

在路由器和Windows PC之間配置MS回撥

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簡介

Microsoft回叫實現與[RFC 1570](#) 不相容。但是，由於Microsoft撥號網路客戶端的市場份額很大，思科已在Cisco IOS®軟體版本11.3(2)T及更高版本中實施了Microsoft回撥(MSCB)控制協定。

必要條件

需求

嘗試此組態之前，請確保符合以下要求：

- 配置網路接入伺服器(NAS)以接受來自客戶端的模擬呼叫。回叫是數據機撥入的附加功能。因此，請檢驗此方面是否正常工作。這有助於您進行故障排除。
- T1/E1電路必須能夠進行撥出。請與您的電話公司(Telco)聯絡以驗證這一點。

採用元件

本檔案中的資訊是根據Cisco IOS軟體版本11.3(2)T和更新版本。

此案例已在使用Windows撥號網路的PC上測試。

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。

慣例

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

背景理論

按以下順序執行回撥：

1. PC使用者 (客戶端) 連線到思科接入伺服器。
2. 回叫過程在點對點協定(PPP)鏈路控制協定(LCP)階段協商。
3. 執行PPP身份驗證。
4. Cisco IOS軟體驗證此使用者或線路的回叫規則，並斷開呼叫方回叫的連線。
5. 思科接入伺服器撥打客戶端。

有四種型別的MSCB:

1. 沒有回撥。
2. 使用者指定的回撥號碼。
3. 伺服器指定的 (預配置的) 回撥號碼。
4. 預配置的回叫號碼的清單。

預設配置沒有回撥 (選項1)。可以配置選項2或3:

- 本地 (如果未使用AAA伺服器)。
- 在TACACS+或RADIUS使用者設定檔中 (如果使用AAA)。

如果配置選項2，系統會提示使用者輸入其回叫號碼。如果配置選項3，則提示符僅提供一個選項，即管理員定義的編號。

思科僅實現MSCB的回叫伺服器功能，而不是回叫客戶端功能。這意味著Cisco路由器只能用作MSCB伺服器，而不能用作MSCB客戶端。此外，思科的MSCB實施要求在客戶端上執行身份驗證。

設定

本節提供用於設定本文件中所述功能的資訊。

配置摘要

要啟用MSCB，必須在接收介面 (例如group-async) 下啟用**ppp callback accept**命令。此外，由於需要身份驗證，您必須啟用密碼身份驗證協定(PAP)或質詢握手身份驗證協定(CHAP)身份驗證：

```
ppp authentication chap pap
```

自動建立兩個聊天指令碼。以下是**offhook**和**callback**聊天指令碼：

```
chat-script offhook "" "ATH1" OK
chat-script callback ABORT ERROR ABORT BUSY ""
"ATZ" OK "ATDT \T" TIMEOUT60 CONNECT \c
```

聊天指令碼也會自動應用到正在使用的行：

```
line 1 24
  script modem-off-hook offhook
  script callback callback
```

必須授權用戶重新呼叫。您可以根據使用者名稱和密碼資訊的儲存位置，在NAS上或外部AAA伺服器 (RADIUS或TACACS+) 上本地配置此功能。

這是在Windows回叫的使用者的本地配5551212:

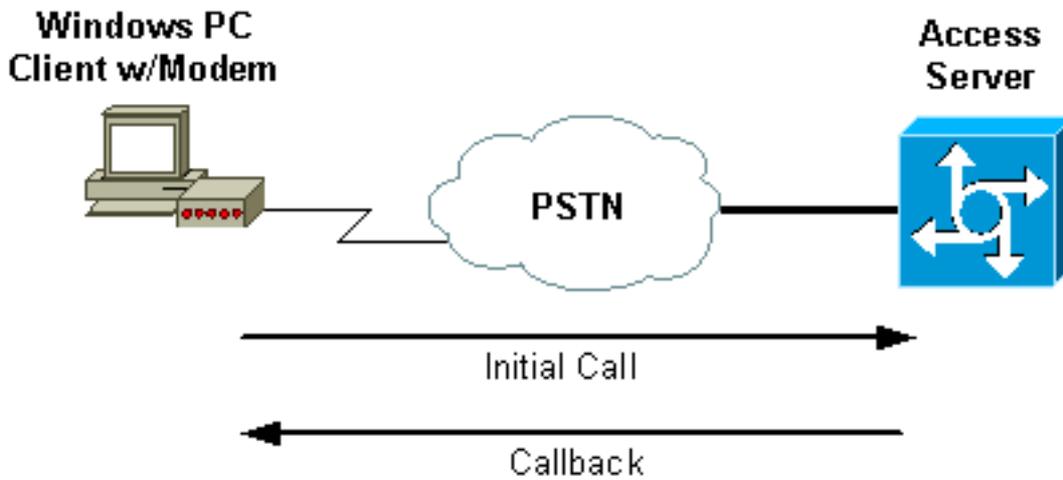
```
username callmeback callback-dialstring 5551212 password cisco
```

此本地配置適用於允許指定自己的回叫號碼的使用者：

```
username callmeback callback-dialstring "" password cisco
```

網路圖表

本檔案會使用以下網路設定：



組態

本檔案會使用以下設定：

- isdn2-2 (AS5200路由器)

| isdn2-2 (AS5200路由器) |
|--|
| Current configuration: ! version 11.3 service timestamps debug datetime msec service password-encryption no service udp-small-servers no service tcp-small-servers |

```

!
hostname isdn2-2
!
aaa new-model
aaa authentication login default none
aaa authentication login use-local local
aaa authentication ppp default local
aaa authorization network local
!--- Runs authorization for network-related service
requests (Example: PPP). !--- For an AAA server
implementation, replace "local" with TACACS+ or RADIUS
in !--- these statements. enable secret 5 <deleted> !
username callmeback callback-dialstring "" password 7
<deleted> !--- This is for mobile users. The client
specifies the callback number. !--- If a RADIUS server
is used, this information can be offloaded to the
server. ip domain-name cisco.com isdn switch-type
primary-5ess chat-script offhook "" "ATH1" OK chat-
script callback ABORT ERROR ABORT BUSY "" "ATZ" OK "ATDT
\T" TIMEOUT 60 CONNECT \c !--- The chat script
"callback" is used for the callback connection. clock
timezone PST -8 clock summer-time PDT recurring !!
controller T1 0 !--- Active T1 Primary Rate Interface
(PRI). framing esf clock source line secondary linecode
b8zs pri-group timeslots 1-24 ! controller T1 1 shutdown
! interface Ethernet0 ip address 172.16.25.52
255.255.255.240 ! interface Serial0 no ip address
shutdown ! interface Serial1 no ip address shutdown !
interface Serial0:23 !--- D-channel for T1 0. ip
unnumbered Ethernet0 encapsulation ppp dialer-group 1
isdn incoming-voice modem !--- Allows incoming ISDN
voice calls to be switched to the onboard modems. peer
default ip address pool default ! interface Group-Async1
ip unnumbered Ethernet0 ip tcp header-compression
passive encapsulation ppp async mode interactive peer
default ip address pool default no cdp enable ppp max-
bad-auth 3 ppp callback accept !--- Allows the group-
async to accept a callback request to a remote host. ppp
authentication chap !--- CHAP, PAP, or both must be
enabled for callback. group-range 1 12 ! router eigrp
202 network 172.16.0.0 distance 90 172.16.25.49 0.0.0.0
no auto-summary ! ip local pool default 172.16.25.59
172.16.25.62 !--- Default IP address pool for dial-in
clients. ip default-gateway 172.16.25.49 ip classless
dialer-list 1 protocol ip permit ! line con 0 line 1 6
autoselect during-login autoselect ppp script modem-off-
hook offhook script callback callback !--- Specifies a
chat script to issue AT commands to the modem during a
callback attempt. !--- The chat-scripts "offhook" and
"callback" were configured earlier. login authentication
use-local modem InOut transport input all line 7 12 !---
These modems are busied out and not used. autoselect
during-login autoselect ppp login authentication use-
local modem InOut modem busyout transport input all line
aux 0 exec-timeout 0 0 line vty 0 4 password 7 <deleted>
! end

```

[Windows客户端配置](#)

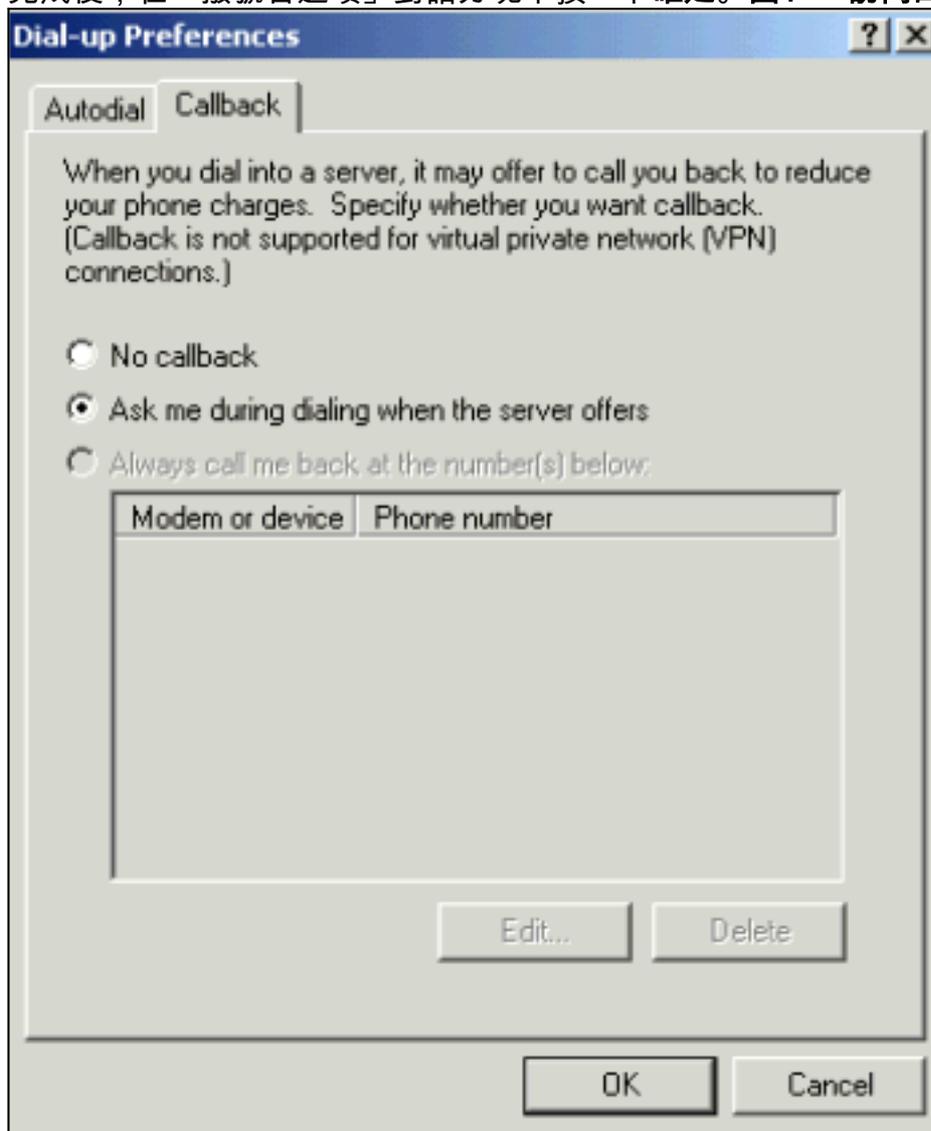
[Windows 95和98客户端配置](#)

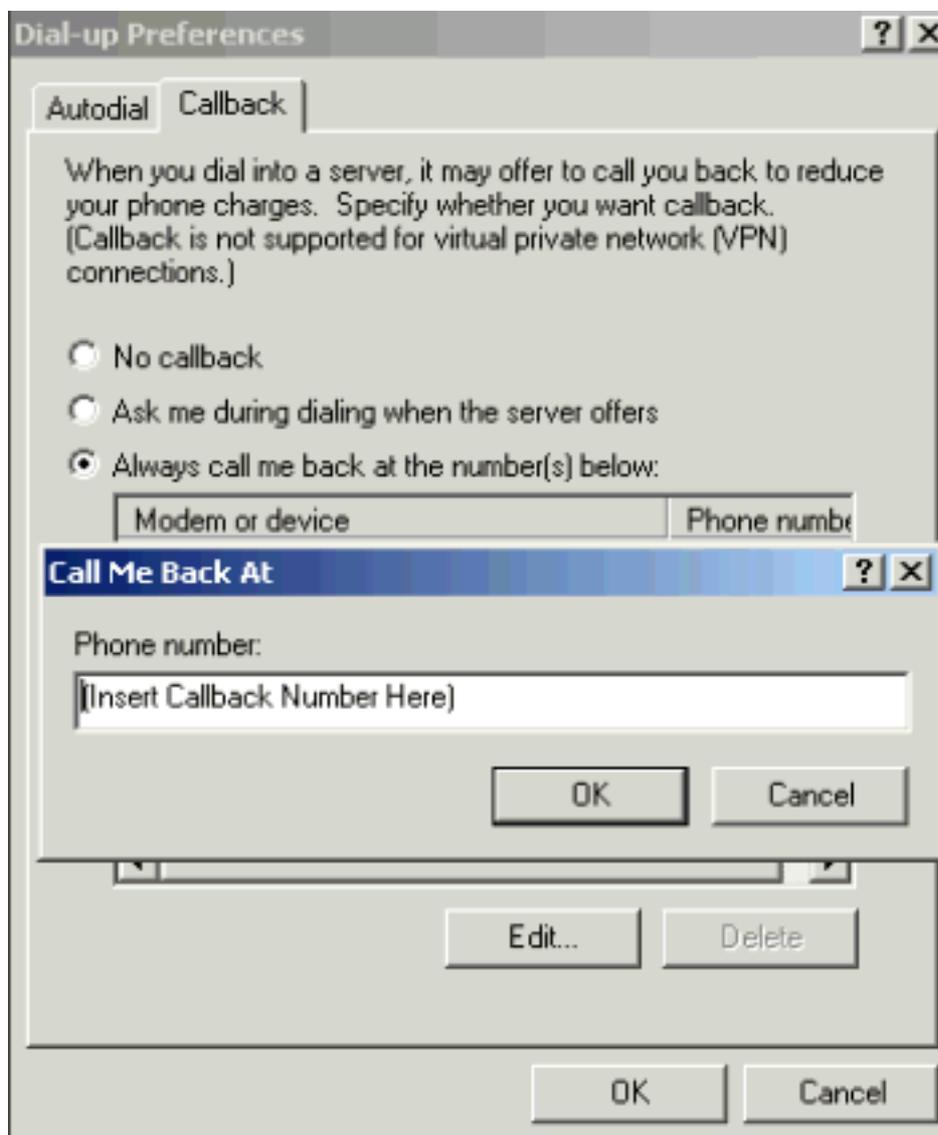
對於Windows 95和98 PC，沒有用於回撥的特殊客戶端配置。訪問伺服器處理連線的回撥功能。Windows 95或98 PC顯示「等待回撥」消息以指示正在進行回撥。

Windows NT和2000客戶端配置

配置這些平台以請求回撥。完成以下步驟以配置它們：

1. 選擇**Start > Programs > Accessories > Communications > Network and Dial-up Connections**。
2. 從選單中選擇**Advanced > Dial-up Preferences**。
3. 按一下**Callback**頁籤訪問回叫功能選單，如圖1所示。
4. 根據需要配置回叫選項：若要不使用回撥函式，請按一下**No Callback**按鈕。要提示當伺服器提供回叫時應執行的操作，請按一下**Ask Me During Dialing When The Server Offers**按鈕。要自動接受回叫優惠，請按一下**Always Call Me At The Number(s) Below**按鈕，然後從清單中選擇要使用的裝置。要更改回叫電話號碼，請選擇裝置並按一下**Edit**按鈕。在**Phone Number**欄位中輸入號碼（如圖1所示），然後在**Call Me Back At**對話方塊中按一下**OK**。
5. 按一下**Phone Number**欄位，然後在**Call Me Back At**對話方塊中輸入該號碼(如圖1所示)。完成後按一下**OK**。
6. 完成後，在「撥號首選項」對話方塊中按一下**確定**。圖1 — 訪問回叫功能





驗證

本節提供的資訊可用於確認您的組態是否正常運作。

[輸出直譯器工具](#) (僅供[註冊](#)客戶使用) 支援某些 **show** 命令，此工具可讓您檢視 **show** 命令輸出的分析。

- **show isdn active** — 顯示有關當前傳入和傳出 ISDN 呼叫的資訊。使用此命令驗證回撥是否已成功完成。如果回叫成功，**show isdn active** 將呼叫顯示為回叫伺服器上的傳出。
- **show users** — 顯示路由器上活動線路的資訊。如果您的 Cisco IOS 軟體版本支援 **show caller** 命令，也可以使用。
- **show dialer** — 顯示為按需撥號路由 (DDR) 配置的介面的一般診斷資訊。

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

疑難排解指令

注意：發出 **debug** 指令之前，請先參閱 [有關 Debug 指令的重要資訊](#)。

有關debug命令的詳細資訊，請參閱[Cisco IOS版本12.0調試命令參考](#)。

- **debug aaa authentication** — 顯示有關AAA身份驗證的資訊。
- **debug aaa authorization** — 顯示有關AAA授權的資訊。
- **debug callback** — 當路由器使用數據機和聊天指令碼在終端線路上回叫時顯示回叫事件。
- **debug modem** — 用於觀察接入伺服器上的數據機線路活動。
- **debug ppp [packet | 交涉 | 錯誤 | authentication]** — 顯示實施PPP的網際網路中流量和交換的資訊。*packet* — 顯示正在傳送和接收的PPP資料包。(此命令顯示低級資料包轉儲。)*negotiation* — 在協商PPP選項時，顯示PPP啟動期間傳輸的PPP資料包。*error* — 顯示與PPP連線協商和操作關聯的協定錯誤和錯誤統計資訊。*authentication* — 顯示身份驗證協定消息，包括CHAP和PAP交換。
- **debug chat** — 顯示當指示數據機撥出時，訪問伺服器與其內部數據機之間的握手。聊天指令碼是一組期望傳送字串對，用於定義資料終端裝置(DTE)和資料通訊裝置(DCE)裝置之間的握手。
- **debug isdn q931** — 顯示ISDN Q.931 (D通道) 呼叫建立和拆除消息以及調試。在此案例中，資料機通話是透過公用交換電話網路(PSTN)以語音承載服務方式進行。
- **debug modem csm** — 用於排除帶有內部數字數據機的路由器上的呼叫交換模組(CSM)問題。使用此命令，您可以跟蹤切換呼入和撥出呼叫的完整順序。

```
isdn2-2#show debug
General OS:
Modem control/process activation debugging is on
AAA Authentication debugging is on
AAA Authorization debugging is on
PPP:
PPP protocol negotiation debugging is on
ISDN:
ISDN Q931 packets debugging is on
Chat Scripts:
Chat scripts activity debugging is on
Modem Management:
Modem Management Call Switching Module debugging is on
isdn2-2#
!--- This is the initial call from the client. *Mar 1 01:24:48.643: ISDN Se0:23: RX <- SETUP pd
= 8 callref = 0x36
*Mar 1 01:24:48.647: Bearer Capability i = 0x9090A2
*Mar 1 01:24:48.651: Channel ID i = 0xA98393
*Mar 1 01:24:48.651: Called Party Number i = 0xC1, '4084327528'
*Mar 1 01:24:48.663: ISDN Se0:23: Incoming call id = 0xA
*Mar 1 01:24:48.671: EVENT_FROM_ISDN::dchan_idb=0x7F8EE0, call_id=0xA, ces=0x1
bchan=0x12, event=0x1, cause=0x0
*Mar 1 01:24:48.671: VDEV_ALLOCATE: slot 0 and port 3 is allocated.
*Mar 1 01:24:48.675: EVENT_FROM_ISDN:(000A): DEV_INCALL at slot 0 and port 3
*Mar 1 01:24:48.675: CSM_PROC_IDLE: CSM_EVENT_ISDN_CALL at slot 0, port 3
*Mar 1 01:24:48.679: Fast Ringing On at modem slot 0, port 3
*Mar 1 01:24:48.699: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0x8036
*Mar 1 01:24:48.703: Channel ID i = 0xA98393
*Mar 1 01:24:48.735: ISDN Se0:23: TX -> ALERTING pd = 8 callref = 0x8036
*Mar 1 01:24:49.699: Fast Ringing Off at modem slot 0, port 3
*Mar 1 01:24:49.699: CSM_PROC_IC1_RING: CSM_EVENT_MODEM_OFFHOOK at slot 0,
port 3
*Mar 1 01:24:49.711: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0x8036
*Mar 1 01:24:49.783: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x36
*Mar 1 01:24:49.799: EVENT_FROM_ISDN::dchan_idb=0x7F8EE0, call_id=0xA, ces=0x1
bchan=0x12, event=0x4, cause=0x0
*Mar 1 01:24:49.799: EVENT_FROM_ISDN:(000A): DEV_CONNECTED at slot 0 and
port 3
*Mar 1 01:24:49.803: CSM_PROC_IC4_WAIT_FOR_CARRIER: CSM_EVENT_ISDN_CONNECTED at
```

```
slot 0, port 3
!--- Modem has established carrier. *Mar 1 01:25:11.123: TTY4: DSR came up
*Mar 1 01:25:11.127: tty4: Modem: IDLE->READY
*Mar 1 01:25:11.131: TTY4: EXEC creation
*Mar 1 01:25:11.135: AAA/AUTHEN: create_user (0x7B009C) user='' ruser=''
port='tty4' rem_addr='async/4084327528' authen_type=ASCII service=LOGIN priv=1
*Mar 1 01:25:11.139: AAA/AUTHEN/START (3134998138): port='tty4'
list='use-local' action=LOGIN service=LOGIN
*Mar 1 01:25:11.143: AAA/AUTHEN/START (3134998138): found list use-local
*Mar 1 01:25:11.143: AAA/AUTHEN/START (3134998138): Method=LOCAL
!--- Local AAA. *Mar 1 01:25:11.147: AAA/AUTHEN (3134998138): status = GETUSER *Mar 1
01:25:13.951: TTY4: Autoselect(2) sample 7E *Mar 1 01:25:13.955: TTY4: Autoselect(2) sample 7EFF
*Mar 1 01:25:13.959: TTY4: Autoselect(2) sample 7EFF7D *Mar 1 01:25:13.959: TTY4: Autoselect(2)
sample 7EFF7D23 *Mar 1 01:25:13.963: TTY4 Autoselect cmd: ppp negotiate
*Mar 1 01:25:13.967: AAA/AUTHEN/ABORT: (3134998138) because Autoselected.
*Mar 1 01:25:13.967: AAA/AUTHEN: free_user (0x7B009C) user='' ruser=''
port='tty4' rem_addr='async/4084327528' authen_type=ASCII service=LOGIN priv=1
*Mar 1 01:25:13.975: TTY4: EXEC creation
!--- PPP has been autoselected and begins negotiation. %LINK-3-UPDOWN: Interface Async4, changed
state to up *Mar 1 01:25:16.611: As4 PPP: Treating connection as a dedicated line *Mar 1
01:25:16.611: As4 PPP: Phase is ESTABLISHING, Active Open
!--- LCP negotiation begins. *Mar 1 01:25:16.615: As4 LCP: O CONFREQ [Closed] id 3 len 25 *Mar 1
01:25:16.619: As4 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 1 01:25:16.623: As4 LCP: AuthProto
CHAP (0x0305C22305) *Mar 1 01:25:16.623: As4 LCP: MagicNumber 0x608D04A3 (0x0506608D04A3) *Mar 1
01:25:16.627: As4 LCP: PFC (0x0702) *Mar 1 01:25:16.627: As4 LCP: ACFC (0x0802) *Mar 1
01:25:16.751: As4 LCP: I CONFACK [REQsent] id 3 len 25 *Mar 1 01:25:16.755: As4 LCP: ACCM
0x000A0000 (0x0206000A0000) *Mar 1 01:25:16.755: As4 LCP: AuthProto CHAP (0x0305C22305) *Mar 1
01:25:16.759: As4 LCP: MagicNumber 0x608D04A3 (0x0506608D04A3) *Mar 1 01:25:16.763: As4 LCP: PFC
(0x0702) *Mar 1 01:25:16.763: As4 LCP: ACFC (0x0802) *Mar 1 01:25:17.003: As4 LCP: I CONFREQ
[ACKrcvd] id 3 len 23
!--- Incoming CONFREQ. *Mar 1 01:25:17.003: As4 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 1
01:25:17.007: As4 LCP: MagicNumber 0x004A4A09 (0x0506004A4A09) *Mar 1 01:25:17.007: As4 LCP: PFC
(0x0702) *Mar 1 01:25:17.011: As4 LCP: ACFC (0x0802) *Mar 1 01:25:17.011: As4 LCP: Callback 6
(0x0D0306)
!--- Peer requests MS Callback (Option 6). !--- A PPP callback request uses Option 0. *Mar 1
01:25:17.015: As4 LCP: O CONFACK [ACKrcvd] id 3 len 23
*Mar 1 01:25:17.015: As4 LCP: ACCM 0x000A0000 (0x0206000A0000)
*Mar 1 01:25:17.019: As4 LCP: MagicNumber 0x004A4A09 (0x0506004A4A09)
*Mar 1 01:25:17.023: As4 LCP: PFC (0x0702)
*Mar 1 01:25:17.023: As4 LCP: ACFC (0x0802)
*Mar 1 01:25:17.023: As4 LCP: Callback 6 (0x0D0306)
!--- NAS CONFACKS all LCP parameters. !--- If the NAS refuses Callback (completely or just MS
Callback), LCP may fail. *Mar 1 01:25:17.027: As4 LCP: State is Open !--- Authentication begins.
*Mar 1 01:25:20.095: As4 PPP: Phase is AUTHENTICATING, by this end *Mar 1 01:25:20.099: As4
CHAP: O CHALLENGE id 4 len 28 from "isdn2-2" *Mar 1 01:25:20.187: As4 CHAP: I RESPONSE id 4 len
26 from "callmeback" *Mar 1 01:25:20.191: AAA/AUTHEN: create_user (0x7ADEAC) user='callmeback'
ruser='' port='Async4' rem_addr='async/4084327528' authen_type=CHAP service=PPP priv=1 *Mar 1
01:25:20.195: AAA/AUTHEN/START (44582883): port='Async4' list='' action=LOGIN service=PPP *Mar 1
01:25:20.199: AAA/AUTHEN/START (44582883): using "default" list *Mar 1 01:25:20.199:
AAA/AUTHEN/START (44582883): Method=LOCAL !--- Authentication passes. *Mar 1 01:25:20.203:
AAA/AUTHEN (44582883): status = PASS
!--- Check authorization for LCP. !--- With local AAA, this should pass. !--- For server-based
AAA, this must be explicitly configured on the server. *Mar 1 01:25:20.207: AAA/AUTHOR/LCP As4:
Authorize LCP *Mar 1 01:25:20.207: AAA/AUTHOR/LCP: Async4: (3405067782): user='callmeback' *Mar
1 01:25:20.211: AAA/AUTHOR/LCP: Async4: (3405067782): send AV service=ppp *Mar 1 01:25:20.211:
AAA/AUTHOR/LCP: Async4: (3405067782): send AV protocol=lcp *Mar 1 01:25:20.215: AAA/AUTHOR/LCP:
Async4 (3405067782): Method=LOCAL *Mar 1 01:25:20.219: AAA/AUTHOR (3405067782): Post
authorization status = PASS_ADD *Mar 1 01:25:20.223: AAA/AUTHOR/LCP As4: Processing AV
service=ppp *Mar 1 01:25:20.223: AAA/AUTHOR/LCP As4: Processing AV protocol=lcp *Mar 1
01:25:20.227: AAA/AUTHOR/LCP As4: Processing AV service=ppp *Mar 1 01:25:20.227: AAA/AUTHOR/LCP
As4: Processing AV protocol=lcp !--- Callback-dialstring is null, so user is allowed to specify
!--- their own callback number. *Mar 1 01:25:20.227: AAA/AUTHOR/LCP As4: Processing AV callback-
dialstring=
!--- Authentication ACK is returned to client. *Mar 1 01:25:20.235: As4 CHAP: O SUCCESS id 4 len
```

```

!--- Callback negotiation proceeds. Because callback-dialstring !--- is null, MCB debug says
"Callback Number - Client ANY". *Mar 1 01:25:20.239: As4 MCB: User callback Callback Number -
Client ANY
!--- The callback number of the client is requested. Client receives a dialog !--- box that
prompts the user to type in the callback number. !--- Request is sent every two seconds. If the
user is slow to type a response, !--- the call remains in this phase for a long time. *Mar 1
01:25:20.243: Async4 PPP: O MCB Request(1) id 20 len 9 *Mar 1 01:25:20.243: Async4 MCB: O 1 14 0
9 2 5 0 1 0 *Mar 1 01:25:20.247: As4 MCB: O Request Id 20 Callback Type Client-Num delay 0
%LINEPROTO-5-UPDOWN: Line protocol on Interface Async4, changed state to up
*Mar 1 01:25:22.459: As4 MCB: Timeout in state WAIT_RESPONSE
*Mar 1 01:25:22.463: Async4 PPP: O MCB Request(1) id 21 len 9
*Mar 1 01:25:22.463: Async4 MCB: O 1 15 0 9 2 5 0 1 0
*Mar 1 01:25:22.467: As4 MCB: O Request Id 21 Callback Type Client-Num delay 0
*Mar 1 01:25:24.499: As4 MCB: Timeout in state WAIT_RESPONSE
*Mar 1 01:25:24.503: Async4 PPP: O MCB Request(1) id 22 len 9
*Mar 1 01:25:24.503: Async4 MCB: O 1 16 0 9 2 5 0 1 0
*Mar 1 01:25:24.507: As4 MCB: O Request Id 22 Callback Type Client-Num delay 0
*Mar 1 01:25:26.543: As4 MCB: Timeout in state WAIT_RESPONSE
*Mar 1 01:25:26.547: Async4 PPP: O MCB Request(1) id 23 len 9
*Mar 1 01:25:26.547: Async4 MCB: O 1 17 0 9 2 5 0 1 0
*Mar 1 01:25:26.551: As4 MCB: O Request Id 23 Callback Type Client-Num delay 0
*Mar 1 01:25:28.583: As4 MCB: Timeout in state WAIT_RESPONSE
*Mar 1 01:25:28.587: Async4 PPP: O MCB Request(1) id 24 len 9
*Mar 1 01:25:28.587: Async4 MCB: O 1 18 0 9 2 5 0 1 0
*Mar 1 01:25:28.591: As4 MCB: O Request Id 24 Callback Type Client-Num delay 0
!--- Client returned the callback number. Notice that the response !--- is for the initial
request id 20. *Mar 1 01:25:29.763: Async4 PPP: I MCB Response(2) id 20 len 17
*Mar 1 01:25:29.767: Async4 MCB: I 2 14 0 11 2 D F 1 35 32 37 2D 39 36 35 31 0
*Mar 1 01:25:29.767: As4 MCB: Received response
!--- Response is ignored because the id is 20. There have !--- been a few timeouts and id 24
(the last one sent) is expected. *Mar 1 01:25:29.771: As4 MCB: Resp ignored. ID Expected 24, got
id 20
*Mar 1 01:25:30.623: As4 MCB: Timeout in state WAIT_RESPONSE
!--- Send out new request (id 25). *Mar 1 01:25:30.627: Async4 PPP: O MCB Request(1) id 25 len 9
*Mar 1 01:25:30.627: Async4 MCB: O 1 19 0 9 2 5 0 1 0 *Mar 1 01:25:30.631: As4 MCB: O Request Id
25 Callback Type Client-Num delay 0
!--- Client has cached user response, and so the callback number is !--- returned right away.
*Mar 1 01:25:30.715: Async4 PPP: I MCB Response(2) id 25 len 17
*Mar 1 01:25:30.719: Async4 MCB: I 2 19 0 11 2 D F 1 35 32 37
2D 39 36 35 31 0
*Mar 1 01:25:30.723: As4 MCB: Received response
!--- Received client callback number is 527-9651. *Mar 1 01:25:30.723: As4 MCB: Response CBK-
Client-Num 2 13 15, addr
1-527-9651
!--- Callback number acknowledged. *Mar 1 01:25:30.727: Async4 PPP: O MCB Ack(3) id 26 len 17
*Mar 1 01:25:30.731: Async4 MCB: O 3 1A 0 11 2 D F 1 35 32 37
2D 39 36 35 31 0
*Mar 1 01:25:30.731: As4 MCB: O Ack Id 26 Callback Type Client-Num delay 15
*Mar 1 01:25:30.735: As4 MCB: Negotiated MCB with peer
!--- Client hangs up and begins to wait for callback. !--- This is indicated by an Incoming (I)
TERMREQ. *Mar 1 01:25:30.815: As4 LCP: I TERMREQ [Open] id 5 len 4
*Mar 1 01:25:30.815: As4 LCP: O TERMACK [Open] id 5 len 4
*Mar 1 01:25:30.819: As4 MCB: Peer terminating the link
*Mar 1 01:25:30.819: As4 PPP: Phase is TERMINATING
*Mar 1 01:25:30.819: As4 MCB: Link terminated by peer, Callback Needed
!--- Initiate callback to client; sleeps for ten seconds. *Mar 1 01:25:30.823: As4 MCB: Initiate
Callback for callback at 527-9651
using Async
*Mar 1 01:25:30.827: As4 MCB: Async-callback in progress
!--- Drop modem and B-channel for initial call from client. *Mar 1 01:25:31.499:
CSM_PROC_IC5_OC6_CONNECTED: CSM_EVENT_MODEM_ONHOOK at slot 0, port 3 *Mar 1 01:25:31.503:
VDEV_DEALLOCATE: slot 0 and port 3 is deallocated *Mar 1 01:25:31.503: ISDN Se0:23: Event:
Hangup call to call id 0xA %ISDN-6-DISCONNECT: Interface Serial0:18 disconnected from unknown ,

```

call

lasted 41 seconds

```
!--- Call is completely disconnected. *Mar 1 01:25:31.523: ISDN Se0:23: TX -> DISCONNECT pd = 8
callref = 0x8036 *Mar 1 01:25:31.523: Cause i = 0x8090 - Normal call clearing *Mar 1
01:25:31.583: ISDN Se0:23: RX <- RELEASE pd = 8 callref = 0x36 *Mar 1 01:25:31.655: ISDN Se0:23:
TX -> RELEASE_COMP pd = 8 callref = 0x8036 %LINEPROTO-5-UPDOWN: Line protocol on Interface
Async4, changed state to down *Mar 1 01:25:31.851: TTY4: Async Int reset: Dropping DTR *Mar 1
01:25:33.695: As4 LCP: TIMEOUT: Time = 0x4E521C State = TERMSent *Mar 1 01:25:33.699: As4 LCP:
State is Closed *Mar 1 01:25:33.699: As4 PPP: Phase is DOWN *Mar 1 01:25:33.703: As4 PPP: Phase
is ESTABLISHING, Passive Open *Mar 1 01:25:33.707: As4 LCP: State is Listen %LINK-5-CHANGED:
Interface Async4, changed state to reset *Mar 1 01:25:33.879: As4 LCP: State is Closed *Mar 1
01:25:33.879: As4 PPP: Phase is DOWN *Mar 1 01:25:33.883: As4 IPCP: Remove route to 172.16.25.61
%LINK-3-UPDOWN: Interface Async4, changed state to down *Mar 1 01:25:38.887: As4 LCP: State is
Closed *Mar 1 01:25:38.887: As4 PPP: Phase is DOWN !--- Cleanup from previous call is finished.
*Mar 1 01:25:40.863: CHAT4: Matched chat script offhook to string offhook
*Mar 1 01:25:40.867: CHAT4: Asserting DTR
!--- Modem goes offhook. *Mar 1 01:25:40.867: CHAT4: Chat script offhook started *Mar 1
01:25:40.871: CHAT4: Sending string: ATH1 *Mar 1 01:25:40.871: CHAT4: Expecting string: OK *Mar
1 01:25:40.911: CSM_PROC_IDLE: CSM_EVENT_MODEM_OFFHOOK at slot 0, port 3 *Mar 1 01:25:40.963:
CHAT4: Completed match for expect: OK *Mar 1 01:25:40.967: CHAT4: Chat script offhook finished,
status = Success
!--- Chat script "offhook" was successfully completed. *Mar 1 01:25:40.967: CHAT4: Matched chat
script callback to string callback
!--- Chat script "callback" is initiated. *Mar 1 01:25:40.971: CHAT4: Asserting DTR *Mar 1
01:25:40.975: CHAT4: Chat script callback started !--- Reset modem to known state. *Mar 1
01:25:40.975: CHAT4: Sending string: ATZ *Mar 1 01:25:40.979: CSM_PROC_OC1_REQUEST_DIGIT:
CSM_EVENT_MODEM_ONHOOK at slot 0, port 3 *Mar 1 01:25:40.983: VDEV_DEALLOCATE: slot 0 and port 3
is deallocated *Mar 1 01:25:40.979: CHAT4: Expecting string: OK *Mar 1 01:25:42.123: CHAT4:
Completed match for expect: OK !--- Dial the callback number of the client. *Mar 1 01:25:42.127:
CHAT4: Sending string: ATDT \T<527-9651>
*Mar 1 01:25:42.131: CHAT4: Expecting string: CONNECT
*Mar 1 01:25:43.199: CSM_PROC_IDLE: CSM_EVENT_MODEM_OFFHOOK at slot 0, port 3
!--- Modem/ISDN needs to collect the digits from IOS before it makes the call. *Mar 1
01:25:43.327: DSX1_MAIL_FROM_NEAT: DC_READY_RSP: mid = 5, slot = 2, unit = 1 *Mar 1
01:25:43.331: CSM_PROC_OC1_REQUEST_DIGIT:
CSM_EVENT_DIGIT_COLLECT_READY at slot 0, port 3
*Mar 1 01:25:43.331: CSM_PROC_OC1_REQUEST_DIGIT:
CSM_EVENT_ADDR_INFO_COLLECTED at slot 0, port 3
*Mar 1 01:25:44.327: DSX1_MAIL_FROM_NEAT: DC_FIRST_DIGIT_RSP: mid = 5,
slot = 2, unit = 1
*Mar 1 01:25:44.331: CSM_PROC_OC2_COLLECT_1ST_DIGIT:
CSM_EVENT_GET_1ST_DIGIT at slot 0, port 3
*Mar 1 01:25:47.331: DSX1_MAIL_FROM_NEAT: DC_ALL_DIGIT_RSP: mid = 5, slot
= 2, unit = 1
*Mar 1 01:25:47.331: CSM_PROC_OC3_COLLECT_ALL_DIGIT:
CSM_EVENT_GET_ALL_DIGITS at slot 0, port 3
*Mar 1 01:25:47.335: CSM_PROC_OC3_COLLECT_ALL_DIGIT: called party num:
(5279651) at slot 0, port 3
!--- Digits have been collected; ISDN call is made. *Mar 1 01:25:47.339: process_pri_call making
a voice_call. *Mar 1 01:25:47.351: ISDN Se0:23: TX -> SETUP pd = 8 callref = 0x0005 *Mar 1
01:25:47.355: Bearer Capability i = 0x8090A2
!--- Bearer cap indicates call is an analog call. *Mar 1 01:25:47.355: Channel ID i = 0xE1808397
*Mar 1 01:25:47.359: Called Party Number i = 0xA1, '5279651'
*Mar 1 01:25:47.431: ISDN Se0:23: RX <- CALL_PROC pd = 8 callref = 0x8005
*Mar 1 01:25:47.435: Channel ID i = 0xA98397
*Mar 1 01:25:47.451: EVENT_FROM_ISDN::dchan_idb=0x7F8EE0, call_id=0xA005,
ces=0x1 bchan=0x16, event=0x3, cause=0x0
*Mar 1 01:25:47.451: EVENT_FROM_ISDN:(A005): DEV_CALL_PROC at slot 0 and port 3
*Mar 1 01:25:47.455: CSM_PROC_OC4_DIALING:
CSM_EVENT_ISDN_BCHAN_ASSIGNED at slot 0, port 3
*Mar 1 01:25:48.147: ISDN Se0:23: RX <- ALERTING pd = 8 callref = 0x8005
*Mar 1 01:25:48.151: Progress Ind i = 0x8388 - In-band info or
appropriate now available
*Mar 1 01:25:50.835: ISDN Se0:23: RX <- CONNECT pd = 8 callref = 0x8005
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*Mar 1 01:25:50.851: EVENT_FROM_ISDN::dchan_idb=0x7F8EE0, call_id=0xA005,
ces=0x1 bchan=0x16, event=0x4, cause=0x
*Mar 1 01:25:50.855: EVENT_FROM_ISDN:(A005): DEV_CONNECTED at slot 0 and port 3
*Mar 1 01:25:50.859: CSM_PROC_OC5_WAIT_FOR_CARRIER:
  CSM_EVENT_ISDN_CONNECTED at slot 0, port 3
  !--- ISDN call is connected. *Mar 1 01:25:50.867: ISDN Se0:23: TX -> CONNECT_ACK pd = 8
callref = 0x0005
*Mar 1 01:25:53.735: AAA/AUTHEN: free_user (0x7ADEAC) user='callmeback'
  ruser='' port='Async4' rem_addr='async/4084327528' authen_type=CHAP
  service=PPP priv=1
!--- Modems have established carrier. *Mar 1 01:26:13.487: CHAT4: Completed match for expect:
CONNECT *Mar 1 01:26:13.491: CHAT4: Sending string: \c *Mar 1 01:26:13.491: CHAT4: Chat script
callback finished, status = Success *Mar 1 01:26:15.415: TTY4: DSR came up
*Mar 1 01:26:15.419: tty4: Modem: IDLE->READY
*Mar 1 01:26:15.439: TTY4: EXEC creation
*Mar 1 01:26:15.443: AAA/AUTHEN: create_user (0x7ADEA4) user='' ruser=''
  port='tty4' rem_addr='async/5279651' authen_type=ASCII service=LOGIN priv=1
*Mar 1 01:26:15.447: AAA/AUTHEN/START (2043462211): port='tty4'
  list='use-local' action=LOGIN service=LOGIN
*Mar 1 01:26:15.451: AAA/AUTHEN/START (2043462211): found list use-local
*Mar 1 01:26:15.451: AAA/AUTHEN/START (2043462211): Method=LOCAL
*Mar 1 01:26:15.455: AAA/AUTHEN (2043462211): status = GETUSER
  !--- PPP negotiation begins again. *Mar 1 01:26:16.631: TTY4: Autoselect(2) sample 7E %LINK-
3-UPDOWN: Interface Async4, changed state to up *Mar 1 01:26:18.663: As4 PPP: Treating
connection as a dedicated line *Mar 1 01:26:18.663: As4 PPP: Phase is ESTABLISHING, Active Open
*Mar 1 01:26:18.667: As4 LCP: O CONFREQ [Closed] id 5 len 25 *Mar 1 01:26:18.671: As4 LCP: ACCM
0x000A0000 (0x0206000A0000) *Mar 1 01:26:18.675: As4 LCP: AuthProto CHAP (0x0305C22305) *Mar 1
01:26:18.675: As4 LCP: MagicNumber 0x608DF70C (0x0506608DF70C) *Mar 1 01:26:18.679: As4 LCP: PFC
(0x0702) *Mar 1 01:26:18.679: As4 LCP: ACFC (0x0802) *Mar 1 01:26:18.779: As4 LCP: I CONFACK
[REQsent] id 5 len 25 *Mar 1 01:26:18.783: As4 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 1
01:26:18.787: As4 LCP: AuthProto CHAP (0x0305C22305) *Mar 1 01:26:18.787: As4 LCP: MagicNumber
0x608DF70C (0x0506608DF70C) *Mar 1 01:26:18.791: As4 LCP: PFC (0x0702) *Mar 1 01:26:18.791: As4
LCP: ACFC (0x0802) *Mar 1 01:26:19.707: As4 LCP: I CONFREQ [ACKrcvd] id 3 len 20 *Mar 1
01:26:19.711: As4 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 1 01:26:19.711: As4 LCP:
  MagicNumber 0x004B3EF5 (0x0506004B3EF5) *Mar 1 01:26:19.715: As4 LCP: PFC (0x0702) *Mar 1
01:26:19.715: As4 LCP: ACFC (0x0802) *Mar 1 01:26:19.719: As4 LCP: O CONFACK [ACKrcvd] id 3 len
20 *Mar 1 01:26:19.723: As4 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 1 01:26:19.723: As4 LCP:
  MagicNumber 0x004B3EF5 (0x0506004B3EF5) *Mar 1 01:26:19.727: As4 LCP: PFC (0x0702) *Mar 1
01:26:19.727: As4 LCP: ACFC (0x0802) *Mar 1 01:26:19.731: As4 LCP: State is Open !---
Reauthenticate the user. *Mar 1 01:26:22.779: As4 PPP: Phase is AUTHENTICATING, by this end
*Mar 1 01:26:22.783: As4 CHAP: O CHALLENGE id 6 len 28 from "isdn2-2"
*Mar 1 01:26:22.887: As4 CHAP: I RESPONSE id 6 len 26 from "callmeback"
*Mar 1 01:26:22.895: AAA/AUTHEN: create_user (0x8F1DAC) user='callmeback'
  ruser='' port='Async4' rem_addr='async/5279651' authen_type=CHAP
  service=PPP priv=1
*Mar 1 01:26:22.899: AAA/AUTHEN/START (2174906802): port='Async4' list=''
  action=LOGIN service=PPP
*Mar 1 01:26:22.899: AAA/AUTHEN/START (2174906802): using "default" list
*Mar 1 01:26:22.903: AAA/AUTHEN/START (2174906802): Method=LOCAL
*Mar 1 01:26:22.903: AAA/AUTHEN (2174906802): status = PASS
*Mar 1 01:26:22.907: AAA/AUTHOR/LCP As4: Authorize LCP
*Mar 1 01:26:22.911: AAA/AUTHOR/LCP: Async4: (3262137315): user='callmeback'
*Mar 1 01:26:22.911: AAA/AUTHOR/LCP: Async4: (3262137315): send AV service=ppp
*Mar 1 01:26:22.915: AAA/AUTHOR/LCP: Async4: (3262137315): send AV
  protocol=lcp
*Mar 1 01:26:22.915: AAA/AUTHOR/LCP: Async4 (3262137315): Method=LOCAL
*Mar 1 01:26:22.923: AAA/AUTHOR (3262137315):
  Post authorization status =PASS_ADD
*Mar 1 01:26:22.927: AAA/AUTHOR/LCP As4: Processing AV service=ppp
*Mar 1 01:26:22.927: AAA/AUTHOR/LCP As4: Processing AV protocol=lcp
*Mar 1 01:26:22.931: AAA/AUTHOR/LCP As4: Processing AV service=ppp
*Mar 1 01:26:22.931: AAA/AUTHOR/LCP As4: Processing AV protocol=lcp
*Mar 1 01:26:22.931: AAA/AUTHOR/LCP As4: Processing AV callback-dialstring=
*Mar 1 01:26:22.939: As4 CHAP: O SUCCESS id 6 len 4
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*Mar 1 01:26:22.943: As4 PPP: Phase is UP
*Mar 1 01:26:22.947: AAA/AUTHOR/FSM As4: (0): Can we start IPCP?
*Mar 1 01:26:22.947: AAA/AUTHOR/FSM: Async4: (345798021): user='callmeback'
*Mar 1 01:26:22.951: AAA/AUTHOR/FSM: Async4: (345798021): send AV service=ppp
*Mar 1 01:26:22.951: AAA/AUTHOR/FSM: Async4: (345798021): send AV protocol=ip
*Mar 1 01:26:22.955: AAA/AUTHOR/FSM: Async4 (345798021): Method=LOCAL
*Mar 1 01:26:22.955: AAA/AUTHOR (345798021):
  Post authorization status = PASS_REPL
  !--- Negotiate IPCP. *Mar 1 01:26:22.959: AAA/AUTHOR/FSM As4: We can start IPCP *Mar 1
01:26:22.963: As4 IPCP: O CONFREQ [Closed] id 1 len 16 *Mar 1 01:26:22.967: As4 IPCP:
CompressType VJ 15 slots (0x0206002D0F00) *Mar 1 01:26:22.967: As4 IPCP: Address 172.16.25.52
(0x0306AC101934) *Mar 1 01:26:23.019: As4 IPCP: I CONFREQ [REQsent] id 1 len 40 *Mar 1
01:26:23.023: As4 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) *Mar 1
01:26:23.027: As4 IPCP: Address 0.0.0.0 (0x030600000000) *Mar 1 01:26:23.027: As4 IPCP:
PrimaryDNS 0.0.0.0 (0x810600000000) *Mar 1 01:26:23.031: As4 IPCP: PrimaryWINS 0.0.0.0
(0x820600000000) *Mar 1 01:26:23.035: As4 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) *Mar 1
01:26:23.035: As4 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) *Mar 1 01:26:23.039:
AAA/AUTHOR/IPCPC As4: Start. Her address 0.0.0.0, we want 0.0.0.0 *Mar 1 01:26:23.039:
AAA/AUTHOR/IPCPC As4: Processing AV service=ppp *Mar 1 01:26:23.043: AAA/AUTHOR/IPCPC As4:
Processing AV protocol=ip *Mar 1 01:26:23.043: AAA/AUTHOR/IPCPC As4: Authorization succeeded *Mar
1 01:26:23.047: AAA/AUTHOR/IPCPC As4: Done. Her address 0.0.0.0, we want 0.0.0.0 *Mar 1
01:26:23.047: As4 IPCP: Using pool 'default' *Mar 1 01:26:23.051: As4 IPCP: Pool returned
172.16.25.60 *Mar 1 01:26:23.051: As4 IPCP: O CONFREQ [REQsent] id 1 len 28 *Mar 1 01:26:23.055:
As4 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) *Mar 1 01:26:23.059: As4 IPCP: PrimaryWINS 0.0.0.0
(0x820600000000) *Mar 1 01:26:23.059: As4 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) *Mar 1
01:26:23.063: As4 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) *Mar 1 01:26:23.067: As4 IPCP: I
CONFACK [REQsent] id 1 len 16 *Mar 1 01:26:23.067: As4 IPCP: CompressType VJ 15 slots
(0x0206002D0F00) *Mar 1 01:26:23.071: As4 IPCP: Address 172.16.25.52 (0x0306AC101934) *Mar 1
01:26:23.139: As4 IPCP: I CONFREQ [ACKrcvd] id 2 len 16 *Mar 1 01:26:23.139: As4 IPCP:
CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) *Mar 1 01:26:23.143: As4 IPCP: Address
0.0.0.0 (0x030600000000) *Mar 1 01:26:23.147: AAA/AUTHOR/IPCPC As4: Start. Her address 0.0.0.0,
we want 172.16.25.60 *Mar 1 01:26:23.147: AAA/AUTHOR/IPCPC As4: Processing AV service=ppp *Mar 1
01:26:23.151: AAA/AUTHOR/IPCPC As4: Processing AV protocol=ip *Mar 1 01:26:23.151:
AAA/AUTHOR/IPCPC As4: Authorization succeeded *Mar 1 01:26:23.151: AAA/AUTHOR/IPCPC As4: Done. Her
address 0.0.0.0, we want 172.16.25.60 *Mar 1 01:26:23.155: As4 IPCP: O CONFNAK [ACKrcvd] id 2
len 10 *Mar 1 01:26:23.159: As4 IPCP: Address 172.16.25.60 (0x0306AC10193C) *Mar 1 01:26:23.255:
As4 IPCP: I CONFREQ [ACKrcvd] id 3 len 16 *Mar 1 01:26:23.259: As4 IPCP: CompressType VJ 15
slots CompressSlotID (0x0206002D0F01) *Mar 1 01:26:23.263: As4 IPCP: Address 172.16.25.60
(0x0306AC10193C) *Mar 1 01:26:23.263: AAA/AUTHOR/IPCPC As4: Start. Her address 172.16.25.60, we
want 172.16.25.60 *Mar 1 01:26:23.267: AAA/AUTHOR/IPCPC Async4: (3819567164): user='callmeback'
*Mar 1 01:26:23.271: AAA/AUTHOR/IPCPC Async4: (3819567164): send AV service=ppp *Mar 1
01:26:23.271: AAA/AUTHOR/IPCPC Async4: (3819567164): send AV protocol=ip *Mar 1 01:26:23.275:
AAA/AUTHOR/IPCPC Async4: (3819567164): send AV addr*172.16.25.60 *Mar 1 01:26:23.275:
AAA/AUTHOR/IPCPC Async4 (3819567164): Method=LOCAL *Mar 1 01:26:23.279: AAA/AUTHOR (3819567164):
Post authorization status = PASS_REPL *Mar 1 01:26:23.283: AAA/AUTHOR/IPCPC As4: Reject
172.16.25.60, using 172.16.25.60 *Mar 1 01:26:23.287: AAA/AUTHOR/IPCPC As4: Processing AV
service=ppp *Mar 1 01:26:23.291: AAA/AUTHOR/IPCPC As4: Processing AV protocol=ip *Mar 1
01:26:23.291: AAA/AUTHOR/IPCPC As4: Processing AV addr*172.16.25.60 *Mar 1 01:26:23.295:
AAA/AUTHOR/IPCPC As4: Authorization succeeded *Mar 1 01:26:23.295: AAA/AUTHOR/IPCPC As4: Done. Her
address 172.16.25.60, we want 172.16.25.60 *Mar 1 01:26:23.299: As4 IPCP: O CONFACK [ACKrcvd] id
3 len 16 *Mar 1 01:26:23.303: As4 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01)
*Mar 1 01:26:23.303: As4 IPCP: Address 172.16.25.60 (0x0306AC10193C) *Mar 1 01:26:23.307: As4
IPCPC: State is Open *Mar 1 01:26:23.323: As4 IPCPC: Install route to 172.16.25.60 %LINEPROTO-
5-UPDOWN: Line protocol on Interface Async4, changed state to up
  !--- Client is connected.
```

相關資訊

- [配置非同步回撥](#)
- [使用ISDN的PPP回撥](#)
- [為DDR配置PPP回撥](#)
- [使用TACACS+設定PPP回撥](#)

- [使用RADIUS配置PPP回撥](#)
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