라우터와 Windows PC 간 MS 콜백 구성

목차

소개

Microsoft의 콜백 구현이 RFC 1570을 준수하지 않습니다 . 그러나 Microsoft 전화 접속 네트워킹 클라이언트의 높은 시장 점유율로 인해 Cisco는 Cisco IOS® Software Release 11.3(2)T 이상에 MSCB(Microsoft Callback) Control Protocol을 구현했습니다.

사전 요구 사항

요구 사항

이 구성을 시도하기 전에 다음 요구 사항을 충족해야 합니다.

- 클라이언트의 아날로그 통화를 수락하도록 NAS(Network Access Server)를 구성합니다. 콜백은 모뎀 다이얼인의 추가 기능입니다. 따라서 이 양상이 올바르게 작동하는지 확인합니다. 이를 통해 문제를 해결할 수 있습니다.
- T1/E1 회로는 다이얼아웃이 가능해야 합니다. 전화 회사(Telco)에 문의하여 이를 확인하십시오 .

사용되는 구성 요소

이 문서의 정보는 Cisco IOS Software Release 11.3(2)T 이상 버전을 기반으로 합니다.

이 시나리오는 Windows 전화 접속 네트워킹을 사용하는 PC에서 테스트되었습니다.

이 문서의 정보는 특정 랩 환경의 디바이스를 토대로 작성되었습니다. 이 문서에 사용된 모든 디바이스는 초기화된(기본) 컨피그레이션으로 시작되었습니다. 라이브 네트워크에서 작업하는 경우, 사용하기 전에 모든 명령의 잠재적인 영향을 이해해야 합니다.

표기 규칙

문서 규칙에 대한 자세한 내용은 Cisco 기술 팁 표기 규칙을 참조하십시오.

배경 이론

콜백이 다음 순서로 실행됩니다.

1. PC 사용자(클라이언트)가 Cisco 액세스 서버에 연결됩니다.
2. 콜백 프로세스는 PPP(Point-to-Point Protocol) LCP(Link Control Protocol) 단계에서 협상됩니다.
3. PPP 인증이 수행됩니다.
4. Cisco IOS 소프트웨어는 이 사용자 또는 회선에 대한 콜백 규칙을 확인하고 콜백을 위해 발신자의 연결을 끊습니다.
5. Cisco 액세스 서버가 클라이언트에 전화를 겁니다.

MSCB에는 4가지 유형이 있습니다.

1. 콜백이 없습니다.
2. 사용자 지정 콜백 번호입니다.
3. 서버 지정(사전 구성) 콜백 번호입니다.
4. 사전 구성된 콜백 번호 목록입니다.

기본 컨피그레이션은 콜백 없음(옵션 1)입니다. 옵션 2 또는 3을 구성할 수 있습니다.

- 로컬로(AAA 서버가 사용되지 않는 경우)
- TACACS+ 또는 RADIUS 사용자 프로파일(AAA가 사용되는 경우)

옵션 2가 구성된 경우 사용자에게 콜백 번호를 입력하라는 메시지가 표시됩니다. 옵션 3이 구성된 경우 프롬프트는 관리자 정의 번호인 하나의 선택만 제공합니다.

Cisco는 콜백 클라이언트 기능이 아닌 MSCB의 콜백 서버 기능만 구현합니다. 즉, Cisco 라우터는 MSCB 서버로만 사용할 수 있으며 MSCB 클라이언트로 사용할 수 없습니다. 또한 Cisco에서 MSCB를 구현하려면 클라이언트에서 인증을 수행해야 합니다.

구성

이 섹션에는 이 문서에서 설명하는 기능을 구성하기 위한 정보가 표시됩니다.

구성 요약

MSCB를 활성화하려면 수신 인터페이스(예: group-async)에서 **ppp callback accept** 명령을 활성화해야 합니다. 또한 인증이 필요하므로 PAP(Password Authentication Protocol) 또는

CHAP(Challenge Handshake Authentication Protocol) 인증을 활성화해야 합니다.

```
ppp authentication chap pap
```

두 개의 채팅 스크립트가 자동으로 생성됩니다. 다음은 **오프후크** 및 **콜백** 채팅 스크립트입니다.

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

채팅 스크립트는 사용 중인 회선에 자동으로 적용됩니다.

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

사용자에게 다시 전화할 권한이 있어야 합니다. 사용자 이름 및 비밀번호 정보가 저장되는 위치에 따라 NAS 또는 외부 AAA 서버(RADIUS 또는 TACACS+)에서 로컬로 구성할 수 있습니다.

다음은 5551212로 다시 호출되는 사용자의 로컬 구성입니다.

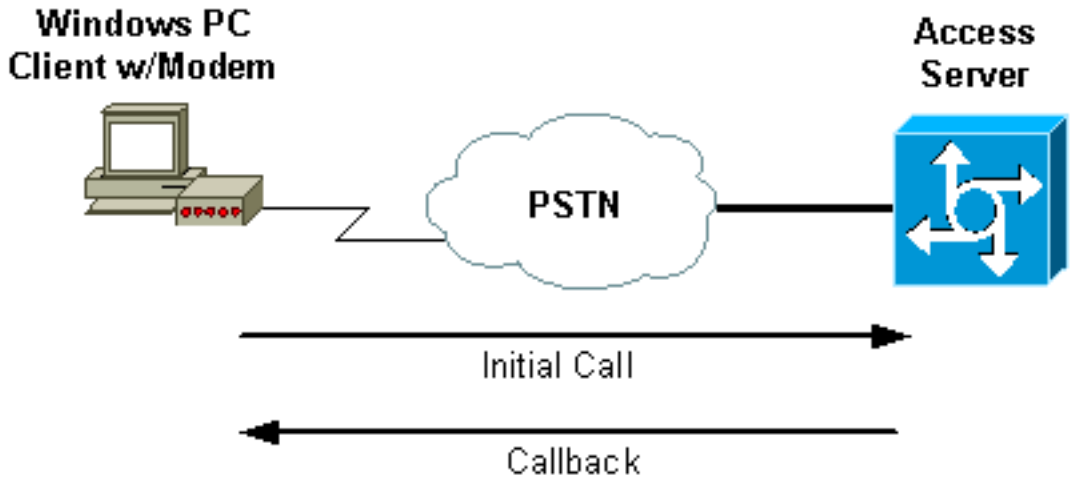
```
username callmeback callback-dialstring 5551212 password cisco
```

이 로컬 구성은 자신의 콜백 번호를 지정할 수 있는 사용자에게 적용됩니다.

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

네트워크 다이어그램

이 문서에서는 다음 네트워크 설정을 사용합니다.



구성

이 문서에서는 다음 구성을 사용합니다.

- isdn2-2(AS5200 라우터)

isdn2-2(AS5200 라우터)

```
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 클라이언트 구성

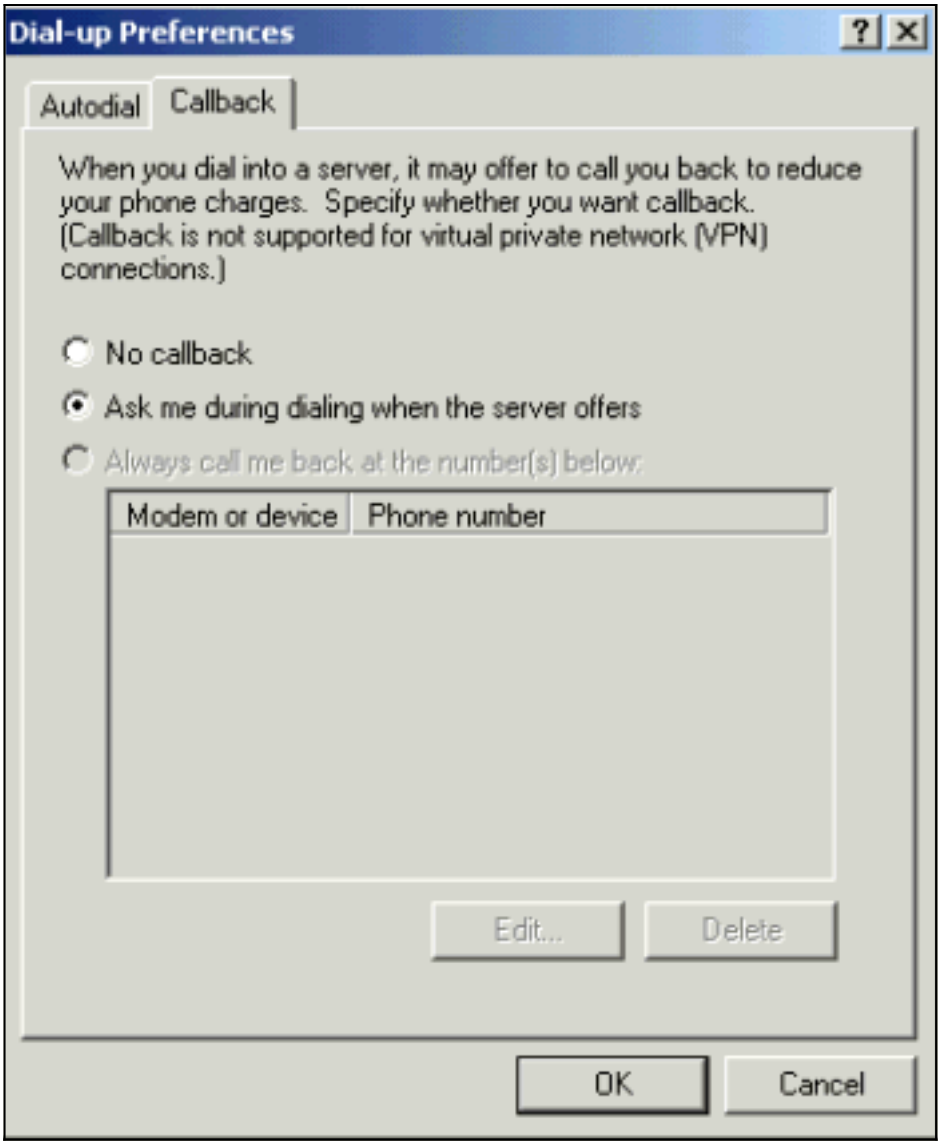
Windows 95 및 98 클라이언트 구성

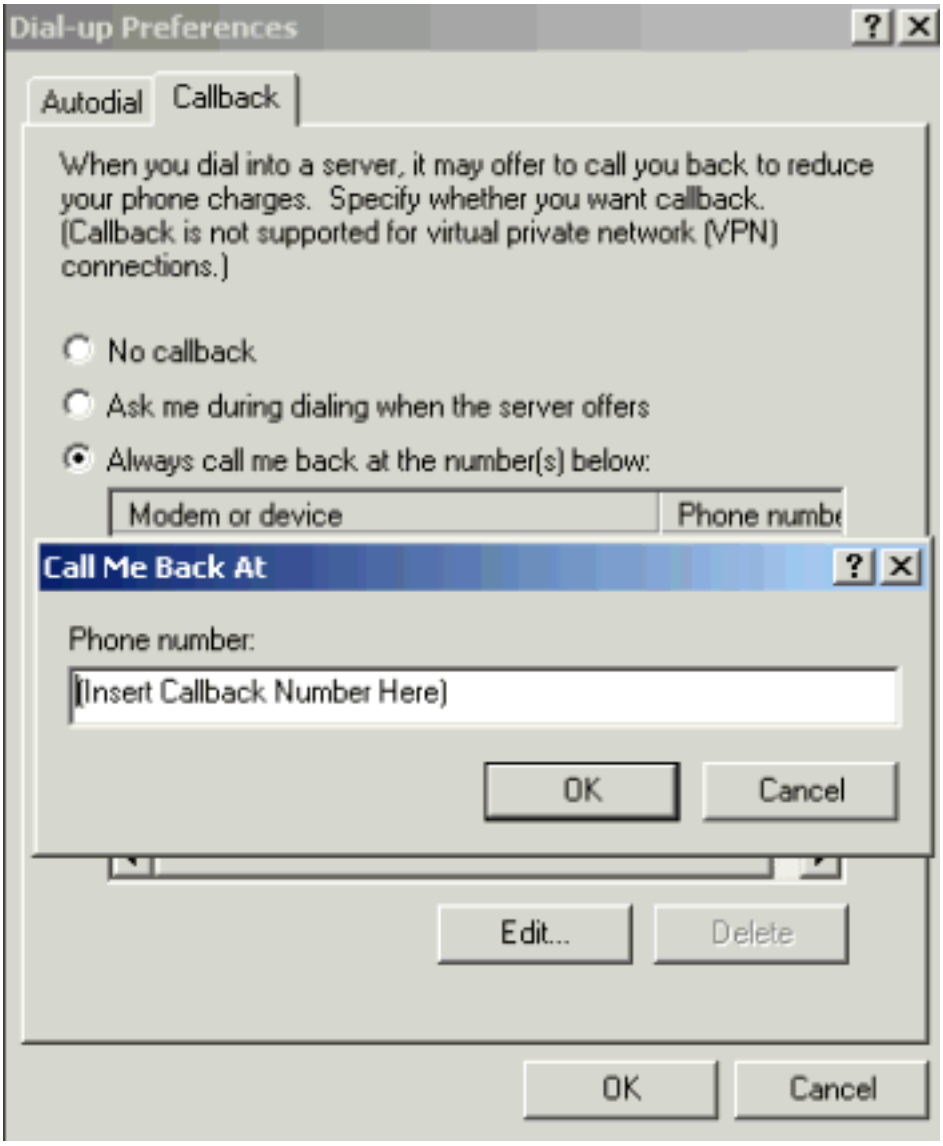
Windows 95 및 98 PC의 경우 콜백을 위한 특수 클라이언트 측 컨피그레이션이 없습니다. 액세스 서버는 연결의 콜백 기능을 처리합니다. Windows 95 또는 98 PC에는 콜백이 진행 중임을 나타내는 "콜백 대기 중" 메시지가 표시됩니다.

Windows NT 및 2000 클라이언트 구성

콜백을 요청하도록 이러한 플랫폼을 구성합니다. 다음 단계를 완료하여 구성합니다.

1. **시작 > 프로그램 > 보조프로그램 > 통신 > 네트워크 및 전화 접속 연결을 선택합니다**.
2. 메뉴에서 **Advanced > Dial-up Preferences**를 선택합니다.
3. 그림 1과 같이 **콜백** 기능 메뉴에 액세스하려면 Callback 탭을 클릭합니다.
4. 필요에 따라 콜백 옵션을 구성합니다.콜백 함수를 사용하지 않으려면 [콜백 **없음**] 단추를 클릭합니다.서버에서 콜백을 제공할 때 수행할 작업을 묻는 메시지가 나타나면 **Ask Me During Dialing When The Server Offers(서버가** 제공할 **때 전화 걸기 중 알림)** 단추를 클릭합니다.콜백 제안을 자동으로 수락하려면 **아래 번호** 단추**에서 항상 다시 전화**를 클릭하고 목록에서 사용할 디바이스를 선택합니다.콜백 전화 번호를 변경하려면 장치를 선택하고 **Edit** 버튼을 클릭합니다. 그림 1과 같이 **Phone Number(전화 번호)** 필드에 번호를 입력한 다음 Call Me Back At(콜백 위치) 대화 상자에서 **OK(확인)를** 클릭합니다.
5. Phone **Number(전화 번호)** 필드를 클릭하고 Call Me Back At(콜백 위치) 대화 상자(그림 1에 표시됨)에 번호를 입력합니다. 완료되면 **OK**(확인)를 클릭합니다.
6. 완료되면 전화 접속 기본 설정 대화 상자에서 확인을 클릭합니다.**그림 1 - 콜백 기능 액세스**


Dial-up Preferences
Autodial
Callback
When you dial into a server, it may offer to call you back to reduce your phone charges. Specify whether you want callback. (Callback is not supported for virtual private network (VPN) connections.)
No callback
Ask me during dialing when the server offers
Always call me back at the number(s) below:
Modem or device
Phone number
Edit...
Delete
OK
Cancel



다음을 확인합니다.

이 섹션에서는 컨피그레이션이 제대로 작동하는지 확인하는 데 사용할 수 있는 정보를 제공합니다.

일부 **show 명령은** 출력 인터프리터 툴 에서 지원되는데(등록된 고객만), 이 툴을 사용하면 **show 명령 출력의 분석 결과를 볼 수 있습니다.**

- **show isdn active** - 현재 수신 및 발신 ISDN 통화에 대한 정보를 표시합니다. 콜백이 성공적으로 완료되었는지 확인하려면 이 명령을 사용합니다. 콜백이 성공하면 **show isdn active**는 콜백 서버에서 통화를 발신 상태로 표시합니다.
- **show users**—라우터의 활성 라인에 대한 정보를 표시합니다. Cisco IOS 소프트웨어 버전이 지원하는 경우 **show caller** 명령을 사용할 수도 있습니다.
- **show dialer**—DDR(Dial-on-Demand Routing)용으로 구성된 인터페이스에 대한 일반 진단 정보를 표시합니다.

문제 해결

이 섹션에서는 컨피그레이션 문제를 해결하는 데 사용할 수 있는 정보를 제공합니다.

문제 해결 명령

참고: debug 명령을 실행하기 전에 디버그 명령에 대한 중요 정보를 참조하십시오.

debug 명령에 대한 자세한 내용은 Cisco IOS 릴리스 12.0 디버그 명령 참조를 참조하십시오.

- **debug aaa authentication**—AAA 인증에 대한 정보를 표시합니다.
- **debug aaa authorization**—AAA 권한 부여에 대한 정보를 표시합니다.
- **디버그 콜백** - 라우터가 모뎀과 채팅 스크립트를 사용하여 터미널 회선에서 다시 전화를 걸 때 콜백 이벤트를 표시합니다.
- **debug modem**—액세스 서버에서 모뎀 회선 활동을 관찰할 수 있습니다.
- **디버그 ppp [** ***패킷*** **|** ***협상*** **|** ***오류*** **|** ***authentication*** **]** — PPP를 구현하는 네트워크에서 트래픽 및 교환에 대한 정보를 표시합니다.*packet* —전송 및 수신되는 PPP 패킷을 표시합니다. (이 명령은 낮은 수준의 패킷 덤프를 표시합니다.)*negotiation* **-** PPP 옵션이 협상될 때 PPP 시작 중에 전송된 PPP 패킷을 표시합니다.*error* —PPP 연결 협상 및 작업과 관련된 프로토콜 오류 및 오류 통계를 표시합니다.*authentication* —CHAP 및 PAP 교환을 포함하는 인증 프로토콜 메시지를 표시합니다.
- **debug chat** - 모뎀이 다이얼아웃하도록 지시하는 동안 액세스 서버와 내부 모뎀 간에 발생하는 핸드셰이크를 표시합니다. 채팅 스크립트는 DTE(Data Terminal Equipment)와 DCE(Data Communications Equipment) 디바이스 간의 핸드셰이크를 정의하는 예상 전송 문자열 쌍의 집합입니다.
- **debug isdn q931** - ISDN Q.931(D 채널) 통화 설정 및 해제 메시지 및 디버그를 표시합니다. 이 시나리오에서는 모뎀 통화가 PSTN(Public Switched Telephone Network)을 통해 음성 전달자 서비스로 전달됩니다.
- **debug modem csm**—내부 디지털 모뎀이 있는 라우터에서 CSM(Call Switching Module) 문제를 해결할 수 있습니다. 이 명령을 사용하면 수신 및 발신 통화 전환의 전체 시퀀스를 추적할 수 있습니다.

```
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 initated. *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
*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

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   *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
   *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/IPCP As4: Start. Her address 0.0.0.0, we want 0.0.0.0 *Mar 1 01:26:23.039:
AAA/AUTHOR/IPCP As4: Processing AV service=ppp *Mar 1 01:26:23.043: AAA/AUTHOR/IPCP As4:
Processing AV protocol=ip *Mar 1 01:26:23.043: AAA/AUTHOR/IPCP As4: Authorization succeeded *Mar
1 01:26:23.047: AAA/AUTHOR/IPCP 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 CONFREJ [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/IPCP As4: Start. Her address 0.0.0.0,
we want 172.16.25.60 *Mar 1 01:26:23.147: AAA/AUTHOR/IPCP As4: Processing AV service=ppp *Mar 1
01:26:23.151: AAA/AUTHOR/IPCP As4: Processing AV protocol=ip *Mar 1 01:26:23.151:
AAA/AUTHOR/IPCP As4: Authorization succeeded *Mar 1 01:26:23.151: AAA/AUTHOR/IPCP 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/IPCP As4: Start. Her address 172.16.25.60, we
want 172.16.25.60 *Mar 1 01:26:23.267: AAA/AUTHOR/IPCP: Async4: (3819567164): user='callmeback'
*Mar 1 01:26:23.271: AAA/AUTHOR/IPCP: Async4: (3819567164): send AV service=ppp *Mar 1
01:26:23.271: AAA/AUTHOR/IPCP: Async4: (3819567164): send AV protocol=ip *Mar 1 01:26:23.275:
AAA/AUTHOR/IPCP: Async4: (3819567164): send AV addr*172.16.25.60 *Mar 1 01:26:23.275:
AAA/AUTHOR/IPCP: 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/IPCP As4: Reject
172.16.25.60, using 172.16.25.60 *Mar 1 01:26:23.287: AAA/AUTHOR/IPCP As4: Processing AV
service=ppp *Mar 1 01:26:23.291: AAA/AUTHOR/IPCP As4: Processing AV protocol=ip *Mar 1
01:26:23.291: AAA/AUTHOR/IPCP As4: Processing AV addr*172.16.25.60 *Mar 1 01:26:23.295:
AAA/AUTHOR/IPCP As4: Authorization succeeded *Mar 1 01:26:23.295: AAA/AUTHOR/IPCP 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)
```

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*Mar 1 01:26:23.303: As4 IPCP: Address 172.16.25.60 (0x0306AC10193C) *Mar 1 01:26:23.307: As4
IPCP: State is Open *Mar 1 01:26:23.323: As4 IPCP: Install route to 172.16.25.60    %LINEPROTO-
5-UPDOWN: Line protocol on Interface Async4, changed state to up
   !--- Client is connected.
```

관련 정보

- 비동기 콜백 구성
- ISDN을 통한 PPP 콜백
- DDR에 대한 PPP 콜백 구성
- TACACS+로 PPP 콜백 구성
- RADIUS를 사용하여 PPP 콜백 구성
- 제품 지원 페이지 액세스
- 다이얼 기술 지원 페이지
- Technical Support - Cisco Systems