

使用AAA提供的回撥字串配置ISDN上的PPP回撥

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簡介

本文檔提供兩台思科路由器之間的PPP回撥配置示例。

必要條件

需求

本文件沒有特定需求。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- Cisco IOS®軟體版本12.0(3)T或更高版本。

注意：要藉助分配了回撥字串的AAA伺服器配置PPP回撥，您需要使用**dialer aaa**命令，該命令在Cisco IOS軟體版本12.0(3)T或更高版本中可用。但是在Cisco IOS版本12.1(4)T、12.2(1)T和更新版本中，使用分配了回撥字串的AAA伺服器的PPP回撥不需要此命令。

註：只有傳統DDR支援**dialer aaa**命令(如[圖1所示](#))。

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除 (預設) 的組態來啟動。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

慣例

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

背景資訊

TACACS+ (AAA伺服器) 用於向回撥伺服器提供回撥撥號字串。但是，也可以使用RADIUS提供回撥字串。要使用本地身份驗證、授權和記帳(AAA)配置PPP回撥，請參閱[通過ISDN配置PPP回撥](#)。

在此示例配置中，回撥使用PPP和RFC 1570中指定的工具。跨ISDN電路的PPP回撥按以下順序完成：

1. 回叫客戶端發起並啟動到回叫伺服器路由器的ISDN連線。
2. 回叫客戶端和回叫伺服器協商PPP鏈路控制協定(LCP)。在LCP協商中，回叫是請求、協商和商定的。
3. 回叫客戶端和回叫伺服器使用PPP密碼身份驗證協定(PAP)或質詢握手身份驗證協定(CHAP)相互進行身份驗證。但是，可以通過[ppp authentication chap callin](#) 命令將回叫客戶端配置為不對回叫伺服器進行身份驗證。
4. 回叫伺服器從AAA伺服器獲取必要的回叫屬性，如回叫撥號字串（客戶端的電話號碼）。
5. 兩台路由器都斷開ISDN連線。
6. 回叫伺服器向客戶端發起回叫。當呼叫連線時，路由器會相互進行身份驗證，然後建立鏈路。

設定

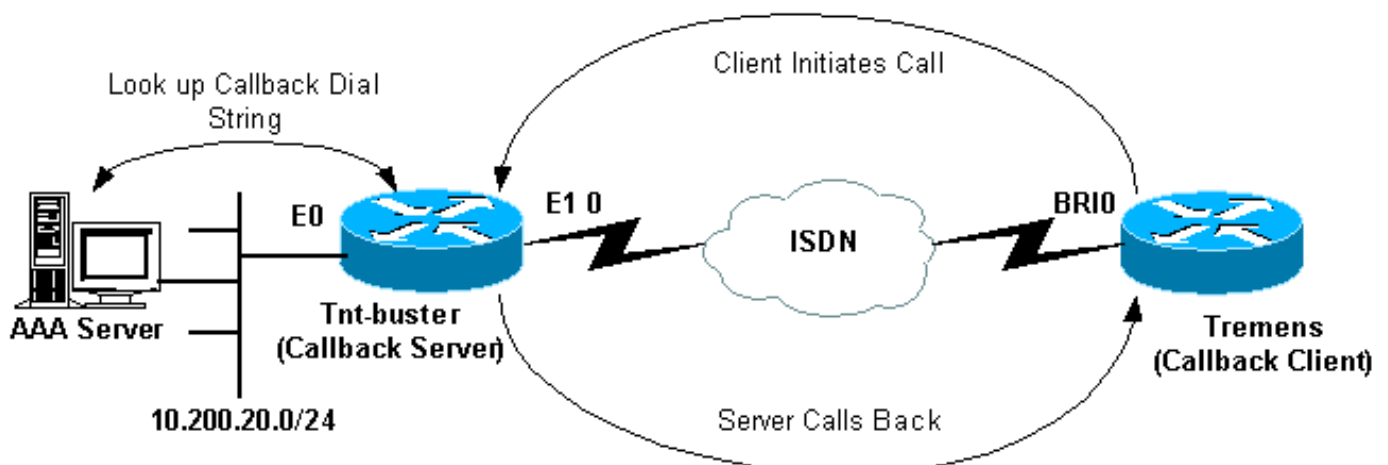
本節提供用於設定本文件中所述功能的資訊。

注意：要查詢有關本文檔中使用的命令的其他資訊，請使用[命令查詢工具](#)([僅限註冊客戶](#))。

網路圖表

本檔案會使用以下網路設定：

圖1 — 網路圖



組態

本檔案會使用以下設定：

- 免費軟體TACACS+配置
- RADIUS組態
- 備用RADIUS配置
- Tnt-buster (回撥伺服器) 配置
- Tremens (回撥客戶端) 配置

免費軟體TACACS+配置

```
user = tremens {
  default service = permit
  login = cleartext "cisco"
  chap = cleartext "cisco"
  !--- CHAP password. service = ppp protocol = lcp {
  callback-dialstring = "6083" !--- Number to callback.
  send-secret = "cisco" } }
```

您還可以使用RADIUS作為AAA伺服器來提供回撥屬性，而不是TACACS+。以下提供RADIUS設定範例：

RADIUS組態

```
tremens      Auth-Type = Local, Password = "cisco"
             Service-Type = Framed-User,
             !--- Service-Type(6) is Framed User(4). Cisco-AVPair =
             "lcp:callback-dialstring=6083", Cisco-AVPair =
             "lcp:send-secret=cisco"
```

注意：在上述所示的RADIUS配置中，回叫的身份驗證時需要Cisco AVPair `lcp:send-secret=cisco`。如果不包括此AVPair，則必須在回撥伺服器上本地配置遠端路由器的CHAP使用者名稱和密碼。

注意：本檔案主要說明TACACS+。本文檔中提供的調試不顯示RADIUS啟動的回撥。

注意：從Cisco IOS版本12.1(7)開始，可以使用Internet工程任務組(IETF)RADIUS屬性19進行ISDN和模擬Microsoft回撥。在這種情況下，不需要使用如先前配置所示的Cisco AVPairs。請參閱此處顯示的備用RADIUS組態範例：

備用RADIUS配置

```
tremens      Auth-Type = Local, Password = "cisco"
             Service-Type = callback framed
             !--- Service-Type (6) is callback
             framed (4). !--- Callback framed is also known as !---
             Dialback-Framed-User. Callback =6083 !--- IETF RADIUS
             Callback attribute (19) with the phone !--- number for
             the callback.
```

注意：RADIUS調試將顯示返回到回撥伺服器的IETF RADIUS屬性19。

本示例中使用的兩台路由器的配置如下所示：

Tnt-buster (回撥伺服器)

```
version 12.1
```

```

service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Tnt-buster
!
boot system flash flash:c5300-i-mz.121-4
logging buffered 1000000 debugging
aaa new-model
aaa authentication login none none
aaa authentication ppp default group tacacs+ local
!--- AAA methods for PPP authentication. aaa
authorization network default group tacacs+ !--- AAA
authorization methods for RADIUS implementation. !---
Replace TACACS+ with RADIUS in the statements above. !
spe 1/0 1/23 firmware location
system:/ucode/microcom_firmware ! resource-pool disable
! ip subnet-zero no ip domain-lookup ! isdn switch-type
primary-net5 ! controller E1 0 !--- E1 interface that
accepts the initial call and performs the callback.
clock source line primary pri-group timeslots 1-31 ! !
!--- irrelevant output has been omitted. ! interface
Loopback0 ip address 2.2.2.2 255.255.255.255 ! interface
Ethernet0 ip address 10.200.20.42 255.255.255.0 !
interface Serial0:15 !--- D-channel for controller E1 0.
no ip address encapsulation ppp dialer rotary-group 1 !-
-- Assign E1 0 to rotary-group 1 (which is necessary for
dialout). !--- Rotary-group properties are defined in
interface Dialer 1. isdn switch-type primary-net5 no cdp
enable ! ! !--- irrelevant output has been omitted. ! !
interface Dialer1 !--- This is the interface for the
dialer rotary-group 1 configuration. ip unnumbered
Loopback0 encapsulation ppp dialer in-band dialer aaa !-
-- This allows AAA to retrieve the callback dial string
via AAA servers. !--- This command is required for
callback attributes to be obtained !--- from the AAA
server. dialer idle-timeout 60 dialer enable-timeout 5
!--- The time (in seconds) between initial call
disconnect and callback !--- initiation. dialer hold-
queue 20 !--- This holds 20 packets destined for the
remote destination until the !--- connection is made.
dialer-group 1 no peer default ip address !--- The peer
is not given an IP address from a pool. !--- IP pool can
be defined if necessary. ppp callback accept !--- Allows
the interface to accept a callback request from a remote
host. ppp authentication chap callin ! ip route 0.0.0.0
0.0.0.0 10.200.20.1 no ip http server ! dialer-list 1
protocol ip permit tacacs-server host 10.200.20.134 key
cisco !--- The IP address and key of the TACACS+ server.
! line con 0 exec-timeout 0 0 length 30 transport input
none line 1 24 line aux 0 line vty 0 4 no exec-banner
exec-timeout 0 0 login authentication none ! end

```

Tremens (回撥客戶端)

```

version 12.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname tremens
!
username tnt-buster password 0 cisco

```

```
!--- Username and shared secret password used for CHAP
authentication. !--- The AAA server must have this
router hostname (tnt-buster) and !--- shared secret
(cisco) configured. ! ip subnet-zero no ip finger no ip
domain-lookup ! isdn switch-type basic-net3 ! interface
Loopback0 ip address 3.3.3.3 255.255.255.255 ! interface
Ethernet0 ip address 10.200.16.54 255.255.255.0 !
interface BRI0 !--- The interface used for dialin and
dialout. no ip address encapsulation ppp dialer pool-
member 1 !--- Assign BRI0 as member of dialer pool 1. !-
-- Dialer pool 1 is specified in interface Dialer 1.
isdn switch-type basic-net3 ppp authentication chap !
interface Dialer1 ip unnumbered Loopback0 encapsulation
ppp dialer pool 1 !--- Defines dialer pool 1. !--- BRI 0
is a member of this pool. dialer idle-timeout 60 dialer
string 8211 !--- The number to dial when dialing out for
the initial call. dialer hold-queue 20 !--- This holds
20 packets destined for the remote destination until the
!--- connection is made. dialer-group 1 no peer default
ip address no fair-queue no cdp enable ppp callback
request !--- Request PPP callback from the server. ppp
authentication chap ! ip route 2.2.2.2 255.255.255.255
Dialer1 !--- IP route for the dialer interface. no ip
http server ! dialer-list 1 protocol ip permit ! line
con 0 exec-timeout 0 0 transport input none line aux 0
line vty 0 4 exec-timeout 0 0 login ! end
```

驗證

本節提供的資訊可用於確認您的組態是否正常運作。

[輸出直譯器工具](#)(僅供註冊客戶使用)支援某些show命令，此工具可讓您檢視show命令輸出的分析。

- **show dialer interface type number** — 顯示為按需撥號路由(DDR)配置的介面的一般診斷資訊。發起撥號的封包的來源和目的地地址顯示在撥號原中。此命令還顯示連線計時器。
- **show isdn status** — 用於確保路由器與ISDN交換機正確通訊。在輸出中，驗證₁是否為ACTIVE，以及是否顯示₂= MULTIPLE_FRAME_ESTABLISHED。此命令還顯示活動呼叫的數量。

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

有關debug命令的詳細資訊，請參閱[Cisco IOS版本12.0調試命令參考](#)。

故障排除命令 (可選)

[輸出直譯器工具](#)(僅供註冊客戶使用)支援某些show命令，此工具可讓您檢視show命令輸出的分析。

注意：發出debug命令之前，請參閱[有關Debug命令的重要資訊](#)。

- **debug isdn q931** — 顯示ISDN網路連線 (第3層) 的呼叫建立和斷開。
- **debug dialer [events / packets]** — 顯示有關撥號器介面上接收的資料包的DDR調試資訊。
- **debug aaa authentication** — 顯示有關AAA身份驗證的資訊。
- **debug aaa authorization** — 顯示有關AAA授權的資訊。

- **debug tacacs** — 顯示與TACACS+關聯的詳細調試資訊。
- **debug ppp negotiation** — 在進行PPP元件協商時顯示有關PPP流量和交換的資訊，包括鏈路控制協定(LCP)、身份驗證和NCP。成功的PPP協商將首先開啟LCP狀態，然後進行身份驗證，最後協商NCP。
- **debug ppp authentication** — 顯示PPP身份驗證協定消息，包括質詢身份驗證協定(CHAP)資料包交換和口令身份驗證協定(PAP)交換。如果發現故障，請驗證CHAP使用者名稱和密碼是否配置正確。
- **debug callback** — 當路由器使用數據機和聊天指令碼在終端線路上回叫時顯示回叫事件。由於此命令適用於資料機和聊天指令碼，因此不在此配置中使用。

調試輸出示例

```
tnt-buster#show debug
General OS:
  TACACS access control debugging is on
  AAA Authentication debugging is on
  AAA Authorization debugging is on
Dial on demand:
  Dial on demand events debugging is on
PPP:
  PPP protocol negotiation debugging is on
ISDN:
  ISDN Q931 packets debugging is on
  ISDN Q931 packets debug DSLs. (On/Off/No DSL:1/0/-)
  DSL 0 --> 7
  1 - - - - -
tnt-buster#
*Oct 16 08:59:26.403: ISDN Se0:15: RX <- SETUP pd = 8 callref = 0x4880
  !--- incoming ISDN call setup message. *Oct 16 08:59:26.403: Sending Complete *Oct 16
08:59:26.403: Bearer Capability i = 0x8890 *Oct 16 08:59:26.403: Channel ID i = 0xA1839A *Oct 16
08:59:26.403: Calling Party Number i = 0xA1, '6083', Plan:ISDN, Type:National !--- Calling Party
Number is configured in the callback string on !--- the AAA server. *Oct 16 08:59:26.403: Called
Party Number i = 0x81, '211', Plan:ISDN, Type:Unknown *Oct 16 08:59:26.407: Locking Shift to
Codeset 6 *Oct 16 08:59:26.407: Codeset 6 IE 0x28 i = 'ISDN-EDU-4' *Oct 16 08:59:26.407: ISDN
Se0:15: TX -> CALL_PROC pd = 8 callref = 0xC880 *Oct 16 08:59:26.411: Channel ID i = 0xA9839A
*Oct 16 08:59:26.415: %LINK-3-UPDOWN: Interface Serial0:25, changed state to up *Oct 16
08:59:26.419: Se0:25 PPP: Treating connection as a callin *Oct 16 08:59:26.419: Se0:25 PPP:
Phase is ESTABLISHING, Passive Open *Oct 16 08:59:26.419: Se0:25 LCP: State is Listen *Oct 16
08:59:26.419: ISDN Se0:15: TX -> CONNECT pd = 8 callref = 0xC880 *Oct 16 08:59:26.419: Channel
ID i = 0xA9839A *Oct 16 08:59:26.459: ISDN Se0:15: RX <- CONNECT_ACK pd = 8 callref = 0x4880
*Oct 16 08:59:26.463: ISDN Se0:15: CALL_PROGRESS: CALL_CONNECTED call id 0x28, bchan 25, dsl 0
*Oct 16 08:59:26.551: Se0:25 LCP: I CONFREQ [Listen] id 126 len 18 !--- PPP LCP negotiation
begins. *Oct 16 08:59:26.555: Se0:25 LCP: AuthProto CHAP (0x0305C22305) *Oct 16 08:59:26.555:
Se0:25 LCP: MagicNumber 0x3E7BCBD2 (0x05063E7BCBD2) *Oct 16 08:59:26.555: Se0:25 LCP: Callback 0
(0x0D0300) *Oct 16 08:59:26.555: Se0:25 AAA/AUTHOR/FSM: (0): LCP succeeds trivially *Oct 16
08:59:26.555: Se0:25 LCP: O CONFREQ [Listen] id 1 len 15 *Oct 16 08:59:26.555: Se0:25 LCP:
AuthProto CHAP (0x0305C22305) *Oct 16 08:59:26.555: Se0:25 LCP: MagicNumber 0xE06953E4
(0x0506E06953E4) *Oct 16 08:59:26.555: Se0:25 LCP: O CONFACK [Listen] id 126 len 18 *Oct 16
08:59:26.555: Se0:25 LCP: AuthProto CHAP (0x0305C22305) *Oct 16 08:59:26.555: Se0:25 LCP:
MagicNumber 0x3E7BCBD2 (0x05063E7BCBD2) *Oct 16 08:59:26.555: Se0:25 LCP: Callback 0 (0x0D0300)
!--- Callback option is acknowledged (CONFACKed). *Oct 16 08:59:26.587: Se0:25 LCP: I CONFACK
[ACKsent] id 1 len 15 *Oct 16 08:59:26.587: Se0:25 LCP: AuthProto CHAP (0x0305C22305) *Oct 16
08:59:26.587: Se0:25 LCP: MagicNumber 0xE06953E4 (0x0506E06953E4) *Oct 16 08:59:26.587: Se0:25
LCP: State is Open *Oct 16 08:59:26.587: Se0:25 PPP: Phase is AUTHENTICATING, by both !--- PPP
Authentication begins. *Oct 16 08:59:26.587: Se0:25 CHAP: O CHALLENGE id 1 len 31 from "tnt-
buster" *Oct 16 08:59:26.611: Se0:25 CHAP: I CHALLENGE id 93 len 28 from "tremens" *Oct 16
08:59:26.611: Se0:25 CHAP: Waiting for peer to authenticate first *Oct 16 08:59:26.623: Se0:25
CHAP: I RESPONSE id 1 len 28 from "tremens" *Oct 16 08:59:26.623: AAA: parse name=Serial0:25 idb
```



```
type=13 tty=-1 *Oct 16 08:59:26.623: AAA: name=Serial0:25 flags=0x51 type=1 shelf=0 slot=0
adapter=0 port=0 channel=25 *Oct 16 08:59:26.623: AAA: parse name= idb type=-1 tty=-1 *Oct 16
08:59:26.623: AAA/MEMORY: create_user (0x6126C0AC) user='tremens' ruser='' port='Serial0:25'
rem_addr='6083/211' authen_type=CHAP service=PPP priv=1 *Oct 16 08:59:26.623: AAA/AUTHEN/START
(199889519): port='Serial0:25' list='' action=LOGIN service=PPP *Oct 16 08:59:26.623:
AAA/AUTHEN/START (199889519): using "default" list *Oct 16 08:59:26.623: AAA/AUTHEN/START
(199889519): Method=tacacs+ (tacacs+) !--- Use TACACS+ as AAA method for the default list. *Oct
16 08:59:26.623: TAC+: send AUTHEN/START packet ver=193 id=199889519 *Oct 16 08:59:26.623: TAC+:
Using default tacacs server-group "tacacs+" list. *Oct 16 08:59:26.623: TAC+: Opening TCP/IP to
10.200.20.134/49 timeout=5 *Oct 16 08:59:26.627: TAC+: Opened TCP/IP handle 0x610C4D40 to
10.200.20.134/49 *Oct 16 08:59:26.627: TAC+: 10.200.20.134 (199889519) AUTHEN/START/LOGIN/CHAP
queued *Oct 16 08:59:26.827: TAC+: (199889519) AUTHEN/START/LOGIN/CHAP processed *Oct 16
08:59:26.827: TAC+: ver=193 id=199889519 received AUTHEN status = PASS *Oct 16 08:59:26.827:
AAA/AUTHEN (199889519): status = PASS !--- AAA authentication succeeds. *Oct 16 08:59:26.827:
TAC+: Closing TCP/IP 0x610C4D40 connection to 10.200.20.134/49 *Oct 16 08:59:26.827: Se0:25
AAA/AUTHOR/LCP: Authorize LCP *Oct 16 08:59:26.827: Se0:25 AAA/AUTHOR/LCP (4028243213):
Port='Serial0:25' list='' service=NET *Oct 16 08:59:26.827: AAA/AUTHOR/LCP: Se0:25 (4028243213)
user='tremens' *Oct 16 08:59:26.827: Se0:25 AAA/AUTHOR/LCP (4028243213): send AV service=ppp
*Oct 16 08:59:26.827: Se0:25 AAA/AUTHOR/LCP (4028243213): send AV protocol=lcp *Oct 16
08:59:26.827: Se0:25 AAA/AUTHOR/LCP (4028243213): found list "default" *Oct 16 08:59:26.827:
Se0:25 AAA/AUTHOR/LCP (4028243213): Method=tacacs+ (tacacs+) *Oct 16 08:59:26.827:
AAA/AUTHOR/TAC+: (4028243213): user=tremens *Oct 16 08:59:26.827: AAA/AUTHOR/TAC+: (4028243213):
send AV service=ppp *Oct 16 08:59:26.827: AAA/AUTHOR/TAC+: (4028243213): send AV protocol=lcp
*Oct 16 08:59:26.827: TAC+: using previously set server 10.200.20.134 from group tacacs+ *Oct 16
08:59:26.827: TAC+: Opening TCP/IP to 10.200.20.134/49 timeout=5 *Oct 16 08:59:26.831: TAC+:
Opened TCP/IP handle 0x61269588 to 10.200.20.134/49 *Oct 16 08:59:26.831: TAC+: Opened
10.200.20.134 index=1 *Oct 16 08:59:26.831: TAC+: 10.200.20.134 (4028243213) AUTHOR/START queued
*Oct 16 08:59:27.031: TAC+: (4028243213) AUTHOR/START processed *Oct 16 08:59:27.031: TAC+:
(4028243213): received author response status = PASS_ADD *Oct 16 08:59:27.031: TAC+: Closing
TCP/IP 0x61269588 connection to 10.200.20.134/49 *Oct 16 08:59:27.031: Se0:25 AAA/AUTHOR
(4028243213): Post authorization status = PASS_ADD *Oct 16 08:59:27.031: Se0:25 AAA/AUTHOR/LCP:
Processing AV service=ppp *Oct 16 08:59:27.031: Se0:25 AAA/AUTHOR/LCP: Processing AV
protocol=lcp *Oct 16 08:59:27.031: Se0:25 AAA/AUTHOR/LCP: Processing AV callback-dialstring=
6083 !--- Callback dial string sent from the AAA server. *Oct 16 08:59:27.031: Se0:25
AAA/AUTHOR/LCP: Processing AV send-secret=cisco *Oct 16 08:59:27.031: Se0:25 CHAP: O SUCCESS id
1 len 4 *Oct 16 08:59:27.031: Se0:25 CHAP: Processing saved Challenge, id 93 *Oct 16
08:59:27.031: Se0:25 DDR: Authenticated host tremens with no matching dialer map *Oct 16
08:59:27.031: AAA: parse name=Serial0:25 idb type=13 tty=-1 *Oct 16 08:59:27.031: AAA:
name=Serial0:25 flags=0x51 type=1 shelf=0 slot=0 adapter=0 port=0 channel=25 *Oct 16
08:59:27.031: AAA: parse name= idb type=-1 tty=-1 *Oct 16 08:59:27.031: AAA/MEMORY: create_user
(0x610DD96C) user='tremens' ruser='' port='Serial0:25' rem_addr='6083/211' authen_type=CHAP
service=PPP priv=1 *Oct 16 08:59:27.035: AAA/AUTHEN/START (4099567767): port='Serial0:25'
list='' action=SENDAUTH service=PPP *Oct 16 08:59:27.035: AAA/AUTHEN/START (4099567767): using
"default" list *Oct 16 08:59:27.035: AAA/AUTHEN/START (4099567767): Method=tacacs+ (tacacs+)
*Oct 16 08:59:27.035: TAC+: Look for cached secret first for sendauth *Oct 16 08:59:27.035:
AAA/AUTHEN/SENDAUTH (4099567767): found cached secret for tremens *Oct 16 08:59:27.035:
AAA/AUTHEN (4099567767): status = PASS *Oct 16 08:59:27.035: AAA/MEMORY: free_user (0x610DD96C)
user='tremens' ruser='' port='Serial0:25' rem_addr='6083/211' authen_type=CHAP service=PPP
priv=1 *Oct 16 08:59:27.035: Se0:25 CHAP: O RESPONSE id 93 len 31 from "tnt-buster" *Oct 16
08:59:27.055: Se0:25 CHAP: I SUCCESS id 93 len 4 !--- CHAP is successful. *Oct 16 08:59:27.055:
FA0: Same state, 0 *Oct 16 08:59:27.055: DSES FA0: Session create *Oct 16 08:59:27.055:
AAA/MEMORY: dup_user (0x61069398) user='tremens' ruser='' port='Serial0:25' rem_addr='6083/211'
authen_type=CHAP service=PPP priv=1 source='create callback' *Oct 16 08:59:27.055: Se0:25 DDR:
PPP callback Callback server starting to tremens 6083 !--- DDR starts PPP calback procedures.
*Oct 16 08:59:27.055: Se0:25 DDR: disconnecting call !--- Call is disconnected. *Oct 16
08:59:27.059: ISDN Se0:15: TX -> DISCONNECT pd = 8 callref = 0xc880 *Oct 16 08:59:27.059: Cause
i = 0x8090 - Normal call clearing *Oct 16 08:59:27.071: Se0:25 IPCP: PPP phase is
AUTHENTICATING, discarding packet *Oct 16 08:59:27.091: ISDN Se0:15: RX <- RELEASE pd = 8
callref = 0x4880 *Oct 16 08:59:27.091: ISDN Se0:15: TX -> RELEASE_COMP pd = 8 callref = 0xc880
*Oct 16 08:59:27.103: %LINK-3-UPDOWN: Interface Serial0:25, changed state to down *Oct 16
08:59:27.103: Se0:25 PPP: Phase is TERMINATING *Oct 16 08:59:27.103: Se0:25 LCP: State is Closed
*Oct 16 08:59:27.103: Se0:25 PPP: Phase is DOWN *Oct 16 08:59:27.103: Se0:25 DDR: disconnecting
call *Oct 16 08:59:32.055: DDR: Callback timer expired !--- Callback timer (5 seconds) expires.
!--- This is configured through the dialer enable-timeout 5 command.
```

*Oct 16 08:59:32.055: Di1 DDR: beginning callback to tremens 6083
*Oct 16 08:59:32.055: Se0:15 DDR: rotor dialout [priority]
*Oct 16 08:59:32.055: Se0:15 DDR: Dialing cause dialer session 0xFA0
*Oct 16 08:59:32.055: Se0:15 DDR: Attempting to dial 6083
!--- Callback number dialed. *Oct 16 08:59:32.055: ISDN Se0:15: TX -> SETUP pd = 8 callref = 0x0005 *Oct 16 08:59:32.055: Bearer Capability i = 0x8890 *Oct 16 08:59:32.055: Channel ID i = 0xA9839F *Oct 16 08:59:32.055: Called Party Number i = 0x81, '6083', Plan:ISDN, Type:Unknown
*Oct 16 08:59:32.095: ISDN Se0:15: RX <- CALL_PROC pd = 8 callref = 0x8005 *Oct 16 08:59:32.095: Channel ID i = 0xA9839F *Oct 16 08:59:32.311: ISDN Se0:15: RX <- CONNECT pd = 8 callref = 0x8005
!--- Call is connected. *Oct 16 08:59:32.311: Connected Number i = 0xA136303833 *Oct 16 08:59:32.315: Locking Shift to Codeset 6 *Oct 16 08:59:32.315: Codeset 6 IE 0x28 i = 'ISDN-EDU-4' *Oct 16 08:59:32.323: %LINK-3-UPDOWN: Interface Serial0:30, changed state to up *Oct 16 08:59:32.323: AAA/MEMORY: dup_user (0x612B7F70) user='tremens' ruser='' port='Serial0:25' rem_addr='6083/211' authn_type=CHAP service=PPP priv=1 source='callback dialout' *Oct 16 08:59:32.323: DDR: Freeing callback to tremens 6083 *Oct 16 08:59:32.323: DDR: removing callback, 0 packets unqueued and discarded *Oct 16 08:59:32.323: AAA/MEMORY: free_user (0x61069398) user='tremens' ruser='' port='Serial0:25' rem_addr='6083/211' authn_type=CHAP service=PPP priv=1 *Oct 16 08:59:32.323: Se0:30 PPP: Treating connection as a callout *!--- PPP negotiation begins.* *Oct 16 08:59:32.323: Se0:30 PPP: Phase is ESTABLISHING, Active Open *Oct 16 08:59:32.323: Se0:30 PPP: No remote authentication for callback *Oct 16 08:59:32.327: Se0:30 AAA/AUTHOR/FSM: (0): LCP succeeds trivially *Oct 16 08:59:32.327: Se0:30 LCP: O CONFREQ [Closed] id 5 len 10 *Oct 16 08:59:32.327: Se0:30 LCP: MagicNumber 0xE0696A6F (0x0506E0696A6F) *Oct 16 08:59:32.327: ISDN Se0:15: TX -> CONNECT_ACK pd = 8 callref = 0x0005 *Oct 16 08:59:32.351: Se0:30 LCP: I CONFREQ [REQsent] id 127 len 15 *Oct 16 08:59:32.351: Se0:30 LCP: AuthProto CHAP (0x0305C22305) *Oct 16 08:59:32.351: Se0:30 LCP: MagicNumber 0x3E7BE27C (0x05063E7BE27C) *Oct 16 08:59:32.355: Se0:30 LCP: O CONFACK [REQsent] id 127 len 15 *Oct 16 08:59:32.355: Se0:30 LCP: AuthProto CHAP (0x0305C22305) *Oct 16 08:59:32.355: Se0:30 LCP: MagicNumber 0x3E7BE27C (0x05063E7BE27C) *Oct 16 08:59:32.359: Se0:30 LCP: I CONFACK [ACKsent] id 5 len 10 *Oct 16 08:59:32.359: Se0:30 LCP: MagicNumber 0xE0696A6F (0x0506E0696A6F) *Oct 16 08:59:32.359: Se0:30 LCP: State is Open *Oct 16 08:59:32.359: Se0:30 PPP: Phase is AUTHENTICATING, by the peer *!--- Authentication begins.* *Oct 16 08:59:32.359: Se0:30 AAA/AUTHOR/LCP: Authorize LCP *Oct 16 08:59:32.359: Se0:30 AAA/AUTHOR/LCP (190918816): Port='Serial0:25' list='' service=NET *Oct 16 08:59:32.359: AAA/AUTHOR/LCP: Se0:30 (190918816) user='tremens' *Oct 16 08:59:32.359: Se0:30 AAA/AUTHOR/LCP (190918816): send AV service=ppp *Oct 16 08:59:32.359: Se0:30 AAA/AUTHOR/LCP (190918816): send AV protocol=lcp *Oct 16 08:59:32.359: Se0:30 AAA/AUTHOR/LCP (190918816): found list "default" *Oct 16 08:59:32.359: Se0:30 AAA/AUTHOR/LCP (190918816): Method=tacacs+ (tacacs+) *Oct 16 08:59:32.363: AAA/AUTHOR/TAC+: (190918816): user=tremens *Oct 16 08:59:32.363: AAA/AUTHOR/TAC+: (190918816): send AV service=ppp *Oct 16 08:59:32.363: AAA/AUTHOR/TAC+: (190918816): send AV protocol=lcp *Oct 16 08:59:32.363: TAC+: using previously set server 10.200.20.134 from group tacacs+ *Oct 16 08:59:32.363: TAC+: Opening TCP/IP to 10.200.20.134/49 timeout=5 *Oct 16 08:59:32.363: TAC+: Opened TCP/IP handle 0x612B6A1C to 10.200.20.134/49 *Oct 16 08:59:32.363: TAC+: Opened 10.200.20.134 index=1 *Oct 16 08:59:32.363: TAC+: 10.200.20.134 (190918816) AUTHOR/START queued *Oct 16 08:59:32.563: TAC+: (190918816) AUTHOR/START processed *Oct 16 08:59:32.563: TAC+: (190918816): received author response status = PASS_ADD *Oct 16 08:59:32.563: TAC+: Closing TCP/IP 0x612B6A1C connection to 10.200.20.134/49 *Oct 16 08:59:32.563: Se0:30 AAA/AUTHOR (190918816): Post authorization status = PASS_ADD *Oct 16 08:59:32.563: Se0:30 AAA/AUTHOR/LCP: Processing AV service=ppp *Oct 16 08:59:32.563: Se0:30 AAA/AUTHOR/LCP: Processing AV protocol=lcp *Oct 16 08:59:32.563: Se0:30 AAA/AUTHOR/LCP: Processing AV callback-dialstring= 6083 *Oct 16 08:59:32.563: Se0:30 AAA/AUTHOR/LCP: Processing AV send-secret=cisco *Oct 16 08:59:32.563: Se0:30 CHAP: I CHALLENGE id 94 len 28 from "tremens" *!--- An incoming CHAP challenge is received.* *Oct 16 08:59:32.563: AAA: parse name=Serial0:30 idb type=13 tty=-1 *Oct 16 08:59:32.563: AAA: name=Serial0:30 flags=0x51 type=1 shelf=0 slot=0 adapter=0 port=0 channel=30 *Oct 16 08:59:32.563: AAA: parse name= idb type=-1 tty=-1 *Oct 16 08:59:32.563: AAA/MEMORY: create_user (0x612B8098) user='tremens' ruser='' port='Serial0:30' rem_addr='6083/6083' authn_type=CHAP service=PPP priv=1 *Oct 16 08:59:32.567: AAA/AUTHEN/START (763006247): port='Serial0:30' list='' action=SENDAUTH service=PPP *Oct 16 08:59:32.567: AAA/AUTHEN/START (763006247): using "default" list *Oct 16 08:59:32.567: AAA/AUTHEN/START (763006247): Method=tacacs+ (tacacs+) *Oct 16 08:59:32.567: TAC+: Look for cached secret first for sendauth *Oct 16 08:59:32.567: AAA/AUTHEN/SENDAUTH (763006247): found cached secret for tremens *Oct 16 08:59:32.567: AAA/AUTHEN (763006247): status = PASS *Oct 16 08:59:32.567: AAA/MEMORY: free_user (0x612B8098) user='tremens' ruser='' port='Serial0:30' rem_addr='6083/6083' authn_type=CHAP service=PPP priv=1 *Oct 16 08:59:32.567: Se0:30 CHAP: O RESPONSE id 94 len 31 from "tnt-buster" *Oct 16 08:59:32.587: Se0:30 CHAP: I SUCCESS id 94 len 4

!--- Authentication is successful. *Oct 16 08:59:32.587: Se0:30 PPP: Phase is UP *Oct 16 08:59:32.587: Se0:30 AAA/AUTHOR/FSM: (0): Can we start IPCP? *Oct 16 08:59:32.587: Se0:30 AAA/AUTHOR/FSM (3211893880): Port='Serial0:25' list='' service=NET *Oct 16 08:59:32.587: AAA/AUTHOR/FSM: Se0:30 (3211893880) user='tremens' *Oct 16 08:59:32.587: Se0:30 AAA/AUTHOR/FSM (3211893880): send AV service=ppp *Oct 16 08:59:32.587: Se0:30 AAA/AUTHOR/FSM (3211893880): send AV protocol=ip *Oct 16 08:59:32.587: Se0:30 AAA/AUTHOR/FSM (3211893880): found list "default" *Oct 16 08:59:32.587: Se0:30 AAA/AUTHOR/FSM (3211893880): Method=tacacs+ (tacacs+) *Oct 16 08:59:32.587: AAA/AUTHOR/TAC+: (3211893880): user=tremens *Oct 16 08:59:32.587: AAA/AUTHOR/TAC+: (3211893880): send AV service=ppp *Oct 16 08:59:32.587: AAA/AUTHOR/TAC+: (3211893880): send AV protocol=ip *Oct 16 08:59:32.587: TAC+: using previously set server 10.200.20.134 from group tacacs+ *Oct 16 08:59:32.587: TAC+: Opening TCP/IP to 10.200.20.134/49 timeout=5 *Oct 16 08:59:32.591: TAC+: Opened TCP/IP handle 0x612B6C80 to 10.200.20.134/49 *Oct 16 08:59:32.591: TAC+: Opened 10.200.20.134 index=1 *Oct 16 08:59:32.591: TAC+: 10.200.20.134 (3211893880) AUTHOR/START queued *Oct 16 08:59:32.791: TAC+: (3211893880) AUTHOR/START processed *Oct 16 08:59:32.791: TAC+: (3211893880): received author response status = PASS_ADD *Oct 16 08:59:32.791: TAC+: Closing TCP/IP 0x612B6C80 connection to 10.200.20.134/49 *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR (3211893880): Post authorization status = PASS_ADD *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR/FSM: We can start IPCP !--- IPCP negotiation begins. *Oct 16 08:59:32.791: Se0:30 IPCP: O CONFREQ [Closed] id 5 len 10 *Oct 16 08:59:32.791: Se0:30 IPCP: Address 2.2.2.2 (0x030602020202) *Oct 16 08:59:32.791: Se0:30 IPCP: I CONFREQ [REQsent] id 111 len 10 *Oct 16 08:59:32.791: Se0:30 IPCP: Address 3.3.3.3 (0x030603030303) *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR/IPCP: Start. Her address 3.3.3.3, we want 0.0.0.0 *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR/IPCP (3713413027): Port='Serial0:25' list='' service=NET *Oct 16 08:59:32.791: AAA/AUTHOR/IPCP: Se0:30 (3713413027) user='tremens' *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR/IPCP (3713413027): send AV service=ppp *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR/IPCP (3713413027): send AV protocol=ip *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR/IPCP (3713413027): send AV addr*3.3.3.3 *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR/IPCP (3713413027): found list "default" *Oct 16 08:59:32.791: Se0:30 AAA/AUTHOR/IPCP (3713413027): Method=tacacs+ (tacacs+) *Oct 16 08:59:32.795: AAA/AUTHOR/TAC+: (3713413027): user=tremens *Oct 16 08:59:32.795: AAA/AUTHOR/TAC+: (3713413027): send AV service=ppp *Oct 16 08:59:32.795: AAA/AUTHOR/TAC+: (3713413027): send AV protocol=ip *Oct 16 08:59:32.795: AAA/AUTHOR/TAC+: (3713413027): send AV addr*3.3.3.3 !--- AAA Attribute Value Pairs. *Oct 16 08:59:32.795: TAC+: using previously set server 10.200.20.134 from group tacacs+ *Oct 16 08:59:32.795: TAC+: Opening TCP/IP to 10.200.20.134/49 timeout=5 *Oct 16 08:59:32.795: TAC+: Opened TCP/IP handle 0x61269588 to 10.200.20.134/49 *Oct 16 08:59:32.795: TAC+: Opened 10.200.20.134 index=1 *Oct 16 08:59:32.795: TAC+: 10.200.20.134 (3713413027) AUTHOR/START queued *Oct 16 08:59:32.995: TAC+: (3713413027) AUTHOR/START processed *Oct 16 08:59:32.995: TAC+: (3713413027): received author response status = PASS_ADD *Oct 16 08:59:32.995: TAC+: Closing TCP/IP 0x61269588 connection to 10.200.20.134/49 *Oct 16 08:59:32.995: Se0:30 AAA/AUTHOR (3713413027): Post authorization status = PASS_ADD *Oct 16 08:59:32.995: Se0:30 AAA/AUTHOR/IPCP: Processing AV service=ppp *Oct 16 08:59:32.995: Se0:30 AAA/AUTHOR/IPCP: Processing AV protocol=ip *Oct 16 08:59:32.995: Se0:30 AAA/AUTHOR/IPCP: Processing AV addr*3.3.3.3 *Oct 16 08:59:32.995: Se0:30 AAA/AUTHOR/IPCP: Authorization succeeded *Oct 16 08:59:32.995: Se0:30 AAA/AUTHOR/IPCP: Done. Her address 3.3.3.3, we want 3.3.3.3 *Oct 16 08:59:32.995: Se0:30 IPCP: O CONFACK [REQsent] id 111 len 10 *Oct 16 08:59:32.995: Se0:30 IPCP: Address 3.3.3.3 (0x030603030303) *Oct 16 08:59:32.995: Se0:30 IPCP: I CONFACK [ACKsent] id 5 len 10 *Oct 16 08:59:32.995: Se0:30 IPCP: Address 2.2.2.2 (0x030602020202) *Oct 16 08:59:32.995: Se0:30 IPCP: State is Open *Oct 16 08:59:32.999: Se0:30 DDR: dialer protocol up *Oct 16 08:59:32.999: Se0:30: Call connected, 0 packets unqueued, 0 transmitted, 0 discarded *Oct 16 08:59:32.999: Dil IPCP: Install route to 3.3.3.3 !--- Route is installed to remote device. *Oct 16 08:59:33.587: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0:30, changed state to up *Oct 16 08:59:38.323: %ISDN-6-CONNECT: Interface Serial0:30 is now connected to 6083 unknown !--- Call is Connected.

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