modem dialout controller 명령을 사용하여 발신 아날로그 통화에 대해 T1 또는 E1 인터페이스 구성

목차

소개

이 샘플 컨피그레이션에서는 **modem dialout controller** 명령을 사용하여 발신 아날로그 통화에 대해 T1 또는 E1 인터페이스를 구성하는 방법을 설명합니다.

시작하기 전에

표기 규칙

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

사전 요구 사항

이 문서에 대한 특정 요건이 없습니다.

사용되는 구성 요소

이 문서의 정보는 아래 소프트웨어 및 하드웨어 버전을 기반으로 합니다.

- Cisco IOS® 소프트웨어 릴리스 12.1(5)T
- Cisco AS5300 - E1 PRI 2개

참고: modem dialout controller 명령은 Cisco IOS Software Release 12.1(T)에 도입되었습니다. 이 구현에는 Cisco IOS Software 릴리스 12.1(3)T 이상을 권장합니다. modem dialout **controller** 명령은 IOS Software Release 12.1(5)T부터 시작하는 여러 인터페이스를 지원합니다. 예를 들면 다음과 같습니다.

```
AS5300-3(config)#line 1 60
AS5300-3(config-line)#modem dialout controller t1 ?
 <0-7>  List of controllers to dial out

AS5300-3(config-line)#modem dialout controller t1 0,1,3
```

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.

개요

발신 아날로그 통화에서 특정 T1/E1 회선을 사용하려면 **modem dialout controller** 명령을 사용합니다. 이 명령은 라인 컨피그레이션 모드에서 구성되므로 모뎀이 아웃바운드 아날로그 통화에 대해 지정된 T1/E1 인터페이스에 바인딩됩니다. 그런 다음 모뎀에 해당하는 비동기(또는 group-async) 인터페이스에서 필요한 DDR(Dial on Demand Routing) 명령을 구성할 수 있습니다.

이 샘플 컨피그레이션에서는 Cisco AS5300 NAS(Network Access Server)에 각각 다른 DNIS(Dialed Number Identification Service)에 매핑된 두 개의 PRI(Primary Rate Interface)가 있습니다. 클라이언트가 8210에 전화를 걸 경우 텔코는 통화를 E1 0으로 전환하고 8211에 대한 통화가 E1 1로 전환됩니다. 또한 이 구성에서는 통화 설정 중에 텔코 스위치에서 제공한 DNIS(called number) 메시지에 따라 모뎀 풀링을 사용하여 모뎀을 할당합니다. 이렇게 하면 특정 번호에 대한 통화는 특정 모뎀 풀의 멤버인 모뎀에 의해서만 "응답됨"됩니다. 각 T1/E1은 특정 호출된 번호에도 바인딩되기 때문에 수신 전화의 경우 모뎀 집합을 특정 T1/E1에 효과적으로 상호 연관시켰습니다.

클라이언트가 전화 걸기 시나리오를 시연하기 위해 액세스 서버에서 콜백을 요청합니다. 콜백은 액세스 서버에서 로컬로 구성되지만 콜백 특성은 RADIUS/TACACS+ 인증, 권한 부여 및 계정 관리(AAA) 서버에서도 얻을 수 있습니다. 특정 번호로 걸려오는 통화의 경우 해당 통화가 적절한 T1로 전환되고 모뎀 풀 멤버가 응답합니다. 콜백이 협상되면 액세스 서버가 통화의 연결을 끊고 동일한 모뎀에서 콜백이 시작됩니다. 그런 다음 **modem dialout controller** 명령에 지정된 T1 또는 E1 인터페이스를 사용하여 **다이얼아웃이** 수행됩니다. 이 예에서는 다이얼아웃이 수신 통화와 동일한 T1/E1에 있도록 구성됩니다.
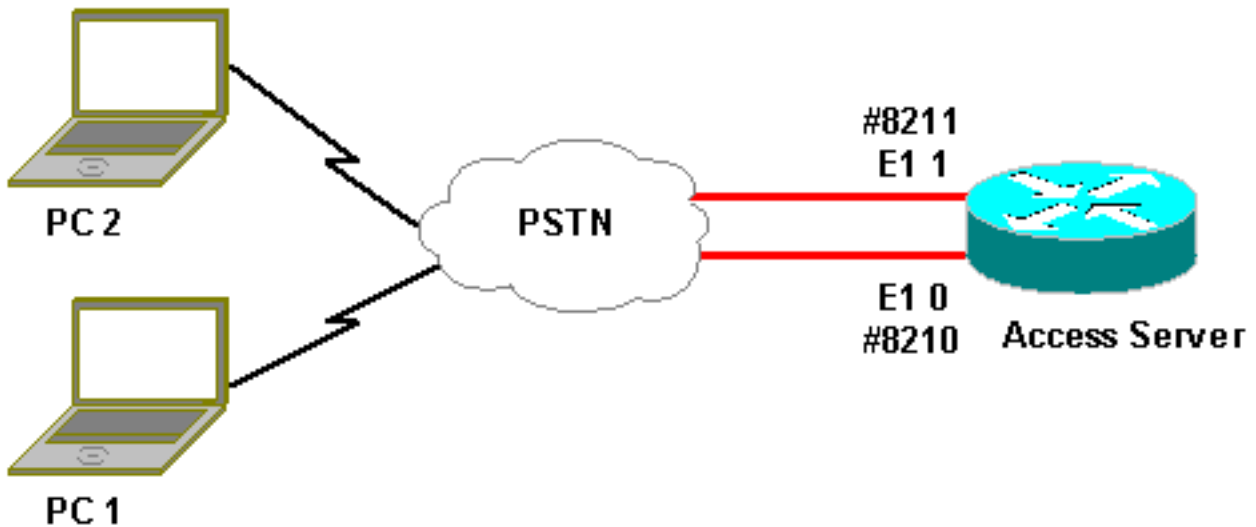
구성

이 섹션에는 이 문서에서 설명하는 기능을 구성하기 위한 정보가 표시됩니다.

참고: 이 문서에 사용된 명령에 대한 추가 정보를 찾으려면 [IOS 명령 조회 도구]([등록된] 고객만 해당)를 사용합니다.

네트워크 다이어그램

이 문서에서는 아래 다이어그램에 표시된 네트워크 설정을 사용합니다.

구성

이 문서에서는 아래 표시된 구성을 사용합니다.

액세스 서버 구성

```
Current configuration:

!
version 12.1
service timestamps debug datetime msec
service timestamps log uptime msec
no service password-encryption
!
hostname lala
!
logging rate-limit console 10 except errors
!
username testuser callback-dialstring 6036 password 0
test
!-- Access server calls back testuser at phone number
6036 !-- The callback parameters can also be configured
on a RADIUS/TACACS+ server. ! spe 1/0 1/9 firmware
location system:/ucode/mica_port_firmware spe 2/0 2/23
firmware location system:/ucode/microcom_firmware !
resource-pool disable ! modem-pool ModemPool8210 !--
Modem pool for calls to a specific phone number pool-
range 1-40 !-- The range of the modems in the pool !--
Modems 1 through 40 are included in this pool called-
number 8210 max-conn 40 !-- Specifies the DNIS to be
used for this modem pool !-- Incoming calls for phone
number 8210 are assigned to this pool ! modem-pool
ModemPool8211 pool-range 41-60,61-84 !-- The range of
the modems in the pool !-- Modems 41 through 84 are
included in this pool called-number 8211 max-conn 44 !--
Incoming calls for phone number 8211 are assigned to
this pool ! ip subnet-zero no ip finger ! isdn switch-
type primary-net5 chat-script mod ABORT ERROR ABORT BUSY
"" "AT" OK "ATDT \T" TIMEOUT 30 CONNECT \c !-- Chat
script for dialout ! controller E1 0 !-- DNIS number for
```

```
this E1 is 8210 clock source line primary pri-group
timeslots 1-31 ! controller E1 1 !-- DNIS number for
this E1 is 8211 clock source line secondary 1 pri-group
timeslots 1-31 ! controller E1 2 ! controller E1 3 ! !
interface Ethernet0 ip address 10.200.20.22
255.255.255.0 ! interface Serial0:15 !-- D-channel for
E1 0 !-- DNIS number for this PRI is 8210 description
PRI 8210 no ip address encapsulation ppp isdn switch-
type primary-net5 isdn incoming-voice modem !-- All
incoming voice calls on this E1 are sent to the modems !
interface Serial1:15 !-- D-channel for E1 1 !-- DNIS
number for this PRI is 8211 description PRI 8211 no ip
address encapsulation ppp isdn switch-type primary-net5
isdn incoming-voice modem !-- All incoming voice calls
on this E1 are sent to the modems ! interface Group-
Async1 ip unnumbered Ethernet0 encapsulation ppp async
mode interactive peer default ip address pool dialup !--
Assign IP address for incoming calls (with DNIS 8210)
from pool dialup ppp callback accept !-- Permit PPP
Callback ppp authentication chap group-range 1 40 !--
Interface includes modems 1 through 40 that are also in
ModemPool8210 ! interface Group-Async2 ip unnumbered
Ethernet0 encapsulation ppp async mode interactive peer
default ip address pool dialup2 !-- Assign IP address
for incoming calls (with DNIS 8211) from pool dialup2
ppp callback accept !-- Here we accept the callback ppp
authentication chap group-range 41 84 !-- Interface
includes modems 41 through 84 that are also in
ModemPool8211 ! ip local pool dialup 192.168.100.1
192.168.100.15 ip local pool dialup2 192.168.200.32
192.168.200.126 !-- Define the IP address ranges for the
2 pools ip classless no ip http server ! line con 0
exec-timeout 0 0 transport input none line 1 40 !-- Line
configuration for modems 1-40 !-- These modems are in
pool ModemPool8210 autoselect during-login autoselect
ppp script callback mod !-- Invoke chat script mod for
the callback login local modem InOut !-- Set the modems
for dialin and dialout modem dialout controller e1 0 !--
Outgoing call on these modems use e1 0 line 41 84 !--
Line configuration for modems 41-84 !-- These modems are
in pool ModemPool8210 autoselect during-login autoselect
ppp script callback mod !-- Invoke chat script mod for
the callback login local modem InOut modem dialout
controller e1 1 !-- Outgoing call on these modems use e1
1 line aux 0 line vty 0 4 ! end
```

다음을 확인합니다.

현재 이 구성에 대해 사용 가능한 확인 절차가 없습니다.

문제 해결

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

문제 해결 명령

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

- **debug isdn q931** - 라우터와 ISDN 스위치 간의 ISDN 네트워크 연결(레이어 3)의 통화 설정 및 해제를 표시합니다.
- **debug ppp negotiation** - LCP(Link Control Protocol), 인증 및 NCP(Network Control Protocol)를 비롯한 PPP 구성 요소를 협상하는 동안 PPP(Point-to-Point Protocol) 트래픽 및 교환에 대한 정보를 표시합니다. 성공적인 PPP 협상이 먼저 LCP 상태를 연 다음 NCP(일반적으로 IP 제어 프로토콜 - IPCP)를 인증하고 마지막으로 협상합니다.
- **debug ppp authentication** - CHAP(Challenge Authentication Protocol) 패킷 교환 및 PAP(Password Authentication Protocol) 교환을 비롯한 PPP 인증 프로토콜 메시지를 표시합니다.
- **디버그 채팅** - 비동기/일반 POTS(이전 전화 서비스) 다이얼링이 시작될 때 채팅 스크립트의 실행을 모니터링합니다. 채팅 스크립트는 DTE(Data Terminal Equipment)와 DCE(Data Communications Equipment) 디바이스 간의 핸드셰이크를 정의하는 예상 전송 문자열 쌍의 집합입니다.
- **디버그 콜백** - 라우터가 모뎀과 채팅 스크립트를 사용하여 터미널 회선에서 다시 전화를 걸 때 콜백 이벤트를 표시합니다.
- **debug dialer** - 다이얼러 인터페이스에서 수신된 패킷에 대한 디버깅 정보를 표시합니다.
- **debug modem csm**(여기에 표시되지 않음) - 모뎀에서 통화를 연결하는 데 사용되는 통화 상태 시스템의 디버그 정보를 표시합니다. 내부 모뎀 관리 프로세스에서 모뎀 통화를 처리하는 방법을 보여 줍니다.

디버그 출력 샘플

아래는 위에 표시된 **debug** 명령을 사용하여 얻은 출력입니다.

출력에는 8210을 호출하는 클라이언트가 표시됩니다. 그런 다음 E1 0으로 전환되고 ModemPool8210 풀의 멤버인 모뎀 14(비동기 14)에서 전화를 받습니다. 통화가 연결되고, PPP(및 콜백)가 협상되고, 클라이언트가 인증되며, AS5300은 콜백을 준비하기 위해 통화를 연결 해제합니다. 그런 다음 라우터는 동일한 모뎀(Async 14)을 사용하여 콜백을 시작합니다. **modem dialout controller** 명령에 따라 통화는 E1 0을 사용하고 다이얼아웃이 수행됩니다.

참고: 더 긴 디버그 줄 중 일부는 인쇄가 편리하도록 래핑되었습니다. 타임스탬프 없이 시작되는 줄은 이전 줄의 끝에서 시작합니다.

```
*Jan  1 05:00:43.018: ISDN Se0:15: RX <-  SETUP pd = 8  callref = 0x266A
!-- Incoming Call on E1 0
*Jan  1 05:00:43.018:         Sending Complete
*Jan  1 05:00:43.018:         Bearer Capability i = 0x9090A3
*Jan  1 05:00:43.018:         Channel ID i = 0xA18398
*Jan  1 05:00:43.022:         Progress Ind i = 0x8183
- Origination address is non-ISDN
*Jan  1 05:00:43.022:         Calling Party Number i = 0xA1, '6036',Plan:ISDN,
Type:National
*Jan  1 05:00:43.022:         Called Party Number i = 0x81, '210', Plan:ISDN,
Type:Unknown
!-- The called number (DNIS) for the incoming call is (8)210 *Jan 1 05:00:43.022: Locking Shift
to Codeset 6 *Jan 1 05:00:43.022: Codeset 6 IE 0x28 i = 'Analog', 0x20, '36' *Jan 1
05:00:43.026: ISDN Se0:15: TX -> CALL_PROC pd = 8 callref =0xA66A *Jan 1 05:00:43.026: Channel
ID i = 0xA98398 *Jan 1 05:00:43.030: ISDN Se0:15: TX -> ALERTING pd = 8 callref = 0xA66A *Jan 1
05:00:43.082: ISDN Se0:15: TX -> CONNECT pd = 8 callref = 0xA66A *Jan 1 05:00:43.146: ISDN
Se0:15: RX <- CONNECT_ACK pd = 8 callref =0x266A *Jan 1 05:00:43.146: ISDN Se0:15:
```

CALL_PROGRESS: CALL_CONNECTED call id0x63, bchan 23, dsl 0 *Jan 1 05:00:45: %ISDN-6-CONNECT: **Interface Serial0:23 is now connected to 6036**
!-- Call is connected *Jan 1 05:01:11.158: As14 LCP: I CONFREQ [Closed] id 1 len 50 *!-- PPP negotiation begins. Note that the call is on !-- Async 14, which is a member of the pool ModemPool8210* *Jan 1 05:01:11.158: As14 LCP: ACCM 0x00000000 (0x020600000000) *Jan 1 05:01:11.158: As14 LCP: MagicNumber 0x75D617D5 (0x050675D617D5) *Jan 1 05:01:11.158: As14 LCP: PFC (0x0702) *Jan 1 05:01:11.158: As14 LCP: ACFC (0x0802) *Jan 1 05:01:11.158: As14 LCP: Callback 6 (0x0D0306) *Jan 1 05:01:11.158: As14 LCP: MRRU 1614 (0x1104064E) *Jan 1 05:01:11.158: As14 LCP: EndpointDisc 1 Local *Jan 1 05:01:11.158: As14 LCP: (0x13170177DE54DA55A24ADD8043063898) *Jan 1 05:01:11.158: As14 LCP: (0x1C049700000000) *Jan 1 05:01:11.158: As14 LCP: Lower layer not up, Fast Starting *Jan 1 05:01:11.158: As14 PPP: Treating connection as a dedicated line *Jan 1 05:01:11.158: As14 PPP: Phase is ESTABLISHING, Active Open [0 sess,1 load] *Jan 1 05:01:11.158: As14 LCP: O CONFREQ [Closed] id 1 len 25 *Jan 1 05:01:11.158: As14 LCP: ACCM 0x000A0000 (0x0206000A0000) *Jan 1 05:01:11.158: As14 LCP: AuthProto CHAP (0x0305C22305) *Jan 1 05:01:11.158: As14 LCP: MagicNumber 0x118F14E6 (0x0506118F14E6) *Jan 1 05:01:11.158: As14 LCP: PFC (0x0702) *Jan 1 05:01:11.158: As14 LCP: ACFC (0x0802) *Jan 1 05:01:11.158: As14 LCP: O CONFREJ [REQsent] id 1 len 31 *Jan 1 05:01:11.158: As14 LCP: MRRU 1614 (0x1104064E) *Jan 1 05:01:11.158: As14 LCP: EndpointDisc 1 Local *Jan 1 05:01:11.158: As14 LCP: (0x13170177DE54DA55A24ADD8043063898) *Jan 1 05:01:11.162: As14 LCP: (0x1C049700000000) *Jan 1 05:01:13: %LINK-3-UPDOWN: **Interface Async14, changed state to up**
!-- Interface Async 14 is up *Jan 1 05:01:11.302: As14 LCP: I CONFACK [REQsent] id 1 len 25 *Jan 1 05:01:11.302: As14 LCP: ACCM 0x000A0000 (0x0206000A0000) *Jan 1 05:01:11.302: As14 LCP: AuthProto CHAP (0x0305C22305) *Jan 1 05:01:11.302: As14 LCP: MagicNumber 0x118F14E6 (0x0506118F14E6) *Jan 1 05:01:11.302: As14 LCP: PFC (0x0702) *Jan 1 05:01:11.302: As14 LCP: ACFC (0x0802) *Jan 1 05:01:11.302: As14 LCP: I CONFREQ [ACKrcvd] id 2 len 23 *Jan 1 05:01:11.302: As14 LCP: ACCM 0x00000000 (0x020600000000) *Jan 1 05:01:11.302: As14 LCP: MagicNumber 0x75D617D5 (0x050675D617D5) *Jan 1 05:01:11.302: As14 LCP: PFC (0x0702) *Jan 1 05:01:11.302: As14 LCP: ACFC (0x0802) *Jan 1 05:01:11.302: **As14 LCP: Callback** 6 (0x0D0306)
*Jan 1 05:01:11.302: As14 LCP: O CONFACK [ACKrcvd] id 2 len 23
*Jan 1 05:01:11.302: As14 LCP: ACCM 0x00000000 (0x020600000000)
*Jan 1 05:01:11.302: As14 LCP: MagicNumber 0x75D617D5 (0x050675D617D5)
*Jan 1 05:01:11.302: As14 LCP: PFC (0x0702)
*Jan 1 05:01:11.302: As14 LCP: ACFC (0x0802)
*Jan 1 05:01:11.302: **As14 LCP: Callback** 6 (0x0D0306)
!-- Callback is negotiated *Jan 1 05:01:11.302: As14 LCP: State is Open *Jan 1 05:01:11.302: As14 PPP: Phase is AUTHENTICATING, by this end [0 sess, 1 load] *Jan 1 05:01:11.302: As14 CHAP: O CHALLENGE id 1 len 25 from "lala" *Jan 1 05:01:11.446: As14 LCP: I IDENTIFY [Open] id 3 len 18 magic 0x75D617D5 MSRASV5.00 *Jan 1 05:01:11.462: As14 LCP: I IDENTIFY [Open] id 4 len 28 magic 0x75D617D5 MSRAS-1-TESTPC-W2K *Jan 1 05:01:11.462: As14 CHAP: I RESPONSE id 1 len 29 from "testuser" *Jan 1 05:01:11.462: As14 **CHAP: O SUCCESS** id 1 len 4
!-- CHAP authentication is successful *Jan 1 05:01:11.462: As14 MCB: **User testuser Callback Number - Server 6036**
!-- Number to be used for callback, configured locally in the username !-- command. The callback information can be off loaded to an AAA server. *Jan 1 05:01:11.462: Async14 PPP: O MCB Request(1) id 1 len 7 *Jan 1 05:01:11.462: Async14 MCB: O 1 1 0 7 3 3 0 *Jan 1 05:01:11.462: As14 MCB: O Request Id 1 Callback Type Server-Num delay 0 *Jan 1 05:01:11.462: As14 PPP: Phase is CBCP [0 sess, 1 load] *Jan 1 05:01:11.606: Async14 PPP: I MCB Response(2) id 1 len 7 *Jan 1 05:01:11.606: Async14 MCB: I 2 1 0 7 3 3 C *Jan 1 05:01:11.606: As14 MCB: Received response *Jan 1 05:01:11.606: As14 MCB: Response CBK-Server-Num 3 3 12 *Jan 1 05:01:11.606: Async14 PPP: O MCB Ack(3) id 2 len 7 *Jan 1 05:01:11.606: Async14 MCB: O 3 2 0 7 3 3 C *Jan 1 05:01:11.606: As14 MCB: O Ack Id 2 Callback Type Server-Num delay 12 *Jan 1 05:01:11.606: As14 MCB: Negotiated MCB with peer *Jan 1 05:01:11.734: As14 LCP: I TERMREQ [Open] id 5 len 16 (0x75D617D5003CCD7400000000) *Jan 1 05:01:11.734: As14 LCP: O TERMACK [Open] id 5 len 4 *Jan 1 05:01:11.734: As14 MCB: Peer terminating the link *Jan 1 05:01:11.734: As14 MCB: Link terminated by peer, Callback Needed *Jan 1 05:01:11.734: As14 MCB: Initiate Callback for testuser at 6036 using Async *Jan 1 05:01:11.734: As14 MCB: Async-callback in progress *Jan 1 05:01:11.734: As14 PPP: Phase is TERMINATING [0 sess, 1 load] *Jan 1 05:01:11.734: TTY14 Callback PPP process creation *Jan 1 05:01:11.734: TTY14: Callback script exists - no script creation necessary *Jan 1 05:01:11.734: TTY14 Callback process initiated, user: testuser dialstring 6036 *Jan 1 05:01:14: %ISDN-6-DISCONNECT: Interface Serial0:23 **disconnected** from 6036, call lasted 29 seconds
!-- Call is disconnected *Jan 1 05:01:12.386: ISDN Se0:15: TX -> DISCONNECT pd = 8 callref = 0xA66A *Jan 1 05:01:12.386: Cause i = 0x809F - Normal, unspecified *Jan 1 05:01:12.450: ISDN

Se0:15: RX <- RELEASE pd = 8 callref = 0x266A *Jan 1 05:01:12.450: ISDN Se0:15: TX ->
RELEASE_COMP pd = 8 callref = 0xA66A *Jan 1 05:01:13.734: As14 LCP: TIMEout: State TERMsent *Jan
1 05:01:13.734: As14 LCP: State is Closed *Jan 1 05:01:13.734: As14 PPP: Phase is DOWN [0 sess,
1 load] *Jan 1 05:01:13.734: As14 PPP: Phase is ESTABLISHING, Passive Open [0 sess, 1 load] *Jan
1 05:01:13.734: As14 LCP: State is Listen *Jan 1 05:01:16: %LINK-5-CHANGED: Interface Async14,
changed state to reset *Jan 1 05:01:14.734: As14 LCP: State is Closed *Jan 1 05:01:14.734: As14
PPP: Phase is DOWN [0 sess, 1 load] *Jan 1 05:01:17.734: As14 IPCP: Remove route to
192.168.100.13 *Jan 1 05:01:17.734: TTY14 Callback forced wait = 4 seconds *Jan 1 05:01:21:
%LINK-3-UPDOWN: Interface Async14, changed state to down *Jan 1 05:01:19.734: As14 LCP: State is
Closed *Jan 1 05:01:21.766: CHAT14: Matched chat script mod to string mod *Jan 1 05:01:21.766:
CHAT14: Asserting DTR *Jan 1 05:01:21.766: CHAT14: **Chat script mod started**
!-- Callback chatscript mod is started *Jan 1 05:01:21.766: CHAT14: Sending string: ATZ *Jan 1
05:01:21.766: CHAT14: Expecting string: OK *Jan 1 05:01:21.814: CHAT14: Completed match for
expect: OK *Jan 1 05:01:21.814: CHAT14: Sending string: ATDT \T<6036> *!-- Dial 6036 per the
callback configuration* *Jan 1 05:01:21.814: CHAT14: Expecting string: CONNECT *Jan 1
05:01:21.902: ISDN **Se0:15: TX -> SETUP** pd = 8 callref = 0x0008
!-- The outgoing call uses E1 0 as per the modem dialout controller !-- command for modem 14.
*Jan 1 05:01:21.902: Bearer Capability i = 0x8090A3 *Jan 1 05:01:21.902: Channel ID i = 0xA9839F
*Jan 1 05:01:21.902: Progress Ind i = 0x8183 - Origination address is non-ISDN *Jan 1
05:01:21.902: Calling Party Number i = 0x80, '6036', Plan:Unknown, Type:Unknown *Jan 1
05:01:21.902: Called Party Number i = 0x80, '6036', Plan:Unknown, Type:Unknown *Jan 1
05:01:21.946: ISDN Se0:15: RX <- CALL_PROC pd = 8 callref = 0x8008 *Jan 1 05:01:21.946: Channel
ID i = 0xA9839F *Jan 1 05:01:21.974: ISDN Se0:15: RX <- ALERTING pd = 8 callref = 0x8008 *Jan 1
05:01:28.958: ISDN Se0:15: RX <- CONNECT pd = 8 callref = 0x8008 *Jan 1 05:01:28.962: Progress
Ind i = 0x8182 - Destination address is non-ISDN *Jan 1 05:01:28.962: Connected Number i =
0xA136303336 *Jan 1 05:01:28.962: Locking Shift to Codeset 6 *Jan 1 05:01:28.962: Codeset 6 IE
0x28 i = 'Analog', 0x20, '36' *Jan 1 05:01:31: %ISDN-6-CONNECT: Interface Serial0:30 is now
connected to 6036 *Jan 1 05:01:28.966: ISDN Se0:15: TX -> CONNECT_ACK pd = 8 callref =0x0008
*Jan 1 05:01:41.562: CHAT14: Completed match for expect: CONNECT *Jan 1 05:01:41.566: CHAT14:
Sending string: \c *Jan 1 05:01:41.566: CHAT14: Chat script mod finished, status = Success *Jan
1 05:01:41.598: TTY14: Callback starting PPP directly with Invalid auth info *Jan 1
05:01:41.642: As14 **LCP: I CONFREQ** [Closed] id 0 len 47
!-- PPP negotiation begins *Jan 1 05:01:41.646: As14 LCP: ACCM 0x00000000 (0x020600000000) *Jan
1 05:01:41.646: As14 LCP: MagicNumber 0x143F35CB (0x0506143F35CB) *Jan 1 05:01:41.646: As14 LCP:
PFC (0x0702) *Jan 1 05:01:41.646: As14 LCP: ACFC (0x0802) *Jan 1 05:01:41.646: As14 LCP: MRRU
1614 (0x1104064E) *Jan 1 05:01:41.646: As14 LCP: EndpointDisc 1 Local *Jan 1 05:01:41.646: As14
LCP: (0x13170177DE54DA55A24ADD8043063898) *Jan 1 05:01:41.646: As14 LCP: (0x1C049700000000) *Jan
1 05:01:41.646: As14 LCP: Lower layer not up, Fast Starting *Jan 1 05:01:41.646: As14 PPP:
Treating connection as a callout *Jan 1 05:01:41.646: As14 PPP: Phase is ESTABLISHING, Active
Open [0 sess,1 load] *Jan 1 05:01:41.646: As14 LCP: O CONFREQ [Closed] id 2 len 25 *Jan 1
05:01:41.646: As14 LCP: ACCM 0x000A0000 (0x0206000A0000) *Jan 1 05:01:41.646: As14 LCP:
AuthProto CHAP (0x0305C22305) *Jan 1 05:01:41.646: As14 LCP: MagicNumber 0x118F8C01
(0x0506118F8C01) *Jan 1 05:01:41.646: As14 LCP: PFC (0x0702) *Jan 1 05:01:41.646: As14 LCP: ACFC
(0x0802) *Jan 1 05:01:41.646: As14 LCP: O CONFREJ [REQsent] id 0 len 31 *Jan 1 05:01:41.646:
As14 LCP: MRRU 1614 (0x1104064E) *Jan 1 05:01:41.646: As14 LCP: EndpointDisc 1 Local *Jan 1
05:01:41.646: As14 LCP: (0x13170177DE54DA55A24ADD8043063898) *Jan 1 05:01:41.646: As14 LCP:
(0x1C049700000000) *Jan 1 05:01:43: %LINK-3-UPDOWN: Interface Async14, changed state to up *Jan
1 05:01:41.810: As14 LCP: I CONFACK [REQsent] id 2 len 25 *Jan 1 05:01:41.810: As14 LCP: ACCM
0x000A0000 (0x0206000A0000) *Jan 1 05:01:41.810: As14 LCP: AuthProto CHAP (0x0305C22305) *Jan 1
05:01:41.810: As14 LCP: MagicNumber 0x118F8C01 (0x0506118F8C01) *Jan 1 05:01:41.810: As14 LCP:
PFC (0x0702) *Jan 1 05:01:41.810: As14 LCP: ACFC (0x0802) *Jan 1 05:01:41.842: As14 LCP: I
CONFREQ [ACKrcvd] id 1 len 20 *Jan 1 05:01:41.842: As14 LCP: ACCM 0x00000000 (0x020600000000)
*Jan 1 05:01:41.842: As14 LCP: MagicNumber 0x143F35CB (0x0506143F35CB) *Jan 1 05:01:41.842: As14
LCP: PFC (0x0702) *Jan 1 05:01:41.842: As14 LCP: ACFC (0x0802) *Jan 1 05:01:41.842: As14 LCP: O
CONFACK [ACKrcvd] id 1 len 20 *Jan 1 05:01:41.842: As14 LCP: ACCM 0x00000000 (0x020600000000)
*Jan 1 05:01:41.842: As14 LCP: MagicNumber 0x143F35CB (0x0506143F35CB) *Jan 1 05:01:41.842: As14
LCP: PFC (0x0702) *Jan 1 05:01:41.842: As14 LCP: ACFC (0x0802) *Jan 1 05:01:41.842: As14 LCP:
State is Open *Jan 1 05:01:41.842: As14 PPP: Phase is AUTHENTICATING, by this end [0 sess, 1
load] *Jan 1 05:01:41.842: As14 CHAP: O CHALLENGE id 2 len 25 from "lala" *Jan 1 05:01:42.002:
As14 LCP: I IDENTIFY [Open] id 2 len 18 magic 0x143F35CB MSRASV5.00 *Jan 1 05:01:42.018: As14
LCP: I IDENTIFY [Open] id 3 len 28 magic 0x143F35CB MSRAS-1-TESTPC-W2K *Jan 1 05:01:42.034: As14
CHAP: I RESPONSE id 2 len 29 from "testuser" *Jan 1 05:01:42.034: As14 **CHAP: O SUCCESS** id 2 len
4
!-- PPP negotiation is successful *Jan 1 05:01:42.034: As14 PPP: Phase is UP [0 sess, 1 load]

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*Jan 1 05:01:42.034: As14 IPCP: O CONFREQ [Closed] id 1 len 10
```
!-- IPCP parameters are now negotiated `*Jan 1 05:01:42.034: As14 IPCP: Address 10.200.20.22`
`(0x03060AC81416) *Jan 1 05:01:42.194: As14 CCP: I CONFREQ [Not negotiated] id 4 len 10 *Jan 1`
`05:01:42.194: As14 CCP: MS-PPC supported bits 0x00000001 (0x120600000001) *Jan 1 05:01:42.194:`
`As14 LCP: O PROTREJ [Open] id 3 len 16 protocol CCP (0x80FD0104000A120600000001) *Jan 1`
`05:01:42.210: As14 IPCP: I CONFREQ [REQsent] id 5 len 40 *Jan 1 05:01:42.210: As14 IPCP:`
`CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) *Jan 1 05:01:42.210: As14 IPCP: Address`
`0.0.0.0 (0x030600000000) *Jan 1 05:01:42.210: As14 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)`
`*Jan 1 05:01:42.210: As14 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) *Jan 1 05:01:42.210: As14`
`IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) *Jan 1 05:01:42.210: As14 IPCP: SecondaryWINS`
`0.0.0.0 (0x840600000000) *Jan 1 05:01:42.210: As14 IPCP: O CONFREJ [REQsent] id 5 len 34 *Jan 1`
`05:01:42.210: As14 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) *Jan 1`
`05:01:42.210: As14 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) *Jan 1 05:01:42.210: As14 IPCP:`
`PrimaryWINS 0.0.0.0 (0x820600000000) *Jan 1 05:01:42.210: As14 IPCP: SecondaryDNS 0.0.0.0`
`(0x830600000000) *Jan 1 05:01:42.210: As14 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) *Jan 1`
`05:01:42.214: As14 IPCP: I CONFACK [REQsent] id 1 len 10 *Jan 1 05:01:42.214: As14 IPCP: Address`
`10.200.20.22 (0x03060AC81416) *Jan 1 05:01:42.386: As14 IPCP: I CONFREQ [ACKrcvd] id 6 len 10`
`*Jan 1 05:01:42.386: As14 IPCP: Address 0.0.0.0 (0x030600000000) *Jan 1 05:01:42.386: As14 IPCP:`
`O CONFNAK [ACKrcvd] id 6 len 10 *Jan 1 05:01:42.386: As14 IPCP: Address 192.168.100.13`
`(0x0306C0A8640D) *Jan 1 05:01:42.546: As14 IPCP: I CONFREQ [ACKrcvd] id 7 len 10 *Jan 1`
`05:01:42.546: As14 IPCP: Address 192.168.100.13 (0x0306C0A8640D) *Jan 1 05:01:42.546: As14 IPCP:`
`O CONFACK [ACKrcvd] id 7 len 10 *Jan 1 05:01:42.546: As14 IPCP: Address 192.168.100.13`
`(0x0306C0A8640D) *Jan 1 05:01:42.546: As14 IPCP: State is Open *Jan 1 05:01:42.550: As14 IPCP:`
`Install route to 192.168.100.13 *Jan 1 05:01:45: %LINEPROTO-5-UPDOWN: Line protocol on Interface`
`Async14, changed state to up` *!-- Callback connection is up, PPP negotiation is complete !-- and*
a route is installed.

관련 정보

- [액세스 서버와 PC 간의 비동기-PPP 콜백](#)
- [ISDN을 통한 PPP 콜백](#)
- [DNIS를 사용한 모뎀 풀링](#)
- [PRI 회선을 사용한 DNIS 및 모뎀 풀링](#)
- [Technical Support - Cisco Systems](#)