: 34
R:
S:
X: 1E8B67

15:44:39.131487 1-003-1[02073] 1-010-1[02129] ITU ISUP. ->
REL (0c) CIC=00031
Cause 16 = Normal Call Clearing
SLS=15 Pr:0 Ni:NTL

***** DETAIL *****
CIC 31
MESSAGE TYPE 0x0C **REL - Release_Msg**
INDEX TO VARIABLE PART 0x02
INDEX TO OPTIONAL PART 0x00
CAUSE IND 0x12
LENGTH: 0x02 VAR. DATA 0x80 0x90
EXTENSION BIT 1 diagnostic_is_not_included
CODING STANDARD 0 CCITT_standard
GENERAL LOCATION 0 User
EXTENSION BIT 1 diagnostic_is_not_included
CLASS 1 Normal event
VALUE IN CLASS 0
CAUSE VALUE 16 Normal_clearing
***** END_OF_MSG *****

15:44:39.133012 10.48.84.188:2427 10.48.84.25:2427 **MGCP..... ->**
250 2001766 HP delcon OK

```
15:44:39.134597 10.48.84.188:2427 10.48.84.25:2427 MGCP..... ->
                                     250 2001768 HP delcon OK
15:44:39.151424 1-003-1[02073] 1-010-1[02129] 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 *****
```

```
15:44:39.247719 1-010-1[02129] 1-003-1[02073] ITU ISUP. -> RLC (10) CIC=00031
                                     SLS=15 Pr:0 Ni:NTL
```

```
***** DETAIL *****
CIC                               31
MESSAGE TYPE                       0x10 RLC - Release_Complete_Msg
```

注意：到目前为止，SimWriter无法捕获所有由属性驱动的更改。请参阅Cisco Bug ID [CSCee18831](#)(仅限注册客户)。

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 IP 通信产品支持](#)
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