

ISDN重疊接收未分配/未分配號碼的問題

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簡介

Cisco路由器可以在整塊或重疊模式下接收ISDN呼叫。當配置為整塊時，設定消息應包含路由呼叫所需的所有必要編址資訊。在重疊中，設定消息不包含完整的地址。需要主叫方發出其他資訊消息才能完成被叫地址。

在重疊模式下配置Cisco路由器接收ISDN呼叫時，撥號對等體的配置不正確是一個常見缺陷。這可能會導致錯誤接收被叫號碼，從而導致呼叫失敗。

開始之前

慣例

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

必要條件

本文檔的讀者應瞭解：

- 在思科路由器上配置ISDN
- 撥號對等體和IP語音(VoIP)基礎知識

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- Cisco IOS®軟體版本12.2.(7)a
- C3640路由器

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設

) 的組態來啟動。如果您在即時網路中工作，請確保在使用任何命令之前瞭解其潛在影響。

解決未分配/未分配號碼錯誤

在D通道上配置重疊接收改變了路由器接收ISDN呼叫時的行為。路由器使用SETUP ACK響應設定消息。這通知網路它準備接收包含附加呼叫路由元素的進一步資訊消息。

當撥號對等體中使用的目標號碼與接收的被叫號碼的長度不同時，會發生此問題。如下圖所示，目標號碼彙總以反映可能以相同數字開頭的一系列號碼：

- 目的地號碼範圍為5000到5600。
- 撥號對等體可配置為目標模式5。

這種撥號方案在En bloc模式下工作正常，但在Overlap接收路由器時，它會嘗試在收到與目標號碼匹配的足夠數字後發出呼叫。在本例中，在收到5之後。為防止出現這種情況，應將終止符「T」置於目標模式中的數字之後。這會導致路由器等待T302計時器在接收每個數字後過期，從而允許在進行呼叫之前收集全號碼。

不正確的配置和關聯的調試

以下是導致呼叫失敗的組態範例：

```
!  
interface Serial3/0:15  
  no ip address  
  no logging event link-status  
  isdn switch-type primary-qsig  
  isdn overlap-receiving  
  isdn incoming-voice voice  
  isdn send-alerting  
  no cdp enable  
!  
!  
voice-port 3/0:15  
!  
dial-peer cor custom  
!  
!  
dial-peer voice 1 voip  
  destination-pattern 5  
  session target ipv4:10.0.0.1  
!  
!
```

debug ISDN Q931和**debug voip ccapi inout**命令已啟用。為清楚起見，部分調試被省略。

```
ECV-3640-2#  
*Mar 2 01:47:05.705: ISDN Se3/0:15: RX <- SETUP pd = 8 callref = 0x001A  
*Mar 2 01:47:05.705: Bearer Capability i = 0x8090A3  
*Mar 2 01:47:05.709: Channel ID i = 0xA9839B  
*Mar 2 01:47:05.709: Facility i = 0x91AA068001008201008B0102A11  
 402025CA002013B300B30090A01050A01030A0104  
*Mar 2 01:47:05.713: Facility i = 0x91AA068001008201008B0100A10  
  C02025CB006042B0C09008400  
*Mar 2 01:47:05.713: Calling Party Number i = 0x00, 0x83, '5000',  
  Plan:Unknown, Type:Unknown
```

```

*Mar 2 01:47:05.717:          Called Party Number i = 0x80, '5', Plan:Unknown,
                          Type:Unknown
*Mar 2 01:47:05.717:          High Layer Compat i = 0x9181
!--- An incoming call with the first digit of called number 5. *Mar 2 01:47:05.729: ISDN
Se3/0:15: TX -> SETUP_ACK pd = 8 callref = 0x801A *Mar 2 01:47:05.729: Channel ID i = 0xA9839B
*Mar 2 01:47:06.385: ISDN Se3/0:15: RX <- INFORMATION pd = 8 callref = 0x001A *Mar 2
01:47:06.385: Called Party Number i = 0x80, '5', Plan:Unknown, Type:Unknown !--- An information
message with the next digit 5. *Mar 2 01:47:06.393: ccCallSetupRequest numbering_type 0x80 *Mar
2 01:47:06.393: ccCallSetupRequest encapType 2 clid_restrict_disable 1 null_orig_clg 0
clid_transparent 0 callingNumber 5000 *Mar 2 01:47:06.393: dest pattern 5, called 55,
digit_strip 0 *Mar 2 01:47:06.393: callingNumber=5000, calledNumber=55, redirectNumber=
display_info= calling_oct3a=83 !--- The router matches received digits 55 with dial peer 1. *Mar
2 01:47:06.421: ccCallDisconnect (callID=0x25, cause=0x1 tag=0x0) *Mar 2 01:47:06.421:
ccCallDisconnect (callID=0x24, cause=0x1 tag=0x0) *Mar 2 01:47:06.425:
cc_api_call_disconnect_done(vdbPtr=0x62679168, callID=0x24, disp=0, tag=0x0) !--- The call was
disconnected from the remote router, because !--- the number is incomplete as only 55 is sent,
this fails to match any dial !--- peers (dial peers at remote router were four digits in
length). *Mar 2 01:47:06.433: ISDN Se3/0:15: TX -> DISCONNECT pd = 8 callref = 0x801A *Mar 2
01:47:06.433: Cause i = 0x8081 - Unallocated/unassigned number !--- The call was disconnected
because of an unallocated/unassigned number. ECV-3640-2# ECV-3640-2# ECV-3640-2# ECV-3640-2#

```

已更正的配置和調試

在本例中，撥出的號碼是5678。現在通過新增「T」終結器糾正了撥號對等體。重疊配置還包括調整T302計時器以反映更真實的配置。預設計時器為10秒，在某些情況下可能太長。

```

interface Serial3/0:15
  no ip address
  no logging event link-status
  isdn switch-type primary-qsig
  isdn overlap-receiving T302 2000
  !--- The T302 timer is configured to wait for two seconds. isdn incoming-voice voice isdn send-
alerting no cdp enable !! voice-port 3/0:15 ! dial-peer cor custom !!! dial-peer voice 1 voip
destination-pattern 5T !--- The "T" is added to the dial peer. session target ipv4:10.0.0.1 !
end ECV-3640-2# *Mar 2 21:36:10.132: ISDN Se3/0:15: RX <- SETUP pd = 8 callref = 0x0024 *Mar 2
21:36:10.136: Bearer Capability i = 0x8090A3 *Mar 2 21:36:10.136: Channel ID i = 0xA98386 *Mar 2
21:36:10.136: Facility i = 0x91AA068001008201008B0102A114020262A
002013B300B30090A01050A01030A0104 *Mar 2 21:36:10.140: Facility i =
0x91AA068001008201008B0100A10C020262B 006042B0C09008400 *Mar 2 21:36:10.140: Calling Party
Number i = 0x00, 0x83, '5000', Plan:Unknown, Type:Unknown *Mar 2 21:36:10.144: Called Party
Number i = 0x80, '5', Plan:Unknown, Type:Unknown *Mar 2 21:36:10.144: High Layer Compat i =
0x9181 !--- An incoming call with the first digit of called number 5. *Mar 2 21:36:10.164: ISDN
Se3/0:15: TX -> SETUP_ACK pd = 8 callref = 0x8024 *Mar 2 21:36:10.164: Channel ID i = 0xA98386
*Mar 2 21:36:10.360: ISDN Se3/0:15: RX <- INFORMATION pd = 8 callref = 0x0024 *Mar 2
21:36:10.364: Called Party Number i = 0x80, '6', Plan:Unknown, Type:Unknown !--- An information
message with the next digit 6. *Mar 2 21:36:10.660: ISDN Se3/0:15: RX <- INFORMATION pd = 8
callref = 0x0024 *Mar 2 21:36:10.664: Called Party Number i = 0x80, '7', Plan:Unknown,
Type:Unknown !--- An information message with the next digit 7. *Mar 2 21:36:10.924: ISDN
Se3/0:15: RX <- INFORMATION pd = 8 callref = 0x0024 *Mar 2 21:36:10.924: Called Party Number i =
0x80, '8', Plan:Unknown, Type:Unknown !--- An information message with the next digit 8. *Mar 2
21:36:20.168: ccCallSetupRequest encapType 2 clid_restrict_disable 1 null_orig_clg 0
clid_transparent 0 callingNumber 5000 *Mar 2 21:36:20.172: dest pattern 5T, called 5678,
digit_strip 0 *Mar 2 21:36:20.172: callingNumber=5000, calledNumber=5678, redirectNumber=
display_info= calling_oct3a=83 !--- The router matches received digits 5678 with dial peer 1.
*Mar 2 21:36:20.228: ISDN Se3/0:15: TX -> CALL_PROC pd = 8 callref = 0x8024 *Mar 2 21:36:20.420:
cc_api_call_cut_progress(vdbPtr=0x6221F1E8, callID=0x38, prog_ind=0x8, sig_ind=0x1) *Mar 2
21:36:20.440: ISDN Se3/0:15: TX -> ALERTING pd = 8 callref = 0x8024 *Mar 2 21:36:20.440:
Progress Ind i = 0x8188 - In-band info or appropriate now available !--- The call is
successfully routed and the remote phone is ringing. ECV-3640-2#

```

相關資訊

- [配置語音的ISDN介面](#)
- [瞭解debug isdn q931結束通話原因代碼](#)
- [瞭解1或2埠ISDN PRI/通道化T1網路模組](#)
- [T1 PRI故障排除](#)
- [語音和整合通訊產品支援](#)
- [Cisco IP電話故障排除](#)
- [技術支援 - Cisco Systems](#)