

為撥入使用者端設定基本AAA RADIUS

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簡介

本檔案介紹使用存取伺服器接受傳入類比和ISDN連線，並使用驗證、授權和計量(AAA)遠端驗證撥入使用者服務(RADIUS)伺服器對其進行驗證之組態範例。有關AAA和RADIUS的詳細資訊，請參閱以下文檔：

- [設定RADIUS](#)
- [設定存取伺服器上的基礎 AAA](#)

必要條件

需求

此組態會假設RADIUS伺服器設定正確。此組態也適用於大多數商業適用的RADIUS伺服器。有關正確伺服器配置的詳細資訊，請參閱RADIUS伺服器文檔。

採用元件

本檔案中的資訊是根據以下軟體和硬體版本。

- 採用T1 PRI和48位數位資料機的Cisco AS5300。它運行的是Cisco IOS®軟體版本12.0(7)T。
- CiscoSecure for Unix(CSU)伺服器，版本2.3(3)。

此處描述的AAA特定配置也可用於任何簡單的撥號方案。確保接入伺服器可以接受來電，然後新增

適當的AAA命令，如下面的配置所示。

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。如果您在即時網路中工作，請確保在使用任何命令之前瞭解其潛在影響。

慣例

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

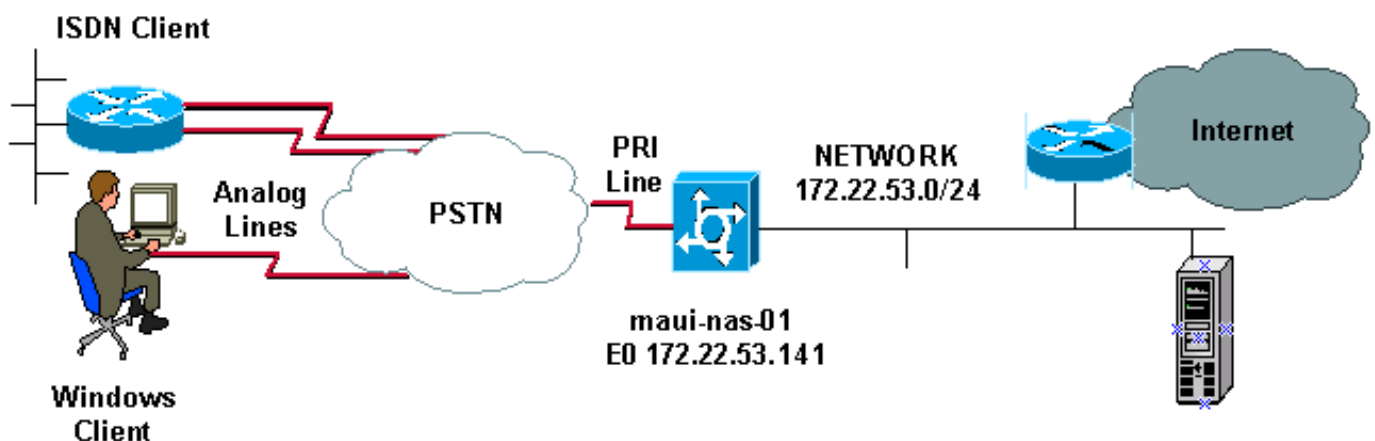
設定

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。



組態

CSU和CiscoSecure NT(CSNT)配置以及網路訪問伺服器(NAS)配置如下所示。由於此配置描述了一個簡單的撥入場景，因此ISDN和非同步使用者的CiscoSecure配置是相同的。不包括ISDN客戶端配置，因為它與此RADIUS配置無關。

CSU

```
# ./ViewProfile -p 9900 -u async_client
User Profile Information
user = async_client{
  profile_id = 110
  profile_cycle = 2
  radius=Cisco {
    check_items= {
      2=cisco
    }
    !--- Password(2) is "cisco" } reply_attributes= { 6=2 !-
    -- Service-Type(6) is Framed (2) 7=1 !--- Frame d-
    Protocol(7) is PPP (1) } } } # ./ViewProfile -p 9900 -u
isdn_user
```

```
User Profile Information
user = isdn_user{
profile_id = 24
profile_cycle = 4
radius=Cisco {
check_items= {
2=cisco
! --- Password(2) is "cisco" } reply_attributes= { 6=2 !
--- Service-Type(6) is Framed (2) 7=1 ! --- Framed-
Protocol(7) is PPP (1) } } }
```

注意：對於此簡單方案，非同步和ISDN使用者的配置是相同的。

[CSNT RADIUS](#)

要配置CiscoSecure NT(CSNT)RADIUS，請執行以下操作：

1. 建立名為isdn_user和async_client的新使用者。
2. 在使用者設定部分配置適當的密碼
3. 在「Internet工程任務組(IETF)RADIUS屬性」部分，從下拉選單中選擇以下專案：**Service-type(attribute 6)= Framed and Framed-Protocol(attribute 7)=PPP**注意：必須按一下屬性Service-Type和Framed-Protocol旁邊的覈取方塊。注意：對於此簡單方案，非同步和ISDN使用者的配置是相同的。

maui-nas-01

```
maui-nas-01#show running-config
Building configuration...

Current configuration:
!
version 12.0
service timestamps debug datetime msec
service timestamps log datetime msec
service password-encryption
!
hostname maui-nas-01
!
aaa new-model
!--- Initiates the AAA access control system. !--- This
command immediately locks down login and PPP
authentication. aaa authentication login default group
radius local !--- Exec login (for the list default) is
authenticated using methods !--- radius then local. The
router uses RADIUS for authentication at the !---
login(exec) prompt. If RADIUS returns an error, the user
is authenticated !--- using the local database. aaa
authentication login NO_AUTHEN none !--- Exec login (for
the list NO_AUTHEN) has authentication method none !---
(no authentication). Interfaces to which this list is
applied will not have !--- authentication enabled. Refer
to the console port (line con 0) configuration. aaa
authentication ppp default if-needed group radius local
!--- PPP authentication (for the list default) uses
methods radius then local. !--- The if-needed keyword
automatically permits ppp for users that have !---
successfully authenticated using exec mode. If the EXEC
facility has !--- authenticated the user, RADIUS
authentication for PPP is not performed. !---This is
```

necessary for clients that use terminal window after dial. aaa authorization network default group radius local !--- Authorization of network services (PPP services) for the list default !--- uses methods radius then local. This is necessary if you use RADIUS !--- for the client IP address, Access List assignment and so on. enable secret 5 <deleted> ! username admin password 7 <deleted> !--- This username allows for access to the router in situations where !--- connectivity to the RADIUS server is lost. This is because the AAA !--- configuration for exec login has the alternate method local. spe 2/0 2/7 firmware location system:/ucode/mica_port_firmware ! resource-pool disable ! ip subnet-zero no ip finger ! isdn switch-type primary-ni !--- Switch type is Primary NI-2. isdn voice-call-failure 0 mta receive maximum-recipients 0 ! ! controller T1 0 !--- T1 0 controller configuration. framing esf clock source line primary linecode b8zs pri-group timeslots 1-24 ! controller T1 1 !--- T1 1 is unused. clock source line secondary 1 ! controller T1 2 !--- T1 1 is unused. ! controller T1 3 !--- T1 1 is unused. ! interface Ethernet0 ip address 172.22.53.141 255.255.255.0 no ip directed-broadcast ! interface Serial0:23 !--- D-channel configuration for T1 0. no ip address no ip directed-broadcast encapsulation ppp dialer pool-member 23 !--- Assign Serial0:23 as member of dialer pool 23. !--- Dialer pool 23 is specified in interface Dialer 1. !--- Interface Dialer 1 will terminate the ISDN calls. isdn switch-type primary-ni isdn incoming-voice modem !--- Switch incoming analog calls to the internal digital modems. no cdp enable ! interface FastEthernet0 no ip address no ip directed-broadcast shutdown duplex auto speed auto ! interface Group-Async0 !--- Async Group Interface for the modems. ip unnumbered Ethernet0 !--- Unnumbered to the ethernet interface. no ip directed-broadcast encapsulation ppp async mode interactive !--- Configures interactive mode on the asynchronous interfaces. !--- This allows users to dial in and get to a shell or PPP session on !--- that line. If you want incoming users to only connect using PPP configure !--- **async mode dedicated** instead.

peer default ip address pool ASYNC !--- Use the ip pool named "ASYNC" to assign ip address for !--- incoming connections. ppp authentication chap group-range 1 48 !--- Lines(modems) 1 through 48 are in this group async interface. ! interface Dialer1 !--- Dialer1 will terminate ISDN calls. ip unnumbered Ethernet0 no ip directed-broadcast encapsulation ppp dialer pool 23 !--- Dialer 1 uses dialer pool 23. Interface Serial0:23 is !--- a member of this pool. peer default ip address pool ISDN !--- Use the ip pool named "ISDN" to assign ip address for !--- incoming connections. no cdp enable ppp authentication chap ! ip local pool ISDN 172.22.53.142 172.22.53.145 !--- IP address pool named "ISDN". !--- This pool will be assigned to connections on interface Dialer 1. ip local pool ASYNC 172.22.53.146 172.22.53.149 !--- IP address pool named "ASYNC". !--- This pool will be assigned to incoming connections on Group-Async 0. !--- **Note:** This address pool only has 4 addresses and is not sufficient to !--- support all 48 modem lines. Configure your IP pool with the address range !--- to support all connections.

```

ip classless
no ip http server
!
no cdp run
!
radius-server host 172.22.53.201 auth-port 1645 acct-
port 1646 key cisco
!--- Radius-server host IP address and encryption key.
!--- The encryption key must match the onbe configured
on the RADIUS server. ! line con 0 exec-timeout 0 0
login authentication NO_AUTHEN !--- Specifies that the
AAA list name assigned to the console is !--- NO_AUTHEN.
From the AAA configuration above, the list NO_AUTHEN !--
- does not use authentication. transport input none line
1 48 autoselect during-login !--- Displays the
username:password prompt after modems connect. !---
Without this the user must press enter to receive a
prompt. autoselect ppp !--- When the NAS detects
incoming PPP packets, the PPP session !--- will be
launched. modem InOut transport preferred none transport
input all transport output none line aux 0 line vty 0 4
! end

```

驗證

本節提供的資訊可用於驗證您的組態。

show輸出示例

```
maui-nas-01#show caller user async_client detail
```

```

User: async_client, line tty 5, service Async
Active time 00:01:04, Idle time 00:00:22
Timeouts:          Absolute  Idle      Idle
                   Session   Exec
Limits:            -         -         00:10:00
Disconnect in:    -         -         -
TTY: Line 5, running PPP on As5
Location: PPP: 172.22.53.148
!--- The IP address assigned from the the IP pool. DS0: (slot/unit/channel)=0/0/7 Line: Baud
rate (TX/RX) is 115200/115200, no parity, 1 stopbits, 8 databits Status: Ready, Active, No Exit
Banner, Async Interface Active HW PPP Support Active Capabilities: Hardware Flowcontrol In,
Hardware Flowcontrol Out Modem Callout, Modem RI is CD, Line usable as async interface,
Integrated Modem Modem State: Ready User: async_client, line As5, service PPP Active time
00:00:54, Idle time 00:00:23 Timeouts: Absolute Idle Limits: - - Disconnect in: - - PPP: LCP
Open, CHAP (<- AAA), IPCP
!--- CHAP authentication was performed by AAA. LCP: -> peer, ACCM, AuthProto, MagicNumber,
PCompression, ACCompression <- peer, ACCM, MagicNumber, PCompression, ACCompression NCP: Open
IPCP IPCP: <- peer, Address -> peer, Address IP: Local 172.22.53.141, remote 172.22.53.148
Counts: 40 packets input, 2769 bytes, 0 no buffer 1 input errors, 1 CRC, 0 frame, 0 overrun 24
packets output, 941 bytes, 0 underruns 0 output errors, 0 collisions, 0 interface resets maui-
nas-01#show caller user isdn_user detail

```

```

User: isdn_user, line Se0:8, service PPP
Active time 00:01:22, Idle time 00:01:24
Timeouts:          Absolute  Idle
Limits:            -         00:02:00
Disconnect in:    -         00:00:35

```

```
PPP: LCP Open, CHAP (<- AAA), IPCP
!--- CHAP authentication was performed by AAA. LCP: -> peer, AuthProto, MagicNumber <- peer,
MagicNumber NCP: Open IPCP IPCP: <- peer, Address -> peer, Address Dialer: Connected to ,
inbound Idle timer 120 secs, idle 84 secs Type is ISDN, group Dialer1
! -- The ISDN Call uses int Dialer1. IP: Local 172.22.53.141, remote 172.22.53.142
! -- The IP address was obtained from the local pool. Counts: 31 packets input, 872 bytes, 0 no
buffer 0 input errors, 0 CRC, 0 frame, 0 overrun 34 packets output, 1018 bytes, 0 underruns 0
output errors, 0 collisions, 5 interface resets
```

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

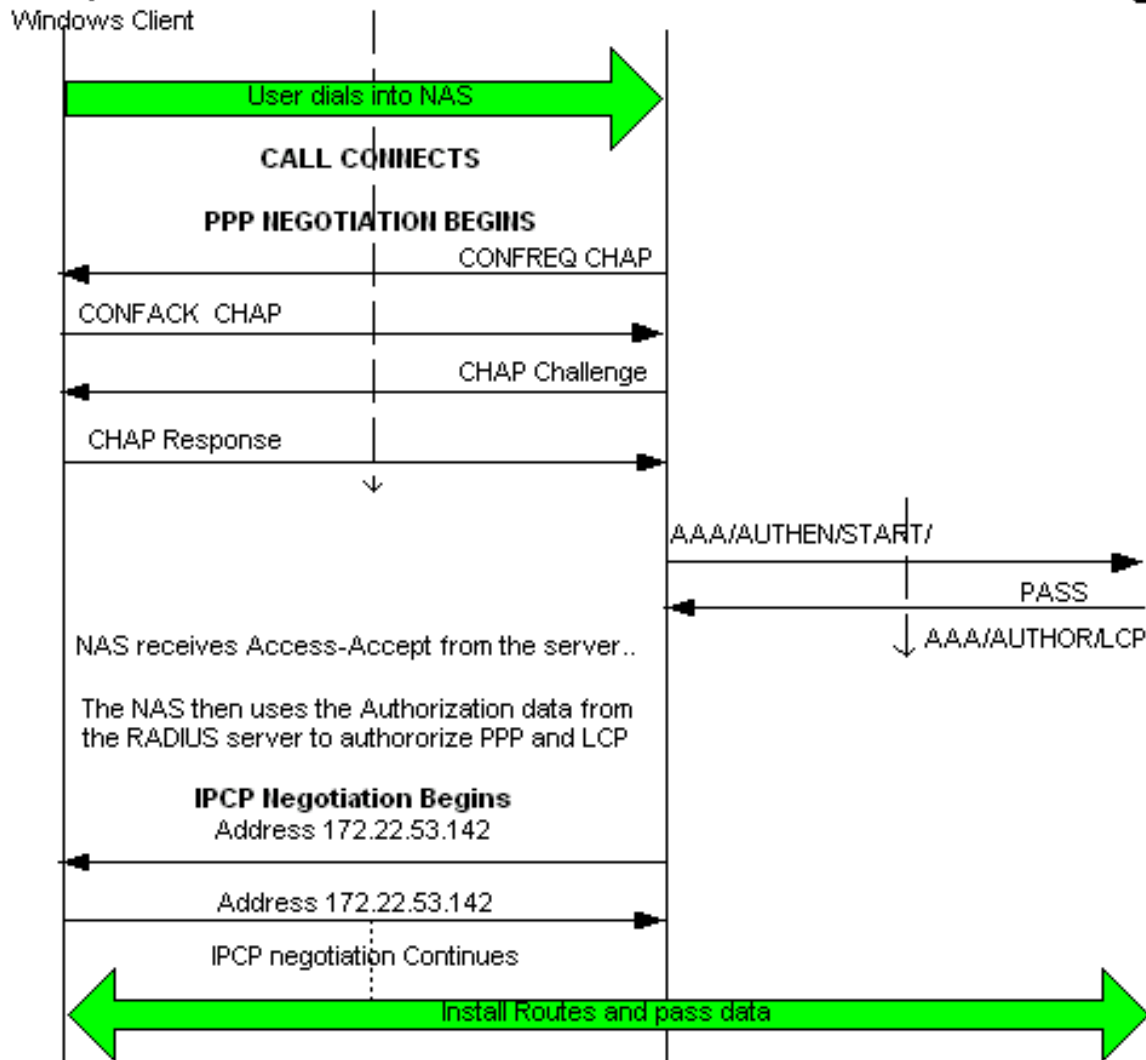
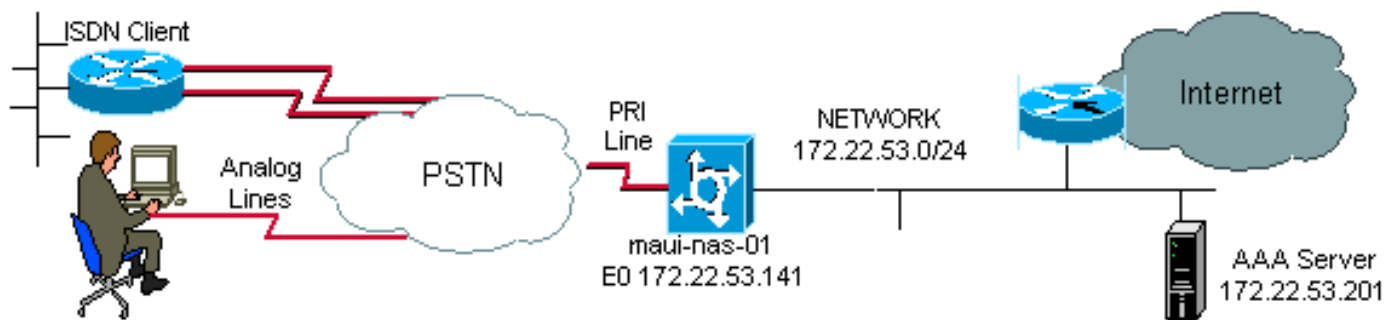
疑難排解指令

[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指令之前，請先參閱[有關Debug指令的重要資訊](#)。

- **debug isdn q931** — 此圖顯示路由器和ISDN交換機之間的ISDN網路連線 (第3層) 的呼叫建立和斷開。
- **debug modem** — 這顯示接入伺服器上的數據機線路活動。
- **debug ppp negotiation** — 在協商鏈路控制協定(LCP)、身份驗證和網路控制協定(NCP)時顯示有關PPP流量和交換的資訊。成功的PPP協商首先開啟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，包括質詢握手身份驗證協定(CHAP)資料包交換和口令身份驗證協定(PAP)交換。
- **debug aaa authentication** — 顯示有關AAA/RADIUS身份驗證的資訊。
- **debug aaa authorization** — 顯示有關AAA/RADIUS授權的資訊。
- **debug radius** — 顯示與RADIUS相關的詳細偵錯資訊。使用思科技術支援網站上的[輸出直譯器工具](#)(僅供[註冊](#)客戶使用)解碼debug radius消息。有關示例，請參閱下面顯示的調試輸出。使用來自debug radius的資訊確定協商的屬性。**附註：**從12.2(11)T開始，debug radius的輸出已經解碼，因此不需要使用輸出直譯器來解碼輸出。如需詳細資訊，請參閱[RADIUS偵錯增強功能檔案](#)
- **show caller user** — 顯示特定使用者的引數，如使用的TTY線路、非同步介面 (機架、插槽或埠)、DS0通道號、數據機號、分配的IP地址、PPP和PPP捆綁引數等。如果您的Cisco IOS軟體版本不支援此命令，請使用**show user**命令。

調試輸出示例



如果您有思科裝置的debug radius指令輸出，可以顯示潛在問題和修復方法。使用您必須是註冊客戶，必須登入並啟用JavaScript。

[註冊](#)

註：自12.2(11)T起，debug radius的輸出已解碼，因此不需要使用輸出直譯器來解碼輸出。如需詳細資訊，請參閱[RADIUS偵錯增強功能檔案](#)

```
maui-nas-01#debug isdn q931
ISDN Q931 packets debugging is on
maui-nas-01#debug ppp negotiation
PPP protocol negotiation debugging is on
maui-nas-01#debug ppp authentication
PPP authentication debugging is on
maui-nas-01#debug modem
Modem control/process activation debugging is on
maui-nas-01#debug aaa authentication
```

```
AAA Authentication debugging is on
maui-nas-01#debug aaa authorization
AAA Authorization debugging is on
maui-nas-01#debug radius
RADIUS protocol debugging is on
```

```
maui-nas-01#
```

```
*Apr 5 11:05:07.031: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x20FC
!--- Setup message for incoming call. *Apr 5 11:05:07.031: Bearer Capability i = 0x8890218F *Apr 5
5 11:05:07.031: Channel ID i = 0xA18387 *Apr 5 11:05:07.031: Called Party Number i = 0xA1,
'81560' *Apr 5 11:05:07.035: %DIALER-6-BIND: Interface Serial0:6 bound to profile Dialer1 *Apr 5
11:05:07.035: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0xA0FC *Apr 5 11:05:07.035: Channel
ID i = 0xA98387 *Apr 5 11:05:07.043: %LINK-3-UPDOWN: Interface Serial0:6, changed state to up
*Apr 5 11:05:07.043: Se0:6 PPP: Treating connection as a callin *Apr 5 11:05:07.043: Se0:6 PPP:
Phase is ESTABLISHING, Passive Open *Apr 5 11:05:07.043: Se0:6 LCP: State is Listen *Apr 5
11:05:07.047: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0xA0FC *Apr 5 11:05:07.047: Channel ID
i = 0xA98387 *Apr 5 11:05:07.079: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x20FC *Apr 5
11:05:07.079: ISDN Se0:23: CALL_PROGRESS: CALL_CONNECTED call id 0x2D, bchan -1, dsl 0 *Apr 5
11:05:07.499: Se0:6 LCP: I CONFREQ [Listen] id 28 len 10 *Apr 5 11:05:07.499: Se0:6 LCP:
MagicNumber 0x5078A51F (0x05065078A51F) *Apr 5 11:05:07.499: Se0:6 AAA/AUTHOR/FSM: (0): LCP
succeeds trivially *Apr 5 11:05:07.499: Se0:6 LCP: O CONFREQ [Listen] id 2 len 15 *Apr 5
11:05:07.499: Se0:6 LCP: AuthProto CHAP (0x0305C22305) *Apr 5 11:05:07.499: Se0:6 LCP:
MagicNumber 0xE05213AA (0x0506E05213AA) *Apr 5 11:05:07.499: Se0:6 LCP: O CONFACK [Listen] id 28
len 10 *Apr 5 11:05:07.499: Se0:6 LCP: MagicNumber 0x5078A51F (0x05065078A51F) *Apr 5
11:05:07.555: Se0:6 LCP: I CONFACK [ACKsent] id 2 len 15 *Apr 5 11:05:07.555: Se0:6 LCP:
AuthProto CHAP (0x0305C22305) *Apr 5 11:05:07.555: Se0:6 LCP: MagicNumber 0xE05213AA
(0x0506E05213AA) *Apr 5 11:05:07.555: Se0:6 LCP: State is Open *Apr 5 11:05:07.555: Se0:6 PPP:
Phase is AUTHENTICATING, by this end *Apr 5 11:05:07.555: Se0:6 CHAP: O CHALLENGE id 2 len 32
from "maui-nas-01" *Apr 5 11:05:07.631: Se0:6 CHAP: I RESPONSE id 2 len 30 from "isdn_user"
!--- Incoming CHAP response from "isdn_user". *Apr 5 11:05:07.631: AAA: parse name=Serial0:6 idb
type=12 tty=-1 *Apr 5 11:05:07.631: AAA: name=Serial0:6 flags=0x51 type=1 shelf=0 slot=0
adapter=0 port=0 channel=6 *Apr 5 11:05:07.631: AAA: parse name= idb type=-1 tty=-1 *Apr 5
11:05:07.631: AAA/MEMORY: create_user (0x619CEE28) user='isdn_user' ruser='' port='Serial0:6'
rem_addr='isdn/81560' authen_type=CHAP service=PPP priv=1 *Apr 5 11:05:07.631: AAA/AUTHEN/START
(2973699846): port='Serial0:6' list='' action=LOGIN service=PPP *Apr 5 11:05:07.631:
AAA/AUTHEN/START (2973699846): using "default" list *Apr 5 11:05:07.631: AAA/AUTHEN
(2973699846): status = UNKNOWN *Apr 5 11:05:07.631: AAA/AUTHEN/START (2973699846): Method=radius
(radius) !--- AAA authentication method is RADIUS. *Apr 5 11:05:07.631: RADIUS: ustruct
sharecount=1 *Apr 5 11:05:07.631: RADIUS: Initial Transmit Serial0:6 id 13 172.22.53.201:1645,
Access-Request, len 87
!--- Access-Request from the NAS to the AAA server. !--- Note the IP address in the Access-
Request matches the IP address !--- configured using the command: !--- radius-server host
172.22.53.201 key cisco *Apr 5 11:05:07.631: Attribute 4 6 AC16358D
*Apr 5 11:05:07.631: Attribute 5 6 00004E26
*Apr 5 11:05:07.631: Attribute 61 6 00000002
*Apr 5 11:05:07.631: Attribute 1 11 6973646E
*Apr 5 11:05:07.631: Attribute 30 7 38313536
*Apr 5 11:05:07.631: Attribute 3 19 0297959E
*Apr 5 11:05:07.631: Attribute 6 6 00000002
*Apr 5 11:05:07.631: Attribute 7 6 00000001
*Apr 5 11:05:07.635: RADIUS: Received from id 13 172.22.53.201:1645,
Access-Accept, len 32
*Apr 5 11:05:07.635: Attribute 6 6 00000002
*Apr 5 11:05:07.635: Attribute 7 6 00000001
```

debug radius指令的屬性值對(AVP)需要解碼，以更好地瞭解NAS和RADIUS伺服器之間的交易。

註：自12.2(11)T起，**debug radius**的輸出已解碼，因此不需要使用輸出直譯器來解碼輸出。如需詳細資訊，請參閱[RADIUS偵錯增強功能](#)檔案。

使用輸出直譯器工具，可以接收**debug radius**輸出的分析。

以下斜體輸出是從輸出直譯器工具獲取的結果：

```
Access-Request 172.22.53.201:1645 id 13
Attribute Type 4:  NAS-IP-Address is 172.22.53.141
Attribute Type 5:  NAS-Port is 20006
Attribute Type 61: NAS-Port-Type is ISDN-Synchronous
Attribute Type 1:  User-Name is isdn
Attribute Type 30: Called-Station-ID(DNIS) is 8156
Attribute Type 3:  CHAP-Password is (encoded)
Attribute Type 6:  Service-Type is Framed
Attribute Type 7:  Framed-Protocol is PPP
Access-Accept 172.22.53.201:1645 id 13
Attribute Type 6:  Service-Type is Framed
Attribute Type 7:  Framed-Protocol is PPP
```

從工具解碼的調試輸出中，驗證屬性型別6:Service-Type is Framed and Attribute Type 7:Framed-Protocol是PPP。如果您發現屬性6或7未如圖所示，請更正RADIUS伺服器上的使用者配置檔案(請參閱配置部分)。另請注意，debug radius顯示Access-Accept，這表示RADIUS伺服器已成功驗證使用者。如果輸出顯示Access-Reject，則使用者沒有通過驗證，您應該檢查RADIUS伺服器上的使用者名稱和密碼組態。要驗證的另一屬性是屬性型別4:NAS-IP-Address。驗證輸出直譯器工具顯示的值是否與RADIUS伺服器上配置的NAS IP地址匹配。

注意：由於Cisco IOS約束以及不同版本的調試輸出差異，某些屬性可能會被截斷(例如User-Name、Called-Station-ID(DNIS))。

```
*Apr  5 11:05:07.635: AAA/AUTHEN (2973699846): status = PASS
!--- Authentication is successful *Apr  5 11:05:07.635: Se0:6 AAA/AUTHOR/LCP: Authorize LCP *Apr
5 11:05:07.635: Se0:6 AAA/AUTHOR/LCP (2783657211): Port='Serial0:6' list='' service=NET *Apr 5
11:05:07.635: AAA/AUTHOR/LCP: Se0:6 (2783657211) user='isdn_user' *Apr 5 11:05:07.635: Se0:6
AAA/AUTHOR/LCP (2783657211): send AV service=ppp *Apr 5 11:05:07.635: Se0:6 AAA/AUTHOR/LCP
(2783657211): send AV protocol=lcp *Apr 5 11:05:07.635: Se0:6 AAA/AUTHOR/LCP (2783657211): found
list "default" *Apr 5 11:05:07.635: Se0:6 AAA/AUTHOR/LCP (2783657211): Method=radius (radius)
*Apr 5 11:05:07.635: Se0:6 AAA/AUTHOR (2783657211): Post authorization status = PASS_REPL *Apr 5
11:05:07.639: Se0:6 AAA/AUTHOR/LCP: Processing AV service=ppp *Apr 5 11:05:07.639: Se0:6 CHAP: 0
SUCCESS id 2 len 4 *Apr 5 11:05:07.639: Se0:6 PPP: Phase is UP *Apr 5 11:05:07.639: Se0:6
AAA/AUTHOR/FSM: (0): Can we start IPCP? *Apr 5 11:05:07.639: Se0:6 AAA/AUTHOR/FSM (3184893369):
Port='Serial0:6' list='' service=NET *Apr 5 11:05:07.639: AAA/AUTHOR/FSM: Se0:6 (3184893369)
user='isdn_user' *Apr 5 11:05:07.639: Se0:6 AAA/AUTHOR/FSM (3184893369): send AV service=ppp
*Apr 5 11:05:07.639: Se0:6 AAA/AUTHOR/FSM (3184893369): send AV protocol=ip *Apr 5 11:05:07.639:
Se0:6 AAA/AUTHOR/FSM (3184893369): found list "default" *Apr 5 11:05:07.639: Se0:6
AAA/AUTHOR/FSM (3184893369): Method=radius (radius) *Apr 5 11:05:07.639: Se0:6 AAA/AUTHOR
(3184893369): Post authorization status = PASS_REPL *Apr 5 11:05:07.639: Se0:6 AAA/AUTHOR/FSM:
We can start IPCP *Apr 5 11:05:07.639: Se0:6 IPCP: 0 CONFREQ [Not negotiated] id 2 len 10 *Apr 5
11:05:07.639: Se0:6 IPCP: Address 172.22.53.141 (0x0306AC16358D) *Apr 5 11:05:07.675: Se0:6
IPCP: I CONFREQ [REQsent] id 13 len 10 *Apr 5 11:05:07.675: Se0:6 IPCP: Address 0.0.0.0
(0x030600000000) *Apr 5 11:05:07.675: Se0:6 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want
0.0.0.0 *Apr 5 11:05:07.675: Se0:6 AAA/AUTHOR/IPCP: Processing AV service=ppp *Apr 5
11:05:07.675: Se0:6 AAA/AUTHOR/IPCP: Authorization succeeded *Apr 5 11:05:07.675: Se0:6
AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0 *Apr 5 11:05:07.675: Se0:6 IPCP:
Pool returned 172.22.53.142
!--- IP address for the peer obtained from the pool *Apr 5 11:05:07.675: Se0:6 IPCP: 0 CONFNAK
[REQsent] id 13 len 10 *Apr 5 11:05:07.675: Se0:6 IPCP: Address 172.22.53.142 (0x0306AC16358E)
*Apr 5 11:05:07.699: Se0:6 IPCP: I CONFACK [REQsent] id 2 len 10 *Apr 5 11:05:07.699: Se0:6
IPCP: Address 172.22.53.141 (0x0306AC16358D) *Apr 5 11:05:07.707: Se0:6 IPCP: I CONFREQ
[ACKrcvd] id 14 len 10 *Apr 5 11:05:07.707: Se0:6 IPCP: Address 172.22.53.142 (0x0306AC16358E)
*Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR/IPCP: Start. Her address 172.22.53.142, we want
172.22.53.142 *Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR/IPCP (3828612481): Port='Serial0:6' list=''
service=NET *Apr 5 11:05:07.707: AAA/AUTHOR/IPCP: Se0:6 (3828612481) user='isdn_user' *Apr 5
11:05:07.707: Se0:6 AAA/AUTHOR/IPCP (3828612481): send AV service=ppp *Apr 5 11:05:07.707: Se0:6
AAA/AUTHOR/IPCP (3828612481): send AV protocol=ip *Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR/IPCP
```

```
(3828612481): send AV addr*172.22.53.142 *Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR/IPCP
(3828612481): found list "default" *Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR/IPCP (3828612481):
Method=radius (radius) *Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR (3828612481): Post authorization
status = PASS_REPL *Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR/IPCP: Reject 172.22.53.142, using
172.22.53.142 *Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR/IPCP: Processing AV service=ppp *Apr 5
11:05:07.707: Se0:6 AAA/AUTHOR/IPCP: Processing AV addr*172.22.53.142 *Apr 5 11:05:07.707: Se0:6
AAA/AUTHOR/IPCP: Authorization succeeded *Apr 5 11:05:07.707: Se0:6 AAA/AUTHOR/IPCP: Done. Her
address 172.22.53.142, we want 172.22.53.142 *Apr 5 11:05:07.707: Se0:6 IPCP: O CONFACK
[ACKrcvd] id 14 len 10 *Apr 5 11:05:07.707: Se0:6 IPCP: Address 172.22.53.142 (0x0306AC16358E)
*Apr 5 11:05:07.707: Se0:6 IPCP: State is Open *Apr 5 11:05:07.711: Dil IPCP: Install route to
172.22.53.142
```

```
!--- IPCP state is open. A route to the remote peer is installed *Apr 5 11:05:08.639:
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0:6, changed state to up *Apr 5
11:05:13.043: %ISDN-6-CONNECT: Interface Serial0:6 is now connected to isdn_user mau-i-nas-01#
這將完成ISDN客戶端的協商。以下輸出顯示了非同步呼叫 ( 例如Windows客戶端 ) 的協商
```

```
maui-nas-01#
```

```
*Apr 5 11:05:53.527: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x21C5
!--- Incoming Setup message for Async Call. *Apr 5 11:05:53.527: Bearer Capability i = 0x9090A2
*Apr 5 11:05:53.527: Channel ID i = 0xA18388 *Apr 5 11:05:53.527: Progress Ind i = 0x8183 -
Origination address is non-ISDN *Apr 5 11:05:53.527: Called Party Number i = 0xA1, '81560' *Apr
5 11:05:53.531: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0xA1C5 *Apr 5 11:05:53.531:
Channel ID i = 0xA98388 *Apr 5 11:05:53.531: ISDN Se0:23: TX -> ALERTING pd = 8 callref = 0xA1C5
*Apr 5 11:05:53.667: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0xA1C5 *Apr 5 11:05:53.683:
ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x21C5 *Apr 5 11:05:53.687: ISDN Se0:23:
CALL_PROGRESS: CALL_CONNECTED call id 0x2E, bchan -1, dsl 0 *Apr 5 11:06:10.815: TTY5: DSR came
up *Apr 5 11:06:10.815: tty5: Modem: IDLE->(unknown) *Apr 5 11:06:10.815: TTY5: EXEC creation
*Apr 5 11:06:10.815: AAA: parse name=tty5 idb type=10 tty=5 *Apr 5 11:06:10.815: AAA: name=tty5
flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=5 channel=0 *Apr 5 11:06:10.815: AAA: parse
name=Serial0:7 idb type=12 tty=-1 *Apr 5 11:06:10.815: AAA: name=Serial0:7 flags=0x51 type=1
shelf=0 slot=0 adapter=0 port=0 channel=7 *Apr 5 11:06:10.815: AAA/MEMORY: create_user
(0x614D4DBC) user='' ruser='' port='tty5' rem_addr='async/81560' authn_type=ASCII service=LOGIN
priv=1 *Apr 5 11:06:10.815: AAA/AUTHEN/START (2673527044): port='tty5' list='' action=LOGIN
service=LOGIN *Apr 5 11:06:10.815: AAA/AUTHEN/START (2673527044): using "default" list *Apr 5
11:06:10.815: AAA/AUTHEN/START (2673527044): Method=radius (radius) *Apr 5 11:06:10.815:
AAA/AUTHEN (2673527044): status = GETUSER *Apr 5 11:06:10.815: TTY5: set timer type 10, 30
seconds *Apr 5 11:06:13.475: TTY5: Autoselect(2) sample 7E *Apr 5 11:06:13.475: TTY5:
Autoselect(2) sample 7EFF *Apr 5 11:06:13.475: TTY5: Autoselect(2) sample 7EFF7D *Apr 5
11:06:13.475: TTY5: Autoselect(2) sample 7EFF7D23 *Apr 5 11:06:13.475: TTY5 Autoselect cmd: ppp
negotiate
```

```
!--- the router recongnizes the ppp packets and launches ppp. *Apr 5 11:06:13.475:
AAA/AUTHEN/ABORT: (2673527044) because Autoselected. *Apr 5 11:06:13.475: AAA/MEMORY: free_user
(0x614D4DBC) user='' ruser='' port='tty5' rem_addr='async/81560' authn_type=ASCII service=LOGIN
priv=1 *Apr 5 11:06:13.479: TTY5: EXEC creation *Apr 5 11:06:13.479: TTY5: create timer type 1,
600 seconds *Apr 5 11:06:13.607: TTY5: destroy timer type 1 (OK) *Apr 5 11:06:13.607: TTY5:
destroy timer type 0 *Apr 5 11:06:15.607: %LINK-3-UPDOWN: Interface Async5, changed state to up
*Apr 5 11:06:15.607: As5 PPP: Treating connection as a dedicated line *Apr 5 11:06:15.607: As5
PPP: Phase is ESTABLISHING, Active Open
```

```
!--- PPP negotiation begins. *Apr 5 11:06:15.607: As5 AAA/AUTHOR/FSM: (0): LCP succeeds
trivially *Apr 5 11:06:15.607: As5 LCP: O CONFREQ [Closed] id 1 len 25 *Apr 5 11:06:15.607: As5
LCP: ACCM 0x000A0000 (0x0206000A0000) *Apr 5 11:06:15.607: As5 LCP: AuthProto CHAP
(0x0305C22305) *Apr 5 11:06:15.607: As5 LCP: MagicNumber 0xE0531DB8 (0x0506E0531DB8) *Apr 5
11:06:15.607: As5 LCP: PFC (0x0702) *Apr 5 11:06:15.607: As5 LCP: ACFC (0x0802) *Apr 5
11:06:16.487: As5 LCP: I CONFREQ [REQsent] id 3 len 23 *Apr 5 11:06:16.487: As5 LCP: ACCM
0x000A0000 (0x0206000A0000) *Apr 5 11:06:16.487: As5 LCP: MagicNumber 0x65FFA5C7
(0x050665FFA5C7) *Apr 5 11:06:16.487: As5 LCP: PFC (0x0702) *Apr 5 11:06:16.487: As5 LCP: ACFC
(0x0802) *Apr 5 11:06:16.487: As5 LCP: Callback 6 (0x0D0306) *Apr 5 11:06:16.487: Unthrottle 5
*Apr 5 11:06:16.487: As5 LCP: O CONFREQ [REQsent] id 3 len 7 *Apr 5 11:06:16.487: As5 LCP:
Callback 6 (0x0D0306) *Apr 5 11:06:17.607: As5 LCP: TIMEOUT: State REQsent *Apr 5 11:06:17.607:
As5 LCP: O CONFREQ [REQsent] id 2 len 25 *Apr 5 11:06:17.607: As5 LCP: ACCM 0x000A0000
(0x0206000A0000) *Apr 5 11:06:17.607: As5 LCP: AuthProto CHAP (0x0305C22305) *Apr 5
11:06:17.607: As5 LCP: MagicNumber 0xE0531DB8 (0x0506E0531DB8) *Apr 5 11:06:17.607: As5 LCP: PFC
```

```

(0x0702) *Apr 5 11:06:17.607: As5 LCP: ACFC (0x0802) *Apr 5 11:06:17.735: As5 LCP: I CONFACK
[REQsent] id 2 len 25 *Apr 5 11:06:17.735: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) *Apr 5
11:06:17.735: As5 LCP: AuthProto CHAP (0x0305C22305) *Apr 5 11:06:17.735: As5 LCP: MagicNumber
0xE0531DB8 (0x0506E0531DB8) *Apr 5 11:06:17.735: As5 LCP: PFC (0x0702) *Apr 5 11:06:17.735: As5
LCP: ACFC (0x0802) *Apr 5 11:06:19.479: As5 LCP: I CONFREQ [ACKrcvd] id 4 len 23 *Apr 5
11:06:19.479: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) *Apr 5 11:06:19.479: As5 LCP:
MagicNumber 0x65FFA5C7 (0x050665FFA5C7) *Apr 5 11:06:19.479: As5 LCP: PFC (0x0702) *Apr 5
11:06:19.479: As5 LCP: ACFC (0x0802) *Apr 5 11:06:19.479: As5 LCP: Callback 6 (0x0D0306) *Apr 5
11:06:19.479: As5 LCP: O CONFREQ [ACKrcvd] id 4 len 7 *Apr 5 11:06:19.479: As5 LCP: Callback 6
(0x0D0306) *Apr 5 11:06:19.607: As5 LCP: TIMEOUT: State ACKrcvd *Apr 5 11:06:19.607: As5 LCP: O
CONFREQ [ACKrcvd] id 3 len 25 *Apr 5 11:06:19.607: As5 LCP: ACCM 0x000A0000 (0x0206000A0000)
*Apr 5 11:06:19.607: As5 LCP: AuthProto CHAP (0x0305C22305) *Apr 5 11:06:19.607: As5 LCP:
MagicNumber 0xE0531DB8 (0x0506E0531DB8) *Apr 5 11:06:19.607: As5 LCP: PFC (0x0702) *Apr 5
11:06:19.607: As5 LCP: ACFC (0x0802) *Apr 5 11:06:19.607: As5 LCP: I CONFREQ [REQsent] id 5 len
20 *Apr 5 11:06:19.607: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) *Apr 5 11:06:19.607: As5 LCP:
MagicNumber 0x65FFA5C7 (0x050665FFA5C7) *Apr 5 11:06:19.607: As5 LCP: PFC (0x0702) *Apr 5
11:06:19.607: As5 LCP: ACFC (0x0802) *Apr 5 11:06:19.607: As5 LCP: O CONFACK [REQsent] id 5 len
20 *Apr 5 11:06:19.607: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) *Apr 5 11:06:19.607: As5 LCP:
MagicNumber 0x65FFA5C7 (0x050665FFA5C7) *Apr 5 11:06:19.607: As5 LCP: PFC (0x0702) *Apr 5
11:06:19.607: As5 LCP: ACFC (0x0802) *Apr 5 11:06:19.719: As5 LCP: I CONFACK [ACKsent] id 3 len
25 *Apr 5 11:06:19.719: As5 LCP: ACCM 0x000A0000 (0x0206000A0000) *Apr 5 11:06:19.719: As5 LCP:
AuthProto CHAP (0x0305C22305) *Apr 5 11:06:19.719: As5 LCP: MagicNumber 0xE0531DB8
(0x0506E0531DB8) *Apr 5 11:06:19.719: As5 LCP: PFC (0x0702) *Apr 5 11:06:19.719: As5 LCP: ACFC
(0x0802) *Apr 5 11:06:19.719: As5 LCP: State is Open *Apr 5 11:06:19.719: As5 PPP: Phase is
AUTHENTICATING, by this end *Apr 5 11:06:19.719: As5 CHAP: O CHALLENGE id 1 len 32 from "maui-
nas-01" *Apr 5 11:06:19.863: As5 CHAP: I RESPONSE id 1 len 33 from "async_client"
!--- Incoming CHAP response from "async_client". *Apr 5 11:06:19.863: AAA: parse name=Async5 idb
type=10 tty=5 *Apr 5 11:06:19.863: AAA: name=Async5 flags=0x11 type=4 shelf=0 slot=0 adapter=0
port=5 channel=0 *Apr 5 11:06:19.863: AAA: parse name=Serial0:7 idb type=12 tty=-1 *Apr 5
11:06:19.863: AAA: name=Serial0:7 flags=0x51 type=1 shelf=0 slot=0 adapter=0 port=0 channel=7
*Apr 5 11:06:19.863: AAA/MEMORY: create_user (0x6195AE40) user='async_client' ruser=''
port='Async5' rem_addr='async/81560' authen_type=CHAP service=PPP priv=1 *Apr 5 11:06:19.863:
AAA/AUTHEN/START (2673347869): port='Async5' list='' action=LOGIN service=PPP *Apr 5
11:06:19.863: AAA/AUTHEN/START (2673347869): using "default" list *Apr 5 11:06:19.863:
AAA/AUTHEN (2673347869): status = UNKNOWN *Apr 5 11:06:19.863: AAA/AUTHEN/START (2673347869):
Method=radius (radius) *Apr 5 11:06:19.863: RADIUS: ustruct sharecount=1 *Apr 5 11:06:19.867:
RADIUS: Initial Transmit Async5 id 14 172.22.53.201:1645,
Access-Request, len 90
*Apr 5 11:06:19.867:           Attribute 4 6 AC16358D
*Apr 5 11:06:19.867:           Attribute 5 6 00000005
*Apr 5 11:06:19.867:           Attribute 61 6 00000000
*Apr 5 11:06:19.867:           Attribute 1 14 6173796E
*Apr 5 11:06:19.867:           Attribute 30 7 38313536
*Apr 5 11:06:19.867:           Attribute 3 19 01B8292F
*Apr 5 11:06:19.867:           Attribute 6 6 00000002
*Apr 5 11:06:19.867:           Attribute 7 6 00000001
*Apr 5 11:06:19.867: RADIUS: Received from id 14 172.22.53.201:1645,
Access-Accept, len 32
*Apr 5 11:06:19.867:           Attribute 6 6 00000002
*Apr 5 11:06:19.871:           Attribute 7 6 00000001

```

需要對debug radius命令中的AVP進行解碼，以更好地理解NAS和RADIUS伺服器之間的事務。

註：自12.2(11)T起，debug radius的輸出已解碼，因此不需要使用輸出直譯器來解碼輸出。如需詳細資訊，請參閱[RADIUS偵錯增強功能檔案](#)

Output Interpreter工具可讓您接收對debug radius輸出的分析。

以下斜體輸出是從輸出直譯器工具獲取的結果：

```
Access-Request 172.22.53.201:1645 id 14
Attribute Type 4: NAS-IP-Address is 172.22.53.141
Attribute Type 5: NAS-Port is 5
Attribute Type 61: NAS-Port-Type is Asynchronous
Attribute Type 1: User-Name is asyn
Attribute Type 30: Called-Station-ID(DNIS) is 8156
Attribute Type 3: CHAP-Password is (encoded)
Attribute Type 6: Service-Type is Framed
Attribute Type 7: Framed-Protocol is PPP
    Access-Accept 172.22.53.201:1645 id 14
Attribute Type 6: Service-Type is Framed
Attribute Type 7: Framed-Protocol is PPP
```

從工具解碼的調試輸出中，**驗證屬性型別6:Service-Type is Framed and Attribute Type 7:Framed-Protocol是PPP**。如果您發現屬性6或7未如圖所示，請更正RADIUS伺服器上的使用者配置檔案(請參閱**配置**部分)。另請注意，**debug radius**顯示**Access-Accept**，這表示RADIUS伺服器已成功驗證使用者。如果輸出顯示**Access-Reject**，則使用者沒有通過驗證，您應該檢查RADIUS伺服器上的使用者名稱和密碼組態。要驗證的另一屬性是**屬性型別4:NAS-IP-Address**。驗證輸出直譯器工具顯示的值是否與RADIUS伺服器上配置的NAS IP地址匹配。

注意：由於Cisco IOS約束以及不同版本的調試輸出差異，某些屬性可能會被截斷(例如**User-Name**、**Called-Station-ID(DNIS)**)。

```
*Apr 5 11:06:19.871: AAA/AUTHEN (2673347869): status = PASS
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/LCP: Authorize LCP
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/LCP (3232903941): Port='Async5' list=''
service=NET
*Apr 5 11:06:19.871: AAA/AUTHOR/LCP: As5 (3232903941) user='async_client'
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/LCP (3232903941): send AV service=ppp
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/LCP (3232903941): send AV protocol=lcp
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/LCP (3232903941): found list "default"
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/LCP (3232903941): Method=radius (radius)
*Apr 5 11:06:19.871: As5 AAA/AUTHOR (3232903941): Post authorization status
= PASS_REPL
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/LCP: Processing AV service=ppp
*Apr 5 11:06:19.871: As5 CHAP: 0 SUCCESS id 1 len 4
*Apr 5 11:06:19.871: As5 PPP: Phase is UP
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/FSM: (0): Can we start IPCP?
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/FSM (1882093345): Port='Async5' list=''
service=NET
*Apr 5 11:06:19.871: AAA/AUTHOR/FSM: As5 (1882093345) user='async_client'
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/FSM (1882093345): send AV service=ppp
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/FSM (1882093345): send AV protocol=ip
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/FSM (1882093345): found list "default"
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/FSM (1882093345): Method=radius (radius)
*Apr 5 11:06:19.871: As5 AAA/AUTHOR (1882093345): Post authorization status
= PASS_REPL
*Apr 5 11:06:19.871: As5 AAA/AUTHOR/FSM: We can start IPCP
*Apr 5 11:06:19.875: As5 IPCP: 0 CONFREQ [Closed] id 1 len 10
*Apr 5 11:06:19.875: As5 IPCP: Address 172.22.53.141 (0x0306AC16358D)
*Apr 5 11:06:19.991: As5 IPCP: I CONFREQ [REQsent] id 1 len 34
*Apr 5 11:06:19.991: As5 IPCP: Address 0.0.0.0 (0x030600000000)
*Apr 5 11:06:19.991: As5 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
*Apr 5 11:06:19.991: As5 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
*Apr 5 11:06:19.991: As5 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
*Apr 5 11:06:19.991: As5 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
*Apr 5 11:06:19.991: As5 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0,
we want 172.22.53.148
!--- The address for the peer obtained from the pool. *Apr 5 11:06:19.991: As5 AAA/AUTHOR/IPCP:
Processing AV service=ppp *Apr 5 11:06:19.991: As5 AAA/AUTHOR/IPCP: Authorization succeeded *Apr
```

5 11:06:19.991: As5 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 172.22.53.148 *Apr 5
11:06:19.991: As5 IPCP: O CONFREJ [REQsent] id 1 len 22 *Apr 5 11:06:19.991: As5 IPCP:
PrimaryWINS 0.0.0.0 (0x820600000000) *Apr 5 11:06:19.995: As5 IPCP: SecondaryDNS 0.0.0.0
(0x830600000000) *Apr 5 11:06:19.995: As5 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) *Apr 5
11:06:20.007: As5 IPCP: I CONFACK [REQsent] id 1 len 10 *Apr 5 11:06:20.007: As5 IPCP: Address
172.22.53.141 (0x0306AC16358D) *Apr 5 11:06:20.119: As5 IPCP: I CONFREQ [ACKrcvd] id 2 len 16
*Apr 5 11:06:20.119: As5 IPCP: Address 0.0.0.0 (0x030600000000) *Apr 5 11:06:20.119: As5 IPCP:
PrimaryDNS 0.0.0.0 (0x810600000000) *Apr 5 11:06:20.119: As5 AAA/AUTHOR/IPCP: Start. Her address
0.0.0.0, we want 172.22.53.148 *Apr 5 11:06:20.119: As5 AAA/AUTHOR/IPCP: Processing AV
service=ppp *Apr 5 11:06:20.119: As5 AAA/AUTHOR/IPCP: Authorization succeeded *Apr 5
11:06:20.119: As5 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 172.22.53.148 *Apr 5
11:06:20.119: As5 IPCP: O CONFNAK [ACKrcvd] id 2 len 16 *Apr 5 11:06:20.119: As5 IPCP: Address
172.22.53.148 (0x0306AC163594) *Apr 5 11:06:20.119: As5 IPCP: PrimaryDNS 172.22.53.210
(0x8106AC1635D2) *Apr 5 11:06:20.231: As5 IPCP: I CONFREQ [ACKrcvd] id 3 len 16 *Apr 5
11:06:20.231: As5 IPCP: Address 172.22.53.148 (0x0306AC163594) *Apr 5 11:06:20.231: As5 IPCP:
PrimaryDNS 172.22.53.210 (0x8106AC1635D2) *Apr 5 11:06:20.231: As5 AAA/AUTHOR/IPCP: Start. Her
address 172.22.53.148, we want 172.22.53.148 *Apr 5 11:06:20.231: As5 AAA/AUTHOR/IPCP
(3727543204): Port='Async5' list='' service=NET *Apr 5 11:06:20.231: AAA/AUTHOR/IPCP: As5
(3727543204) user='async_client' *Apr 5 11:06:20.231: As5 AAA/AUTHOR/IPCP (3727543204): send AV
service=ppp *Apr 5 11:06:20.231: As5 AAA/AUTHOR/IPCP (3727543204): send AV protocol=ip *Apr 5
11:06:20.231: As5 AAA/AUTHOR/IPCP (3727543204): send AV addr*172.22.53.148 *Apr 5 11:06:20.231:
As5 AAA/AUTHOR/IPCP (3727543204): found list "default" *Apr 5 11:06:20.231: As5 AAA/AUTHOR/IPCP
(3727543204): Method=radius (radius) *Apr 5 11:06:20.235: As5 AAA/AUTHOR (3727543204): Post
authorization status = PASS_REPL *Apr 5 11:06:20.235: As5 AAA/AUTHOR/IPCP: Reject 172.22.53.148,
using 172.22.53.148 *Apr 5 11:06:20.235: As5 AAA/AUTHOR/IPCP: Processing AV service=ppp *Apr 5
11:06:20.235: As5 AAA/AUTHOR/IPCP: Processing AV addr*172.22.53.148 *Apr 5 11:06:20.235: As5
AAA/AUTHOR/IPCP: Authorization succeeded *Apr 5 11:06:20.235: As5 AAA/AUTHOR/IPCP: Done. Her
address 172.22.53.148, we want 172.22.53.148 *Apr 5 11:06:20.235: As5 IPCP: O CONFACK [ACKrcvd]
id 3 len 16 *Apr 5 11:06:20.235: As5 IPCP: Address 172.22.53.148 (0x0306AC163594) *Apr 5
11:06:20.235: As5 IPCP: PrimaryDNS 172.22.53.210 (0x8106AC1635D2) *Apr 5 11:06:20.235: As5 IPCP:
State is Open *Apr 5 11:06:20.235: **As5 IPCP: Install route to 172.22.53.148**
!--- Route to remote peer is installed. *Apr 5 11:06:20.871: %LINEPROTO-5-UPDOWN: Line protocol
on Interface Async5, changed state to up

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