

# 使用RADIUS配置PPP回撥

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## [簡介](#)

本文顯示將路由器和伺服器設定為使用RADIUS進行點對點通訊協定(PPP)回撥的範例。

## [開始之前](#)

### [慣例](#)

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

### [必要條件](#)

要使此項工作，請執行以下操作：

- 使用本地身份驗證和回撥執行初始測試(即刪除aaa new-model命令)。如果回撥在本地身份驗證中不起作用，它將不適用於RADIUS。請參閱[使用本地](#)驗證的範例。
- 在不回撥的情況下使用RADIUS執行進一步的PPP身份驗證測試。如果使用者未經回撥就未能通過身份驗證和/或授權，則身份驗證和授權將不使用回撥。
- 回撥的本地身份驗證和使用RADIUS的PPP身份驗證工作完成後，將來自路由器上的本地使用者的資訊(如回撥撥號字串)新增到伺服器上的使用者配置檔案中。

**注意：**這些測試中的客戶端是NT 4.0伺服器DUN，它為PPP連線按常規設定，但是在Server下選中Enable PPP/LCP extensions以允許Microsoft回撥。Cisco IOS<sup>®</sup>軟體版本11.3.2.T和更新版本支援Microsoft回撥。有關如何設定Microsoft Windows PC進行回叫的特定資訊，請參閱Microsoft網站。

## 採用元件

此配置是使用下列軟體版本開發和測試的。

- Cisco IOS軟體版本11.3.2.T及更高版本
- CiscoSecure ACS UNIX 2.x或Windows 2.x或更高版本的CiscoSecure ACS

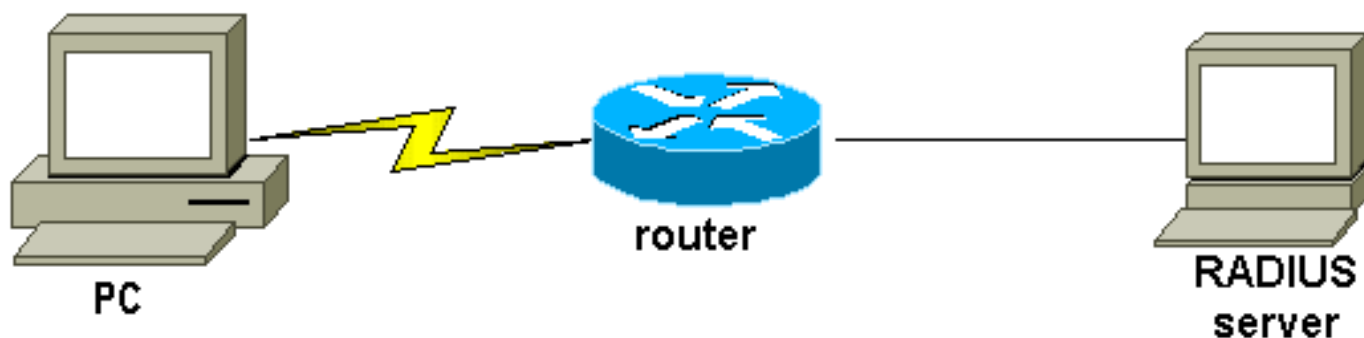
## 設定

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

本文檔使用下圖所示的網路設定。



## 伺服器設定 — CiscoSecure NT

- 使用者獲取密碼並確認密碼。
- 在組設定中：屬性006 Service-Type = Framed屬性007 Framed-Protocol = PPP
- 在螢幕上的最後一個框Cisco RADIUS Attributes中，選中[009\001 - AV配對]，並在下方輸入：  
: lcp:callback-dialstring=20367

## 伺服器設定 — CiscoSecure UNIX

```
rtp-berry# ./ViewProfile -p 9900 -u callback
User Profile Information
```

```
user = callback{
profile_id = 34
profile_cycle = 1
radius=Cisco {
check_items= {
2="callback"
}
reply_attributes= {
6=2
7=1
9,1="lcp:callback-dialstring=20367"
}
}
}
```

## 伺服器設定 — Livingston RADIUS ( 使用Cisco av配對 )

```
callback2 Password = "callback2"
User-Service-Type = Framed-User,
Framed-Protocol = PPP,
cisco-avpair = "lcp:callback-dialstring=20367"
```

## 組態

### 路由器配置

```
rtpkrb#show run
Building configuration...

Current configuration:
!
version 11.3
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
service udp-small-servers
service tcp-small-servers
!
hostname rtpkrb
!
!--- AAA configuration. aaa new-model aaa authentication
login default radius none aaa authentication ppp default
radius none aaa authorization exec default radius none
aaa authorization network default radius none enable
secret 5 $l$pkX.$JdAysRElSbdbDe7bj0wyt0 enable password
ww ! ip host rtpkrb 10.31.1.5 ip domain-name
RTP.CISCO.COM ip name-server 171.68.118.103 !--- Chat-
scripts to be used for the dialout. chat-script offhook
"" "ATH1" OK chat-script callback ABORT ERROR ABORT BUSY
"" "ATZ" OK "ATDT \T" TIMEOUT 30 CONNECT \c ! interface
Loopback0 ip address 1.1.1.1 255.255.255.0 ! interface
Ethernet0 ip address 10.31.1.5 255.255.0.0 ! interface
Serial0 no ip address no ip mroute-cache shutdown !
interface Serial1 no ip address shutdown ! interface
Async1 ip unnumbered Ethernet0 encapsulation ppp async
mode dedicated peer default ip address pool async no cdp
enable ppp max-bad-auth 3 ppp callback accept ppp
```

```
authentication pap ! ip local pool async 15.15.15.15 ip
classless ip route 0.0.0.0 0.0.0.0 10.31.1.1 snmp-server
community public RW snmp-server host 171.68.118.100
traps public radius-server host 171.68.118.101 auth-port
1645 acct-port 1646 radius-server key cisco ! line con 0
line 1 session-timeout 20 exec-timeout 20 0 password ww
autoselect ppp script modem-off-hook offhook script
callback callback modem InOut transport input all
stopbits 1 speed 38400 flowcontrol hardware line 2 modem
InOut speed 38400 flowcontrol hardware line 3 16 line
aux 0 line vty 0 4 exec-timeout 0 0 timeout login
response 100 password ww ! end
```

## 驗證

目前沒有適用於此組態的驗證程序。

## 疑難排解

本節提供的資訊可用於對組態進行疑難排解。

### 疑難排解指令

**注意：**發出debug指令之前，請先參閱[有關Debug指令的重要資訊](#)。

- **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 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。
- **debug chat** — 顯示網路訪問伺服器(NAS)和PC之間傳送的字元。聊天指令碼是一組期望傳送字串對，用於定義資料終端裝置(DTE)-DTE或DTE — 資料通訊裝置(DCE)裝置之間的握手。
- **debug modem** — 觀察接入伺服器上的數據機線路活動。
- **debug ppp negotiation** — 顯示在PPP啟動期間傳輸的PPP資料包，其中會協商PPP選項。
- **debug ppp authentication** — 顯示身份驗證協定消息，包括質詢身份驗證協定(CHAP)資料包交換和密碼身份驗證協定(PAP)交換。
- **debug radius** — 顯示與RADIUS相關的詳細偵錯資訊。

## 調試輸出示例

```
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
Chat Scripts:
Chat scripts activity debugging is on
Callback:
Callback activity debugging is on
Radius protocol debugging is on
rtpkrb#
04:04:42: TTY1: DSR came up
04:04:42: tty1: Modem: IDLE->READY
```

```
04:04:42: TTY1: Autoselect started
04:04:44: TTY1: Autoselect sample 7E
04:04:44: TTY1: Autoselect sample 7EFF
04:04:44: TTY1: Autoselect sample 7EFF7D
04:04:44: TTY1: Autoselect sample 7EFF7D23
04:04:44: TTY1 Autoselect cmd: ppp negotiate
04:04:44: TTY1: EXEC creation
04:04:46: %LINK-3-UPDOWN: Interface Async1, changed state to up
04:04:46: As1 PPP: Treating connection as a dedicated line
04:04:46: As1 PPP: Phase is ESTABLISHING, Active Open
04:04:46: As1 LCP: O CONFREQ [Closed] id 224 len 24
04:04:46: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
04:04:46: As1 LCP: AuthProto PAP (0x0304C023)
04:04:46: As1 LCP: MagicNumber 0xE0FE5C09 (0x0506E0FE5C09)
04:04:46: As1 LCP: PFC (0x0702)
04:04:46: As1 LCP: ACFC (0x0802)
04:04:46: As1 LCP: I CONFACK [REQsent] id 224 len 24
04:04:46: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
04:04:46: As1 LCP: AuthProto PAP (0x0304C023)
04:04:46: As1 LCP: MagicNumber 0xE0FE5C09 (0x0506E0FE5C09)
04:04:46: As1 LCP: PFC (0x0702)
04:04:46: As1 LCP: ACFC (0x0802)
04:04:47: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 23
04:04:47: As1 LCP: ACCM 0x00000000 (0x020600000000)
04:04:47: As1 LCP: MagicNumber 0x00006CCD (0x050600006CCD)
04:04:47: As1 LCP: PFC (0x0702)
04:04:47: As1 LCP: ACFC (0x0802)
04:04:47: As1 LCP: Callback 6 (0x0D0306)
04:04:47: As1 LCP: O CONFACK [ACKrcvd] id 0 len 23
04:04:47: As1 LCP: ACCM 0x00000000 (0x020600000000)
04:04:47: As1 LCP: MagicNumber 0x00006CCD (0x050600006CCD)
04:04:47: As1 LCP: PFC (0x0702)
04:04:47: As1 LCP: ACFC (0x0802)
04:04:47: As1 LCP: Callback 6 (0x0D0306)
04:04:47: As1 LCP: State is Open
04:04:47: As1 PPP: Phase is AUTHENTICATING, by this end
04:04:47: As1 LCP: I IDENTIFY [Open] id 1 len 18 magic
    0x00006CCD MSRASV4.00
04:04:47: As1 LCP: I IDENTIFY [Open] id 2 len 21 magic
    0x00006CCD MSRAS-1-ZEKIE
04:04:47: As1 PAP: I AUTH-REQ id 15 len 24 from "callback2"
04:04:47: As1 PAP: Authenticating peer callback2
04:04:47: AAA/AUTHEN: create_user (0x14B1CC) user='callback2' ruser=''
    port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=1
04:04:47: AAA/AUTHEN/START (3229557248): port='Async1' list=''
    action=LOGIN service=PPP
04:04:47: AAA/AUTHEN/START (3229557248): using "default" list
04:04:47: AAA/AUTHEN/START (3229557248): Method=RADIUS
04:04:47: RADIUS: Computed extended port value 0:1:
04:04:47: RADIUS: Initial Transmit id 156 171.68.118.101:1645,
    Access-Request, len 79
04:04:47: Attribute 4 6 0A1F0105
04:04:47: Attribute 5 6 00000001
04:04:47: Attribute 61 6 00000000
04:04:47: Attribute 1 11 63616C6C
04:04:47: Attribute 2 18 47E86FBC
04:04:47: Attribute 6 6 00000002
04:04:47: Attribute 7 6 00000001
04:04:47: RADIUS: Received from id 156 171.68.118.101:1645,
    Access-Accept, len 69
04:04:47: Attribute 6 6 00000002
04:04:47: Attribute 7 6 00000001
04:04:47: Attribute 26 37 00000009011F6C63
04:04:47: RADIUS: saved authorization data for user 14B1CC at 14A684
```

04:04:47: AAA/AUTHEN (3229557248): status = PASS  
04:04:47: AAA/AUTHOR/LCP As1: Authorize LCP  
04:04:47: AAA/AUTHOR/LCP As1 (101984404): Port='Async1'  
list='' service=NET  
04:04:47: AAA/AUTHOR/LCP: As1 (101984404) user='callback2'  
04:04:47: AAA/AUTHOR/LCP: As1 (101984404) send AV service=ppp  
04:04:47: AAA/AUTHOR/LCP: As1 (101984404) send AV protocol=lcp  
04:04:47: AAA/AUTHOR/LCP (101984404) found list "default"  
04:04:47: AAA/AUTHOR/LCP: As1 (101984404) Method=RADIUS  
*!--- Callback number is obtained from the RADIUS server.* 04:04:47: RADIUS: cisco AVPair  
"lcp:callback-dialstring=20367" 04:04:47: AAA/AUTHOR (101984404): Post authorization status =  
PASS\_REPL 04:04:47: AAA/AUTHOR/LCP As1: Processing AV service=ppp 04:04:47: AAA/AUTHOR/LCP As1:  
Processing AV callback-dialstring=20367 04:04:47: As1 PAP: O AUTH-ACK id 15 len 5 04:04:47: As1  
MCB: User callback2 Callback Number - Server 20367 04:04:47: Async1 PPP: O MCB Request(1) id 47  
len 7 04:04:47: Async1 MCB: O 1 2F 0 7 3 3 0 04:04:47: As1 MCB: O Request Id 47 Callback Type  
Server-Num delay 0 04:04:47: Async1 PPP: I MCB Response(2) id 47 len 7 04:04:47: Async1 MCB: I 2  
2F 0 7 3 3 C 04:04:47: As1 MCB: Received response 04:04:47: As1 MCB: Response CBK-Server-Num 3 3  
12 04:04:47: Async1 PPP: O MCB Ack(3) id 48 len 7 04:04:47: Async1 MCB: O 3 30 0 7 3 3 C  
04:04:47: As1 MCB: O Ack Id 48 Callback Type Server-Num delay 12 04:04:47: As1 MCB: Negotiated  
MCB with peer 04:04:47: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to  
up 04:04:47: As1 LCP: I TERMREQ [Open] id 3 len 8 (0x00000000) 04:04:47: As1 LCP: O TERMACK  
[Open] id 3 len 4 04:04:47: As1 MCB: Peer terminating the link 04:04:47: As1 PPP: Phase is  
TERMINATING 04:04:47: As1 MCB: Link terminated by peer, Callback Needed *!--- Callback is  
initiated.* 04:04:47: As1 MCB: Initiate Callback for callback2 at 20367 using Async 04:04:47: As1  
MCB: Async-callback in progress 04:04:47: TTY1 Callback PPP process creation 04:04:47: As1  
AAA/ACCT: Using PPP accounting list "" 04:04:47: TTY1 Callback process initiated, user:  
dialstring 20367 04:04:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state  
to down 04:04:48: TTY1: Async Int reset: Dropping DTR 04:04:49: As1 LCP: TIMEOUT: Time 0xE02574  
State TERMsent 04:04:49: As1 LCP: State is Closed 04:04:49: As1 PPP: Phase is DOWN 04:04:49: As1  
PPP: Phase is ESTABLISHING, Passive Open 04:04:49: As1 LCP: State is Listen 04:04:50: %LINK-5-  
CHANGED: Interface Async1, changed state to reset 04:04:50: As1 LCP: State is Closed 04:04:50:  
As1 PPP: Phase is DOWN 04:04:50: As1 IPCP: Remove route to 15.15.15.15 04:04:53: AAA/AUTHEN:  
free\_user (0x14B1CC) user='callback2' ruser='' port='Async1' rem\_addr='async' authn\_type=PAP  
service=PPP priv=1 04:04:53: TTY1 Callback forced wait = 4 seconds 04:04:55: %LINK-3-UPDOWN:  
Interface Async1, changed state to down 04:04:55: As1 LCP: State is Closed 04:04:55: As1 PPP:  
Phase is DOWN 04:04:57: CHAT1: Matched chat script offhook to string offhook 04:04:57: CHAT1:  
Asserting DTR 04:04:57: CHAT1: Chat script offhook started 04:04:57: CHAT1: Sending string: ATH1  
04:04:57: CHAT1: Expecting string: OK 04:04:57: CHAT1: Completed match for expect: OK 04:04:57:  
CHAT1: Chat script offhook finished, status = Success 04:04:57: CHAT1: Matched chat script  
callback to string callback 04:04:57: CHAT1: Asserting DTR 04:04:57: CHAT1: Chat script callback  
started 04:04:57: CHAT1: Sending string: ATZ 04:04:57: CHAT1: Expecting string: OK 04:04:57:  
CHAT1: Completed match for expect: OK 04:04:57: CHAT1: Sending string: ATDT \T<20367> 04:04:57:  
CHAT1: Expecting string: CONNECT 04:05:14: CHAT1: Completed match for expect: CONNECT 04:05:14:  
CHAT1: Sending string: \c 04:05:14: CHAT1: Chat script callback finished, status = Success  
04:05:14: TTY1 PPP Callback Successful - await exec/autoselect pickup 04:05:16: TTY1: DSR came  
up 04:05:16: TTY1: Callback in effect 04:05:16: tty1: Modem: IDLE->READY 04:05:16: TTY1:  
Autoselect started 04:05:16: As1 LCP: I CONFREQ [Closed] id 0 len 20 04:05:16: As1 LCP: ACCM  
0x00000000 (0x020600000000) 04:05:16: As1 LCP: MagicNumber 0x000007A0 (0x0506000007A0) 04:05:16:  
As1 LCP: PFC (0x0702) 04:05:16: As1 LCP: ACFC (0x0802) 04:05:16: As1 LCP: Lower layer not up,  
discarding packet 04:05:18: %LINK-3-UPDOWN: Interface Async1, changed state to up 04:05:18: As1  
PPP: Treating connection as a dedicated line 04:05:18: As1 PPP: Phase is ESTABLISHING, Active  
Open 04:05:18: As1 LCP: O CONFREQ [Closed] id 225 len 24 04:05:18: As1 LCP: ACCM 0x000A0000  
(0x0206000A0000) 04:05:18: As1 LCP: AuthProto PAP (0x0304C023) 04:05:18: As1 LCP: MagicNumber  
0xE0FED8A0 (0x0506E0FED8A0) 04:05:18: As1 LCP: PFC (0x0702) 04:05:18: As1 LCP: ACFC (0x0802)  
04:05:18: As1 LCP: I CONFACK [REQsent] id 225 len 24 04:05:18: As1 LCP: ACCM 0x000A0000  
(0x0206000A0000) 04:05:18: As1 LCP: AuthProto PAP (0x0304C023) 04:05:18: As1 LCP: MagicNumber  
0xE0FED8A0 (0x0506E0FED8A0) 04:05:18: As1 LCP: PFC (0x0702) 04:05:18: As1 LCP: ACFC (0x0802)  
04:05:19: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 20 04:05:19: As1 LCP: ACCM 0x00000000  
(0x020600000000) 04:05:19: As1 LCP: MagicNumber 0x000007A0 (0x0506000007A0) 04:05:19: As1 LCP:  
PFC (0x0702) 04:05:19: As1 LCP: ACFC (0x0802) 04:05:19: As1 LCP: O CONFACK [ACKrcvd] id 0 len 20  
04:05:19: As1 LCP: ACCM 0x00000000 (0x020600000000) 04:05:19: As1 LCP: MagicNumber 0x000007A0  
(0x0506000007A0) 04:05:19: As1 LCP: PFC (0x0702) 04:05:19: As1 LCP: ACFC (0x0802) 04:05:19: As1  
LCP: State is Open 04:05:19: As1 PPP: Phase is AUTHENTICATING, by this end 04:05:19: As1 LCP: I  
IDENTIFY [Open] id 1 len 18 magic 0x000007A0 MSRASV4.00 04:05:19: As1 LCP: I IDENTIFY [Open] id

2 len 21 magic 0x000007A0 MSRAS-1-ZEKIE 04:05:19: As1 PAP: I AUTH-REQ id 16 len 24 from "callback2" 04:05:19: As1 PAP: Authenticating peer callback2 04:05:19: AAA/AUTHEN: create\_user (0x14A640) user='callback2' ruser='' port='Async1' rem\_addr='async' authen\_type=PAP service=PPP priv=1 04:05:19: AAA/AUTHEN/START (1256800753): port='Async1' list='' action=LOGIN service=PPP 04:05:19: AAA/AUTHEN/START (1256800753): using "default" list 04:05:19: AAA/AUTHEN/START (1256800753): Method=RADIUS 04:05:19: RADIUS: Computed extended port value 0:1: 04:05:19: RADIUS: Initial Transmit id 157 171.68.118.101:1645, Access-Request, len 79 04:05:19: Attribute 4 6 0A1F0105 04:05:19: Attribute 5 6 00000001 04:05:19: Attribute 61 6 00000000 04:05:19: Attribute 1 11 63616C6C 04:05:19: Attribute 2 18 C29C6276 04:05:19: Attribute 6 6 00000002 04:05:19: Attribute 7 6 00000001 04:05:19: RADIUS: Received from id 157 171.68.118.101:1645, Access-Accept, len 69 04:05:19: Attribute 6 6 00000002 04:05:19: Attribute 7 6 00000001 04:05:19: Attribute 26 37 00000009011F6C63 04:05:19: RADIUS: saved authorization data for user 14A640 at 14B1CC 04:05:19: AAA/AUTHEN (1256800753): status = PASS 04:05:19: AAA/AUTHOR/LCP As1: Authorize LCP 04:05:19: AAA/AUTHOR/LCP As1 (1783017574): Port='Async1' list='' service=NET 04:05:19: AAA/AUTHOR/LCP: As1 (1783017574) user='callback2' 04:05:19: AAA/AUTHOR/LCP: As1 (1783017574) send AV service=ppp 04:05:19: AAA/AUTHOR/LCP: As1 (1783017574) send AV protocol=lcp 04:05:19: AAA/AUTHOR/LCP (1783017574) found list "default" 04:05:19: AAA/AUTHOR/LCP: As1 (1783017574) Method=RADIUS 04:05:19: RADIUS: cisco AVPair "lcp:callback-dialstring=20367" 04:05:19: AAA/AUTHOR (1783017574): Post authorization status = PASS\_REPL 04:05:19: AAA/AUTHOR/LCP As1: Processing AV service=ppp 04:05:19: AAA/AUTHOR/LCP As1: Processing AV callback-dialstring=20367 04:05:19: As1 PAP: O AUTH-ACK id 16 len 5 04:05:19: As1 PPP: Phase is UP 04:05:19: AAA/AUTHOR/FSM As1: (0): Can we start IPCP? 04:05:19: AAA/AUTHOR/FSM As1 (1621572650): Port='Async1' list='' service=NET 04:05:19: AAA/AUTHOR/FSM: As1 (1621572650) user='callback2' 04:05:19: AAA/AUTHOR/FSM: As1 (1621572650) send AV service=ppp 04:05:19: AAA/AUTHOR/FSM: As1 (1621572650) send AV protocol=ip 04:05:19: AAA/AUTHOR/FSM (1621572650) found list "default" 04:05:19: AAA/AUTHOR/FSM: As1 (1621572650) Method=RADIUS 04:05:19: RADIUS: cisco AVPair "lcp:callback-dialstring=20367" not applied for ip 04:05:19: AAA/AUTHOR (1621572650): Post authorization status = PASS\_REPL 04:05:19: AAA/AUTHOR/FSM As1: We can start IPCP 04:05:19: As1 IPCP: O CONFREQ [Closed] id 24 len 10 04:05:19: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105) 04:05:19: As1 IPCP: I CONFREQ [REQsent] id 3 len 40 04:05:19: As1 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) 04:05:19: As1 IPCP: Address 0.0.0.0 (0x030600000000) 04:05:19: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) 04:05:19: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) 04:05:19: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) 04:05:19: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) 04:05:19: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want 0.0.0.0 04:05:19: AAA/AUTHOR/IPCP As1: Processing AV service=ppp 04:05:19: AAA/AUTHOR/IPCP As1: Authorization succeeded 04:05:19: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 0.0.0.0 04:05:19: As1 IPCP: Using pool 'async' 04:05:19: As1 IPCP: Pool returned 15.15.15.15 04:05:19: As1 IPCP: O CONFREQ [REQsent] id 3 len 28 04:05:19: As1 IPCP: CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) 04:05:19: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000) 04:05:19: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) 04:05:19: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) 04:05:19: As1 IPCP: I CONFACK [REQsent] id 24 len 10 04:05:19: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105) 04:05:19: As1 IPCP: I CONFREQ [ACKrcvd] id 4 len 16 04:05:19: As1 IPCP: Address 0.0.0.0 (0x030600000000) 04:05:19: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) 04:05:19: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want 15.15.15.15 04:05:19: AAA/AUTHOR/IPCP As1: Processing AV service=ppp 04:05:19: AAA/AUTHOR/IPCP As1: Authorization succeeded 04:05:19: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 15.15.15.15 04:05:19: As1 IPCP: O CONFNAK [ACKrcvd] id 4 len 16 04:05:19: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F) 04:05:19: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667) 04:05:20: As1 IPCP: I CONFREQ [ACKrcvd] id 5 len 16 04:05:20: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F) 04:05:20: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667) 04:05:20: AAA/AUTHOR/IPCP As1: Start. Her address 15.15.15.15, we want 15.15.15.15 04:05:20: AAA/AUTHOR/IPCP As1 (2922034935): Port='Async1' list='' service=NET 04:05:20: AAA/AUTHOR/IPCP: As1 (2922034935) user='callback2' 04:05:20: AAA/AUTHOR/IPCP: As1 (2922034935) send AV service=ppp 04:05:20: AAA/AUTHOR/IPCP: As1 (2922034935) send AV protocol=ip 04:05:20: AAA/AUTHOR/IPCP: As1 (2922034935) send AV addr\*15.15.15.15 04:05:20: AAA/AUTHOR/IPCP (2922034935) found list "default" 04:05:20: AAA/AUTHOR/IPCP: As1 (2922034935) Method=RADIUS 04:05:20: RADIUS: cisco AVPair "lcp:callback-dialstring=20367" not applied for ip 04:05:20: AAA/AUTHOR (2922034935): Post authorization status = PASS\_REPL 04:05:20: AAA/AUTHOR/IPCP As1: Reject 15.15.15.15, using 15.15.15.15 04:05:20: AAA/AUTHOR/IPCP As1: Processing AV service=ppp 04:05:20: AAA/AUTHOR/IPCP As1: Processing AV addr\*15.15.15.15 04:05:20: AAA/AUTHOR/IPCP As1: Authorization succeeded 04:05:20: AAA/AUTHOR/IPCP As1: Done. Her address 15.15.15.15, we want 15.15.15.15 04:05:20: As1 IPCP: O CONFACK [ACKrcvd] id 5 len 16 04:05:20: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F) 04:05:20: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667) 04:05:20: As1 IPCP: State is Open 04:05:20: As1 IPCP: Install route to 15.15.15.15 04:05:20:

%LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to up

## 使用使用者指定號碼的PPP回撥

前面的示例是在預定義的號碼（在伺服器中指定）上回撥的。回撥也可以以使用者指定的號碼完成；即，在身份驗證伺服器中，回撥編號被指定為null。這會導致路由器向使用者要求回撥號碼。同樣，初始測試應在指定本地回撥的情況下完成。如果本地回撥和一個空回撥字串不起作用(即刪除aaa new-model 命令),RADIUS回撥將不起作用！指定路由器本地的空回撥字串：

```
username callback callback-dialstring "" password 0 callback
```

在PC上的「撥號網路」（Windows NT伺服器）下的「使用者首選項」中，選中「回撥 — 如果伺服器提供，可能在重撥期間詢問我」框。使用者通過身份驗證後，PC上將顯示一個視窗，顯示「回叫 — 您輸入了「由呼叫者設定」，接著顯示消息的其他部分，然後「輸入數據機電話號碼」。

## 伺服器配置

### 伺服器設定 — CiscoSecure NT

- 使用者獲取密碼並確認密碼。
- 在組設定中：屬性006 Service-Type = Framed屬性007 Framed-Protocol = PPP
- 在螢幕上的最後一個框Cisco RADIUS Attributes中，選中[009\001 - AV配對]，並在下方輸入：  
: lcp:callback-dialstring=

### 伺服器設定 — CiscoSecure UNIX

```
rtp-berry# ./ViewProfile -p 9900 -u callback
User Profile Information
user = callback{
profile_id = 34
profile_cycle = 1
radius=Cisco {
check_items= {
2="callback"
}
reply_attributes= {
6=2
7=1
9,1="lcp:callback-dialstring="
}
}
}
```

### 伺服器設定 — Livingston RADIUS

```
callback2 Password = "callback2"
User-Service-Type = Framed-User,
Framed-Protocol = PPP,
```



```
cisco-avpair = "lcp:callback-dialstring="
```

## 調試輸出示例

```
koala#show debug
General OS:
Modem control/process activation 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 authentication debugging is on
PPP protocol negotiation debugging is on
Chat Scripts:
Chat scripts activity debugging is on
Callback:
Callback activity debugging is on
Radius protocol debugging is on
koala#
02:23:01: TTY1: DSR came up
02:23:01: tty1: Modem: IDLE->READY
02:23:01: TTY1: Autoselect started
02:23:03: TTY1: Autoselect sample 7E
02:23:03: TTY1: Autoselect sample 7EFF
02:23:03: TTY1: Autoselect sample 7EFF7D
02:23:03: TTY1: Autoselect sample 7EFF7D23
02:23:03: TTY1 Autoselect cmd: ppp negotiate
02:23:03: TTY1: EXEC creation
02:23:05: %LINK-3-UPDOWN: Interface Async1, changed state to up
02:23:05: As1 PPP: Treating connection as a dedicated line
02:23:05: As1 PPP: Phase is ESTABLISHING, Active Open
02:23:05: As1 LCP: O CONFREQ [Closed] id 27 len 24
02:23:05: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
02:23:05: As1 LCP: AuthProto PAP (0x0304C023)
02:23:05: As1 LCP: MagicNumber 0xE0A14386 (0x0506E0A14386)
02:23:05: As1 LCP: PFC (0x0702)
02:23:05: As1 LCP: ACFC (0x0802)
02:23:05: As1 LCP: I CONFACK [REQsent] id 27 len 24
02:23:05: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
02:23:05: As1 LCP: AuthProto PAP (0x0304C023)
02:23:05: As1 LCP: MagicNumber 0xE0A14386 (0x0506E0A14386)
02:23:05: As1 LCP: PFC (0x0702)
02:23:05: As1 LCP: ACFC (0x0802)
02:23:06: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 23
02:23:06: As1 LCP: ACCM 0x00000000 (0x020600000000)
02:23:06: As1 LCP: MagicNumber 0x0000152B (0x05060000152B)
02:23:06: As1 LCP: PFC (0x0702)
02:23:06: As1 LCP: ACFC (0x0802)
02:23:06: As1 LCP: Callback 6 (0x0D0306)
02:23:06: As1 LCP: O CONFACK [ACKrcvd] id 0 len 23
02:23:06: As1 LCP: ACCM 0x00000000 (0x020600000000)
02:23:06: As1 LCP: MagicNumber 0x0000152B (0x05060000152B)
02:23:06: As1 LCP: PFC (0x0702)
02:23:06: As1 LCP: ACFC (0x0802)
02:23:06: As1 LCP: Callback 6 (0x0D0306)
02:23:06: As1 LCP: State is Open
02:23:06: As1 PPP: Phase is AUTHENTICATING, by this end
02:23:06: As1 LCP: I IDENTIFY [Open] id 1 len 18 magic
0x0000152B MSRASV4.00
```

02:23:06: As1 LCP: I IDENTIFY [Open] id 2 len 21 magic  
0x0000152B MSRAS-1-ZEKIE  
02:23:06: As1 PAP: I AUTH-REQ id 64 len 22 from "userspec"  
02:23:06: As1 PAP: Authenticating peer userspec  
02:23:06: AAA/AUTHEN: create\_user (0x16E284) user='userspec' ruser=''  
port='Async1' rem\_addr='async' authen\_type=PAP service=PPP priv=1  
02:23:06: AAA/AUTHEN/START (835406208): port='Async1' list=''  
action=LOGIN service=PPP  
02:23:06: AAA/AUTHEN/START (835406208): using "default" list  
02:23:06: AAA/AUTHEN (835406208): status = UNKNOWN  
02:23:06: AAA/AUTHEN/START (835406208): Method=RADIUS  
02:23:06: RADIUS: Computed extended port value 0:1:  
02:23:06: RADIUS: Initial Transmit id 25 171.68.120.194:1645,  
Access-Request, len 78  
02:23:06: Attribute 4 6 0A1F0105  
02:23:06: Attribute 5 6 00000001  
02:23:06: Attribute 61 6 00000000  
02:23:06: Attribute 1 10 75736572  
02:23:06: Attribute 2 18 E1377DA0  
02:23:06: Attribute 6 6 00000002  
02:23:06: Attribute 7 6 00000001  
02:23:06: RADIUS: Received from id 25 171.68.120.194:1645,  
Access-Accept, len 64  
02:23:06: Attribute 6 6 00000002  
02:23:06: Attribute 7 6 00000001  
02:23:06: Attribute 26 32 00000009011A6C63  
02:23:06: RADIUS: saved authorization data for user 16E284 at A1B44  
02:23:06: AAA/AUTHEN (835406208): status = PASS  
02:23:06: AAA/AUTHOR/LCP As1: Authorize LCP  
02:23:06: AAA/AUTHOR/LCP As1 (2812925385): Port='Async1'  
list='' service=NET  
02:23:06: AAA/AUTHOR/LCP: As1 (2812925385) user='userspec'  
02:23:06: AAA/AUTHOR/LCP: As1 (2812925385) send AV service=ppp  
02:23:06: AAA/AUTHOR/LCP: As1 (2812925385) send AV protocol=lcp  
02:23:06: AAA/AUTHOR/LCP (2812925385) found list "default"  
02:23:06: AAA/AUTHOR/LCP: As1 (2812925385) Method=RADIUS  
*!--- Callback dialstring is empty (null).* 02:23:06: RADIUS: cisco AVPair "lcp:callback-  
dialstring=" 02:23:06: AAA/AUTHOR (2812925385): Post authorization status = PASS\_REPL 02:23:06:  
AAA/AUTHOR/LCP As1: Processing AV service=ppp 02:23:06: AAA/AUTHOR/LCP As1: Processing AV  
callback-dialstring= 02:23:06: As1 PAP: O AUTH-ACK id 64 len 5 *!--- Router recognizes that it is  
to receive number from client !--- and starts sending requests to PC.* 02:23:06: As1 MCB: User  
userspec Callback Number - Client ANY 02:23:06: Async1 PPP: O MCB Request(1) id 92 len 9  
02:23:06: Async1 MCB: O 1 5C 0 9 2 5 0 1 0 02:23:06: As1 MCB: O Request Id 92 Callback Type  
Client-Num delay 0 02:23:07: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed  
state to up *!--- Router receives response from PC.* 02:23:09: Async1 PPP: I MCB Response(2) id 92  
len 14 02:23:09: Async1 MCB: I 2 5C 0 E 2 A C 1 32 30 33 36 37 0 02:23:09: As1 MCB: Received  
response *!--- Received callback number from the client.* 02:23:09: As1 MCB: Response CBK-Client-  
Num 2 10 12, addr 1-20367 02:23:09: Async1 PPP: O MCB Ack(3) id 93 len 14 02:23:09: Async1 MCB:  
O 3 5D 0 E 2 A C 1 32 30 33 36 37 0 02:23:09: As1 MCB: O Ack Id 93 Callback Type Client-Num  
delay 12 02:23:09: As1 MCB: Negotiated MCB with peer 02:23:09: As1 LCP: I TERMREQ [Open] id 3  
len 8 (0x00000000) 02:23:09: As1 LCP: O TERMACK [Open] id 3 len 4 02:23:09: As1 MCB: Peer  
terminating the link 02:23:09: As1 PPP: Phase is TERMINATING 02:23:09: As1 MCB: Link terminated  
by peer, Callback Needed *!--- Callback is initiated.* 02:23:09: As1 MCB: Initiate Callback for  
userspec at 20367 using Async 02:23:09: TTY1 Callback user dialstring 20367 from PPP negotiation  
02:23:09: As1 MCB: Async-callback in progress 02:23:09: TTY1 Callback PPP process creation  
02:23:09: As1 AAA/ACCT: Using PPP accounting list "" 02:23:09: TTY1 Callback process initiated,  
user: dialstring 20367 02:23:09: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed  
state to down 02:23:10: TTY1: Async Int reset: Dropping DTR 02:23:11: As1 LCP: TIMEOUT: Time  
0x831824 State TERMsent 02:23:11: As1 LCP: State is Closed 02:23:11: As1 PPP: Phase is DOWN  
02:23:11: As1 VP: Cleaning already proceeding 02:23:11: As1 PPP: Phase is ESTABLISHING, Passive  
Open 02:23:11: AAA/AUTHEN: dup\_user (0x16E558) user='userspec' ruser='' port='Async1'  
rem\_addr='async' authen\_type=PAP service=PPP priv=1 source='AAA dup lcp\_reset' 02:23:11:  
AAA/AUTHEN: Method=IF-NEEDED: no authentication needed. user='userspec' port='Async1'  
rem\_addr='async' 02:23:11: As1 LCP: State is Listen 02:23:11: AAA/AUTHEN: free\_user (0x16E284)

user='userspec' ruser='' port='Async1' rem\_addr='async' authen\_type=PAP service=PPP priv=1  
02:23:12: %LINK-5-CHANGED: Interface Async1, changed state to reset 02:23:12: As1 LCP: State is  
Closed 02:23:12: As1 PPP: Phase is DOWN 02:23:12: As1 VP: Cleaning already proceeding 02:23:12:  
As1 IPCP: Remove route to 15.15.15.15 02:23:15: AAA/AUTHEN: free\_user (0x16E558) user='userspec'  
ruser='' port='Async1' rem\_addr='async' authen\_type=PAP service=PPP priv=1 02:23:15: TTY1  
Callback forced wait = 4 seconds 02:23:17: %LINK-3-UPDOWN: Interface Async1, changed state to  
down 02:23:17: As1 LCP: State is Closed 02:23:17: As1 PPP: Phase is DOWN 02:23:17: As1 VP:  
Cleaning already proceeding 02:23:19: CHAT1: Matched chat script offhook to string offhook  
02:23:19: CHAT1: Asserting DTR 02:23:19: CHAT1: Chat script offhook started 02:23:19: CHAT1:  
Sending string: ATH1 02:23:19: CHAT1: Expecting string: OK 02:23:19: CHAT1: Completed match for  
expect: OK 02:23:19: CHAT1: Chat script offhook finished, status = Success 02:23:19: CHAT1:  
Matched chat script callback to string callback 02:23:19: CHAT1: Asserting DTR 02:23:19: CHAT1:  
Chat script callback started 02:23:19: CHAT1: Sending string: ATZ 02:23:19: CHAT1: Expecting  
string: OK 02:23:19: CHAT1: Completed match for expect: OK 02:23:19: CHAT1: Sending string: ATDT  
<20367> 02:23:19: CHAT1: Expecting string: CONNECT 02:23:35: CHAT1: Completed match for  
expect: CONNECT 02:23:35: CHAT1: Sending string: \c 02:23:35: CHAT1: Chat script callback  
finished, status = Success 02:23:35: TTY1 PPP Callback Successful - await exec/autoselect pickup  
02:23:37: TTY1: DSR came up 02:23:37: TTY1: Callback in effect 02:23:37: tty1: Modem: IDLE-  
>READY 02:23:37: TTY1: Autoselect started 02:23:37: As1 LCP: I CONFREQ [Closed] id 0 len 20  
02:23:37: As1 LCP: ACCM 0x00000000 (0x020600000000) 02:23:37: As1 LCP: MagicNumber 0x00005156  
(0x050600005156) 02:23:37: As1 LCP: PFC (0x0702) 02:23:37: As1 LCP: ACFC (0x0802) 02:23:37: As1  
LCP: Lower layer not up, discarding packet 02:23:39: %LINK-3-UPDOWN: Interface Async1, changed  
state to up 02:23:39: As1 PPP: Treating connection as a dedicated line 02:23:39: As1 PPP: Phase  
is ESTABLISHING, Active Open 02:23:39: As1 LCP: O CONFREQ [Closed] id 28 len 24 02:23:39: As1  
LCP: ACCM 0x000A0000 (0x0206000A0000) 02:23:39: As1 LCP: AuthProto PAP (0x0304C023) 02:23:39:  
As1 LCP: MagicNumber 0xE0A1CAB2 (0x0506E0A1CAB2) 02:23:39: As1 LCP: PFC (0x0702) 02:23:39: As1  
LCP: ACFC (0x0802) 02:23:40: As1 LCP: I CONFACK [REQsent] id 28 len 24 02:23:40: As1 LCP: ACCM  
0x000A0000 (0x0206000A0000) 02:23:40: As1 LCP: AuthProto PAP (0x0304C023) 02:23:40: As1 LCP:  
MagicNumber 0xE0A1CAB2 (0x0506E0A1CAB2) 02:23:40: As1 LCP: PFC (0x0702) 02:23:40: As1 LCP: ACFC  
(0x0802) 02:23:40: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 20 02:23:40: As1 LCP: ACCM 0x00000000  
(0x020600000000) 02:23:40: As1 LCP: MagicNumber 0x00005156 (0x050600005156) 02:23:40: As1 LCP:  
PFC (0x0702) 02:23:40: As1 LCP: ACFC (0x0802) 02:23:40: As1 LCP: O CONFACK [ACKrcvd] id 0 len 20  
02:23:40: As1 LCP: ACCM 0x00000000 (0x020600000000) 02:23:40: As1 LCP: MagicNumber 0x00005156  
(0x050600005156) 02:23:40: As1 LCP: PFC (0x0702) 02:23:40: As1 LCP: ACFC (0x0802) 02:23:40: As1  
LCP: State is Open 02:23:40: As1 PPP: Phase is AUTHENTICATING, by this end 02:23:41: As1 LCP: I  
IDENTIFY [Open] id 1 len 18 magic 0x00005156 MSRASV4.00 02:23:41: As1 LCP: I IDENTIFY [Open] id  
2 len 21 magic 0x00005156 MSRAS-1-ZEKIE 02:23:41: As1 PAP: I AUTH-REQ id 65 len 22 from  
"userspec" 02:23:41: As1 PAP: Authenticating peer userspec 02:23:41: AAA/AUTHEN: create\_user  
(0x16E284) user='userspec' ruser='' port='Async1' rem\_addr='async' authen\_type=PAP service=PPP  
priv=1 02:23:41: AAA/AUTHEN/START (2883652190): port='Async1' list='' action=LOGIN service=PPP  
02:23:41: AAA/AUTHEN/START (2883652190): using "default" list 02:23:41: AAA/AUTHEN (2883652190):  
status = UNKNOWN 02:23:41: AAA/AUTHEN/START (2883652190): Method=RADIUS 02:23:41: RADIUS:  
Computed extended port value 0:1: 02:23:41: RADIUS: Initial Transmit id 26 171.68.120.194:1645,  
Access-Request, len 78 02:23:41: Attribute 4 6 0A1F0105 02:23:41: Attribute 5 6 00000001  
02:23:41: Attribute 61 6 00000000 02:23:41: Attribute 1 10 75736572 02:23:41: Attribute 2 18  
8150DA02 02:23:41: Attribute 6 6 00000002 02:23:41: Attribute 7 6 00000001 02:23:41: RADIUS:  
Received from id 26 171.68.120.194:1645, Access-Accept, len 64 02:23:41: Attribute 6 6 00000002  
02:23:41: Attribute 7 6 00000001 02:23:41: Attribute 26 32 00000009011A6C63 02:23:41: RADIUS:  
saved authorization data for user 16E284 at A1B44 02:23:41: AAA/AUTHEN (2883652190): status =  
PASS 02:23:41: AAA/AUTHOR/LCP As1: Authorize LCP 02:23:41: AAA/AUTHOR/LCP As1 (3660077691):  
Port='Async1' list='' service=NET 02:23:41: AAA/AUTHOR/LCP: As1 (3660077691) user='userspec'  
02:23:41: AAA/AUTHOR/LCP: As1 (3660077691) send AV service=ppp 02:23:41: AAA/AUTHOR/LCP: As1  
(3660077691) send AV protocol=lcp 02:23:41: AAA/AUTHOR/LCP (3660077691) found list "default"  
02:23:41: AAA/AUTHOR/LCP: As1 (3660077691) Method=RADIUS 02:23:41: RADIUS: cisco AVPair  
"lcp:callback-dialstring=" 02:23:41: AAA/AUTHOR (3660077691): Post authorization status =  
PASS\_REPL 02:23:41: AAA/AUTHOR/LCP As1: Processing AV service=ppp 02:23:41: AAA/AUTHOR/LCP As1:  
Processing AV callback-dialstring= 02:23:41: As1 PAP: O AUTH-ACK id 65 len 5 02:23:41: As1 PPP:  
Phase is UP 02:23:41: AAA/AUTHOR/FSM As1: (0): Can we start IPCP? 02:23:41: AAA/AUTHOR/FSM As1  
(2418882911): Port='Async1' list='' service=NET 02:23:41: AAA/AUTHOR/FSM: As1 (2418882911)  
user='userspec' 02:23:41: AAA/AUTHOR/FSM: As1 (2418882911) send AV service=ppp 02:23:41:  
AAA/AUTHOR/FSM: As1 (2418882911) send AV protocol=ip 02:23:41: AAA/AUTHOR/FSM (2418882911) found  
list "default" 02:23:41: AAA/AUTHOR/FSM: As1 (2418882911) Method=RADIUS 02:23:41: RADIUS: cisco  
AVPair "lcp:callback-dialstring=" not applied for ip 02:23:41: AAA/AUTHOR (2418882911): Post  
authorization status = PASS\_REPL 02:23:41: AAA/AUTHOR/FSM As1: We can start IPCP 02:23:41: As1

IPCP: O CONFREQ [Closed] id 12 len 10 02:23:41: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)  
02:23:41: As1 IPCP: I CONFREQ [REQsent] id 3 len 40 02:23:41: As1 IPCP: CompressType VJ 15 slots  
CompressSlotID (0x0206002D0F01) 02:23:41: As1 IPCP: Address 0.0.0.0 (0x030600000000) 02:23:41:  
As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) 02:23:41: As1 IPCP: PrimaryWINS 0.0.0.0  
(0x820600000000) 02:23:41: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) 02:23:41: As1 IPCP:  
SecondaryWINS 0.0.0.0 (0x840600000000) 02:23:41: AAA/AUTHOR/IPCP As1: Start. Her address  
0.0.0.0, we want 0.0.0.0 02:23:41: AAA/AUTHOR/IPCP As1: Processing AV service=ppp 02:23:41:  
AAA/AUTHOR/IPCP As1: Authorization succeeded 02:23:41: AAA/AUTHOR/IPCP As1: Done. Her address  
0.0.0.0, we want 0.0.0.0 02:23:41: As1 IPCP: Using pool 'async' 02:23:41: As1 IPCP: Pool  
returned 15.15.15.15 02:23:41: As1 IPCP: O CONFREQ [REQsent] id 3 len 28 02:23:41: As1 IPCP:  
CompressType VJ 15 slots CompressSlotID (0x0206002D0F01) 02:23:41: As1 IPCP: PrimaryWINS 0.0.0.0  
(0x820600000000) 02:23:41: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) 02:23:41: As1 IPCP:  
SecondaryWINS 0.0.0.0 (0x840600000000) 02:23:41: As1 IPCP: I CONFACK [REQsent] id 12 len 10  
02:23:41: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105) 02:23:41: As1 IPCP: I CONFREQ [ACKrcvd]  
id 4 len 16 02:23:41: As1 IPCP: Address 0.0.0.0 (0x030600000000) 02:23:41: As1 IPCP: PrimaryDNS  
0.0.0.0 (0x810600000000) 02:23:41: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want  
15.15.15.15 02:23:41: AAA/AUTHOR/IPCP As1: Processing AV service=ppp 02:23:41: AAA/AUTHOR/IPCP  
As1: Authorization succeeded 02:23:41: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want  
15.15.15.15 02:23:41: As1 IPCP: O CONFNAK [ACKrcvd] id 4 len 16 02:23:41: As1 IPCP: Address  
15.15.15.15 (0x03060F0F0F0F) 02:23:41: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)  
02:23:41: As1 IPCP: I CONFREQ [ACKrcvd] id 5 len 16 02:23:41: As1 IPCP: Address 15.15.15.15  
(0x03060F0F0F0F) 02:23:41: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667) 02:23:41:  
AAA/AUTHOR/IPCP As1: Start. Her address 15.15.15.15, we want 15.15.15.15 02:23:41:  
AAA/AUTHOR/IPCP As1 (2792483333): Port='Async1' list='' service=NET 02:23:41: AAA/AUTHOR/IPCP:  
As1 (2792483333) user='userspec' 02:23:41: AAA/AUTHOR/IPCP: As1 (2792483333) send AV service=ppp  
02:23:41: AAA/AUTHOR/IPCP: As1 (2792483333) send AV protocol=ip 02:23:41: AAA/AUTHOR/IPCP: As1  
(2792483333) send AV addr\*15.15.15.15 02:23:41: AAA/AUTHOR/IPCP (2792483333) found list  
"default" 02:23:41: AAA/AUTHOR/IPCP: As1 (2792483333) Method=RADIUS 02:23:41: RADIUS: cisco  
AVPair "lcp:callback-dialstring=" not applied for ip 02:23:41: AAA/AUTHOR (2792483333): Post  
authorization status = PASS\_REPL 02:23:41: AAA/AUTHOR/IPCP As1: Reject 15.15.15.15, using  
15.15.15.15 02:23:41: AAA/AUTHOR/IPCP As1: Processing AV service=ppp 02:23:41: AAA/AUTHOR/IPCP  
As1: Processing AV addr\*15.15.15.15 02:23:41: AAA/AUTHOR/IPCP As1: Authorization succeeded  
02:23:41: AAA/AUTHOR/IPCP As1: Done. Her address 15.15.15.15, we want 15.15.15.15 02:23:41: As1  
IPCP: O CONFACK [ACKrcvd] id 5 len 16 02:23:41: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)  
02:23:41: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667) 02:23:41: As1 IPCP: State is Open  
02:23:41: dialer Protocol up for As1 02:23:41: As1 IPCP: Install route to 15.15.15.15 02:23:42:  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to up

## [相關資訊](#)

- [RADIUS 支援頁面](#)
- [Cisco Secure ACS for Windows 支援頁](#)
- [Cisco Secure ACS for UNIX 支援頁](#)
- [要求建議 \(RFC\)](#)
- [技術支援與文件 - Cisco Systems](#)