

Problemas comunes en la depuración de RADIUS, PAP y CHAP

Contenido

[Introducción](#)

[Antes de comenzar](#)

[Convenciones](#)

[Prerequisites](#)

[Componentes Utilizados](#)

[Configuración común de PC](#)

[Windows 95](#)

[Windows NT](#)

[Windows 98](#)

[Windows 2000](#)

[Ejemplos de configuraciones y depuración](#)

[RADIUS y PAP](#)

[Comandos para otras versiones del software del IOS de Cisco](#)

[Depuraciones de muestra - RADIUS y PAP](#)

[RADIUS y CHAP](#)

[Comandos para otras versiones del software del IOS de Cisco](#)

[Depuraciones de muestra - RADIUS y CHAP](#)

[Comandos de Debug](#)

[Información Relacionada](#)

[Introducción](#)

Este documento examina los problemas de debugging comunes para RADIUS cuando se usa el Password Authentication Protocol (PAP) o el Challenge Handshake Authentication Protocol (CHAP). Se proveen las configuraciones de PC comunes para Microsoft Windows 95, Windows NT, Windows 98 y Windows 2000, así como ejemplos de configuraciones y ejemplos de debugs buenos y malos.

[Antes de comenzar](#)

[Convenciones](#)

Para obtener más información sobre las convenciones del documento, consulte [Convenciones de Consejos Técnicos de Cisco](#).

[Prerequisites](#)

No hay requisitos previos específicos para este documento.

Componentes Utilizados

La información de este documento se basa en las versiones 11.2 y posteriores del software del IOS® de Cisco.

La información que se presenta en este documento se originó a partir de dispositivos dentro de un ambiente de laboratorio específico. All of the devices used in this document started with a cleared (default) configuration. Si la red está funcionando, asegúrese de haber comprendido el impacto que puede tener un comando antes de ejecutarlo.

Configuración común de PC

Windows 95

Siga las instrucciones detalladas a continuación.

1. En la ventana Dialup Networking, seleccione el nombre de la conexión y, a continuación, **Archivo > Propiedades**.
2. En la ficha Server Type (Tipo de servidor), vea si la casilla **Require Encrypted Password (Requiere contraseña cifrada)** debajo de Type of Dial-up Server (Tipo de servidor de acceso telefónico) está marcada. Si esta casilla está marcada, significa que el PC acepta solamente la autenticación CHAP. Si esta casilla no está marcada, significa que el PC acepta la autenticación PAP o CHAP.

Windows NT

Siga las instrucciones detalladas a continuación.

1. En la ventana Dial-Up Networking, seleccione el nombre de la conexión y, a continuación, seleccione **File > Properties**.
2. Compruebe los parámetros de la ficha Seguridad: Si la casilla **Aceptar cualquier autenticación, incluyendo texto claro**, está marcada, esto significa que el equipo acepta PAP o CHAP. Si la casilla **Aceptar solamente autenticación cifrada** está marcada, el equipo acepta solamente la autenticación CHAP.

Windows 98

Siga las instrucciones detalladas a continuación.

1. En la ventana Dial-Up Networking, seleccione el nombre de la conexión y, a continuación, seleccione **Properties**.
2. En la ficha Tipos de servidor, compruebe la configuración del área Opciones avanzadas: Si la casilla **Require encryption password** está desactivada, significa que el PC acepta la autenticación PAP o CHAP. Si la casilla **Require encryption password** está marcada, esto significa que el PC acepta solamente la autenticación CHAP.

Windows 2000

Siga las instrucciones detalladas a continuación.

1. En Conexiones de red y de acceso telefónico, seleccione el nombre de la conexión y, a continuación, seleccione **Propiedades**.
2. En la ficha Seguridad, verifique la configuración en el área **Avanzadas > Configuración > Permitir estos protocolos**: Si la casilla **Contraseña no cifrada (PAP)** está marcada, el PC acepta PAP. Si la casilla **Challenge Handshake Authentication Protocol (CHAP)** está marcada, la PC acepta CHAP según [RFC 1994](#). Si la casilla **Microsoft CHAP (MS-CHAP)** está marcada, el PC acepta la versión 1 de MS-CHAP y no acepta CHAP según RFC 1994.

Ejemplos de configuraciones y depuración

RADIUS y PAP

Configuración - RADIUS y PAP

```
Current configuration:
!
version 11.2
service timestamps debug uptime
no service password-encryption
service udp-small-servers
service tcp-small-servers
!
hostname rtpkrb
!
aaa new-model
!
!--- The following four command lines are specific to !-
-- Cisco IOS 11.2 and later, up until 11.3.3.T. !--- See
below this configuration for commands !--- for other
Cisco IOS releases. ! aaa authentication login default
radius local
aaa authentication ppp default if-needed radius local
aaa authorization exec radius if-authenticated
aaa authorization network radius if-authenticated
!
enable secret 5 $1$pkX.$JdAysRE1SbdbDe7bj0wyt0
enable password ww
!
username john password 0 doe
username cse password 0 csecse
ip host rtpkrb 10.31.1.5
ip domain-name RTP.CISCO.COM
ip name-server 171.68.118.103
!
interface Loopback0
ip address 1.1.1.1 255.255.255.0
!
interface Ethernet0
ip address 10.31.1.5 255.255.0.0
no mop enabled
!
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 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 during-login
autoselect ppp
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
password ww
!
end
```

[Comandos para otras versiones del software del IOS de Cisco](#)

Nota: Para utilizar estos comandos, quite los comandos resaltados de la configuración anterior y pegue estos comandos en, según lo dictado por su versión de Cisco IOS.

Cisco IOS 11.3.3.T hasta 12.0.5.T

```
aaa authen login default radius local
aaa authen ppp default if-needed radius local
aaa authorization exec default radius if-authenticated
aaa authorization network default radius if-authenticated
```

Cisco IOS 12.0.5.T y posteriores

```
aaa authen login default group radius local
aaa authen ppp default if-needed group radius local
aaa authorization exec default group radius if-authenticated
aaa authorization network default group radius if-authenticated
```

Depuraciones de muestra - RADIUS y PAP

Nota: En la salida de depuración, el texto en **negrita** resalta los problemas en la depuración. El texto sencillo indica una depuración correcta.

```
rtpkrb#
rtpkrb#sho deb
General OS:
AAA Authentication debugging is on
AAA Authorization debugging is on
PPP:
PPP authentication debugging is on
PPP protocol negotiation debugging is on
Radius protocol debugging is on
rtpkrb#
4d02h: As1 LCP: I CONFREQ [Closed] id 0 len 20
4d02h: As1 LCP: ACCM 0x00000000 (0x020600000000)
4d02h: As1 LCP: MagicNumber 0x00001F67 (0x050600001F67)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: Lower layer not up, discarding packet
%LINK-3-UPDOWN: Interface Async1, changed state to up
4d02h: As1 PPP: Treating connection as a dedicated line
4d02h: As1 PPP: Phase is ESTABLISHING, Active Open
4d02h: As1 LCP: O CONFREQ [Closed] id 85 len 24
4d02h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
4d02h: As1 LCP: AuthProto PAP (0x0304C023)
4d02h: As1 LCP: MagicNumber 0xF54252D5 (0x0506F54252D5)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)

PC insists on doing chap ('accept encrypted authentication only'),
but router is set up for pap:
As1 LCP: I CONFNAK [REQsent] id 98 len 12
As1 LCP: AuthProto 0xC123 (0x0308C12301000001)
As1 LCP: O CONFREQ [REQsent] id 99 len 24
As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
As1 LCP: AuthProto PAP (0x0304C023)
As1 LCP: MagicNumber 0xF54D1AF8 (0x0506F54D1AF8)
As1 LCP: PFC (0x0702)
As1 LCP: ACFC (0x0802)
As1 LCP: I CONFREJ [REQsent] id 99 len 8
As1 LCP: AuthProto PAP (0x0304C023)
As1 PPP: Closing connection because remote won't authenticate

4d02h: As1 LCP: I CONFACK [REQsent] id 85 len 24
4d02h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
4d02h: As1 LCP: AuthProto PAP (0x0304C023)
4d02h: As1 LCP: MagicNumber 0xF54252D5 (0x0506F54252D5)
```

4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 20
4d02h: As1 LCP: ACCM 0x00000000 (0x020600000000)
4d02h: As1 LCP: MagicNumber 0x00001F67 (0x050600001F67)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: O CONFACK [ACKrcvd] id 0 len 20
4d02h: As1 LCP: ACCM 0x00000000 (0x020600000000)
4d02h: As1 LCP: MagicNumber 0x00001F67 (0x050600001F67)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: State is Open
4d02h: As1 PPP: Phase is AUTHENTICATING, by this end
4d02h: As1 PAP: I AUTH-REQ id 14 len 19 from "ddunlap"
4d02h: As1 PAP: Authenticating peer ddunlap
4d02h: AAA/AUTHEN: create_user (0x15AD58) user='ddunlap' ruser=''
port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=1
4d02h: AAA/AUTHEN/START (1953436918): port='Async1' list=''
action=LOGIN service=PPP
4d02h: AAA/AUTHEN/START (1953436918): using "default" list
4d02h: AAA/AUTHEN (1953436918): status = UNKNOWN
4d02h: AAA/AUTHEN/START (1953436918): Method=RADIUS
4d02h: RADIUS: Initial Transmit id 7 171.68.118.101:1645,
Access-Request, len 77
4d02h: Attribute 4 6 0A1F0105
4d02h: Attribute 5 6 00000001
4d02h: Attribute 61 6 00000000
4d02h: Attribute 1 9 6464756E
4d02h: Attribute 2 18 7882E0A5
4d02h: Attribute 6 6 00000002
4d02h: Attribute 7 6 00000001

**Radius server is down - produces ERROR - since user is not
in local database, failover to local FAILs**

As1 PAP: I AUTH-REQ id 16 len 19 from "ddunlap"
As1 AUTH: Duplicate authentication request id=16 already in progress
As1 PAP: I AUTH-REQ id 17 len 19 from "ddunlap"
As1 AUTH: Duplicate authentication request id=17 already in progress
RADIUS: Retransmit id 9
As1 PAP: I AUTH-REQ id 18 len 19 from "ddunlap"
As1 AUTH: Duplicate authentication request id=18 already in progress
As1 PAP: I AUTH-REQ id 19 len 19 from "ddunlap"
As1 AUTH: Duplicate authentication request id=19 already in progress
As1 PAP: I AUTH-REQ id 20 len 19 from "ddunlap"
As1 AUTH: Duplicate authentication request id=20 already in progress
RADIUS: Retransmit id 9
As1 PAP: I AUTH-REQ id 21 len 19 from "ddunlap"
As1 AUTH: Duplicate authentication request id=21 already in progress
As1 PAP: I AUTH-REQ id 22 len 19 from "ddunlap"
As1 AUTH: Duplicate authentication request id=22 already in progress
RADIUS: Retransmit id 9
As1 PAP: I AUTH-REQ id 23 len 19 from "ddunlap"
As1 AUTH: Duplicate authentication request id=23 already in progress
As1 LCP: I TERMREQ [Open] id 1 len 8 (0x000002CE)
As1 LCP: O TERMACK [Open] id 1 len 4
As1 PPP: Phase is TERMINATING
RADIUS: No response for id 9
%RADIUS-3-ALLDEADSERVER: No active radius servers found. Id 9.
RADIUS: No response from server
AAA/AUTHEN (3025998849): status = ERROR
AAA/AUTHEN/START (3025998849): Method=LOCAL
AAA/AUTHEN (3025998849): status = FAIL

Key in router does not match that of server:

RADIUS: Received from id 21 171.68.118.101:1645, Access-Reject, len 20
RADIUS: Reply for 21 fails decrypt

NT client sends 'DOMAIN\user' and Radius server expects 'user':

RADIUS: Received from id 11 171.68.118.101:1645, Access-Reject, len 20
AAA/AUTHEN (1406749115): status = FAIL
As1 PAP: O AUTH-NAK id 25 len 32 msg is "Password validation failure"
As1 PPP: Phase is TERMINATING
As1 LCP: O TERMREQ [Open] id 108 len 4
AAA/AUTHEN: free_user (0xDA520) user='CISCO\ddunlap' ruser=''
port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=1

Radius server refuses user because user user enters bad password,
or both userid & password are bad:

RADIUS: Received from id 12 171.68.118.101:1645, Access-Reject, len 20
AAA/AUTHEN (733718529): status = FAIL
As1 PAP: O AUTH-NAK id 26 len 32 msg is "Password validation failure"
As1 PPP: Phase is TERMINATING
As1 LCP: O TERMREQ [Open] id 111 len 4
AAA/AUTHEN: free_user (0x15B030) user='ddunlap' ruser=''
='Async1' rem_addr='async' authen_type=PAP service=PPP priv=1

User passes authentication (i.e. username/password is good)

but fails authorization (profile not set up for Service-Type=Framed &
Framed-Protocol=PPP):

RADIUS: Received from id 13 171.68.118.101:1645, Access-Accept, len 20
RADIUS: saved authorization data for user 15AD58 at 15ADF0
AAA/AUTHEN (56862281): status = PASS
AAA/AUTHOR/LCP As1: Authorize LCP
AAA/AUTHOR/LCP: Async1: (959162008): user='cse'
AAA/AUTHOR/LCP: Async1: (959162008): send AV service=ppp
AAA/AUTHOR/LCP: Async1: (959162008): send AV protocol=lcp
AAA/AUTHOR/LCP: Async1: (959162008): Method=RADIUS
RADIUS: no appropriate authorization type for user.
AAA/AUTHOR (959162008): Post authorization status = FAIL
AAA/AUTHOR/LCP As1: Denied
AAA/AUTHEN: free_user (0x15AD58) user='cse' ruser=''
port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=1
As1 PAP: O AUTH-NAK id 27 len 25 msg is "Authorization failed"

4d02h: RADIUS: Received from id 7 171.68.118.101:1645, Access-Accept, len 32

4d02h: Attribute 6 6 00000002

4d02h: Attribute 7 6 00000001

4d02h: RADIUS: saved authorization data for user 15AD58 at 16C7F4

4d02h: AAA/AUTHEN (1953436918): status = PASS

4d02h: AAA/AUTHOR/LCP As1: Authorize LCP

4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): user='ddunlap'

4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): send AV service=ppp

4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): send AV protocol=lcp

4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): Method=RADIUS

4d02h: AAA/AUTHOR (2587233868): Post authorization status = PASS_REPL

4d02h: AAA/AUTHOR/LCP As1: Processing AV service=ppp

4d02h: As1 PAP: O AUTH-ACK id 14 len 5

4d02h: As1 PPP: Phase is UP

4d02h: AAA/AUTHOR/FSM As1: (0): Can we start IPCP?

4d02h: AAA/AUTHOR/FSM: Async1: (423372862): user='ddunlap'

4d02h: AAA/AUTHOR/FSM: Async1: (423372862): send AV service=ppp

4d02h: AAA/AUTHOR/FSM: Async1: (423372862): send AV protocol=ip

```

4d02h: AAA/AUTHOR/FSM: Async1: (423372862): Method=RADIUS
4d02h: AAA/AUTHOR (423372862): Post authorization status = PASS_REPL
4d02h: AAA/AUTHOR/FSM As1: We can start IPCP
4d02h: As1 IPCP: O CONFREQ [Closed] id 17 len 10
4d02h: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)
4d02h: As1 IPCP: I CONFREQ [REQsent] id 1 len 34
4d02h: As1 IPCP: Address 0.0.0.0 (0x030600000000)
4d02h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
4d02h: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
4d02h: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
4d02h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
4d02h: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want 0.0.0.0
4d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp
4d02h: AAA/AUTHOR/IPCP As1: Authorization succeeded
4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 0.0.0.0
4d02h: As1 IPCP: Using pool 'async'
4d02h: As1 IPCP: Pool returned 15.15.15.15
4d02h: As1 IPCP: O CONFREQ [REQsent] id 1 len 22
4d02h: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
4d02h: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
4d02h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
4d02h: As1 IPCP: I CONFACK [REQsent] id 17 len 10
4d02h: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)
%LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to up
4d02h: As1 IPCP: I CONFREQ [ACKrcvd] id 2 len 16
4d02h: As1 IPCP: Address 0.0.0.0 (0x030600000000)
4d02h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
4d02h: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want 15.15.15.15
4d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp
4d02h: AAA/AUTHOR/IPCP As1: Authorization succeeded
4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 15.15.15.15
4d02h: As1 IPCP: O CONFNAK [ACKrcvd] id 2 len 16
4d02h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)
4d02h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)
4d02h: As1 IPCP: I CONFREQ [ACKrcvd] id 3 len 16
4d02h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)
4d02h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)
4d02h: AAA/AUTHOR/IPCP As1: Start. Her address 15.15.15.15, we want 15.15.15.15
4d02h: AAA/AUTHOR/IPCP: Async1: (4204275250): user='ddunlap'
4d02h: AAA/AUTHOR/IPCP: Async1: (4204275250): send AV service=ppp
4d02h: AAA/AUTHOR/IPCP: Async1: (4204275250): send AV protocol=ip
4d02h: AAA/AUTHOR/IPCP: Async1: (4204275250): send AV addr*15.15.15.15
4d02h: AAA/AUTHOR/IPCP: Async1: (4204275250): Method=RADIUS
4d02h: AAA/AUTHOR (4204275250): Post authorization status = PASS_REPL
4d02h: AAA/AUTHOR/IPCP As1: Reject 15.15.15.15, using 15.15.15.15
4d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp
4d02h: AAA/AUTHOR/IPCP As1: Processing AV addr*15.15.15.15
4d02h: AAA/AUTHOR/IPCP As1: Authorization succeeded
4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 15.15.15.15, we want 15.15.15.15
4d02h: As1 IPCP: O CONFACK [ACKrcvd] id 3 len 16
4d02h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)
4d02h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)
4d02h: As1 IPCP: State is Open
4d02h: As1 IPCP: Install route to 15.15.15.15
rtpkrb#

```

RADIUS y CHAP

Configuración - RADIUS y CHAP

Current configuration:


```
!  
version 11.2  
service timestamps debug uptime  
no service password-encryption  
service udp-small-servers  
service tcp-small-servers  
!  
hostname rtpkrb  
!  
aaa new-model  
!  
!--- The following four command lines are specific to !-  
-- Cisco IOS 11.2 and later, up until 11.3.3.T. !--- See  
below this configuration for commands !--- for other  
Cisco IOS releases. ! aaa authentication login default  
radius local  
aaa authentication ppp default if-needed radius local  
aaa authorization exec radius if-authenticated  
aaa authorization network radius if-authenticated  
!  
enable secret 5 $1$pkX.$JdAysRE1SbdbDe7bj0wyt0  
enable password ww  
!  
username john password 0 doe  
username cse password 0 csecse  
ip host rtpkrb 10.31.1.5  
ip name-server 171.68.118.103  
!  
interface Loopback0  
ip address 1.1.1.1 255.255.255.0  
!  
interface Ethernet0  
ip address 10.31.1.5 255.255.0.0  
no mop enabled  
!  
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 authentication chap  
!  
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 during-login
autoselect ppp
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
password ww
!
end
```

[Comandos para otras versiones del software del IOS de Cisco](#)

Nota: Para utilizar estos comandos, quite los comandos resaltados de la configuración anterior y pegue estos comandos en, según lo dictado por su versión de Cisco IOS.

[Cisco IOS 11.3.3.T hasta 12.0.5.T](#)

```
aaa authen login default radius local
aaa authen ppp default if-needed radius local
aaa authorization exec default radius if-authenticated
aaa authorization network default radius if-authenticated
```

[Cisco IOS 12.0.5.T y posteriores](#)

```
aaa authen login default group radius local
aaa authen ppp default if-needed group radius local
aaa authorization exec default group radius if-authenticated
aaa authorization network default group radius if-authenticated
```

[Depuraciones de muestra - RADIUS y CHAP](#)

Nota: En el resultado de la depuración, el texto en **negrita** y *cursiva* resalta los problemas en la depuración. El texto sencillo indica una depuración correcta.

```
rtprkb#show debug
General OS:
AAA Authentication debugging is on
AAA Authorization debugging is on
PPP:
PPP authentication debugging is on
PPP protocol negotiation debugging is on
Radius protocol debugging is on
rtprkb#
4d02h: As1 LCP: I CONFREQ [Closed] id 0 len 20
4d02h: As1 LCP: ACCM 0x00000000 (0x020600000000)
```

```
4d02h: As1 LCP: MagicNumber 0x0000405F (0x05060000405F)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: Lower layer not up, discarding packet
%LINK-3-UPDOWN: Interface Async1, changed state to up
4d02h: As1 PPP: Treating connection as a dedicated line
4d02h: As1 PPP: Phase is ESTABLISHING, Active Open
4d02h: As1 LCP: O CONFREQ [Closed] id 87 len 25
4d02h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
4d02h: As1 LCP: AuthProto CHAP (0x0305C22305)
4d02h: As1 LCP: MagicNumber 0xF5445B55 (0x0506F5445B55)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: I CONFACK [REQsent] id 87 len 25
4d02h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
4d02h: As1 LCP: AuthProto CHAP (0x0305C22305)
4d02h: As1 LCP: MagicNumber 0xF5445B55 (0x0506F5445B55)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 20
4d02h: As1 LCP: ACCM 0x00000000 (0x020600000000)
4d02h: As1 LCP: MagicNumber 0x0000405F (0x05060000405F)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: O CONFACK [ACKrcvd] id 0 len 20
4d02h: As1 LCP: ACCM 0x00000000 (0x020600000000)
4d02h: As1 LCP: MagicNumber 0x0000405F (0x05060000405F)
4d02h: As1 LCP: PFC (0x0702)
4d02h: As1 LCP: ACFC (0x0802)
4d02h: As1 LCP: State is Open
4d02h: As1 PPP: Phase is AUTHENTICATING, by this end
4d02h: As1 CHAP: O CHALLENGE id 11 len 27 from "rtpkrb"
4d02h: As1 CHAP: I RESPONSE id 11 len 28 from "chapadd"
4d02h: AAA/AUTHEN: create_user (0x15AD58) user='chapadd' ruser=''
      port='Async1' rem_addr='async' authen_type=CHAP service=PPP priv=1
4d02h: AAA/AUTHEN/START (575703226): port='Async1' list=''
      action=LOGIN service=PPP
4d02h: AAA/AUTHEN/START (575703226): using "default" list
4d02h: AAA/AUTHEN (575703226): status = UNKNOWN
4d02h: AAA/AUTHEN/START (575703226): Method=RADIUS
4d02h: RADIUS: Initial Transmit id 8 171.68.118.101:1645,
      Access-Request, len 78
4d02h: Attribute 4 6 0A1F0105
4d02h: Attribute 5 6 00000001
4d02h: Attribute 61 6 00000000
4d02h: Attribute 1 9 63686170
4d02h: Attribute 3 19 0B895D57
4d02h: Attribute 6 6 00000002
4d02h: Attribute 7 6 00000001
```

**Radius server is down - produces ERROR - since user is not
in local database, failover to local FAILs:**

```
As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"
As1 AUTH: Duplicate authentication request id=12 already in progress
As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"
As1 AUTH: Duplicate authentication request id=12 already in progress
RADIUS: Retransmit id 15
As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"
As1 AUTH: Duplicate authentication request id=12 already in progress
As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"
As1 AUTH: Duplicate authentication request id=12 already in progress
As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"
As1 AUTH: Duplicate authentication request id=12 already in progress
```

```
RADIUS: Retransmit id 15
As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"
As1 AUTH: Duplicate authentication request id=12 already in progress
As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"
As1 AUTH: Duplicate authentication request id=12 already in progress
RADIUS: Retransmit id 15
As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"
As1 AUTH: Duplicate authentication request id=12 already in progress
As1 LCP: I TERMREQ [Open] id 1 len 8 (0x000002CE)
As1 LCP: O TERMACK [Open] id 1 len 4
As1 PPP: Phase is TERMINATING
RADIUS: id 15, requester hung up.
RADIUS: No response for id 15
RADIUS: No response from server
AAA/AUTHEN (1866705040): status = ERROR
AAA/AUTHEN/START (1866705040): Method=LOCAL
AAA/AUTHEN (1866705040): status = FAIL
As1 CHAP: Unable to validate Response. Username chapadd: Authentication failure
As1 CHAP: O FAILURE id 12 len 26 msg is "Authentication failure"
AAA/AUTHEN: free_user (0x1716B8) user='chapadd' ruser=''
      port='Async1' rem_addr='async' authen_type=CHAP service=PPP priv=1
```

Key in router does not match that of server:

```
RADIUS: Received from id 21 171.68.118.101:1645, Access-Reject, len 20
RADIUS: Reply for 21 fails decrypt
```

```
NT client sends 'DOMAIN\user' and Radius server expects 'user':
RADIUS: Received from id 16 171.68.118.101:1645, Access-Reject, len 20
AAA/AUTHEN (2974782384): status = FAIL
As1 CHAP: Unable to validate Response. Username CISCO\chapadd:
      Authentication failure
As1 CHAP: O FAILURE id 13 len 26 msg is "Authentication failure"
As1 PPP: Phase is TERMINATING
As1 LCP: O TERMREQ [Open] id 131 len 4
AAA/AUTHEN: free_user (0x171700) user='CISCO\chapadd' ruser=''
      port='Async1' rem_addr='async' authen_type=CHAP service=PPP priv=1
```

```
Radius server refuses user because user is set up for pap,
      user enters bad password, or both userid & password are bad:
RADIUS: Received from id 17 171.68.118.101:1645, Access-Reject, len 20
AAA/AUTHEN (3898168391): status = FAIL
As1 CHAP: Unable to validate Response. Username ddunlap: Authentication failure
As1 CHAP: O FAILURE id 14 len 26 msg is "Authentication failure"
As1 PPP: Phase is TERMINATING
As1 LCP: O TERMREQ [Open] id 134 len 4
AAA/AUTHEN: free_user (0x1716B8) user='ddunlap' ruser=''
      port='Async1' rem_addr='async' authen_type=CHAP service=PPP priv=1
```

User PASSES authentication (i.e. username/password is good)
but FAILS authorization (profile not set up for Service-Type=Framed &
Framed-Protocol=PPP):

```
RADIUS: Received from id 19 171.68.118.101:1645, Access-Accept, len 20
AAA/AUTHEN (2006894701): status = PASS
AAA/AUTHOR/LCP As1: Authorize LCP
AAA/AUTHOR/LCP: Async1: (2370106832): user='noauth'
AAA/AUTHOR/LCP: Async1: (2370106832): send AV service=ppp
AAA/AUTHOR/LCP: Async1: (2370106832): send AV protocol=lcp
AAA/AUTHOR/LCP: Async1: (2370106832): Method=RADIUS
RADIUS: no appropriate authorization type for user.
AAA/AUTHOR (2370106832): Post authorization status = FAIL
AAA/AUTHOR/LCP As1: Denied
```

4d02h: RADIUS: Received from id 8 171.68.118.101:1645, Access-Accept, len 32
4d02h: Attribute 6 6 00000002
4d02h: Attribute 7 6 00000001
4d02h: AAA/AUTHEN (575703226): status = PASS
4d02h: AAA/AUTHOR/LCP As1: Authorize LCP
4d02h: AAA/AUTHOR/LCP: Async1: (4143416222): user='chapadd'
4d02h: AAA/AUTHOR/LCP: Async1: (4143416222): send AV service=ppp
4d02h: AAA/AUTHOR/LCP: Async1: (4143416222): send AV protocol=lcp
4d02h: AAA/AUTHOR/LCP: Async1: (4143416222): Method=RADIUS
4d02h: AAA/AUTHOR (4143416222): Post authorization status = PASS_REPL
4d02h: AAA/AUTHOR/LCP As1: Processing AV service=ppp
4d02h: As1 CHAP: 0 SUCCESS id 11 len 4
4d02h: As1 PPP: Phase is UP
4d02h: AAA/AUTHOR/FSM As1: (0): Can we start IPCP?
4d02h: AAA/AUTHOR/FSM: Async1: (1916451991): user='chapadd'
4d02h: AAA/AUTHOR/FSM: Async1: (1916451991): send AV service=ppp
4d02h: AAA/AUTHOR/FSM: Async1: (1916451991): send AV protocol=ip
4d02h: AAA/AUTHOR/FSM: Async1: (1916451991): Method=RADIUS
4d02h: AAA/AUTHOR (1916451991): Post authorization status = PASS_REPL
4d02h: AAA/AUTHOR/FSM As1: We can start IPCP
4d02h: As1 IPCP: 0 CONFREQ [Closed] id 19 len 10
4d02h: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)
4d02h: As1 IPCP: I CONFREQ [REQsent] id 1 len 34
4d02h: As1 IPCP: Address 0.0.0.0 (0x030600000000)
4d02h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
4d02h: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
4d02h: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
4d02h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
4d02h: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want 0.0.0.0
4d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp
4d02h: AAA/AUTHOR/IPCP As1: Authorization succeeded
4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 0.0.0.0
4d02h: As1 IPCP: Using pool 'async'
4d02h: As1 IPCP: Pool returned 15.15.15.15
4d02h: As1 IPCP: 0 CONFREQ [REQsent] id 1 len 22
4d02h: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
4d02h: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
4d02h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
4d02h: As1 IPCP: I CONFACK [REQsent] id 19 len 10
4d02h: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)
4d02h: As1 IPCP: I CONFREQ [ACKrcvd] id 2 len 16
4d02h: As1 IPCP: Address 0.0.0.0 (0x030600000000)
4d02h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
4d02h: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want 15.15.15.15
4d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp
4d02h: AAA/AUTHOR/IPCP As1: Authorization succeeded
4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 15.15.15.15
4d02h: As1 IPCP: 0 CONFNAK [ACKrcvd] id 2 len 16
4d02h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)
4d02h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)
4d02h: As1 IPCP: I CONFREQ [ACKrcvd] id 3 len 16
4d02h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)
4d02h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)
4d02h: AAA/AUTHOR/IPCP As1: Start. Her address 15.15.15.15, we want 15.15.15.15
4d02h: AAA/AUTHOR/IPCP: Async1: (1096193147): user='chapadd'
4d02h: AAA/AUTHOR/IPCP: Async1: (1096193147): send AV service=ppp
4d02h: AAA/AUTHOR/IPCP: Async1: (1096193147): send AV protocol=ip
4d02h: AAA/AUTHOR/IPCP: Async1: (1096193147): send AV addr*15.15.15.15
4d02h: AAA/AUTHOR/IPCP: Async1: (1096193147): Method=RADIUS
4d02h: AAA/AUTHOR (1096193147): Post authorization status = PASS_REPL
4d02h: AAA/AUTHOR/IPCP As1: Reject 15.15.15.15, using 15.15.15.15
4d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp
4d02h: AAA/AUTHOR/IPCP As1: Processing AV addr*15.15.15.15
4d02h: AAA/AUTHOR/IPCP As1: Authorization succeeded

```
4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 15.15.15.15, we want 15.15.15.15
4d02h: As1 IPCP: O CONFACK [ACKrcvd] id 3 len 16
4d02h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)
4d02h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)
4d02h: As1 IPCP: State is Open
%LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to up
4d02h: As1 IPCP: Install route to 15.15.15.15
rtpkrb#
```

Comandos de Debug

Los siguientes comandos **debug** se utilizaron para producir el resultado de debug de muestra en este documento.

Nota: Antes de ejecutar **comandos debug**, consulte [Información Importante sobre Comandos Debug](#).

- **debug aaa authentication** - Muestra información sobre la autenticación AAA.
- **debug aaa authorization**: muestra información sobre autorización AAA.
- **debug radius**: muestra información de depuración detallada asociada al servidor de usuario de acceso telefónico de autenticación remota (RADIUS).
- **debug ppp negotiation** - Muestra los paquetes PPP transmitidos durante el inicio PPP, donde se negocian las opciones PPP.

Información Relacionada

- [Página de soporte de RADIUS](#)
- [Soporte Técnico - Cisco Systems](#)