MS-callback configureren tussen een router en een Windows-pc

Inhoud

Inleiding

De Microsoft implementatie van callback is niet compatibel met RFC 1570 . Vanwege het grote marktaandeel van de Microsoft inbelnetwerkclient heeft Cisco echter het Microsoft Callback (MSCB) Control Protocol in Cisco IOS® Software release 11.3(2)T en hoger geïmplementeerd.

Voorwaarden

Vereisten

Zorg er voordat u deze configuratie probeert voor dat u aan deze vereisten voldoet:

- Configureer de netwerktoegangsserver (NAS) met het oog op aanvaarding van analoge oproepen van de client. Terugbellen is een extra functie voor inbellen via de modem. Controleer daarom of dit aspect correct functioneert. Dit kan u helpen bij het oplossen van problemen.
- Het T1/E1-circuit moet in staat zijn om uit te schakelen. Neem contact op met uw telefoonbedrijf (Telco) om dit te controleren.

Gebruikte componenten

De informatie in dit document is gebaseerd op Cisco IOS-softwarerelease 11.3(2)T en latere versies.

Dit scenario werd getest op een PC met het netwerk van de wijzerplaat van Windows.

De informatie in dit document is gebaseerd op apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als u in een levend netwerk werkt, zorg er dan voor dat u de potentiële impact van om het even welke opdracht begrijpt alvorens het te gebruiken.

Conventies

Zie de Cisco Technical Tips Convention voor meer informatie over documentconventies.

Achtergrondinformatie

Terugbellen voert in deze volgorde uit:

1. Een PC-gebruiker (client) sluit aan op de Cisco-toegangsserver.
2. Callback-proces wordt besproken in de LCP-fase (Point-to-Point Protocol) van de Link Control Protocol (LCP).
3. PPP authenticatie wordt uitgevoerd.
4. De Cisco IOS software bevestigt callback regels voor deze gebruiker of lijn en sluit de aanroep voor callback af.
5. De Cisco toegangsserver voert de client aan.

Er zijn vier soorten MSCB:

1. Geen terugbellen.
2. Door de gebruiker ingesteld callback nummer.
3. Door server opgegeven (vooraf ingesteld) callback number.
4. Lijst van vooraf ingesteld callback nummer.

De standaardconfiguratie is geen callback (optie 1). Opties 2 of 3 kunnen worden ingesteld:

- Lokaal (indien geen AAA-server gebruikt wordt).
- In het TACACS+ of RADIUS-gebruikersprofiel (als AAA wordt gebruikt).

Als optie 2 is ingesteld, wordt de gebruiker gevraagd zijn callback-nummer in te voeren. Als optie 3 is ingesteld, biedt de melding slechts één keuze, namelijk het door de beheerder bepaalde nummer.

Cisco implementeert alleen de callback serverfunctionaliteit van MSCB en niet de callback client functionaliteit. Dit betekent dat een Cisco-router alleen als MSCB-server en niet als MSCB-client kan worden gebruikt. Daarnaast vereist de Cisco-implementatie van MSCB dat de verificatie op de client wordt uitgevoerd.

Configureren

Deze sectie bevat informatie over het configureren van de functies die in dit document worden

beschreven.

Configuratieoverzicht

Om MSCB in te schakelen moet u de **terugbellen** van **ppp toestaan** opdracht onder de ontvangende interface (bijvoorbeeld, groep-async). Bovendien, omdat verificatie vereist is, moet u Wachtwoord Verificatie Protocol (PAP) of Challenge Handshake Authentication Protocol (CHAP) inschakelen:

```
ppp authentication chap pap
```

Twee chatscripts worden automatisch gemaakt. Dit zijn de **openhartige** en **callback** chat-scripts:

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

De chat-scripts worden ook automatisch toegepast op de gebruikte regels:

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

Een gebruiker moet **toestemming** hebben om terug te bellen. U kunt dit lokaal configureren op NAS of op de externe AAA-server (RADIUS of TACACS+), op basis van de locatie waar de gebruikersnaam en de wachtwoordinformatie is opgeslagen.

Dit is een lokale configuratie voor een gebruiker die wordt teruggeroepen op 5551212:

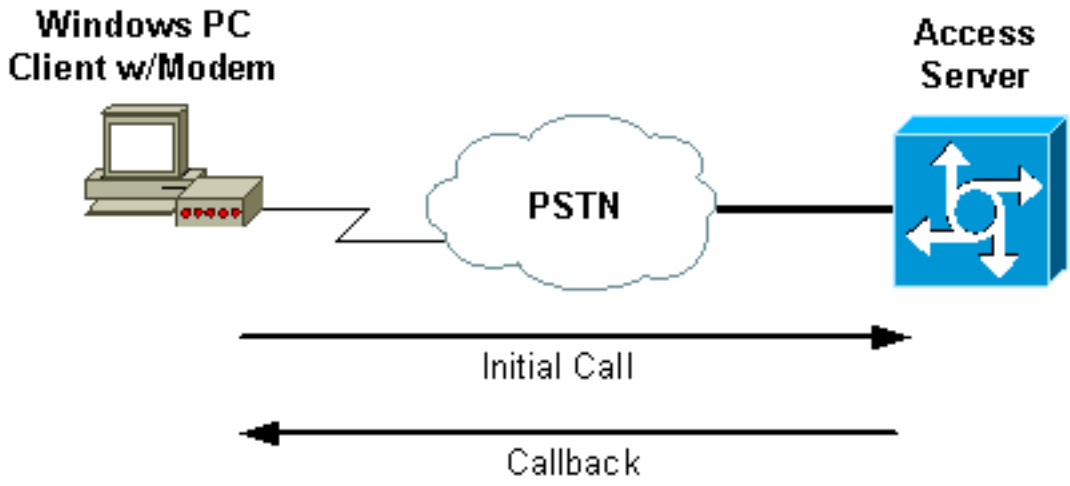
```
username callmeback callback-dialstring 5551212 password cisco
```

Deze lokale configuratie is van toepassing op gebruikers die hun eigen callback-nummer mogen instellen:

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

Netwerkdiagram

Het netwerk in dit document is als volgt opgebouwd:



Configuraties

Dit document gebruikt deze configuratie:

- ISDN2-2 (AS5200 router)

ISDN2-2 (AS5200 router)

```
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-clientconfiguratie

Configuratie van Windows 95 en 98-client

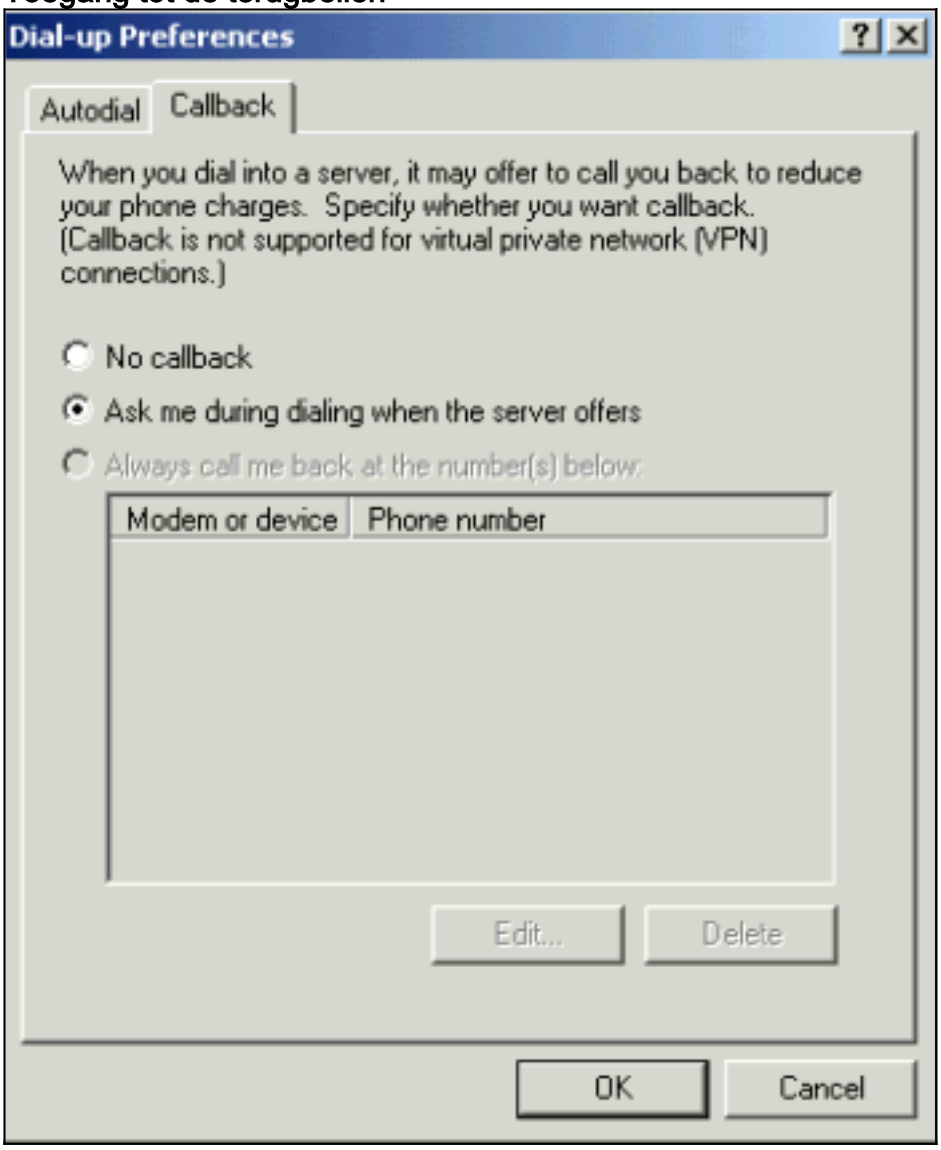
Voor Windows 95 en 98 PC's is er geen speciale client-side configuratie voor callback. De toegangsserver verwerkt de callback eigenschappen van de verbinding. De Windows 95 of 98 PC toont een "wachtend op callback"bericht om aan te geven dat een callback bezig is.

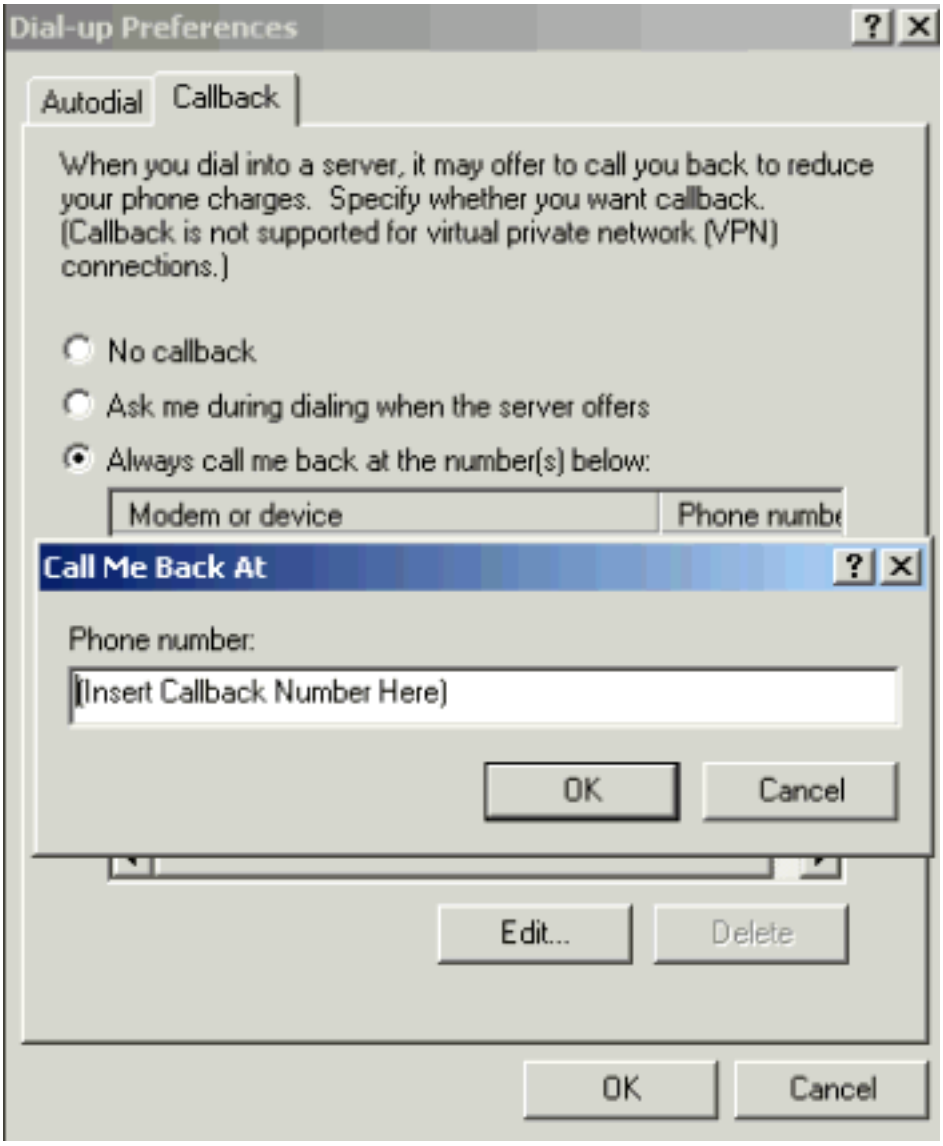
Clientconfiguratie voor Windows NT en 2000

Configureer deze platforms om callback aan te vragen. Volg deze stappen om ze te configureren:

1. Kies **Start > Programma's > Accessoires > Communicatie > Netwerkverbindingen en inbelverbindingen**.
2. Kies **Geavanceerd > Voorkeuren inbelen** in het menu.
3. Klik op het tabblad **Terugbellen** om toegang te krijgen tot het menu met terugbelfuncties zoals in afbeelding 1.
4. Configureer de callback opties zoals nodig:Als u de callback functie niet wilt gebruiken, klikt u op de knop **Geen terugbellen**.Om te worden gevraagd wat te doen wanneer een server terugbellen aanbiedt, klikt u op **Vraag me tijdens het bellen wanneer de** knop **Server aanbiedt**.Om de callback aanbiedingen automatisch te accepteren, klikt u op het **altijd bellen: Terug bij het nummer of de nummers onder** de knop en vervolgens selecteert u het te gebruiken apparaat in de lijst.Als u het telefoonnummer wilt wijzigen, selecteert u het apparaat en klikt u op de knop **Bewerken**. Voer het nummer in het veld **Telefoonnummer** in zoals in afbeelding 1, en klik vervolgens op **OK** in het dialoogvenster Bel me terug.

5. Klik op het veld **Telefoonnummer** en voer het nummer in in het dialoogvenster Bel me terug (weergegeven in afbeelding 1). Klik op **OK** wanneer u klaar bent.
6. Als u klaar bent, klikt u op **OK** in het dialoogvenster Voorkeuren inbelen.**Afbeelding 1 - Toegang tot de terugbellen**





Verifiëren

Deze sectie verschaft informatie die u kunt gebruiken om te bevestigen dat uw configuratie correct werkt.

Bepaalde opdrachten met **show worden ondersteund door de tool** Output Interpreter (alleen voor geregistreerde klanten). Hiermee kunt u een analyse van de output van opdrachten met **show genereren.**

- **toon actief**—geeft informatie weer over huidige inkomende en uitgaande ISDN-oproepen. Gebruik deze opdracht om te controleren of de callback is voltooid. Als callback succesvol is, **toont isdn actief** de vraag als uitgaande op de callback server.
- **toon gebruikers**-toont informatie over de actieve lijnen op de router. U kunt ook de opdracht **Show caller** gebruiken als uw versie van Cisco IOS-software deze ondersteunt.
- **tonen dialer**-toont algemene diagnostische informatie voor interfaces die voor Dial-on-Demand Routing (DDR) zijn geconfigureerd.

Problemen oplossen

Deze sectie bevat informatie waarmee u problemen met de configuratie kunt oplossen.

Opdrachten voor troubleshooting

Opmerking: Voordat u **debug-**opdrachten afgeeft, raadpleegt u Belangrijke informatie over debug-opdrachten.

Voor meer informatie over **het zuiveren** van opdrachten, zie de Referentie van de Opdracht van Cisco IOS release 12.0 debug.

- **debug van verificatie door middel van** detectie - geeft informatie weer over AAA-verificatie.
- **debug a autorisatie**—geeft informatie weer over AAA autorisatie.
- **debug callback** - displays wanneer de router een modem en een chatscript gebruikt om terug te bellen op een eindlijn.
- **debug modem** - stelt u in staat om modemlijnactiviteit op een toegangsserver te observeren.
- **debug ppp [** ***pakje*** **|** ***onderhandelingen*** **|** ***fout*** **|** ***authenticatie***— geeft informatie over verkeer en uitwisselingen weer in een internetwerk dat PPP toepast.*pakket* - toont PPP pakketten die worden verzonden en ontvangen. (Deze opdracht geeft pakjes op een laag niveau weer.)*onderhandeling*-toont PPP pakketten die tijdens PPP opstarten worden verzonden, wanneer PPP opties worden overeengekomen.*fout*-toont protocolfouten en foutstatistieken die bij de PPP-verbindingsonderhandeling en -handeling worden gebruikt.*Verificatie*—**hiermee worden** verificatieprotocol-berichten weergegeven, waaronder CHAP- en PAP-uitwisselingen.
- **debug chat**-toont de handdruk tussen de toegangsserver en de interne modem terwijl de modem is opgedragen om uit te bellen. Een chat-script is een set string paren die de handdruk definiëren tussen data terminal apparatuur (DTE) en data communicatie apparatuur (DCE) apparaten.
- **debug ISDN Q931**: geeft de installatie-en uitsplitsingsberichten en debugs van ISDN Q.931 (D-kanaal) weer. In dit scenario wordt de modemoproep gedragen als een service aan toonder via het openbare telefoonnetwerk (PSTN).
- **debug modem** csm-stelt u in staat om problemen met Call Switching Module (CSM) op routers met interne digitale modems te oplossen. Met deze opdracht, kunt u de volledige reeks van het overschakelen van inkomende en uitgaande oproepen overtrekken.

```
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*

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   *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
   *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
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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)
*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.
```

Gerelateerde informatie

- Asynchrone terugbellen configureren
- PPP-terugbellen via ISDN
- PPP-terugbellen voor DDR configureren
- PPP-terugbellen configureren met TACACS+
- PPP-terugbellen met RADIUS configureren
- Ondersteuning voor toegangsproducten
- Ondersteuning van kiestechnologie
- Technische ondersteuning - Cisco-systemen