

在路由器与 Windows PC 之间配置 MS 回呼

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简介

Microsoft 实施的回叫不符合 [RFC 1570](#)。但是，由于 Microsoft 拨号网络客户端的市场份额很大，思科已将 Microsoft 回叫(MSCB)控制协议实施到 Cisco IOS® 软件版本 11.3(2)T 及更高版本中。

先决条件

要求

尝试进行此配置之前，请确保满足以下要求：

- 配置网络接入服务器(NAS)以接受来自客户端的模拟呼叫。回叫是调制解调器拨入的附加功能。因此，请验证此方面是否正常工作。这有助于您排除故障。
- T1/E1 电路必须能够拨出。请联系您的电话公司(Telco)验证此情况。

使用的组件

本文档中的信息基于 Cisco IOS 软件版本 11.3(2)T 及更高版本。

此场景已在装有 Windows 拨号网络的 PC 上测试。

本文档中的信息都是基于特定实验室环境中的设备创建的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您是在真实网络上操作，请确保您在使用任何命令前已经了解其潜在影响。

规则

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

背景理论

按以下顺序执行回叫：

1. PC用户（客户端）连接到思科接入服务器。
2. 回叫过程在点对点协议(PPP)链路控制协议(LCP)阶段协商。
3. 执行PPP身份验证。
4. Cisco IOS软件验证此用户或线路的回叫规则，并断开呼叫方的回叫连接。
5. 思科接入服务器拨打客户端。

MSCB有四种类型：

1. 没有回叫。
2. 用户指定的回叫号码。
3. 服务器指定（预配置）的回叫号。
4. 预配置回叫号码的列表。

默认配置为no callback（选项1）。可以配置选项2或3：

- 本地（如果未使用AAA服务器）。
- 在TACACS+或RADIUS用户配置文件（如果使用AAA）中。

如果配置了选项2，系统将提示用户输入回叫号码。如果配置了选项3，提示只提供一个选项，即管理员定义的号码。

思科仅实施MSCB的回叫服务器功能，而不实施回叫客户端功能。这意味着Cisco路由器只能用作MSCB服务器，而不能用作MSCB客户端。此外，思科实施MSCB需要在客户端上执行身份验证。

配置

本部分提供有关如何配置本文档所述功能的信息。

配置汇总

要启用MSCB，必须在接收接口(例如group-async)下启用ppp callback accept命令。此外，由于需要身份验证，因此必须启用密码身份验证协议(PAP)或质询握手身份验证协议(CHAP)身份验证：

```
ppp authentication chap pap
```

会自动创建两个聊天脚本。以下是摘机和回叫聊天脚本：

```
chat-script offhook "" "ATH1" OK
```

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

聊天脚本也会自动应用于正在使用的行：

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

必须授权用户回叫。您可以根据用户名和密码信息的存储位置在NAS或外部AAA服务器 (RADIUS或TACACS+) 上本地配置此配置。

这是拨回地址为5551212的用户的本地配置：

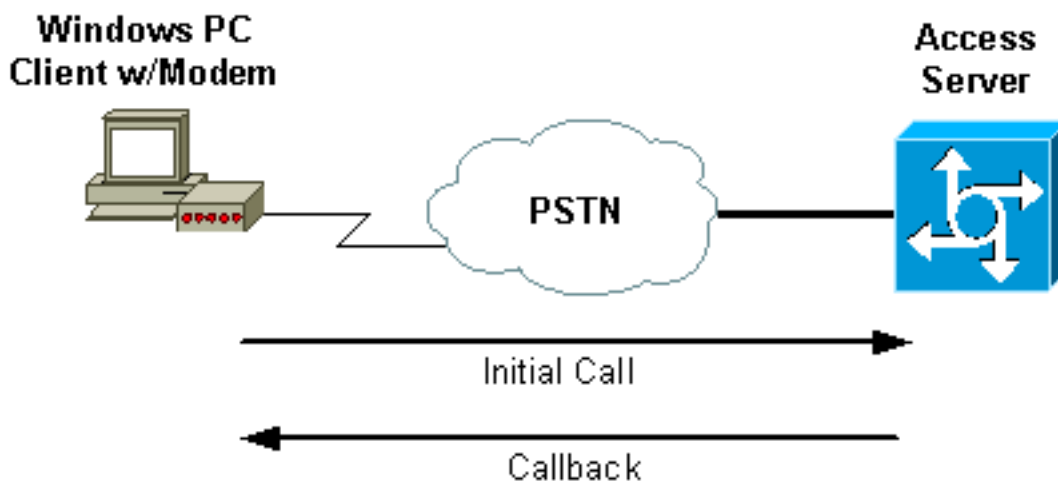
```
username callmeback callback-dialstring 5551212 password cisco
```

此本地配置适用于允许指定自己回叫号码的用户：

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

网络图

本文档使用以下网络设置：



配置

本文档使用以下配置：

- 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 及 98 客户端配置](#)

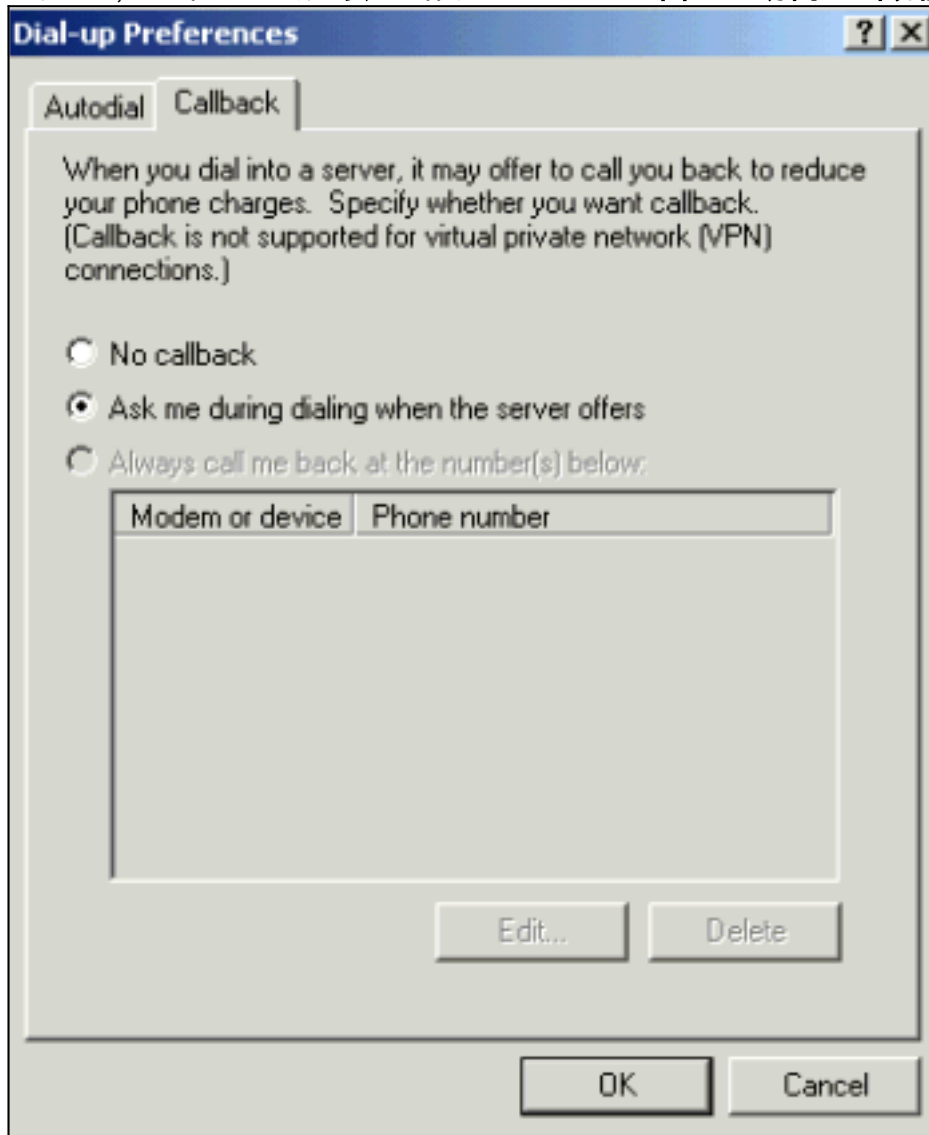
对于Windows 95和98 PC，没有用于回叫的特殊客户端配置。接入服务器处理连接的回叫功能。

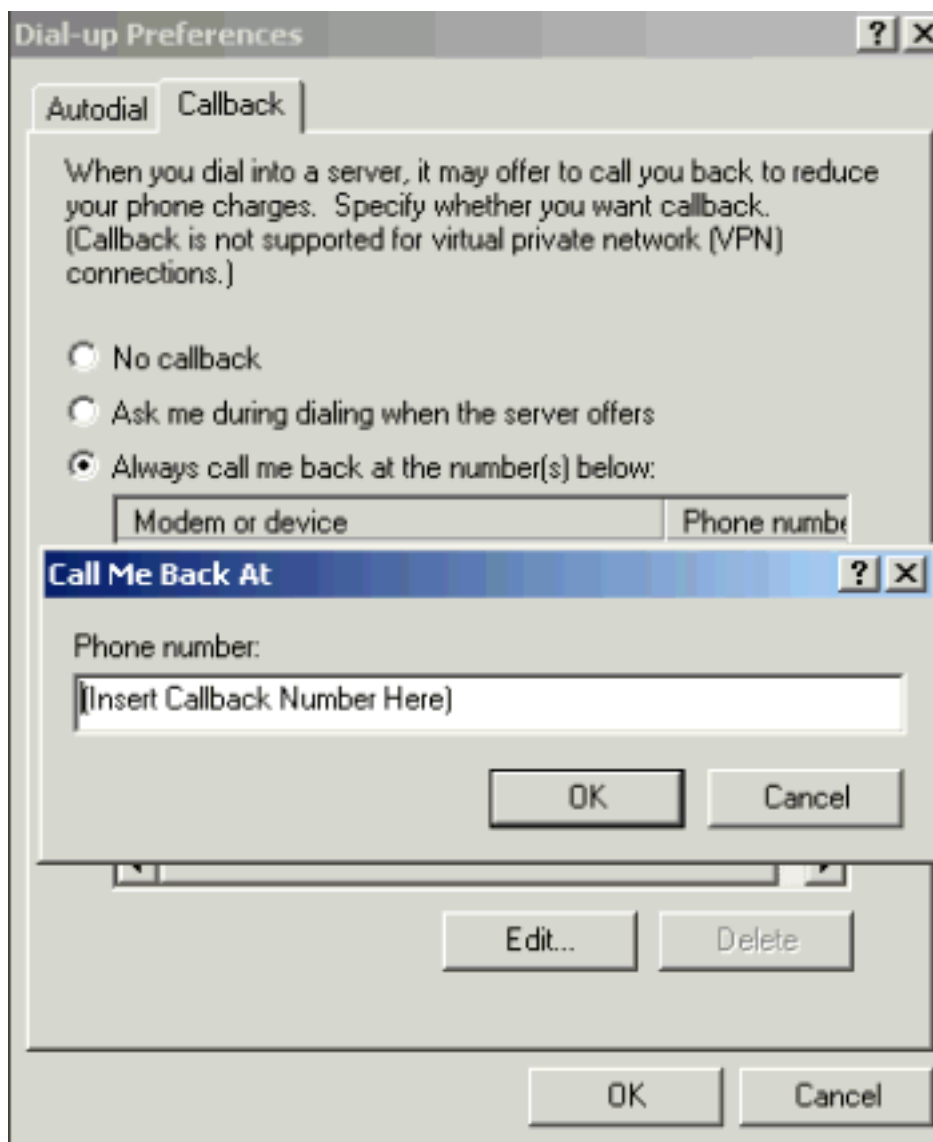
Windows 95或98 PC显示“等待回叫”消息，表示正在进行回叫。

Windows NT 及 2000 客户端配置

配置这些平台以请求回叫。完成以下步骤以配置它们：

1. 选择开始>程序>附件>通信>网络和拨号连接。
2. 从菜单中选择Advanced > Dial-up Preferences。
3. 单击“回叫”选项卡以访问回叫功能菜单，如[图1所示](#)。
4. 根据需要配置回叫选项：要不使用回叫函数，请单击“无回叫”按钮。要在服务器提供回叫时提示执行什么操作，请单击Ask Me during Dialing When the Server Offers (服务器提供时，在拨号过程中询问我) 按钮。要自动接受回叫优惠，请单击Always Call Me Back At the Number(s)Below (以下号码) 按钮，然后从列表中选择要使用的设备。要更改回叫电话号码，请选择设备并单击“编辑”按钮。如图1所示，在“电话号码”字段中输入号码，然后在“回呼时呼叫”对话框中单击“确定”。
5. 单击“电话号码”字段，然后在“回叫时”对话框中输入该号码(如图1所示)。完成后，单击确定。
6. 完成后，单击“拨号首选项”对话框中的“确定”。**图1 — 访问回叫功能**





验证

本部分所提供的信息可用于确认您的配置是否正常工作。

[命令输出解释程序工具（仅限注册用户）支持某些 show 命令](#)，使用此工具可以查看对 show 命令输出的分析。

- **show isdn active** — 显示有关当前传入和传出ISDN呼叫的信息。使用此命令验证回叫是否成功完成。如果回叫成功，则**show isdn active**会在回叫服务器上将呼叫显示为传出。
- **show users** — 显示有关路由器上活动线路的信息。如果Cisco IOS软件的版本支持，您还可以使用 **show caller** 命令。
- **show dialer** — 显示为按需拨号路由(DDR)配置的接口的常规诊断信息。

故障排除

本部分提供的信息可用于对配置进行故障排除。

故障排除命令

注意：在发出debug命令之前，请参阅[有关Debug命令的重要信息](#)。

有关debug命令的[详细信息](#)，请参阅[《Cisco IOS版本12.0调试命令参考》](#)。

- **debug aaa authentication** - 显示有关 AAA 身份验证的信息。
- **debug aaa authorization** - 显示有关 AAA 授权的信息。
- **debug callback** — 当路由器使用调制解调器和聊天脚本在终端线路上回叫时，显示回叫事件。
- **debug modem** — 用于观察接入服务器上的调制解调器线路活动。
- **debug ppp [packet |协商|错误| authentication]** — 显示有关实施PPP的网际网络中的流量和交换的信息。*packet* — 显示发送和接收的PPP数据包。（此命令显示低级数据包转储信息。）*negotiation* — 显示在协商PPP选项时，在PPP启动期间传输的PPP数据包。*error* — 显示与PPP连接协商和操作关联的协议错误和错误统计信息。*authentication* — 显示身份验证协议消息，包括CHAP和PAP交换。
- **debug chat** — 显示在调制解调器被指示拨出时接入服务器与其内部调制解调器之间发生的握手。聊天脚本是一组期望发送字符串对，定义数据终端设备(DTE)和数据通信设备(DCE)设备之间的握手。
- **debug isdn q931** — 显示ISDN Q.931 (D信道) 呼叫建立和拆卸消息和调试。在此场景中，调制解调器呼叫作为语音承载服务通过公共交换电话网(PSTN)传输。
- **debug modem csm** — 使您能够排除带有内置数字调制解调器的路由器上的呼叫交换模块(CSM)问题。使用该指令，您能跟踪呼入和呼出的呼叫交换排序的完成情况。

```
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
4
*!--- Callback negotiation proceeds. Because callback-dialstring !--- is null, MCB debug says
"Callback Number - Client ANY".* *Mar 1 01:25:20.239: As4 **MCB: User callmeback 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 callmeback 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

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*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
*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
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*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=lcpl
*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
*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.

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相关信息

- [配置异步回调](#)

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- [为DDR配置PPP回叫](#)
- [用 TACACS+ 配置 PPP 回呼](#)
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