

# Configurazione della tecnologia AAA RADIUS di base per client di chiamata in ingresso

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## Introduzione

In questo documento viene descritta una configurazione di esempio che utilizza un server di accesso per accettare connessioni Analog e ISDN in ingresso e autenticarle tramite un server RADIUS (Remote Authentication Dial-in User Service) di autenticazione, autorizzazione e accounting (AAA). Per ulteriori informazioni su AAA e RADIUS, consultare i seguenti documenti:

- [Configurazione di RADIUS](#)
- [Configurazione della funzionalità AAA di base su un server di accesso](#)

## Prerequisiti

### Requisiti

Questa configurazione presuppone che il server RADIUS sia configurato correttamente. Questa configurazione funziona anche con la maggior parte dei server RADIUS disponibili sul mercato. Per ulteriori informazioni sulla corretta configurazione del server, consultare la documentazione del server RADIUS in uso.

### Componenti usati

Le informazioni fornite in questo documento si basano sulle versioni software e hardware riportate

di seguito.

- Cisco AS5300 con T1 PRI e 48 modem digitali. Sul computer è in esecuzione il software Cisco IOS® versione 12.0(7)T.
- Server Cisco Secure for Unix (CSU), versione 2.3(3).

La configurazione specifica AAA descritta qui può essere utilizzata anche con qualsiasi scenario di composizione semplice. Verificare che il server di accesso possa accettare chiamate in arrivo, quindi aggiungere i comandi AAA appropriati, come mostrato nella configurazione riportata di seguito.

Le informazioni discusse in questo documento fanno riferimento a dispositivi usati in uno specifico ambiente di emulazione. Su tutti i dispositivi menzionati nel documento la configurazione è stata ripristinata ai valori predefiniti. Se la rete è operativa, valutare attentamente eventuali conseguenze derivanti dall'uso dei comandi.

## Convenzioni

Per ulteriori informazioni sulle convenzioni usate, consultare il documento [Cisco sulle convenzioni nei suggerimenti tecnici](#).

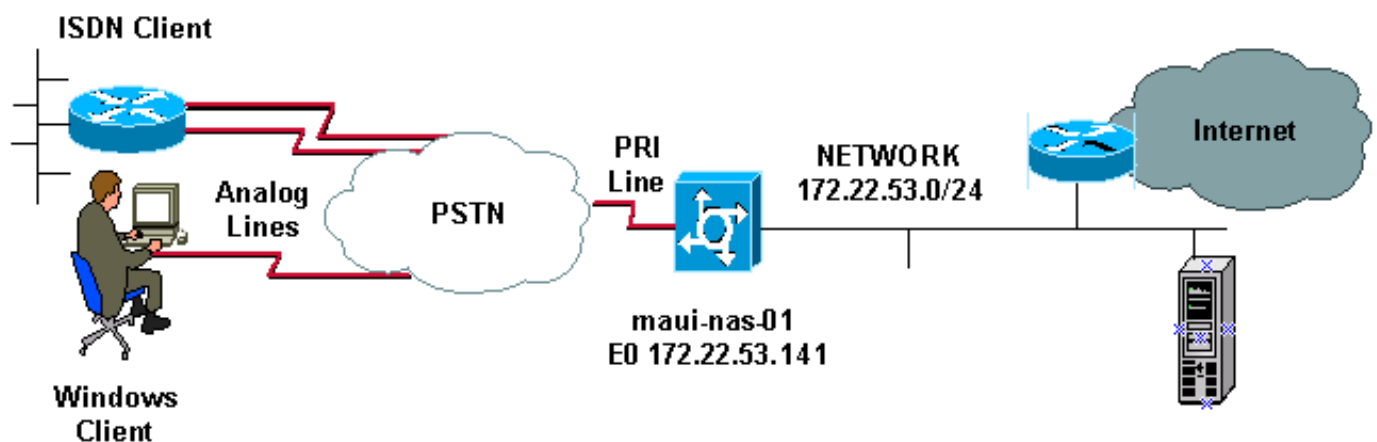
## Configurazione

In questa sezione vengono presentate le informazioni necessarie per configurare le funzionalità descritte più avanti nel documento.

**Nota:** per ulteriori informazioni sui comandi menzionati in questo documento, usare lo [strumento di ricerca dei comandi](#) (solo utenti [registrati](#)).

## Esempio di rete

Questo documento utilizza le impostazioni di rete mostrate nel diagramma sottostante.



## Configurazioni

Di seguito vengono fornite la configurazione di CSU e Cisco Secure NT (CSNT) e la configurazione del server di accesso alla rete (NAS). Poiché questa configurazione descrive un semplice scenario di connessione, la configurazione di CiscoSecure per gli utenti ISDN e Async è

identica. La configurazione del client ISDN non è inclusa in quanto non rilevante per questa configurazione RADIUS.

```
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) } } }
```

**Nota:** in questo semplice scenario, le configurazioni degli utenti Async e ISDN sono identiche.

## RAGGIO CSNT

Per configurare Cisco Secure NT (CSNT) RADIUS:

1. Creare nuovi utenti denominati isdn\_user e async\_client.
2. Configurare la password appropriata nella sezione Impostazione utente
3. Nella sezione relativa agli attributi RADIUS IETF (Internet Engineering Task Force) selezionare le voci seguenti dal menu a discesa: **Service-type (attributo 6) = Framed and Framed-Protocol (attributo 7)=PPP** **Nota:** è necessario fare clic sulla casella di controllo accanto agli attributi Service-Type e Framed-Protocol. **Nota:** in questo semplice scenario, le configurazioni degli utenti Async e ISDN sono identiche.

```
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

```

## Verifica

Le informazioni contenute in questa sezione permettono di verificare la configurazione.

## Output di esempio del comando show

```
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
```

## Risoluzione dei problemi

Le informazioni contenute in questa sezione permettono di risolvere i problemi relativi alla configurazione.

### Comandi per la risoluzione dei problemi

Alcuni comandi **show** sono supportati dallo [strumento Output Interpreter \(solo utenti registrati\)](#); lo strumento permette di visualizzare un'analisi dell'output del comando **show**.

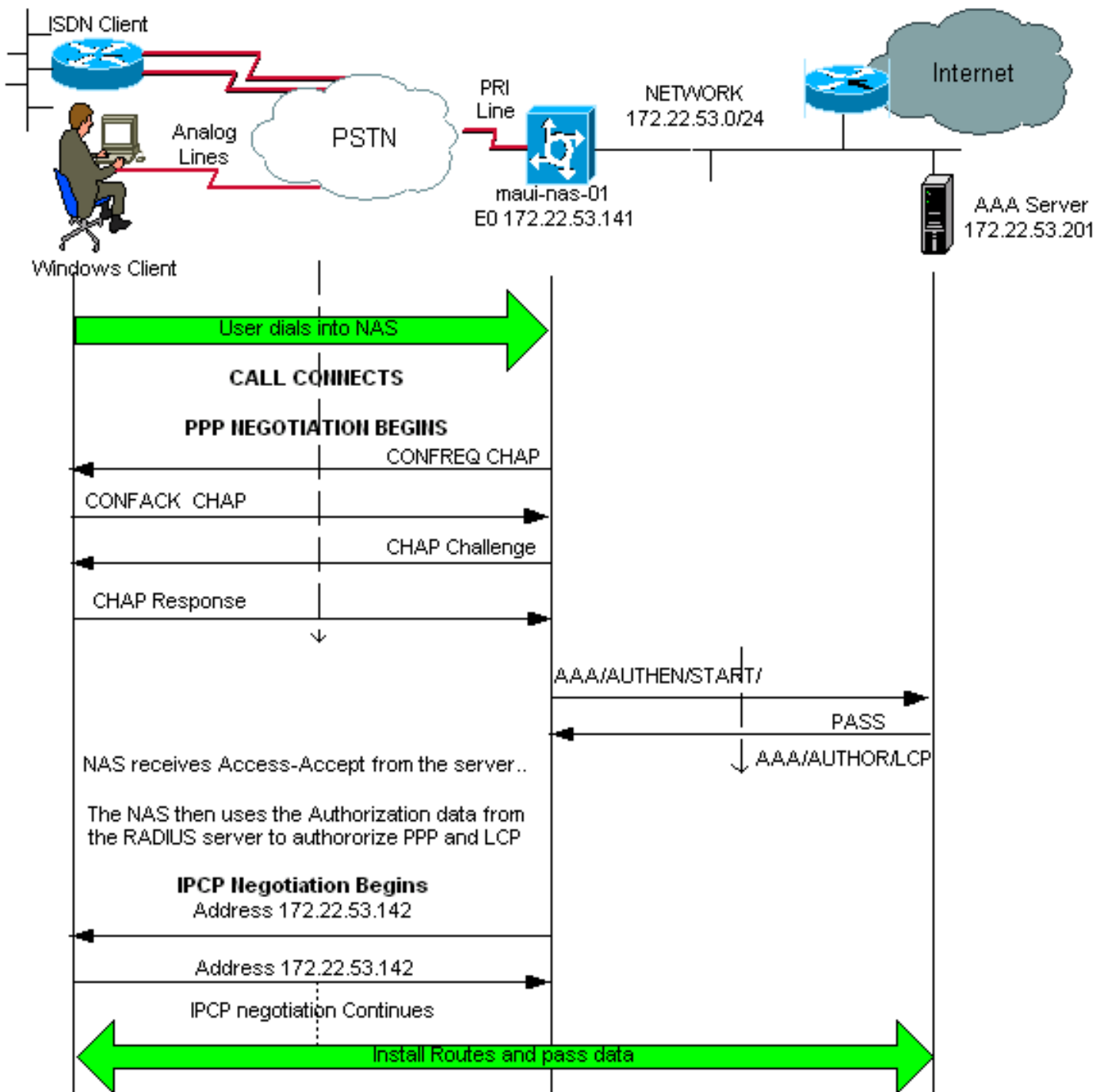
**Nota:** prima di usare i comandi di **debug**, consultare le [informazioni importanti sui comandi di debug](#).

- **debug isdn q931** - Visualizza la configurazione delle chiamate e l'interruzione della connessione di rete ISDN (livello 3) tra il router e lo switch ISDN.
- **debug modem**: visualizza l'attività della linea del modem su un server di accesso.
- **debug ppp negotiation**: per visualizzare informazioni sul traffico e gli scambi PPP durante la negoziazione del protocollo LCP (Link Control Protocol), dell'autenticazione e del protocollo NCP (Network Control Protocol). Una negoziazione PPP riuscita apre innanzitutto lo stato LCP, quindi autentica e infine negozia NCP.
- **debug ppp authentication**: consente di visualizzare i messaggi del protocollo di autenticazione PPP, inclusi gli scambi di pacchetti Challenge Handshake Authentication Protocol (CHAP) e gli scambi PAP (Password Authentication Protocol).
- **debug aaa authentication**: visualizza le informazioni sull'autenticazione AAA/RADIUS.
- **debug aaa authorization** - Visualizza le informazioni sull'autorizzazione AAA/RADIUS.
- **debug radius**: consente di visualizzare informazioni di debug dettagliate associate a RADIUS. Utilizzare lo [strumento Output Interpreter](#) (solo utenti [registrati](#)) sul sito Web del supporto

tecnico Cisco per decodificare i messaggi debug radius. Ad esempio, fare riferimento all'output del comando debug mostrato di seguito. Utilizzare le informazioni del raggio di debug per determinare gli attributi negoziati. **Nota:** A partire dalla versione 12.2(11)T, l'output del raggio di debug è già decodificato e quindi NON richiede l'uso di Output Interpreter per decodificare l'output. Per ulteriori informazioni, fare riferimento al documento [Miglioramenti del debug RADIUS](#)

- **show caller user:** consente di visualizzare i parametri per l'utente specifico, ad esempio la linea TTY utilizzata, l'interfaccia asincrona (scaffale, slot o porta), il numero del canale DS0, il numero del modem, l'indirizzo IP assegnato, i parametri del bundle PPP e PPP e così via. Se la versione in uso del software Cisco IOS non supporta questo comando, usare il comando **show user**.

### Output di esempio del comando debug



Se il dispositivo Cisco restituisce i risultati di un comando **debug radius**, è possibile usare per



visualizzare potenziali problemi e correzioni. Da utilizzare , è necessario essere un cliente [registrato](#), aver eseguito l'accesso e avere JavaScript abilitato.

[registrato](#)

**Nota:** a partire dalla versione 12.2(11)T, l'output del raggio di debug è già decodificato e quindi NON richiede l'uso di Output Interpreter per decodificare l'output. Per ulteriori informazioni, fare riferimento al documento [Miglioramenti del debug RADIUS](#)

```
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 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

```

Le coppie di valori attributo (AVP) del comando **debug radius** devono essere decodificate per comprendere meglio la transazione tra il server NAS e il server RADIUS.

**Nota:** a partire dalla versione 12.2(11)T, l'output del raggio di debug è già decodificato e quindi NON richiede l'uso di Output Interpreter per decodificare l'output. Per ulteriori informazioni, consultare il documento [Miglioramenti del debug RADIUS](#).

Lo strumento Output Interpreter consente di ricevere un'analisi dell'output del **raggio di debug**.

Il seguente output in corsivo è il risultato ottenuto dallo strumento Output Interpreter:

```

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

```

Dall'output di debug decodificato dallo strumento, verificare che l'**attributo Type 6: Service-Type è Framed e Attribute Type 7: Framed-Protocol è PPP**. Se si nota che gli attributi 6 o 7 non corrispondono a quelli mostrati, correggere il profilo utente sul server RADIUS (vedere la sezione [Configurazione](#)). Si noti inoltre che il comando **debug radius** visualizza un messaggio di **accettazione dell'accesso** che indica che il server RADIUS ha autenticato l'utente. Se nell'output viene visualizzato il messaggio **Access-Reject**, l'utente non è stato autenticato ed è necessario controllare la configurazione del nome utente e della password sul server RADIUS. Un altro attributo da verificare è **Attributo di tipo 4: Indirizzo IP-NAS**. Verificare che il valore visualizzato dallo strumento Output Interpreter corrisponda all'indirizzo IP NAS configurato sul server RADIUS.

**Nota:** a causa dei vincoli di Cisco IOS e delle differenze nell'output di debug con versioni diverse, alcuni attributi potrebbero essere troncati (ad esempio, **Nome-Utente, ID-Stazione chiamata (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: O
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: O 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: O 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: Dial 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 maui-nas-01#

```

La negoziazione per il client ISDN è stata completata. L'output mostrato di seguito mostra la negoziazione per una chiamata asincrona (ad esempio, un client Windows)

```

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' authen_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' authen\_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

```

Gli AVP del comando debug radius devono essere decodificati per comprendere meglio la transazione tra il server NAS e il server RADIUS.

**Nota:** a partire dalla versione 12.2(11)T, l'output del raggio di debug è già decodificato e quindi NON richiede l'uso di Output Interpreter per decodificare l'output. Per ulteriori informazioni, fare riferimento al documento [Miglioramenti del debug RADIUS](#)

Lo strumento Output Interpreter consente di ricevere un'analisi dell'output del raggio di debug.

Il seguente output in corsivo è il risultato ottenuto dallo strumento Output Interpreter:

```

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

```

Dall'output di debug decodificato dallo strumento, verificare che l'**attributo Type 6: Service-Type è Framed e Attribute Type 7: Framed-Protocol è PPP**. Se si nota che gli attributi 6 o 7 non corrispondono a quelli mostrati, correggere il profilo utente sul server RADIUS (vedere la sezione [Configurazione](#)). Si noti inoltre che il comando **debug radius** visualizza un messaggio di **accettazione dell'accesso** che indica che il server RADIUS ha autenticato l'utente. Se nell'output viene visualizzato il messaggio **Access-Reject**, l'utente non è stato autenticato ed è necessario controllare la configurazione del nome utente e della password sul server RADIUS. Un altro attributo da verificare è **Attributo di tipo 4: Indirizzo IP-NAS**. Verificare che il valore visualizzato dallo strumento Output Interpreter corrisponda all'indirizzo IP NAS configurato sul server RADIUS.

**Nota:** a causa dei vincoli di Cisco IOS e delle differenze nell'output di debug con versioni diverse, alcuni attributi potrebbero essere troncati (ad esempio, **Nome-Utente, ID-Stazione chiamata (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: O 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: O 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 CONFREQ [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 CONFREQ [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 CONFREQ [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 CONFREQ [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
```

## [Informazioni correlate](#)

- [Documentazione e supporto tecnico – Cisco Systems](#)