# Configurando o retorno de chamada do MS entre um roteador e um PC Windows

## Contents



## Introduction

A implementação do retorno de chamada pela Microsoft não está em conformidade com o RFC 1570 . No entanto, devido à grande participação de mercado do cliente de rede dial-up da Microsoft, a Cisco implementou o Protocolo de Controle de Retorno de Chamada da Microsoft (MSCB - Microsoft Callback Control Protocol) no Cisco IOS® Software Release 11.3(2)T e posterior.

## Prerequisites

### Requirements

Antes de você tentar esta configuração, verifique se estes requisitos são atendidos:

- Configure o Network Access Server (NAS) para aceitar chamadas analógicas do cliente. O retorno de chamada é um recurso adicional de discagem do modem. Portanto, verifique se este aspecto funciona corretamente. Isso pode ajudá-lo a solucionar problemas.
- O circuito T1/E1 deve ser capaz de discagem. Entre em contato com sua empresa telefônica

(Telco) para verificar isso.

## Componentes Utilizados

As informações neste documento são baseadas no Cisco IOS Software Release 11.3(2)T e versões posteriores.

Esse cenário foi testado em um PC com rede dial-up do Windows.

As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. All of the devices used in this document started with a cleared (default) configuration. Se você estiver trabalhando em uma rede ativa, certifique-se de que entende o impacto potencial de qualquer comando antes de utilizá-lo.

## Conventions

Para obter mais informações sobre convenções de documento, consulte as Convenções de dicas técnicas Cisco.

## Material de Suporte

O retorno de chamada é executado nesta ordem:

1. Um usuário de PC (cliente) se conecta ao servidor de acesso Cisco.
2. O processo de retorno de chamada é negociado na fase de protocolo de controle de enlace (LCP - Link Control Protocol) do PPP (Point-to-Point Protocol).
3. A autenticação PPP é executada.
4. O software Cisco IOS valida regras de retorno de chamada para este usuário ou linha e desconecta o chamador para retorno de chamada.
5. O servidor de acesso Cisco disca para o cliente.

Há quatro tipos de MSCB:

1. Sem retorno de chamada.
2. Número de retorno de chamada especificado pelo usuário.
3. Número de chamada de retorno especificado pelo servidor (pré-configurado).
4. Lista de números de retorno de chamada pré-configurados.

A configuração padrão é no callback (opção 1). As opções 2 ou 3 podem ser configuradas:

- Localmente (se nenhum servidor AAA for usado).
- No perfil de usuário TACACS+ ou RADIUS (se AAA for usado).

Se a opção 2 estiver configurada, o usuário será solicitado a digitar seu número de chamada de retorno. Se a opção 3 estiver configurada, o prompt oferecerá apenas uma opção, que é o número definido pelo administrador.

A Cisco implementa somente a funcionalidade do servidor de chamada de retorno do MSCB e não a funcionalidade do cliente de chamada de retorno. Isso significa que um roteador Cisco pode ser usado apenas como um servidor MSCB e não como um cliente MSCB. Além disso, a implementação do MSCB pela Cisco exige que a autenticação seja executada no cliente.

# Configurar

Nesta seção, você encontrará informações para configurar os recursos descritos neste documento.

## Resumo da configuração

Para habilitar o MSCB, você deve habilitar o comando **ppp callback accept** na interface de recebimento (por exemplo, group-async). Além disso, como a autenticação é necessária, você deve habilitar a autenticação PAP (Password Authentication Protocol Protocolo de Autenticação de Senha) ou CHAP (Challenge Handshake Authentication Protocol Protocolo de Autenticação de Handshake de Desafio):

```
ppp authentication chap pap
```

Dois scripts de bate-papo são criados automaticamente. Estes são os scripts de bate-papo **fora do gancho** e **de retorno de chamada**:

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

Os scripts de bate-papo também são aplicados automaticamente às linhas em uso:

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

Um usuário deve ser **autorizado** a ser chamado de volta. Você pode configurar isso localmente no NAS ou no servidor AAA externo (RADIUS ou TACACS+), com base no local onde as informações de nome de usuário e senha são armazenadas.

Esta é uma configuração local para um usuário que é chamado novamente em 5551212:

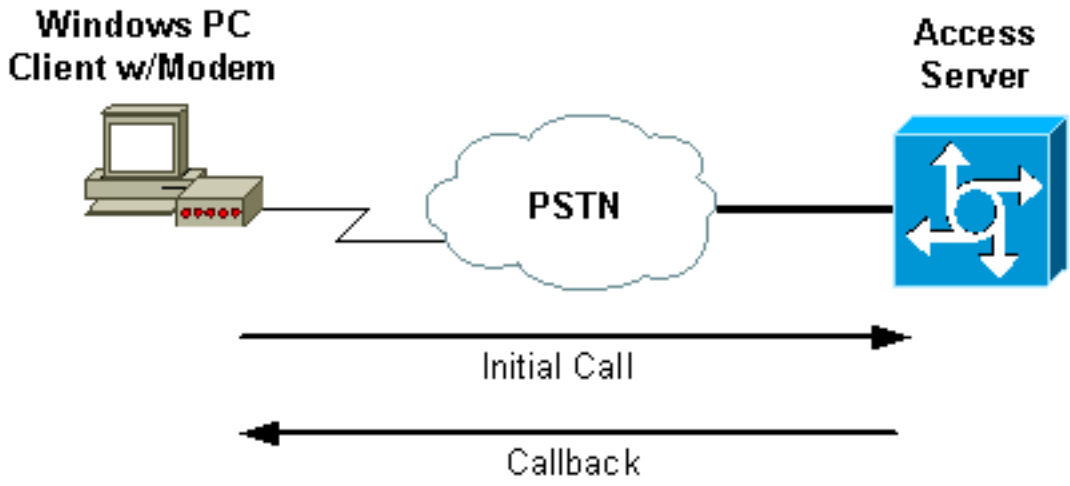
```
username callmeback callback-dialstring 5551212 password cisco
```

Esta configuração local é aplicável aos usuários que têm permissão para especificar seu próprio número de chamada de retorno:

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

## Diagrama de Rede

Este documento utiliza a seguinte configuração de rede:




## Configurações

Este documento utiliza esta configuração:

- isdn2-2 (Roteador AS5200)

**isdn2-2 (Roteador AS5200)**

```
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
```

# Configuração do Window Client

## Configuração do cliente Windows 95 e 98

Para os PCs Windows 95 e 98, não há nenhuma configuração especial no lado do cliente para retorno de chamada. O servidor de acesso lida com os recursos de retorno de chamada da conexão. O PC do Windows 95 ou 98 exibe uma mensagem de "espera por retorno de chamada" para indicar que um retorno de chamada está em andamento.

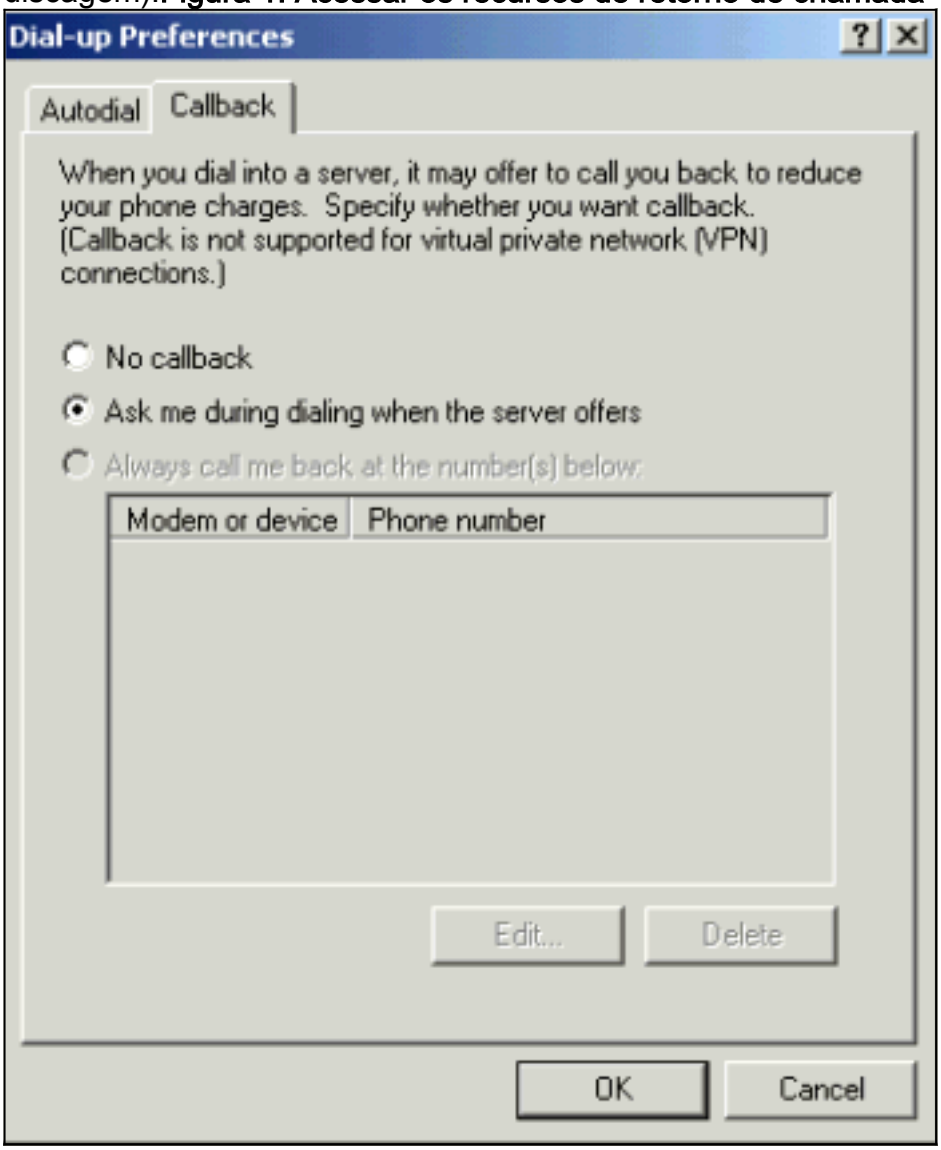
## Configuração de cliente Windows NT e 2000

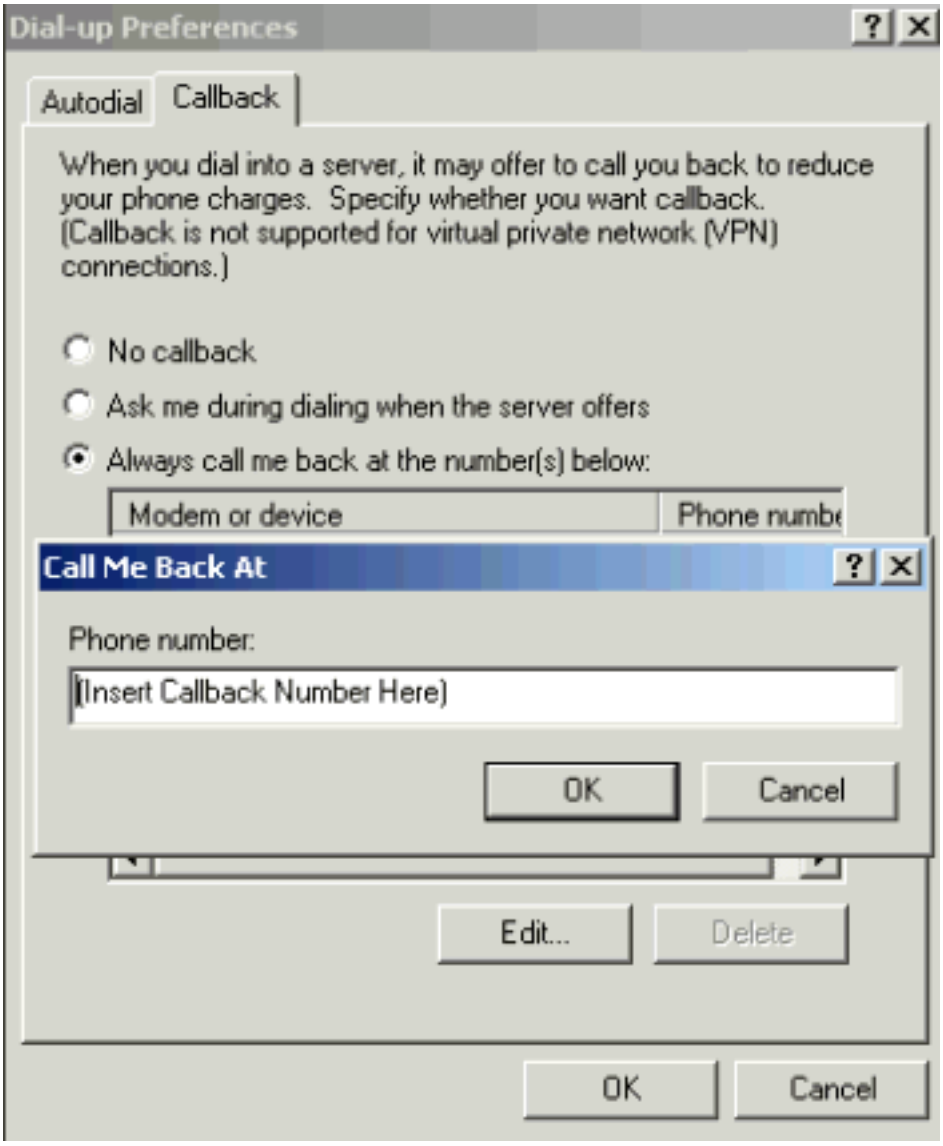
Configure essas plataformas para solicitar retorno de chamada. Conclua estes passos para configurá-los:

1. Escolha **Iniciar > Programas > Acessórios > Comunicações > Rede e conexões dial-up**.
2. Escolha **Avançado > Preferências de discagem** no menu.
3. Clique na guia **Retorno de chamada** para acessar o menu de recursos de retorno de chamada, como mostrado na figura 1.
4. Configure suas opções de retorno de chamada conforme necessário:A fim de não usar a função de rechamada, clique no botão No Callback (Sem Rechamada).Para ser informado sobre o que fazer quando um servidor oferece o retorno de chamada, clique no botão Ask Me During Dialing When The Server Offers.Para aceitar automaticamente as ofertas de retorno de chamada, clique no botão **Sempre ligar novamente nos números abaixo** e selecione o dispositivo a ser usado na lista.Para alterar o número do telefone de retorno de chamada, selecione o dispositivo e clique no botão **Editar**. Digite o número no campo

**Número de telefone** conforme mostrado na Figura 1 e clique em **OK** na caixa de diálogo Call Me Back At (Retornar à chamada).

5. Clique no campo **Número de telefone** e digite o número na caixa de diálogo Chamada de volta em (mostrada na figura 1). Clique em **OK** quando terminar.
6. Quando terminar, clique em **OK** na caixa de diálogo Dial-up Preferences (Preferências de discagem).**Figura 1: Acessar os recursos de retorno de chamada**






## Verificar

Esta seção fornece informações que você pode usar para confirmar se sua configuração está funcionando adequadamente.

A Output Interpreter Tool (somente clientes registrados) oferece suporte a determinados comandos show, o que permite exibir uma análise da saída do comando show.

- **show isdn ative** — exibe informações sobre as chamadas ISDN de entrada e saída atuais. Use este comando para verificar se o retorno de chamada foi concluído com êxito. Se o retorno de chamada for bem-sucedido, **show isdn ative** mostra a chamada como saída no servidor de retorno de chamada.
- **show users** — exibe informações sobre as linhas ativas no roteador. Você também pode usar o comando **show caller** se a sua versão do Cisco IOS Software o suportar.
- **show dialer** —mostra informações gerais de diagnóstico para interfaces configuradas para Dial-on-Demand Routing (DDR).

## Troubleshoot

Esta seção fornece informações que podem ser usadas para o troubleshooting da sua

configuração.

## Comandos para Troubleshooting

**Observação:** antes de emitir comandos **debug**, consulte Informações importantes sobre comandos debug.

Para obter mais informações sobre os comandos **debug**, consulte a Referência de Comandos de Depuração do Cisco IOS versão 12.0.

- **debug aaa authentication** — exibe informações sobre autenticação AAA.
- **debug aaa authorization** — exibe informações sobre a autorização AAA.
- **debug callback** —exibe eventos de retorno de chamada quando o roteador usa um modem e um script de bate-papo para retornar a chamada em uma linha de terminal.
- **debug modem**—permite observar a atividade da linha do modem em um servidor de acesso.
- **debug ppp [** ***packet*** **|** ***negociação*** **|** ***erro*** **|** ***authentication*** **]**— exibe informações sobre tráfego e trocas em uma internetwork que implementa PPP.*pacote* —exibe os pacotes PPP sendo enviados e recebidos. (Este comando mostra cópias parciais da memória de pacote de nível baixo.)*negociação* —exibe os pacotes PPP transmitidos durante a inicialização do PPP, quando as opções do PPP são negociadas.*erro* —exibe erros de protocolo e estatísticas de erro associadas à negociação e operação da conexão PPP.*autenticação* —exibe mensagens do protocolo de autenticação, que incluem trocas CHAP e PAP.
- **debug chat** —mostra o handshake que ocorre entre o servidor de acesso e seu modem interno enquanto o modem é instruído a discar. Um script de bate-papo é um conjunto de pares de cadeia de caracteres de envio esperado que definem o handshake entre os dispositivos do equipamento terminal de dados (DTE) e do equipamento de comunicação de dados (DCE).
- **debug isdn q931**—exibe as mensagens e depurações de configuração de chamada Q.931 (canal D) ISDN. Neste cenário, a chamada do modem é transportada como um serviço de portador de voz pela Rede de Telefonia Comutada Pública (PSTN - Public Switched Telephone Network).
- **debug modem csm**—permite que você solucione problemas do módulo de switching de chamadas (CSM) em roteadores com modems digitais internos. Com este comando, você pode rastrear a seqüência completa de chamadas recebidas e enviadas por switching.

```
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

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   *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"
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*Mar 1 01:26:22.895: AAA/AUTHEN: create_user (0x8F1DAC) user='callmeback'
ruser='' port='Async4' rem_addr='async/5279651' authen_type=CHAP
service=PPP priv=1
*Mar 1 01:26:22.899: AAA/AUTHEN/START (2174906802): port='Async4' list=''
action=LOGIN service=PPP
*Mar 1 01:26:22.899: AAA/AUTHEN/START (2174906802): using "default"    list
*Mar 1 01:26:22.903: AAA/AUTHEN/START (2174906802): Method=LOCAL
*Mar 1 01:26:22.903: AAA/AUTHEN (2174906802): status = PASS
*Mar 1 01:26:22.907: AAA/AUTHOR/LCP As4: Authorize LCP
*Mar 1 01:26:22.911: AAA/AUTHOR/LCP: Async4: (3262137315): user='callmeback'
*Mar 1 01:26:22.911: AAA/AUTHOR/LCP: Async4: (3262137315): send AV service=ppp
*Mar 1 01:26:22.915: AAA/AUTHOR/LCP: Async4: (3262137315): send AV
protocol=lcp
*Mar 1 01:26:22.915: AAA/AUTHOR/LCP: Async4 (3262137315): Method=LOCAL
*Mar 1 01:26:22.923: AAA/AUTHOR (3262137315):
 Post authorization status =PASS_ADD
*Mar 1 01:26:22.927: AAA/AUTHOR/LCP As4: Processing AV service=ppp
*Mar 1 01:26:22.927: AAA/AUTHOR/LCP As4: Processing AV protocol=lcp
*Mar 1 01:26:22.931: AAA/AUTHOR/LCP As4: Processing AV service=ppp
*Mar 1 01:26:22.931: AAA/AUTHOR/LCP As4: Processing AV protocol=lcp
*Mar 1 01:26:22.931: AAA/AUTHOR/LCP As4: Processing AV callback-dialstring=
*Mar 1 01:26:22.939: As4 CHAP: O SUCCESS id 6 len 4
*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:
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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)
*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.
```

# Informações Relacionadas

- Configurando o retorno de chamada assíncrono
- Chamada de retorno PPP sobre ISDN
- Configurando a rechamada de PPP para DDR
- Configurando o retorno de chamada PPP com TACACS+
- Configurando a rechamada de PPP com RADIUS
- Páginas de Suporte de Produtos de Acesso
- Página de suporte da tecnologia de discagem
- Suporte Técnico - Cisco Systems